### The Political Behavior of the Underrepresented

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### Abstract

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This dissertation contributes to understanding the political behavior of two underrepresented groups: women and ethnoracial minorities. It explores how these groups' political behavior and beliefs are associated with existent gaps in representation. Each chapter approaches a different aspect concerning this common problem. Chapter 1 inquires about the mechanisms assumed to link descriptive and substantive representation for women. By analyzing the combination of electoral data segregated by gender in Ecuador with census data and the results of an original candidates' survey, I confirm the existence of a 'gender affinity vote' and the importance of the type of female candidate for understanding gender gaps in support for women candidates. Chapter 2 presents the results of two survey experiments that study how gender stereotypes affect political behavior at the mass level. It identifies a gendered 'issue ownership' based on these stereotypes and tests if counterstereotypical exposures promote more engagement of those underrepresented. The findings suggest that counterstereotypical exposure is not equally effective in promoting participation for both genders. Women do not get more engaged in male-dominated issues when encouraged by other women. Men get more engaged on women's issues when other men encourage them and when the invitee is similar to them. However, the interaction between the two factors has a negative effect, suggesting that seeing someone identical to them creates a dissonance that hinders the direct effects of the

two variables. Chapter 3 presents the results of an audit study of US state legislators that explores the existence of a cominority solidarity between Blacks and Latinos. The results show that Latinos are not only the most disadvantaged because White legislators are biased against them, but also because their cominority solidarity towards Blacks is not reciprocated.

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To my family.

### **Preface**

"All animals are equal, but some animals are more equal than others"

Animal Farm (Orwell, 1945)

When George Orwell wrote Animal Farm in 1967, he did not know that his criticism of the Russian Revolution of 1917 would also describe contemporary democratic systems. Democracies are not new. Even the newest democracies are approaching their fortieth birth-days (Huntington, 1993). Nevertheless, inequalities in representation persist (Agarin, 2020) and, to paraphrase Orwell's quote, 'some citizens are more equal than others.'

This dissertation contributes to understanding the political behavior of two underrepresented groups: women and ethnoracial minorities. These groups are usually underrepresented in numbers (Dahlerup et al., 2013; Verba, Burns, and Schlozman, 1997; Minta, 2011), but also in how their voices and preferences reach the political debate and policy decisions (Lublin, 1997; Griffin and Newman, 2008). A lot has been debated (and studied) on how institutional designs can narrow gaps in representation (Phillips, 1995; Dolan, 2006b; Banducci, Donovan, and Karp, 2004; Atkeson and Carrillo, 2007; Hinojosa, Kittilson, et al., 2020; Bratton, Haynie, and Reingold, 2007; Canon, 1999; Fenno, 2003; Lowande, Ritchie, and Lauterbach, 2019; Lublin, 1997). Less has been explored on how these groups' political behavior and beliefs are associated with these representational gaps. By doing this, I try

to understand whether some mechanisms that were for long assumed to link descriptive to substantive representation are actually in place.

The theorists of descriptive representation consider that effective representation can be enhanced through reforms that promote the election of members of underrepresented groups in governmental offices (Mansbridge, 1999; Barnes and Burchard, 2013). They believe that having more representatives similar to their represented promotes more diversity in the political arena and enhances 'feelings of being fairly or effectively represented (symbolic representation)' (Schwindt-Bayer and Mishler, 2005). At the same time, it promotes substantive representation, as these legislators better act on behalf of their constituents to represent policy concerns' (Barnes and Burchard, 2013). In this sense, identification is a crucial link between substantive and descriptive representation.

Nevertheless, the role of identification in the political behavior of the underrepresented groups has been understudied. Several questions remain unanswered. What role does identification play in their political behavior? Is identification enough for political support? Does identification with counterstereotypes promote mobilization of those underrepresented? What aspects of the subjects should be considered for identification? Does the type of candidate/subject matter? Is identification group-specific, or does a minority identification exist? Does descriptive representation require a specific match?

Each chapter of the dissertation approaches a different aspect concerning this common problem. Chapter 1 inquires about the mechanisms assumed to link descriptive and substantive representation for women. Chapter 2 studies how gender stereotypes affect political behavior at the mass level. It tests if counterstereotypical exposures can level the playing field for the underrepresented. Chapter 3 explores the existence of cominority solidarity between ethnoracial groups at the elite level as a way of joining efforts to access representation.

Methodologically, the dissertation uses different approaches in each of its chapters. I designed each study to maximize the rigor in its inferences and its external validity while acknowledging its limitations. Chapter 1 is an observational study that combines original

data from an original candidates' survey in Ecuador with electoral data segregated by gender and census data at the district level. It tests if there is a 'gender affinity vote' in Ecuadorian executive local elections and if the type of women candidate matters to understand female electoral support.

Chapter 2 consists of two survey experiments in the United States. A conjoint experiment explores the existence of 'gendered issue ownership' at the mass level, and an encouragement experiment tests whether men and women engage more in different political issues when encouraged to do so by a counterstereotypical person (in relation to the ownership of the issue) and when that person is similar to them (in demographic traits).

Chapter 3 presents the final results of an audit experiment in which all American state legislators with a valid email address were sent an email from a putative Black, White, or Latino constituent, and their responses were recorded and coded in four outcome variables (reply, level of responsiveness, level of informality and level of engagement). I analyze the heterogeneous effects of the treatments by the ethnoracial identity and partisanship of the legislators.

The results of each chapter contribute to the specific literature on each topic and the broader literature on representation. Chapter 1 presents evidence of a 'gender affinity vote': women in Ecuador electorally support women candidates more than men do. Moreover, I show that identification (as the mechanism that connects descriptive to substantive representation) is not always an indicator of more support for female candidates. Nevertheless, the alternative theory that only 'superwomen' benefit from female electoral support is neither entirely valid.

I find that the relationship between identification of the electorate with the candidate and their level of electoral support by gender is conditional on the type of woman. Women from different age groups and marital statuses are associated with different levels of support by gender but always perform worse among women than men in districts that are more similar to them. Women from different ethnic groups present differences in the magnitude and

direction of the relationship between their identity and Votes Gender Gaps (VGG). White women are associated with larger VGG in districts that are demographically more similar to them, while Indigenous and Afro-descendant candidates present smaller VGG when the population is more similar to them. Mestizas, on their hand, present only tiny differences based on their similitude to the population. This way, the competing theories seem to be more complementary than expected.

Interestingly, this complementarity can explain the mixed evidence on the consequences of descriptive representation in the literature. The findings help us better understand how gender plays a role in political preferences and how identification with the candidate can be a relevant component of understanding political support.

Chapter 2 shows a division of issues by gender at the mass level, where Education and Health Care are 'female-owned,' Gun Rights is 'male-owned,' and the Economy is neutral. In the encouragement experiment, I find that when the issue is "owned" by the gender of the respondent, there is no effect of the counterstereotypical encouragement on their engagement levels. When the issue 'belongs' to the opposite gender, the results are different depending on the gender of the respondent. Women do not get more engaged in the male-dominated issue when encouraged by other women, regardless of their traits. Men get more engaged in the women's issue when another man encourages them and when the invitee is similar to them. However, the interaction between the two factors has a negative effect that almost outweighs the direct effect of the two other variables, suggesting that seeing someone identical to them creates a dissonance that hinders the direct effects of the two variables.

Overall, the results bring an exciting insight to explaining political engagement in civil society organizations, where it is more usual to see men as allies of women in their issues than the other way around. The findings also challenge organizations that seek to end unequal participation by presenting counterstereotypical incentives. If women do not engage more on 'men-owned' issues, but men engage more on 'women-owned' ones when presented with counterstereotypes, these interventions will only reduce gender gaps in participation in

'women-owned' issues. In this sense, women would be worse off in their organizations and not better off in male-dominated ones.

The results of the audit experiment in Chapter 3 suggest that Latinos present a sense of cominority solidarity that is not reciprocated by Blacks. Moreover, they are the most consistently disadvantaged group in the United States, especially among Republican and White legislators. There is also no evidence that Black legislators are more responsive toward coethnics than other groups. Whites, on their side, present bias against Latinos compared to Whites and Black constituents.

The identified effects are small but substantial in their practical implications, as the small number of Latino legislators makes it very likely that a Latino citizen would contact a non-coethnic representative. The results also show varying types of bias based on the different responsiveness outcomes. If one of the outcomes is more meaningful for citizens than the others, as Costa (2017) suggests, it may be the case that bias is not perceived on occasions when still present.

Finally, the dissertation leaves an open research agenda to understand how underrepresented groups' behavior must be understood and analyzed to understand inequalities in representation. Each chapter points out ways each design could be improved and which mechanisms or findings need further exploration. This research agenda's contributions can potentially breach incongruities in the literature and inform policy decisions that promote equal representation.

# Chapter 1: Does the Type of Woman Matter? Gender Affinity Vote, Identification and Representation in Ecuador's Local Elections

### 1.1 Introduction

Do women electorally support women more than men? Does the type of woman candidate matter in this decision? Do women electorally support women more similar to them or those they believe can strive in the political context? I address these questions by exploring the Ecuadorian case, one of the few countries where electoral results can be analyzed by gender, as polling stations are segregated by sex<sup>1</sup>. The electoral data was combined with census data by gender at the local district level and with the results of an original survey (created for this purpose) that gathered information on the sociodemographic characteristics and political careers of female local executive candidates from 2004 to 2019.

This chapter aims to fill two gaps in the literature on gender descriptive representation. First, to empirically test whether a 'gender affinity effect' exists. This effect has been theorized and assumed in the literature but barely empirically tested. Moreover, promoters of institutional reforms such as gender quotas have relied on the assumption that women support women more to speculate about the effects of these changes. Secondly, the chapter explores the link between descriptive and substantive representation proposed by these theorists. For them, identification between the electorate and the candidate is what links descriptive to substantive representation. Nevertheless, the mixed evidence on the effects of

<sup>&</sup>lt;sup>1</sup>In this dissertation, I will speak exclusively of gender as being either a "man/male" or a "woman/female." While I recognize that gender is socially-constructed and a distinct concept from biological sex (Bittner and Goodyear-Grant, 2017), that can take on many values beyond these two, electoral institutions in Ecuador still classify voters and candidates in these unique two categories. Thus, I use sex as a proxy for gender for the analysis.

gender descriptive representation puts in doubt whether this mechanism is in place. Alternatively, women may support women they cannot identify with but believe can perform better in the political arena. If the latter is true, reforms that promote more women in government do not necessarily lead to more substantive representation.

The results show three main empirical findings. Firstly the existence of a gender affinity vote. Women support women candidates more than men do, and that relationship cannot be attributed to the ideology of the parties they run. The differences in support are small but substantial, considering the highly competitive arena that local elections are in Ecuador. Secondly, the type of women matters, and more than expected. On the one hand, women candidates from different ethnic, age, or marital status groups are associated with different levels of support between men and women. On the other hand, the direction of the relationship between identification (based on a Demographic Index (DI) that proxies female population similarity) and the Votes Gender Gaps (VGG) is conditional on the candidate's ethnicity. For Whites, higher similitude with the female electorate is related to larger gender gaps, while Indigenous and Afro-descendants are related to smaller ones. Finally, the public and political experiences of the candidates only matter when the DI is high. Public figures more similar to the female population are related to smaller gender gaps, while women with long political careers (but equally similar to the population) are related to more prominent gender gaps. Section 1.5 uses anecdotal evidence gathered during fieldwork and theoretical evidence to suggest possible explanations for these results.

Theoretically, the results shed some light on the complementarity of theories on the mechanisms of descriptive representation. As mentioned before, identification with the candidate can be detrimental for some and beneficial for others concerning the levels of support of females compared to men. Moreover, the candidates' experiences associated with being 'superwomen' (i.e., having extensive political careers or being public figures) are only associated with differential gender gaps when the population is more similar to the candidate. The descriptive representation theory is correct when considering that identification is critical for

descriptive representation, but it is not always true that candidates more similar to their electorate will strive in elections. The type of women matters, but some types benefit from being more relatable to their electorate while others benefit from being 'superwomen.' Interestingly, the type of woman could explain why descriptive representation does not always translate into substantive representation.

The chapter is organized as follows. In the first section (Section 1.2), I present a literature review highlighting the topic's relevancy and the gaps in the literature the chapter addresses. Section 1.3 presents context on the Ecuadorian cases that help understand the research design and results interpretations. The third section (Section 1.4) presents the research design, including a description of the data sources and a presentation of the models used in the analyses. Next, in Section 1.5 I describe the findings and discuss them in light of the available qualitative evidence, focusing on their theoretical implications. Finally, Section 1.6 concludes.

#### 1.2 Theoretical Framework

### 1.2.1 Gender, Descriptive and Substantive Representation

The exclusion of women from the political arena at the elite level has for long sent the signal that politics is a 'man's game' (Verba, Burns, and Schlozman, 1997). That is why parties started promoting reforms to increase the number of women in government. The leading idea for these reforms came from the literature on descriptive representation, which stated that effective minority representation could be enhanced through reforms that promote the election of members of minority groups in governmental offices.<sup>2</sup>

More members of government to whom the minority citizens could relate would bring what Mansbridge (1999) calls 'communicative advantages' that break the communication barriers that constituents have with representatives with whom they cannot identify. In

<sup>&</sup>lt;sup>2</sup>As explained by Barnes and Burchard (2013): "descriptive representation actuates as symbolic representation by sending a signal to the so-called 'described' that the political arena represents them and is receptive of their part."

other words, they suggested that having more representatives similar to their represented promotes more diversity in the political arena and enhances 'feelings of being fairly or effectively represented (symbolic representation)' (Schwindt-Bayer and Mishler, 2005). At the same time, it promotes substantive representation (i.e., 'legislators acting on behalf of their constituents to represent policy concerns' (Barnes and Burchard, 2013)). For this theory, the identification of the electorate with their representatives is key for democratic representation as it eliminates communication barriers and gives a sense of legitimacy to historically disadvantaged groups. This identification could be based on 'visible' attributes of the politicians that are well known to the citizens either for their salience (such as race, gender, or age) or based on their experiences, such as their trajectory or personal livings (Mansbridge, 1999).

Following this theory, advocates of gender quotas and parity suggested that women (not as a minority but an unrepresented group) would benefit from the inclusion of more female voices in the political debate, especially considering that there are gender gaps in policy preferences, party identification, willingness to express their political opinion, political interest, and in different forms of political participation (Shapiro and Mahajan, 1986; Burns, Schlozman, and Verba, 2001; Paxton, Kunovich, and Hughes, 2007; Atkeson and Rapoport, 2003; L. L. Bennett and S. E. Bennett, 1989; Inglehart and Norris, 2000)<sup>3</sup>. Advocates of these institutional reforms expected that more female candidates and women in office would close gender gaps in participation and representation by incentivizing women to get more involved (Dolan, 2006a; Banducci, Donovan, and Karp, 2004; Mansbridge, 1999), and thus strengthen and legitimize democracy (Atkeson and Carrillo, 2007; Hinojosa, Kittilson, et al., 2020; Phillips, 1995).

Effectively, the trend towards increasing institutional parity resulted in a higher number of women in political offices (Archenti and Tula, 2017; Buvinic and Roza, 2004)<sup>4</sup>, but their effects were not always the expected ones. On the one hand, more women in government

<sup>&</sup>lt;sup>3</sup>Based on this idea, more than a hundred countries in the world have up to date adopted gender quotas in the last forty years.

<sup>&</sup>lt;sup>4</sup>The literature has shown that well-designed electoral quotas have increased the number of elected women (M. P. Jones, Alles, and Tchintian, 2012; Schwindt-Bayer, 2009; Caminotti and Freidenberg, 2016)

effectively increased the perception among women that government authorities are responsive to their influence and effectively representing their interests (Schwindt-Bayer and Mishler, 2005; Atkeson and Carrillo, 2007)<sup>5</sup>. However, there is also evidence that the impact of having more women in politics was less or even contrary than expected (Archenti and Tula, 2017; Broockman, 2014b; Dolan, 2006a; Lawless, 2004; Zetterberg, 2009)<sup>6</sup>.

The mixed evidence in these studies brings the question of why the promotion of gender descriptive representation does not consistently achieve its goals of symbolic and substantive representation<sup>7</sup>. One possibility is that a party or other groups already crystallized female interests (i.e., 'the issues have been on the political agenda long, candidates have taken public positions on them, and political parties are organized around them' (Mansbridge, 1999, p. 643)), making gender a non-salient attribute for identification. For that reason, we need first to explore whether having more female candidates translates into more support for them from the female electorate. As explained by Wolak (2020), "if women do not think about politics in strongly gendered terms, then it seems unlikely that the presence of female

<sup>&</sup>lt;sup>5</sup>In different democratic settings in the world, more women candidates have been found to increase political interest, political knowledge, turnout, engagement in political activities (e.g. contacting representatives) and substantive representation of women (Atkeson, 2003; Burns, Schlozman, and Verba, 2001; Hansen, 1997; Koch, 1997; Sapiro and Conover, 1997; Desposato and Norrander, 2009; Wolbrecht and D. E. Campbell, 2017; Karp and Banducci, 2008; Chattopadhyay and Duflo, 2004; Childs and Withey, 2004; Barnes and Burchard, 2013; Chattopadhyay and Duflo, 2004).

<sup>&</sup>lt;sup>6</sup>Studies have shown that more women in government have not necessarily brought new voices to the legislative debate, different than those presented by party lines (Schwindt-Bayer, 2011; Htun and Power, 2006) or different policies to the executive office (Ferreira and Gyourko, 2014). Quotas have not had spillover effects on the masses by reducing the gender gaps in different types of political participation in Latin America (Schwindt-Bayer, 2011; Zetterberg, 2009) or the United States (Lawless, 2004; Dolan, 2006a; Broockman, 2014b). Having strong female candidates has not increased women's political engagement or changed their political attitudes (Carreras, 2017; Zetterberg, 2009). Also, more women in politics have been shown to reinforce women's negative stereotypes (Franceschet and Piscopo, 2008) and not increase the level of engagement of women with their representatives (Clayton, 2015).

<sup>&</sup>lt;sup>7</sup>The literature has proposed different explanations for these different results. According to (Barnes and Burchard, 2013) the inconsistency of the findings can be related to two main issues. Firstly, there is little variation in women's representation in many studies. Secondly, there is different operationalization of the dependent variables. More specifically, they talk about how many studies focus on gender gaps while others study women's political engagement. Hansen (1997) mentions the importance of considering only competitive female candidates and not any female candidate running for office to assess the effect of women running for office. (Beaman, Chattopadhyay, et al., 2009) show that repeated exposure may have different effects than the first only exposure to a woman candidate. Finally, many of the studies use self-reported turnout measures that are susceptible to social desirability bias. Nevertheless, inconsistencies in results still hold in studies that account for these issues.

politicians should change one's predispositions to participate in politics or express interest in current events." We must explore whether the female electorate considers gender salient enough to affect their electoral behavior.

Another explanation could be that the link between descriptive and substantive representation does not hold. The theory assumes that substantive representation is achieved through descriptive representation by eliminating horizontal and vertical communication barriers between the electorate and their representatives (Mansbridge, 1999). These barriers are eliminated when identification is present, creating a sense of belonging and accountability. Nevertheless, the mixed results in the literature suggest that identification may not be present even if women support other women. In other words, descriptive representation could happen without identification, breaking the linkage between descriptive and substantive representation.

Alternatively, women may support other women not because they identify with them but because they believe they can be successful in a hostile political arena based on their characteristics and experience. If this is the case, we will find women in government who are not necessarily relatable to their electorate but still provide descriptive representation. In this case, symbolic representation could be achieved, but substantive representation is less likely to occur.

Based on these theoretical gaps, I posit the following questions: Do women electorally support women more than men? Does the type of woman candidate matter in this decision? Do women give more support to women who are more similar to them or to those whom they believe can strive in the political context? The chapter aims to assess to what extent identification with the candidate drives electoral behavior of women and, hence, its impact on descriptive, symbolic, and substantive representation.

I address them by exploring the Ecuadorian case, one of the few countries where electoral results can be analyzed by gender, as polling stations are segregated by sex. I combined the electoral data with census data by gender at the local district level and with the results of an original survey (created for this purpose) that gathered data on the sociodemographic characteristics and political careers of female local executive candidates from 2004 to 2019. The analysis provides evidence of whether women support female candidates more than men and the characteristics and experiences of the candidates associated with more female support (compared to men). Moreover, by interacting the characteristics of the population with the candidates' ones, I identify whether candidates who are more similar to their population have an electoral advantage among women. Qualitative data from interviews with women politicians during fieldwork in Ecuador helps interpret the results.

### 1.2.2 Who Votes for Women Candidates?

Whether women politically support female more than male candidates has been a long-standing issue in the Comparative Politics literature. Following identity-based theories of vote choice, women should electorally support those candidates that not only think but also look like them (Converse et al., 1961; Besley and Coate, 1997). Evidence reinforces this theory by showing that women have different preferences than men and that women in office represent women's interests better (Shapiro and Mahajan, 1986; Goodyear-Grant and Croskill, 2011; Dolan, 2008). In this sense, gender consciousness, policy preferences, and promotion of descriptive representation are usually mentioned as the primary mechanisms why women are expected to support women candidates electorally, as gender can act as a shortcut to vote choice (Goodyear-Grant and Croskill, 2011; Dolan, 2008). If this is true, the rational choice for women voters would be to weigh gender as an essential factor in their vote choice equation; what is called the 'gender affinity effect' (Sanbonmatsu, 2002; King and Matland, 2003; Dolan, 2008).

The results have been mixed when looking for empirical evidence to support the gender affinity hypothesis. Results from survey experiments and survey analyses have often shown the existence of "baseline gender preferences" (Sanbonmatsu, 2002; Dolan, 1998; Plutzer and Zipp, 1996; Penney, Tolley, and Goodyear-Grant, 2016; Schwarz and Coppock, 2020;

Morgan, 2015; Martin, 2019; Brians, 2005). However, this effect varies between elections, the type of office the candidates are running for, and conditional on the attitudes of the voter (A. R. Smith, Reingold, and Owens, 2012; Dolan, 2006a; Dolan, 2008; Penney, Tolley, and Goodyear-Grant, 2016; R. Campbell and Heath, 2017; Dolan, 1998). However, some studies report no such gender affinity pattern (Fulton, 2014; McElroy and Marsh, 2010; Goodyear-Grant and Croskill, 2011; R. Campbell and Heath, 2017), supporting Htun (2004)'s statement that "though occasionally a consideration, (gender) almost never defines how individuals vote and what parties they affiliate with."

The overlap between a shared sex identity and other factors such as partisanship, beliefs, and demographic traits has been considered the reason behind these mixed effects. While women seem to prefer candidates of their gender, their multiple identities and tensions between them need to be considered when voting (Plutzer and Zipp, 1996; Martin, 2019). For example, Dolan (2008) shows that in American elections, women evaluate women candidates through the lens of political parties. Plutzer and Zipp (1996) explain that women perceived as feminists had stronger support for other women in American elections. Moreover, R. Campbell and Heath (2017) shows that the voter's level of support for descriptive representation can mediate the candidate's sex effect. Finally, Ferreira and Gyourko (2014) suggests that the affinity effect may vary based on the population's demographic characteristics. For example, A. R. Smith, Reingold, and Owens (2012) finds that female mayoral candidates perform better in cities where women are more educated.

From a methodological point of view, I encounter three challenges. Firstly, as noted by Becerra-Chávez and Navia (2021), most studies trying to test the gender affinity hypothesis have focused on specific electoral contests such as unique candidate matchups or elections where there is a female contestant for the first time (Cargile and Pringle, 2020). In many of these studies, the number of female candidates was very small (R. Campbell and Heath, 2017). Secondly, most electoral designs do not allow to identify gendered voting behavior. For that reason, they have mainly used estimations of the vote choice based on electoral

surveys responses and survey experimental results as their dependent variables (Schwarz and Coppock, 2020)<sup>8</sup>. Finally, most studies have focused on the American context (R. Campbell and Heath, 2017), where the party system is strong, parties' policy preferences are usually clear, and party stereotypes are stronger than gender stereotypes (Hayes, 2011).

Accounting for the methodological limitations, Becerra-Chávez and Navia (2021) analyze actual electoral data. In their study of the 2017 legislative contest under open-list proportional representation in Chile, they find evidence that there is a small but significant effect of the gender of the candidate on the vote choice of the electorate. For this purpose, they estimate the proportion of female electors in each voting precinct as the independent variable of interest and the vote share for each candidate at the precinct level. Using legislative elections allows them to untangle party effects from gender effects, but the impossibility of identifying female or male votes is a challenge to their findings. Moreover, the dependent variable being the percentage of votes received by each candidate does not allow for identifying significant gender gaps in support for female or male candidates and presents some challenges in terms of dependency of the observations.

This chapter proposes an analysis that deals with the methodological limitations and addresses the theoretical challenges by taking advantage of a rare characteristic of the Ecuatorian electoral system: sex-segregated ballot stations. I can then identify voting preferences by gender of the voters at a very disaggregated level of analysis and test whether a 'gender affinity effect' exists.

### 1.2.3 Does the Type of Woman Matter?

While stating women are not a monolithic group is not surprising, only on a few occasions the literature on gender and descriptive representation has taken into account the

<sup>&</sup>lt;sup>8</sup>Schwarz and Coppock (2020) do a Meta-Analysis of 64 candidate choice experiments in which gender was not necessarily the primary focus but was included in the randomized attributes of the candidates. They find evidence that candidates described as women have a competitive advantage over those described as men (of approximately two percentage points in vote margin), and also some support for the theory that women tend to prefer women candidates more than men. Nevertheless, these findings have the limitations of survey experiments where many biases may not manifest as they would in an actual election.

multidimensionality of a woman's identity when referring to the identification with their representatives (i.e., "an interpersonal connection between the perceiver and the successful target", Asgari, Dasgupta, and Stout (2012)). The theory of descriptive representation gives a central role to identification, proposing that there is a motivation for voters to electorally support those who share our demographic characteristics (Johnston, 1994). Nonetheless, little research has focused on testing if and when this identification occurs.

When identification occurs is particularly relevant when we consider the mixed results that the literature on gender and descriptive representation has found (R. Campbell and Heath, 2017; Paxton, Kunovich, and Hughes, 2007). Moreover, it is not uncommon to hear that some female politicians "are not able to represent women" (Ferree, 2006), showing that merely being a woman is not a direct path to substantive representation. This chapter asks whether any woman does the trick or the type of woman matters.

Few studies have considered the electoral consequences of identification as a critical mechanism for support. The studies that have accounted for intersectionalities have mostly done it from the voter's perspective. Gay and Tate (1998) present survey evidence that black women's political attitudes are influenced by their race and gender, but more prominently by the former. Rocha and Wrinkle (2011) show that Latino women achieve more substantive representation in school boards in Texas when other Latino women are elected to the board than when any woman is elected. From the candidate's perspective, few studies have addressed how politicians' demographic traits come into play at the ballot station. Reingold, Haynie, and Widner (2020) study how the intersectionalities between race and gender play at the electoral level in the United States. They find that women from different ethnic-racial groups perform differently according to the ethnic composition of their districts, being women of color benefited from the presence of co-ethnic voters. This is supported by Bejarano (2013), who shows how Latina candidates can electorally benefit from the intersectionality of their identities. The studies have used survey or experimental data to measure electoral support.

This chapter is the first study to use actual electoral data and real candidates' demographic and political career data to test whether identification is critical for political support. If identification is essential, women will vote for women with whom they share other characteristics other than gender. This argument follows the theory stated by Asgari, Dasgupta, and Stout (2012) who considers that when a person perceives successful in-group members (in this case, women) to be different from themselves, this perception does not inspire counter-stereotypical self-beliefs. When exposure to other women in politics does not generate identification, institutional reforms designed to have more women in office do not necessarily generate more political engagement at the citizen level <sup>9</sup>.

The lack of identification would also explain why women who get to be in office (or running for it) do not always substantively represent the women in the electorate. For example, women in politics in Latin America have been described to have shifted their roles from "super-mothers" (Chaney, 2014), who extend their social roles in the private to the public sphere, to having policy preferences more similar to those formerly identified to be held by men (Schwindt-Bayer, 2006). Women in office have been identified not to be "ordinary women" in Bangladesh, where they only reach parliamentary seats because of being either in a close relationship with the leadership, a wife or daughter of a deceased member of Parliament, or have a very long career in the party (Chowdhury, 2002; Panday, 2008). Parties have also been accused of filling female candidates' list positions with women that did not have a political career but were just famous (such as beauty queens, singers, and television hosts) (Goyes Quelal, 2013). The number of women has also increased in the legislatures and executive cabinets, without changing the patterns of differential participation (Espinal and Zhao, 2015).

If women in politics are considered "superwomen", exceptional women who were able to get involved in politics, not because of their gender but despite it, then the mechanism

<sup>&</sup>lt;sup>9</sup>This also goes in line with the American literature on colorism, which finds evidence that lighter-skinned black representatives are not supported at the same levels as darker-skin toned among the black population because of lacking a sense of shared identity (Burge, Wamble, and Cuomo, 2020)

that links descriptive to substantive representation can not stand. Having more women in government can only affect women's substantive representation through identification when these women are not considered exceptions to the "boys club" <sup>10</sup>.

While the descriptive representation theorist would make female candidates to whom they can relate the most rational choice for women, an alternative theory can predict the opposite outcome. Many scholars have studied women's disadvantages when running for office and being evaluated in a male-dominated arena. They have found evidence that gender stereotypes play a role in candidates' evaluations and support, where masculine traits are higher evaluated than female ones (Huddy and Terkildsen, 1993; Koch, 1999; Rosenwasser and Seale, 1988; Stalsburg, 2010). Women are also penalized in their evaluations for having children more than men (Stalsburg, 2010). Moreover, while women who ran on female platforms have an electoral advantage among female voters (Herrnson, Lay, and Stokes, 2003), being a stereotypical female can also prejudice a female candidate (Bernhard, 2021). In this sense, there seems to be a perception that only "superwomen" can strive in a maledominated arena. If this theory held, then women would support women who are not similar to them, but those they believe can be successful.

This chapter uses an original survey of female candidates for subnational executive offices in Ecuador from 2004 to 2019 to gather information on their sociodemographic characteristics and political career paths to test whether identification boosters or hinders electoral support. I match the survey responses with the electoral results and demographic characteristics of the population, by gender, at the district level and analyze whether having more population (by gender) who is 'similar' to them affects their political performance between genders. In this sense, I consider the non-monolithic nature of gender at the candidates' level and the electorate by using a factorial design that accounts for interactions by gender, marital status, and age group of the candidate and population.

<sup>&</sup>lt;sup>10</sup>Similar mechanisms have been observed in other fields, such as programs designed to encourage women to get more engaged in STEM sciences (Bamberger, 2014)

### 1.3 Context: Challenges for Women Politicians in Ecuador

Ecuador presents a unique opportunity for testing the gender-affinity theory for several reasons. Firstly, it was the first country that established an elected and non-elected executive position's parity in its 2008 constitution, making it a precursor of women's affirmative action policies (Piscopo, 2016)<sup>11</sup>. Secondly, to analyze electoral behavior by gender, Ecuador established in the electoral reform of 1998 that elections should be held in a way that votes could be desegregated by gender. Thirdly, the electoral design that combines direct executive elections, compulsory voting, and high turnout rates offers a unique opportunity to identify the electorate preferences avoiding the social desirability bias that electoral surveys often entail (Holbrook and Krosnick, 2010)<sup>12</sup>. As explained by Córdova and Rangel (2017), "women in countries where voting is enforced by law have more opportunities and incentives to cast and inform vote, they are more likely to engage with the electoral process at rates more comparable to men's, resulting in smaller on even non-existing gender gaps in multiple indicators of electoral engagement beyond voting" <sup>13</sup>. Finally, the availability of demographic data by gender at the same level of analyses allows for testing for the interaction between the gender of the candidate and the demographic traits of the electorate. In this sense, this chapter is the first study (to my knowledge) to match socioeconomic data from the National Census to electoral data by gender at the very lowest level of political aggregation to identify whether women support female candidates running for local executive elections and to explore the intersectionalities of the support for female candidates.

Nevertheless, understanding the context is essential for interpreting any results. In Ecuador, the inclusion of women in the political sphere had been a longstanding claim

<sup>&</sup>lt;sup>11</sup>Ecuador has always been a pioneer in promoting institutional reforms encouraging women's political participation. It was the first country in Latin America to allow women to vote (in 1929), one of the first countries to adopt gender quotas (starting in 1997 as a Labor Protection Law), and to establish a progressive constitutional plan for elective positions' parity (in the 1998 Constitution and the 2000 Electoral Law), and the first one to establish parity for elective and non-elective positions in its 2008 Constitution

<sup>&</sup>lt;sup>12</sup>For Ecuador historical turnout rates see: here.

 $<sup>^{13}</sup>$ Morgan (2015) reports Ecuador as one of the Latin American countries with smaller gender gaps in turnout in the region.

from the feminist sectors of the country, but it was the context of political instability and rejection of the traditional parties that brought these female voices to the constituent assemblies of 1998 and 2008 (Ruano Sanchez, 2015; Zambrano, 2005). The promoted changes were followed by an increment in the number of women running for office but also encountered significant opposition (Accossatto, 2021; Zambrano, 2005). Before 2008, male-dominated political parties contested in the Supreme Electoral Tribunal the interpretation of the 'alternation' between gender in the lists and even presented bills to eliminate the gender quotas; they also claimed that women were not prepared enough to occupy office and that political compromise would hinder their 'family duties' (Goyes Quelal, 2013). These allegations make clear that the political arena, while open for women, would not be an easy terrain for them (Archenti and Tula, 2017; Basabe Serrano and Quinga, 2022).

In 2019, I conducted individual interviews with women in politics in Ecuador<sup>14</sup>. In all the cases, they manifested two main sets of challenges they face: gate-keeping barriers and political violence<sup>15</sup>. Regarding access to elective and non-elective positions, the challenges are more evident in uninominal elections, where having a woman means not having a man occupying the position. In these cases, the ratio of female to male candidates for uninominal elections is substantially smaller than for plurinominal ones (INEC, 2014). For the latter, claims are that parties make women resign once they win the election, place them in a less favorable position in the lists, give female positions to smaller parties in the coalitions, or fill them with just famous figures that will carry votes but have no political experience (Archenti and Tula, 2017; Accossatto, 2021; Goyes Quelal, 2013; Albaine, 2016). These claims seem particularly relevant when knowing that political party leaders in directive positions are mostly men (Accossatto, 2021).

<sup>&</sup>lt;sup>14</sup>The individual interviews were conducted in person in 2019. All congresswomen were contacted by email to request an interview. Using a snowball sampling method, those interviewed were asked for further references (either in politics or academia). The guiding questions are in the Appendix A.3. Further qualitative data was also gathered during the online workshops conducted in 2021 in exchange for participation in the local candidates' survey. In this case, all the women who answered the survey were invited to participate in the two online workshops "Women and Politics in Latin America". Conversations during the workshop presented valuable insights for the research.

<sup>&</sup>lt;sup>15</sup>For textual references see: Appendix A.2

On top of the gate-keeping barriers, a particularly relevant challenge has been identified in Ecuador to hinder women's involvement in politics: political violence<sup>16</sup>. A study by UN-Women (2019) shows that exposure to verbal, physical, psychological, and sexual violence is widespread for women politicians. This violence comes not only from political actors but also from social actors and public officials and is reported to come from women at equal or higher rates than from men. Women have also reported being the target of more rumors against their integrity, stereotyped, ridiculed, targeted by media campaigns, and pressured or forced to say and do things (even in public office) (UN-Women, 2019). Finally, women usually mention the burdens of combining their roles as mothers and wives with public duty as a factor of criticism (this is consistent with claims made by Goves Quelal (2013)).

Concerning public figures, the role of the reinitas (i.e., local beauty queens) was mentioned on multiple occasions as both a selection procedure for parties that capitalize on their popularity and a source of discrimination for those of them who are successful electorally. It is essential to mention that, although sometimes criticized, the role of a reinita is more than a beauty queen. They represent a tradition, serve as ambassadors for their province, and are in charge of charitable social work in the district. Similarly, family ties with male politicians were often brought up in the interviews as a recruitment strategy and a burden for women. Both reinitas and politicians' family members are well known by the public and thus, identified by parties as possible recruits for candidacies.

Compared to other countries, Ecuadorian women have an advantage in institutional designs that promote their political engagement. These designs present an advantage for interpreting findings. The combination of gender quotas with compulsory voting annuls arguments such as those related to turnout incentives for women and the absence of female

<sup>&</sup>lt;sup>16</sup>In Ecuador, the concept *political violence* is defined by the Law to Prevent and Eradicate Violence Against Women as "that violence committed by a person or group of people, directly or indirectly, against women who are candidates, activists, elected, appointed or who hold public office, human rights defenders, feminists, political or social leaders, or against their family. This violence aims at shortening, suspending, preventing or restricting their actions or the exercise of their position, or to induce or force them to carry out an action against their will or incur in an omission, in the performance of their functions, including the lack of access to property public or other resources for the proper fulfillment of their functions."

candidates used to explain women's lack of electoral support for other women. However, the resistance to being a new actor in a male-dominated arena combined with the traditional gender roles in this conservative society makes their political participation extra challenging. For example, in the 2019 election, women represented only 19% and 14% of candidates for Prefect and Mayors, respectively (Totals = 223 and 1875), and won in 4 provinces (17.4% of total) and 18 Cantons (8.1% of total) (INEC, 2014). Hence, the 'quality' of the candidates emerges as an especially compelling argument to explain differences in electoral support. In this sense, an understanding of the context of the case serves to identify the relevant factors that can make the female electorate identify with a woman candidate.

## 1.4 Research Design

This chapter intends to fill the above-mentioned gaps in the literature by conducting two different analyses for four Cantonal and Provincial executive elections in Ecuador from 2004 to 2019. Ecuador is politically divided into 24 Provinces, 221 Cantons, and approximately 1,500 parishes. In these local elections, Prefects and Mayors were elected as head of the executive branch of the local Provincial and Cantonal governments, respectively<sup>17</sup>. The period of analysis was selected based on the availability of the data. The use of local elections responds to the higher number of races and candidates, and thus more variation on the variables, as well as to the more personalized nature of the electoral competitions at lower levels of government in Ecuador (Freidenberg, 2014; León Trujillo, 2004). Finally, the use of executive elections data responds to the salience of executive elections compared to legislative ones (especially when held simultaneously); to the fact that women occupying positions on executive election ballots are never assumed to be "filling" the lists as in the legislative ones; and to the perspectives of traceability for data gathering that they had compared to legislative candidates.

<sup>&</sup>lt;sup>17</sup>For maps of the Political Organization of Ecuador, see Appendix A.1

#### 1.4.1 Data Sources

I used three distinctive data sources to empirically test the theoretical questions of this chapter. The first one is the Electoral Data, which includes the total votes all the candidates received at the polling station level, as well as other information such as their location, party, gender, and the full name of the candidate<sup>18</sup>. As polling stations in Ecuador are classified by gender, I could separate the female from male votes and aggregate the results at the parish level (lower level of analysis to match Census data<sup>19</sup>). The availability of these data is fundamental for empirically testing the existence of female affinity-voting, as it allows to identify if women support female candidates more than men. For this goal, parishes with zero female candidates were excluded from all the analyses (see Appendix A.6).

The second data source is the Census data of Ecuador 2001 and 2010 at the individual, household, and dwelling levels. I aggregated the main individual demographic and socioe-conomic variables (such as race, gender, age, civil status, education, and language, among others) by gender at the parish level<sup>20</sup>. This level of aggregation allows me to explore the relationship between the district's population characteristics and their female candidates' and explore whether they receive more support from populations where the electorate is more similar to them. Household and dwelling variables were only aggregated by parish<sup>21</sup>.

The last data source is the Women Candidates Original Database, which gathers information on the demographic and socioeconomic characteristics, and career paths of the female candidates of the analyzed elections. The responses to this survey allowed me to test whether the 'type' of woman candidate matters by exploring the relationship between the

<sup>&</sup>lt;sup>18</sup>Access to the Electoral Data was obtained through a Freedom of Information (FOI) request in 2019 (now it is publicly available here) and included four databases for each electoral year (results, political organizations, candidates, and electoral registry).

<sup>&</sup>lt;sup>19</sup>The coding for parishes from the electoral data does not match the coding from the Census data. For that reason, the data had to be manually matched, using the full names and locations of the parishes in both databases as a reference, as well as considering the creation and dissolution of parishes between elections. For this reason, some data points have been lost due to the impossibility of matching the available information. For access to the geographic codes and their evolution, see here

<sup>&</sup>lt;sup>20</sup>Only people allowed to vote were included

<sup>&</sup>lt;sup>21</sup>The Census 2001 was matched with the Electoral Data 2004, while the Census 2010 was used for the other elections. All Census data, as well as georeferencing codes, are available here.

similarity between the candidates and their electorate with the level of support they receive by gender.

I used the female candidates' names in the electoral registry and locality where they ran for local executive office to identify 90.3% ( $N = \frac{624}{691}$ ) of women candidates (who are still alive) in social media (Facebook, Instagram, Twitter, LinkedIn). Once identified, I reached out to them via these platforms' messenger services using a strategy of four rounds of contact during a period of 1.5 years (December 2020 to June 2021) and distributed them an online Survey using the *Qualtrics Online Platform* (see Appendix A.4 for Questionnaire)<sup>22</sup>. From the total of contacted candidates, 33.6% (N = 210) have seen the sent message, 23.24 % (N = 145) have at least partially completed the survey, and 20.35% (N = 126) have fully completed the survey. These candidates also represent 20% of the female candidacies (N = 160), considering that some of these women had run in different elections.

The survey's response rate is consistent with expectations based on previous studies which used a similar survey design (Vis and Stolwijk, 2021). Assessing the representability of the sample is difficult, as there is limited availability of information from all the candidates to use as a reference for comparison. Using the few variables about them available in the national registry as a reference, I found that the age group of the candidates, the type of election (provincial or cantonal), and the province of the election have very similar distributions for both groups (see Appendix A.5). I also found that candidates from the year 2019 are underrepresented in the sample (they represent 39% of the survey sample and 56% of the total candidates), while candidates who ran in 2004 and 2009 are over-represented (16% and 21% of the survey sample and 6% and 15% of the total). While the differences have a potential for bias, I do not expect the relationships of interest to vary between electoral years. Anecdotal evidence from the survey distribution process has not shown me a specific pattern either, based on the characteristics of the respondents. Still, I acknowledge the potential of bias based on unknown variables that should be considered when reading the results.

<sup>&</sup>lt;sup>22</sup>In exchange for their participation, the women candidates were invited to participate to the Online Workshop "Women and Politics in Latin America", held in two sessions during June 2021.

## 1.4.2 Analyses Designs

The dependent variable for all of the analyses is the "Votes Gender Gap" (VGG) which is calculated by subtracting the number of votes that the candidate(s) received from women voters (over the total number of women who voted) from the number of votes that the candidate(s) received from men voters (over total men who voted). In another form:

$$VGG = \left(\frac{MenVotes}{MenVoters} - \frac{WomenVotes}{WomenVoters}\right) \times 100$$

The variation of the dependent variable by year (except 2004), cantons, province, gender of the candidates, and type of candidacy can be observed in the maps in Appendix A.6.

The first goal of this chapter is to understand whether women support female candidates more than men. If not, the theories of descriptive representation would be missing a key mechanism in explaining how more female elected officials improve the representation of women. To test this mechanism, I aggregated the electoral results by gender of the candidates at the parish level and calculated the voting gender gap for each group<sup>23</sup>. This way, the dependent variable (VGG) for this specific analysis represents the gender gap in votes at the candidate-gender level.

I then used an Ordinary Least Squares (OLS) Model with Clustered Standard Errors to regress the VGG on the gender of the candidates to calculate the mean VGG for women candidates. The included controls are the percentage/number of female candidates in the district (to test whether having more female candidates is also related to the magnitude of the gender gaps) and a dummy variable to indicate a Cantonal election (as opposed to Provincial, to test whether the type of election matters). Fixed effects for electoral years, province, canton, and parish were included, and standard errors clustered at the cantonal level. The model is summarized in the following equation:

$$VGG_{its} = \alpha + \beta_1 CS_{it} + \beta_2 CV_{it} + \beta_4 FE + \epsilon$$

<sup>&</sup>lt;sup>23</sup>While the VGG for male and female candidates in the same district are highly correlated, they are not entirely mirrored due to the option of voting 'blank' that the voters have. In a tiny district, blank votes can significantly impact the differences between male and female candidates' VGG.

where  $VGG_{its}$  represents the Votes Gender Gap in district i, time t, and for candidates of s sex;  $CS_{it}$  represents the Candidates' sex in district i and time t;  $CV_{it}$  represents the control variables; and FE the included fixed-effects.

The second analysis addresses the identification theory by testing whether the similarity of the population with the female candidate increases their support. The analysis cannot address whether identification occurs at the individual level due to the secrecy of the vote. Nonetheless, it uses the local districts' characteristics to see how similar the district's electorate is to the candidate. The more similar the district population (by gender) is to the candidate, the more likely the individual voter is also similar to her, thus identifying with her.

For this purpose, I merged the responses from the original candidates' survey with the electoral results and the census data at the parish level. For each candidate who answered the survey (N=160), I calculated their VGGs at the parish level for each election they ran and matched it with the demographic characteristics of each district's female and male population.

The independent variables vary at the candidate and/or population level. There are three groups of candidate-level variant variables:<sup>24</sup>

- The demographic variables (candidates' ethnicity, age group, and marital status) reflect the most salient demographic attributes that the electorate can know about the candidate.
- A Political Career Index (PCI) reflects whether the population can perceive the candidate as a 'professional politician.' It was calculated using Inverse Covariance Weighting (ICW) with the following variables: the number of years in politics at the moment of the election, the ratio of years in politics over their age at the moment of the election,

<sup>&</sup>lt;sup>24</sup>For each candidate who answered the survey, I adjusted the time-variant demographic variables (i.e., children, age, age group, years of experience in politics, and marital status) to reflect their values at the date of the election.

whether the candidate considers politics her main profession, and whether the candidate had competed in an election before. Higher values of PCI indicate the more of a 'professional politician' the candidate is.

• A Public Figure Index (PFI) indicates whether the candidate is a salient figure in the community, independently of their political career. Using ICW, it includes indicators of having a family member in politics at the moment of running, having been reinita, and having been asked by a party to be their candidate. Based on evidence from the interviews, these variables are all indicators of the candidate being identified by the population as a popular figure.

Candidate and population variant variables use the candidates' responses as a reference for calculating the population variables. Each of these variables reflects the percentage of the parish's population that shares the candidates' attributes. For example, in the case of ethnicity, if the candidate identifies as 'white,' then the population variable 'ethnicity' indicates the percentage of the white population in the district. Using these adjusted variables, I created two different indexes of similarity to the candidate:

- A Demographic Index (DI) indicates how similar the population is to the candidate in terms of salient demographic attributes. This variable is used as a proxy of how much the candidate looks like the district's population and includes the following variables (using ICW): age group, marital status, ethnicity, children (only for women population in the census), and head of household. As these variables are reported in the census at the individual level, it is possible to calculate this index by gender.
- A Socioeconomic Index (SI) indicates how similar the population is to the candidate's socioeconomic status. This variable indicates how much the candidate has similar living conditions to the district's population. The included variables (using ICW) are the type of dwelling, water source, and the number of rooms in their dwelling. These

variables do not vary by gender, as they are reported at the household/dwelling level in the census.

An OLS model with individual candidate's clusters and year and province fixed effect intends to capture the relationship between the level of similarity of the district's population to the candidate to the different levels of electoral support by gender of the voters.

The summary of the model is as follows:

$$VGG_{itc} = \alpha + \beta_1 \ DI_{pit} + \beta_2 \ SIit + \beta_3 \ PFI_{ct} + \beta_4 \ PCI_{ct} + \beta_5 \ CDV_{ct} + \beta_6 \ FE + \epsilon$$

where  $VGG_{its}$  represents the Votes Gender Gap in district i, time t, and for candidates c;  $DI_{pit}$  represents the Demographic Index for population p = (Men, Women, All), in district i and time t; SIit represents the Socioeconomic Index -which does not vary by sex -;  $PFI_{ct}$  represents the Public Figure Index;  $PCI_{ct}$  represents the Political Carreer Index;  $CDV_{it}$  represents the candidate demographic variables; and FE the included fixed-effects.

I then extend the model to include interaction terms between the indexes and the candidate's attributes to capture differential relationships by candidate's ethnicity, marital status, and age group. This way, I can identify whether identification with the candidate is related to differential support by gender, conditional on the candidate's characteristics. For example, it may be the case that there is a relationship between demographic similarity and more electoral support from women than men only when the candidate is of a specific ethnic group. This would be relevant as different ethnic groups would benefit from the identification mechanism differently. Interactions terms between the demographic and career index variables are included to test complementary between the theories (i.e., whether being a 'superwoman' is related to the VGG only when there is more demographically similitude between the candidate and the population).

## 1.5 Results

### 1.5.1 Do Women Support Women Candidates More than Men Do?

The first analysis tests the existence of a 'gender affinity effect' as an initial mechanism for descriptive representation where the rational choice for women citizens would be to vote for female candidates (Sanbonmatsu, 2002; King and Matland, 2003; Dolan, 2008). The results presented in Table 1.1 show evidence of the existence of a 'gender affinity vote'.

Table 1.1: Candidates Sex and Votes Gender Gap

	Dependent variable:			
	Votes Gender Gap (VGG) by Sex of the Candidates			
	Model 1	Model 2	Model 3	Model 4
Woman Candidate	-2.46***	-2.52***	-2.53***	$-2.52^{***}$
	(0.25)	(0.28)	(0.28)	(0.28)
Woman Won Election		0.37	0.42	0.36
		(0.32)	(0.34)	(0.33)
% Women Candidates			-0.01***	
			(0.00)	
Cantonal Election			-0.05	-0.04
			(0.06)	(0.07)
# Women Candidates				-0.02
				(0.04)
Fixed-Effects	Yes	Yes	Yes	Yes
Outcome Mean	0.56	0.56	0.56	0.56
Outcome SD	4.54	4.54	4.54	4.54
$\mathbb{R}^2$	0.27	0.27	0.27	0.27
$Adj. R^2$	0.15	0.15	0.15	0.15
Num. obs.	8996	8996	8996	8996
RMSE	4.18	4.18	4.18	4.18
N Clusters	224	224	224	224

<sup>\*\*\*</sup> p < 0.001; \*\* p < 0.01; \* p < 0.05; p < 0.1

Women candidates get, on average, 2.46 percentage points more support from women than from men voters (significant at the 0.001 level) compared to male candidates. In Model 2, 3 and 4, I added the control variables to see whether the effects are driven by whether women won the election, by the type of election (Cantonal or Provincial), or by the percentage/number of female candidates running in the district. The results show that the effect of gender is robust across models. Moreover, there is no evidence that the type of

election or the number of female candidates is related to the magnitude of the gender gaps. In Model 3, we can also see that while statistically significant, the relationship between the percentage of female candidates running in the district and the magnitude of the gender gaps is minimal (-0.01, significant at the 0.01 level).

These results are consistent with evidence found in Chile by (Becerra-Chávez and Navia, 2021) that women support female candidates more than men. While the magnitude of the coefficient may seem small, local executive elections in Ecuador are often won by smaller margins<sup>25</sup>. Thus, depending on the gender composition of the population, parties may benefit from having female or male candidates.

While the evidence supports that women give more electoral support to female candidates than men, there is an alternative hypothesis that party effects account for the differences. Suppose women have different preferences than men, and parties have differential support due to these different ideological preferences. In that case, there is a chance that the gender differences in support are ideological if these parties also present more female candidates.

In the Ecuadorian case, the available evidence points to the unlikelihood of accounting gender effects for ideological ones. Studies have shown that gender differences in ideological positioning are very small (Morgan, 2015). Elections at the sub-national level are mostly contested by alliances of parties that do not necessarily represent ideological coalitions (Freidenberg, 2014; Došek, 2015; León Trujillo, 2004). Lastly, many of the competing parties are local and do not fit in the ideological right-left dimensional spectrum (León Trujillo, 2004).

To empirically test this hypothesis, and as I do not have specific expectations for specific parties, I decided to test whether ideology plays a role in the gender differences in support for parties. I used the list of political parties and alliances that competed in the local elections (cantonal and provincial level) and classified them using indicator variables for 'left,' 'right,' 'independent' and 'indigenous' categories. The classification was done following a three-step

 $<sup>^{25}</sup>$ The margins of victory are often smaller than five percentage points for Provincial elections. For cantonal elections, the winner usually only gets the support of less than 35% of the electorate (INEC, 2014; INEC, 2016).

approach that included: i) an online search of all national parties (as per the electoral tribunal classification) to assess their ideological identification; ii) identification of keywords in the party names for all types of parties (e.g. "Communist", "Socialist", "Left", "Nationalist", "Indigenous", "Aboriginal", "Independent"); iii) classification of alliances by parties involved. Following these steps, I could classify 804 out of 1316 parties and alliances in one of these categories<sup>26</sup>.

To test whether there are ideological drivers of the 'gender affinity effect,' I calculated the VGG by party for each electoral year and type of election. I then regressed this VGG on the indicators of ideology (Model 1), including years fixed effects (for Model 1), controls for Cantonal elections (Model 2 and 3), the percentage of women candidates (Model 2), and an indicator of the party having presented at least one women candidate in the election (Model 3)<sup>27</sup>.

As seen in Table 1.2, only left-wing parties are related to receiving slightly more electoral support from men than from women (0.25 percentage points, significant at the 0.05 level). There is no other evidence that party ideology is related to gender differences in party support. In Model 2 and Model 3, we can identify further evidence of the existence of a 'gender affinity effect.' The small but significant relationship between the percentage of female candidates and the party VGG (-0.01 percentage points for every point increase, significant at the 0.001 level) in Model 2 shows that parties with a higher proportion of female candidates receive more female than male support. In Model 3, the relationship between the indicator of the party presenting at least one woman candidate in the election and (-0.66 percentage points, significant at the 0.001 level) points in the same direction.

These results indicate that the relationship between the gender of the candidates and the level of support by gender is unlikely to be driven by the ideology of the parties. Moreover,

<sup>&</sup>lt;sup>26</sup>I expect all the parties that are not identified not to reflect the right-left dimension.

<sup>&</sup>lt;sup>27</sup>An alternative test adding party fixed effects and party-type controls to the baseline model, at the candidates level is included in Table A.10 in Appendix A.10. The effect of gender remains robust when controlled by party and party type. Note that the unit of analysis differs from the analysis in the previous section to include all candidates in a district and not groups by gender.

Table 1.2: Party Ideology and Votes Gender Gap (by party)

	Depe	ndent variable:	
	Votes Gender Gap (VGG) by Party		
	Model 1	Model 2	Model 3
Left Wing Party	0.26**	0.25**	0.26**
	(0.09)	(0.09)	(0.09)
Right Wing Party	-0.04	-0.06	-0.05
	(0.13)	(0.13)	(0.13)
Indigenous Party	0.21	0.20	0.19
	(0.15)	(0.15)	(0.15)
Independent Party	0.12	0.10	0.08
	(0.20)	(0.20)	(0.20)
Cantonal Election		-0.14	-0.21*
		(0.09)	(0.09)
% Women Candidates		$-0.01^{***}$	
		(0.00)	
At least one Woman Candidate			-0.55***
			(0.11)
Fixed-Effects	Yes	Yes	Yes
Outcome Mean	0.11	0.11	0.11
Outcome SD	1.65	1.65	1.65
$Adj. R^2$	0.02	0.04	0.04
Num. obs.	1316	1316	1316

<sup>\*\*\*</sup>p < 0.001; \*\*p < 0.01; \*p < 0.05; 'p < 0.1

presenting at least a female candidate to a local executive election is at least as relevant to getting more support from women than men as the party's ideology (which only seems to matter when the party is leftist).

### 1.5.2 Does the Type of Woman Matter?

This section explores whether the type of woman matters. I try to understand whether the identification of the population with a woman candidate plays a role in the electoral behavior of the former. Moreover, I test whether this mechanism is conditional on the candidate's characteristics. In other words, if the similarity of the population to the candidate is conditional on the type of candidate. For this purpose, and as explained in Section 1.4, I only include the female candidates who have answered the survey in the analysis. That allows me to match their characteristics which those of the population.

I regressed the VGG at the candidate-parish level on the four indexes of interest (demo-

graphic, socioeconomic, political career, and public figure) and the candidates' most salient demographic characteristics (ethnicity, age, and marital status) in three different models. Table 1.3 show the results of the first analyses to explore these relationships. Model 1 includes the whole district population; Model 2 includes only the female population; and Model 3 only the male population. While this chapter's analyses (and expectations) concentrate on the female population, including the other models allows for identifying gender-specific relationships.

Table 1.3: Identification and Votes Gender Gap (Baseline Model)

	All Population	Female Population	Male Population
DI	0.23	0.16	0.20
	(0.39)	(0.38)	(0.44)
SI	-0.31	-0.29	-0.30
	(0.20)	(0.21)	(0.20)
IPC	0.31	0.34	0.32
	(0.24)	(0.24)	(0.23)
PFI	-0.22	-0.29	-0.27
	(0.25)	(0.27)	(0.27)
Age (Over 50)	-0.22	-0.21	-0.25
	(0.25)	(0.25)	(0.24)
Age (Under 30)	-0.95	-0.93	-1.09
,	(0.66)	(0.73)	(0.69)
Race (Indigenous)	0.18	-0.12	0.14
, - ,	(0.52)	(0.53)	(0.50)
Race (Mestiza)	0.88*	$0.77^{\circ}$	$0.83^{*}$
,	(0.40)	(0.39)	(0.40)
Race (Mulata)	0.80	0.78	0.83
	(1.04)	(1.09)	(1.03)
Race (Afro-descendant)	0.72	0.62	0.76
	(0.48)	(0.48)	(0.47)
Civil Status (Separated)	1.05***	$0.97^{**}$	1.01**
	(0.29)	(0.30)	(0.34)
Civil Status (Single)	1.01**	$0.99^{*}$	1.06**
	(0.36)	(0.39)	(0.39)
Civil Status (Widow)	-3.70***	-3.71***	-3.71***
,	(0.32)	(0.36)	(0.31)
Fixed-Effects	Yes	Yes	Yes
Outcome Mean	-0.65	-0.65	-0.65
Outcome SD	2.09	2.09	2.09
$Adj. R^2$	0.13	0.13	0.13
Num. obs.	697	688	697
N Clusters	88	86	88

<sup>\*\*\*</sup>p < 0.001; \*\*p < 0.01; \*p < 0.05; 'p < 0.1

The results show no significant relationship between any of the indexes of interest and the VGGs. Not the demographic or socioeconomic similarity of the population (regardless of gender) nor their experience seem to be related to differential levels of support by gender.

In all models, I can see that some specific characteristics of the candidates are directly associated with differential VGGs. Using White women as a baseline, Mestizas candidates are related to slightly higher support from men than women (0.77 significant at the 0.1 level for Model 2). About Marital Status (using Married as baseline), separated and single women are associated with slightly more support from men than women (Model 2: 0.97 and 0.99 percentage points, respectively, significant at the 0.01 and 0.05 level), and widows are associated with significantly more support from women than men (-3.71 percentage points, significant at the 0.001 level)<sup>28</sup>. The results are consistent between models, and there is no evidence that any other type of woman is directly associated with significant differences in VGGs.

This lack of significant relationship of the Demographic Index (DI), combined with the finding that a gender affinity vote exists, allows for two alternative interpretations. On the one hand, it could be the case that the gender of the candidate is enough for identification. Being a woman is enough to drive female voters to (on average) support women candidates more than men. On the other hand, it could be that the relationship between DI and VGGs is not linear. It may be the case that identification has different relationships with the VGGs based on the characteristics of the candidate. The direct relationship between particular candidates' characteristics and the VGG suggests that the latter may be a more suitable explanation.

At the same time, in the previous model, I did not identify a significant effect between the outcome and the Public Figure Index (PFI) or the Political Career Index (PCI), suggesting that 'superwomen' do not receive more support from one gender over the other. The question that follows is whether the proposed theories could be more complementary than

<sup>&</sup>lt;sup>28</sup>It is essential to note that the sample of female candidates includes only two widows, representing 11 observations. For that reason, caution must be taken when referring to these findings.

expected and 'superwomen' receive differential levels of support by gender conditional on their similarity to the population.

Considering these alternatives, Table 1.4 shows the results when including the interaction between the DI and the most salient attributes of the candidates and interactions between DI and the PFI and PCI (separately). The significant coefficients from the interactions between DI and each of the characteristics should be interpreted as the marginal contribution that the combination of a larger DI and the presence of that feature has on the VVG. The interactions between indexes capture whether the political and public experiences of the candidates are related to the outcome only when the population is more similar to them.

Table 1.4 presents the results of the analyses. In all models, I identify a significant relationship between DI and the outcome variable (in the female population, of 3.11 percentage points, significant at the 0.05 level). On average, the more similar the population is to the candidate, the fewer women support them compared to men. Concerning the candidates' attributes, on top of the previous findings in Table 1.3, we can see that Afro-descendant candidates are also associated with more support from men than women (Model 2: 1.94 percentage points, significant at the 0.1 level).

While significant and relevant, the direct effect of the candidate's attributes on the VGGs does not provide insights to testing whether identification matters other than confirming that the type of women does matter. We must look at the interactions between these characteristics and the DI for that purpose. Significant differences in the interaction terms' coefficients indicate differentials in relationships between the DI and the VGGs conditional on the particular characteristics of the candidate.

For interpretation and visualization purposes, Table 1.5, Table 1.6 and Table 1.7 show the calculations of the overall magnitude of the relationships between each type of woman and the VGG (by adding the effect of DI, the direct effect of the attribute and that of the interaction between both of them). <sup>29</sup> Each table presents cross-tabulations between one of

<sup>&</sup>lt;sup>29</sup>The magnitude of the relationships that were not found to be significant in the model were set at the value of 0 (as they are not statistically distinguishable from zero).

Table 1.4: Identification and Votes Gender Gap (Interactions Model)

	Model 1	Model 2	Model 3
ID	2.38	3.11*	2.69*
	(1.30)	(1.42)	(1.15)
SI	-0.24	0.02	-0.31
	(0.21)	(0.22)	(0.22)
IPC	$0.27^{'}$	0.10	$0.20^{'}$
	(0.22)	(0.22)	(0.22)
IPF	-0.17	-0.22	-0.08
	(0.24)	(0.24)	(0.29)
ID:IPC	1.22**	$1.19^{*}$	0.29
	(0.42)	(0.48)	(0.46)
ID:IPF	$-1.36^{*}$	-1.58**	$-0.96^*$
	(0.60)	(0.58)	(0.47)
Indigenous	0.25	0.67	1.39*
1114186115415	(0.74)	(0.75)	(0.66)
Mestiza	1.03*	1.17**	1.39**
	(0.41)	(0.40)	(0.50)
Mulata	0.26	-0.19	2.79**
	(0.74)	(0.55)	(0.90)
Afro-Descendent	1.13*	1.44*	1.70**
ino Boscondoni	(0.48)	(0.55)	(0.60)
Age (Over 50)	-0.21	-0.27	-0.29
1180 (0 (01)	(0.25)	(0.23)	(0.24)
Age (Under 30)	-0.54	$-1.22^{-}$	-1.69*
rige (Chaer 90)	(0.59)	(0.65)	(0.73)
Civil Status (Separated)	1.14***	1.32***	1.39***
Civii Status (Separated)	(0.29)	(0.32)	(0.35)
Civil Status (Single)	1.02**	1.11**	1.22**
Civil Status (Single)	(0.33)	(0.33)	(0.43)
Civil Status (Widow)	-3.66***	-4.26***	-5.39***
CIVII Status (Widow)	(0.31)	(0.35)	(0.33)
ID:Indigenous	-4.73***	$-4.53^*$	-0.03
12 margano as	(1.38)	(1.78)	(1.51)
ID: Mestiza	-2.18*	$-3.20^*$	-2.50**
12.1710001110	(0.89)	(1.28)	(0.84)
ID: Mulata	1.55	1.80	-0.48
ID. Malata	(1.55)	(1.32)	(2.55)
ID: Afro-descendant	-4.26***	-3.64**	$-1.76^{\circ}$
13. This deposituant	(1.20)	(1.15)	(0.95)
ID: Age Group (Over 50)	-1.25	-1.08	$-1.45^*$
110c aroup (0 tor 00)	(0.69)	(0.59)	(0.60)
ID: Age Group (Under 30)	1.38	-1.05	1.54
: 1180 Group (Ondoi 90)	(1.95)	(1.75)	(1.92)
ID: Civil Status (Separated)	0.20	-0.72	-0.39
12. Civil Status (Separated)	(0.67)	(1.04)	(0.79)
ID: Civil Status (Single)	0.87	1.11*	0.54
: 21.11 2000000 (2111810)	(0.59)	(0.43)	(0.77)
ID: Civil Status (Widow)	14.27***	14.54***	15.54***
_ (	(0.74)	(0.66)	(0.73)
Fixed-Effects	Yes	Yes	Yes
Outcome Mean	-0.65	-0.65	-0.65
Outcome SD	2.09	2.09	2.09
$Adj. R^2$	0.18	0.18	0.18
Num. obs.	35697	688	697
N Clusters	88	86	88
*** . 0.001 ** . 0.01 * . 0.0	<b>-</b>		

<sup>\*\*\*</sup>p < 0.001; \*\*p < 0.01; \*p < 0.05; 'p < 0.1

the salient characteristics of the candidate (ethnicity, age group, or marital status) and the DI (set at 1 or 0 for interpretation purposes). The other two characteristics are set at their baseline values and specified in the title of the tables.

These tables allow for the visualization of an important finding. For the three salient characteristics, we identify variations in VGGs based on the attributes of the candidates. In the case of their Marital Status, Table 1.5 shows that when more similar to the female population, Married women are the ones with a smaller differential in support by gender (3.11), followed by Separated (4.43) and finally Single  $(6.48)^{30}$ . When less similar to the population, all types present smaller gender gaps than when more similar (Married = 0, Separated = 1.32, Singe = 1.11). In this case, more similarity with the population is associated with more prominent gender gaps, but the magnitude is conditional on the Marital Status.

Table 1.5: VGGs Variation by Marital Status and DI. Baseline = White Female Candidates between 30 and 50

	Married	Separated	Single
DI = 1	3.11	4.43	6.48
DI = 0	0	1.32	1.11

Considering that Ecuador has a very conservative society, it is not surprising that Married women are associated with smaller gender gaps when compared to Separated and Single women (by 1.32 and 3.37 percentage points, respectively). Anecdotal evidence from the interviews suggests that critics based on gossip about sexual behavior are prominent among women, which is primarily directed to not Married women:

"There is an issue with the use of networks for aggression and violence against women. They are using extremely harsh phrases in the sexual sphere that criticize your integrity. Things you would never say to a man. When entering the political sphere, women are exposed. Women are more critical of women themselves. I feel

 $<sup>^{30}</sup>$ Widows are excluded from the analysis due to the previously mentioned concerns.

that we are more envious of women themselves." (Elizabeth Cabezas, President of the National Assembly of Ecuador)

"I come from a conservative province, where the fact of having children and not being married is frowned upon or is hidden from you." (Verónica Arias, National Assembly Member)

Table 1.6 shows the overall relationships by the candidate's age. In this case, we can see that when the DI is set to 1, women between thirty and fifty years old are associated with the largest gender gaps (3.11), followed by elder women (over 50 years old = 2.03), and finally those under thirty years old (1.89). On its side, lower DI is associated with smaller gender gaps for women of all ages (by 3.11 for the thirty to fifty and under thirty years old; and by 2.03 for over fifty years old).

Table 1.6: VGGs Variation by Age Group and DI. Baseline = White Married Female Candidates

	30-50 yo	Under 30 yo	Over 50 yo
DI = 1	3.11	1.89	2.03
DI = 0	0	-1.22	0

According to the National Survey in Health and Nutrition (2012), Ecuadorian women have, on average, their first child at the age of twenty-one, and the median age for first mothers is twenty-nine years old. This suggests that the relationship between VGG and age could be related to the likelihood of having kids in care. The gender gaps are the largest when the candidates are more likely to have kids in charge (between 30 and 50 years old). The differences between low and high DI are also the largest for the two groups that are more likely to have children under care (by 3.11 percentual points for both under thirty and thirty to fifty), indicating the possibility that women negatively judge relatable mothers. In contrast, non-relatable mothers are considered 'super-women.' Anecdotal evidence from the interviews supports that children are seen as an impediment for women candidates:

"I can tell you a personal experience. I was pregnant; 7 months ago, I gave birth to twins. A twin pregnancy is considered high-risk. (...) However, I had a well-managed pregnancy and everything. I aspired to be a candidate for local government in this last electoral process. Some fellow assembly members, fellow politicians, and even women told me, "how do you want to be a candidate if you have "the problem" of pregnancy?" (Johanna Cedeno, National Assembly Member)

Hence, when considering the age and marital status of the candidates, identification with the female candidate in terms of demographic characteristics is associated with larger votes gender gaps (i.e., more support from men than women). This evidence supports the 'superwomen' theory, which states that the female electorate believes that women like them are not suitable enough to play in the 'boys-game' and give more support (compared to men) to those to whom they cannot relate.

Table 1.7 shows the overall relationships by the ethnic identity of the candidate. In this case, we can see that relationship between DI and VGG is not linear. For White candidates, higher DI is associated with larger gender gaps (by 3.11 points), while for Mestizas, Indigenous, and Afro-descendant candidates, it is associated with smaller (by 0.07, 1.42 and 0.59 percentual points, respectively). We can also observe that the relationship's magnitude varies by the candidate's ethnicity. For example, Indigenous women that are more similar to their population are the ones who are associated with the smallest gender gaps (-1.42), and White candidates with higher DI are associated with the largest (3.11).

Table 1.7: VGGs Variation by Ethnoracial Group and DI. Baseline = Married Female Candidates between 30 and 50

	White	Mestiza	Indigenous	Afro-Descendent
DI = 1	3.11	1.08	-1.42	0.85
DI = 0	0	1.17	0	1.44

In other words, when talking about ethnic identification, the type of women matters for

the magnitude and the direction of the relationship between DI and VGG. These findings are particularly relevant when knowing that Mestizos is the majority ethnic group in Ecuador, Indigenous ethnic groups reach more than half of the population in some parishes (and even more than half in the Napo Province) (INEC, 2009), and that more than 60% of Afrodescendants of the country are concentrated in the Quito, Guayaquil and Esmeraldas Cantons (2001 Census). In this sense, the major minority groups from Ecuador (Indigenous and Afro-Descendents) seem to benefit the most from identification. They present the smallest gender gaps when the DI is higher (I: -1.42, AD: 0.85) and the largest differences when compared to lower levels of DI (I: 1.52 and AD: 0.59). For the case of Mestizas, DI is associated with a tiny but significant decrease in VGG (by 0.09 percentage points). Whites on their side benefit the least, as identification is associated with the highest increase in gender gaps.

Ethnic identification plays a more significant role than expected, reinforcing the idea of intersectionality between gender and race (Bejarano, 2013). Its variation at the candidate level conditions the relationship between the DI and the VGGs. The variation may be linked to a stronger sense of common shared values and experiences that certain ethnic groups may feel compared to others. In the American literature, the concept of 'linked fate' (i.e., the idea that one's life chances are linked to those of the group's) developed by Dawson (1995) is an excellent example of how a stronger sense of group belonging can condition political behavior. Moreover, this sense of shared fate is variant among different ethnic groups in the same country (Sanchez and Masuoka, 2010). More empirical research needs to be done to test whether this explanation applies to the Ecuadorian case.

When looking at the male and total population models, we can see that only some relationships seem gender specific. That is the case of the interaction between being single and the DI and identifying as Indigenous and the DI, which are not significant in the male population model. All the other interactions show similar results in the whole population and male models, only slightly differing in magnitude.

A final relevant finding in this model is that the interaction between demographic simi-

larity and the PFI is associated with smaller gender gaps in support for women candidates in all the models (by 1.36, 1.46, and 0.91 percentage points, significant at least at the 0.05 level). On the other hand, the interaction between the DI and the IPC is related to larger gender gaps (by 1.22 and 1.19 percentage points, significant at least at the 0.05 level), but only the whole population and female population models.

In this sense, identification positively affects female electoral support when the candidate is identified as a public figure, showing again complementarity between theories. One possible explanation is that when relatable women signal to be prepared to deal with the consequences of public exposure, the support among women (compared to men) increases. This makes sense in the Ecuadorian case, where political violence is identified by women in politics (see Appendix A.2) and the literature as the main adversity that women have to confront in the political arena (Albaine, 2016). Those women who are already public figures, while more similar to the female population, receive more support from the women electorate compared to men, showing that identification is essential but when conditional on public experience.

On the other hand, the interaction between the DI and the PCI resulting in more prominent gender gaps is more surprising. The expectation was for this variable to behave similarly to the public figure one. The results highlight even more how the two proposed theories are not exclusive. Opposite to the PFI, women who are more similar to the female electorate and have an extensive political career present larger VGGs (by 1.19 percentual points, significant at the 0.05 level). One possible explanation is that this finding shows how political violence affects those women already in politics. The fact that this relationship is not significant in the male population model is also relevant, as anecdotal evidence from interviews shows how women-to-women violence is significant and that women in politics are criticized by other women at equal or higher rates than men:

"Women always measure us with higher standards than men. They look at us for being political, and they also look at us for being women. When a woman makes a mistake, it automatically affects other women." (Johanna Cedeno, National Assembly Member, June 2019)

"Women are too critical of women, and we expect more from them. We are setting the limitations. When we have to choose a woman candidate, we first see if they are perfect, which does not happen with men." (Gloria Astudillo Loor, National Assembly Member, June 2019)

"Women are more critical of women themselves. I feel that we are more envious of women themselves." (Elizabeth Cabezas, President of the National Assembly of Ecuador, June 2019)

If this is the case, having a political career makes the relatable professional politician's popularity different from that of a relatable public figure. While the former has been exposed to the existent political violence and, consequently, being electorally punished by women in the electorate when compared to men voters, the latter are outsiders who are still believed to be able to thrive in this context. This also explains why parties often look for female public figures outside party structures to be part of their list, as reported in the interviews.

At the same time, the differences in effect between the two indexes indicate how each index captures different aspects of being a 'superwoman.' The PFI captures popularity and exposure to the public, and the PCI captures the candidate's political experience. None of these indexes intends to capture capability, as based on anecdotal evidence, there is no expectation that women with more political experience are more qualified.

Overall, the results from Table 1.4 show empirical and theoretically interesting findings. On the one hand, they reflect that the type of candidate matters more than expected. The relationship between the identification of the population with the candidate and the VGG varies based on the candidates' characteristics, not only in magnitude but also in the direction of the relation. More specifically, the level of similarity of the population with the candidate is associated with higher gender gaps for White candidates but smaller gender gaps for Indigenous and Afro-descendant candidates. Theoretically, the findings suggest that the two competing theories may be more complementary than expected. Gender gaps are

larger when then the population is similar to the candidate (following what the 'superwomen' theory would predict), but the magnitude of the effect is variant (and even outweighed) based on the specific characteristics of the candidates (signaling that identification does matter). Moreover, gender gaps tend to be more prominent when the candidate who is more similar to the population is a professional politician but smaller when they show signs of striving in the political arena.

### 1.6 Conclusion

This chapter empirically addresses an under-explored question in the literature on political behavior: do women support female candidates more than men? It also inquires whether female candidates' attributes matter in the voting decision. In other words, it asks whether the type of woman matters. I take advantage of the rare characteristic of the Ecuadorian electoral system where voting stations are separated by sex to combine the electoral results for local elections with census data (by gender) and original data on the characteristics and career paths of female candidates running for these elections.

Theoretically, the findings contribute to the literature on descriptive representation by testing whether the identification mechanism is present in the vote choice. The promoters of electoral reforms that aim to increase the number of underrepresented groups in government suggested that better representation is achieved by including more people to whom the electorate can relate (Barnes and Burchard, 2013; Mansbridge, 1999). However, the mixed evidence in the study on the effects of gender quotas on different aspects of political behavior and representation raises the question of whether the mechanisms initially assumed to be activated by gender descriptive representation are actually in place.

The first analysis provides evidence of a small but substantive gender affinity effect. Women candidates receive on average 2.46 points more support from female than male voters. These results are robust and proved not to be driven by the ideological identification of their parties. While small, the identified relationship is substantive, considering the high

levels of competitivity and low margins of victory in Ecuadorian executive local elections.

In the second place, the chapter tests competing theories of what drives female voters to support women candidates more than men do. On the one hand, the idea by which identification is critical for explaining differential levels of support by gender. Following the logic of the descriptive representation theory, women would electorally give more support (than men) to those women with whom they can relate. On the other hand, the competing hypothesis is that identification will hinder electoral support (of women compared to men) as women in politics need to be 'superwomen' (exceptional women) to succeed.

The results suggest that the two presented theories are more complementary than expected. When exploring differential in VGGs among female candidates, I found evidence that the identification of the female population with the female candidate in terms of demographic characteristics is associated with larger gender gaps (by 3.11 percentual points). As the 'superwomen' theory would suggest, women may believe that women like them are not suitable enough to play in the 'boys-game' and give more support (compared to men) to those to whom they cannot relate. However, this relationship is conditional on the type of woman.

Holding everything else constant, single and separated women have on average less support from women than men than married women when they are more similar to the candidate (by 1.32 and 3.37 percentage points respectively) and when they are not (by 1.32 and 1.11 percentual points respectively). Based on anecdotal evidence, I suggest that these differences may be related to how marital status can be related to the levels of criticism female candidates receive in a very conservative society.

In the case of age group, lower levels of similitude of the population with the candidate are associated with smaller gender gaps for women of all ages (by 3.11 for the thirty to fifty and under thirty years old; and by 2.03 for over fifty years old). I hypothesize that age may indicate whether the candidates have small children, thus showing that mothers who are more likely to have kids under care are the most punished by women (compared to

men) when they can relate (higher DI) compared to when they can not (lower DI). This is sustained by showing that the differences between high and low DI are the largest for women under fifty (3.11 percentage points) and by anecdotal evidence from interviews.

The candidate's ethnicity is related to the magnitude and the direction of the relationship between the type of woman and the VGGs. White women are associated with smaller gender gaps in districts where women are more different to her compared to districts that are more similar (by 3.11 percentual points). On their side, Indigenous and Afro-descendant are associated with larger gender gaps when the population is more dissimilar to them (by 1.42 and 0.59 percentual points). Finally, for Mestizas (the majority ethnic group), the differences between higher and lower DI are negative but close to zero (0.09 percentual points). In this sense, ethnic identification plays a more significant role than expected, reinforcing the idea of intersectionality between gender and race (Bejarano, 2013). I hypothesize that the differences in magnitude and direction of the relationship between ethnic groups may be linked to a stronger sense of common shared values and experiences that certain ethnic groups may feel compared to others.

Finally, I found that the public and political experience of the candidates matters only in interaction with their demographic similarities. Being a public figure who is more similar to the population is associated with smaller gender gaps, while being a professional politician is associated with larger ones. This can be accounted for by the high levels of political violence that women in politics receive, as evidenced during fieldwork. Those already in politics are subject to more violence and, thus, electorally affected more by it among women. On their side, those more similar candidates who have shown to thrive in the public arena receive more support from women than men, showing that identification does matter. Anecdotal evidence gathered during fieldwork supports these speculations, which imply that identification could be detrimental for some females while beneficial for others.

The findings of this chapter help us better understand how gender plays a role in political preferences and how identification with the candidate can be a relevant component of

understanding political support. Nevertheless, some limitations need to be acknowledged:

- 1. The lack of information on male candidates does not allow comparisons between genders. While we know that some personal attributes of the female candidates, when shared with the population, can hinder/enhance political support of one gender over the other, we do not know if that relationship can also be identified for male candidates.
- 2. The relative nature of the outcome does not allow us to know what is the driver of differential levels of support among gender. I cannot identify whether variations in gender gaps are related to the female or the male population's behavior. While anecdotal evidence was used to propose possible explanations, the relativity of the outcome has to be kept in mind.
- 3. Generalizations out of this specific case must be made cautiously. The Ecuadorian case presents a unique opportunity to test the identification mechanism because of the availability of electoral data by gender, but it represents only one country with a specific idiosyncrasy. For that reason, I consider that the findings of this chapter contribute to understanding how gender and identification can play a role in political behavior but, if trying to replicate for another context, an exhaustive evaluation of the candidates' attributes and factors that may be important for the case needs to be done.
- 4. More research needs to be done to test whether the findings of this chapter can be used to explain mixed results in the literature on the effects of descriptive representation.

# Chapter 2: Who is the boss? Gendered Issue Ownership, Stereotypes and Political Engagement

## 2.1 Introduction

A person's gender is widely believed to have an important influence on individual political beliefs and behavior. However, little research studies how these effects may vary across political issues. Gendered stereotypes, suggesting specific issues are better understood and dealt with by men while women better manage other issues, exist in many cultures (Eagly and Karau, 2002). For example, in the United States, Military and Gun Rights issues are popularly constructed as belonging to the "male political sphere", while issues involving caretaking, such as Education, are commonly thought of as belonging to the "female political sphere" (Karpowitz, 2014; Goss, 2017).

At the elite level, there is evidence that women get more engaged than men in issues that match their stereotypes (Atkeson and Rapoport, 2003; Conway, 2001; Huddy and Capelos, 2002; Paxton, Kunovich, and Hughes, 2007), but there is no systematic evidence that people believe that women and men handle different political issues better at the mass level. Moreover, women and men have different political preferences (Shapiro and Mahajan, 1986; Donato and Perez, 2016; Blinder and Rolfe, 2018; Shorrocks and Grasso, 2020). If a gender division of issues exists at this level, there is a risk of bias in the voices that representatives hear on what the citizens want. The inequality of voices would result from the gender gaps in participation (Burns, Schlozman, and Verba, 2001), and also from different genders having different levels of influence on different issues (Karpowitz, 2014). These differences in voices are especially detrimental for women, as they are less vocal (compared to men) in places where they are minorities (Karpowitz, 2014).

The first part of this chapter addresses whether there is a genuine belief at the citizens' level that specific issues are better handled by men and others better handled by women. I present an original conjoint experiment that tests if people have a propensity to choose one gender over the other on four different political issues (Education, Health Care, Gun Ownership, and the Economy). By randomizing the attributes of two putative persons and asking respondents to choose between them in different scenarios, I can identify the effect of gender on the probability of a subject being chosen.

The results of the conjoint follow my expectations. They evidence a division of issues by gender, where Education and Health Care are "female-owned", Gun Rights is "male-owned", and the Economy is neutral. While not surprising and following the intuition, these results are the first one to my knowledge to empirically provide evidence that this gendered division of issues exist at the mass level.

Next, I address other theoretically relevant questions: do counterstereotypical exposures (concerning the "issue ownership") change the belief about ownership? Does the type of counterstereotype matter? The second part of the chapter is based on the studies on descriptive representation and role models to test if counterstereotypical exposure (in relation to the issue "ownership") affects people's beliefs and behavior. Considering the mixed results there are in the literature on the topic (Broockman, 2014b) and based on psychological theories on stereotypical exposures (Asgari, Dasgupta, and Stout, 2012), I test an alternative mechanism by which not only the counterstereotypical exposure matters but also the level of relatability with the (counter)stereotypical subject.

I use a two-by-two factorial design to test whether men/women are more likely to get engaged in political activities on a specific issue (Education and Gun Ownership) when they are encouraged to do so by a counterstereotypical subject (i.e., a man (woman) in a male-(female-) "owned" issue) compared to a stereotypical one. I also test whether the type of counterstereotype matters by randomizing the demographic attributes of the inviter to match or mismatch those of the respondent. Separating the analysis by gender of the respondent

allows the identification of heterogeneous effects.

The results show that when the issue is "owned" by the gender of the respondent, the treatments do not affect their behavior (i.e., get more engaged). When the issue "belongs" to the opposite gender, the results are different depending on the gender of the respondent. Women do not get more engaged in the male-dominated issue when encouraged by other women, regardless of their traits. Men get more engaged in the women's issue when other men encourage them and when the invitee is similar to them. However, the interaction between the two factors has a negative effect that almost outweighs the direct effect of the two other variables, suggesting that seeing someone identical to them creates a dissonance that hinders the direct effects of the two variables.

The chapter is organized as follows. In Section 2.2, I discuss the theoretical motivation for the research project and the existent research on the topic. In Section 2.3, I describe the design and present the results of the conjoint experiment. In Section 2.4, I present the design and results of the engagement experiment. Section 2.5 concludes.

### 2.2 Theoretical Framework

## 2.2.1 Gender Stereotypes and Politics

Gender stereotypes typically portray women as being "affectionate, helpful, kind, sympathetic, interpersonally sensitive, nurturant and gentle." Men, meanwhile, are often thought to be more "assertive, controlling, and confident...and prone to act as a leader" (Eagly and Karau, 2002). These personality traits are not only perceived to be predominant in each of the genders but have also come to be seen as socially desirable for each of them (Bem, 1974; Eagly and Karau, 2002; Huddy and Terkildsen, 1993; Brooks, 2013). Gender stereotypes affect perceptions about the ability of each gender to effectively handle certain activities (also called gender norms)<sup>1</sup>. In Eagly and Karau (2002)'s words, "gender roles also embrace injunctive norms about male and female behavior." They affect how people see and judge

<sup>&</sup>lt;sup>1</sup>As explained by Chalabaev, Sarrazin, Fontayne, et al. (2013)

others' behavior and how people perceive their capabilities and potential (Bem, 1981).

Gender stereotypes and norms became especially relevant to political scientists when realizing an incongruence between female gender stereotypes and what is often identified as leadership traits (Huddy and Terkildsen, 1993; Hoyt and Simon, 2011; Koenig et al., 2011)<sup>2</sup>. Moreover, evidence that shows that women have different policy preferences than men (Shapiro and Mahajan, 1986; Donato and Perez, 2016; Blinder and Rolfe, 2018; Shorrocks and Grasso, 2020) raises concerns about the consequences that gender stereotypes can have on political representation. If each gender is perceived to be better at handling specific issues (based on traditional gender roles) and this belief affects political engagement, each gender's preferences would be underrepresented on the issues that are 'better handled' by the other gender. Even if there were no gaps in participation, gendered perceptions of issues could affect representation by affecting citizens' confidence to be vocal about the issues (Karpowitz, 2014). Some voices would be more heard than others. This is particularly problematic for women, as they are less likely to be less vocal in situations where they are minority (Karpowitz, 2014).

The existence of gender roles has been studied extensively at the political elites' level. For women serving in the U.S. Congress, even when they participate at similar rates to men, their participation tends to be predominant in specific issue areas and limited to certain political activities that fit with societal gender norms (Atkeson and Rapoport, 2003; Conway, 2001; Huddy and Capelos, 2002; Paxton, Kunovich, and Hughes, 2007). Congresswomen try to balance their agenda by including non-stereotypical female issues (Atkinson and Windett, 2019). However, they are still most represented on committees that handle issues involving nurturing, caretaking, and managing the home and family (Eagly and Steffen, 1984; Swers, 2002; Childs and Withey, 2004; Dolan, 2006b; Dolan and Lynch, 2014) and tend to be

<sup>&</sup>lt;sup>2</sup>Leadership archetypes are associated with characteristics usually classified as masculine. In this sense, men performing traditional masculinity have by implicit association the traits that make them good leaders (i.e., agenting traits). In contrast, women performing traditional femininity are perceived to be better at handling what Shapiro and Mahajan (1986) call "compassion issues" (i.e., those that require communal traits).

least involved in issues relating to economics, science or the military (Volden, Wiseman, and Wittmer, 2018).

Women running on gender stereotypical platform issues get more support than those who include non-stereotypical content in their campaigns (Herrnson, Lay, and Stokes, 2003). Nonetheless, whenever gender stereotypes are activated, women are perceived to be less qualified to be in public office (Rosenwasser and Seale, 1988; Bauer, 2015), especially if they are Republican (King and Matland, 2003; Sanbonmatsu and Dolan, 2009). Women are also assessed as being more liberal than they are (McDermott, 1997; Huddy and Terkildsen, 1993), and are judged to have more "feminine" traits even when they run on a "masculine" message (Leeper, 1991).

While empirical political research throughout the last several decades has consistently identified a gendered division of political issues at the elite level, comparatively less work has tried to identify whether this division exists at the citizen's level. Studies that show that American women participate at lower rates than men, their participation focuses on different organizations, and they are significantly more keen on participating in issues that conform to societal gender norms (such as Education and Abortion), evidence that gender gaps in participation by policy areas correlate with traditional gender roles (Schlozman, Burns, and Verba, 1994; Verba, Burns, and Schlozman, 1997; Schlozman, Burns, Verba, and Donahue, 1995; Burns, Schlozman, and Verba, 2001; Atkeson and Rapoport, 2003). Nevertheless, there is a lack of proof of whether these differential patterns of political engagement are related to a belief that each of the genders better handles some political issues.

This chapter argues that there is such a thing as a gendered 'issue ownership.' Based on the literature on American political parties (Petrocik, 1996; Walgrave, Lefevere, and Tresch, 2012; Walgrave and Soontjens, 2019), the concept of 'issue ownership' combines an associative and competence aspect. The associative aspect refers to the implicit association of an issue with the 'owner' (in this case, a specific gender). At the same time, the competence aspect reflects the belief that the 'owner' is better at handling the issue. These two

aspects are closely linked and thus exploited by the 'owners' of the issue to pursue their interests (Petrocik, 1996; Lachat, 2014). In the case of gender, the known association between stereotypes and social roles (Bem, 1974; Eagly and Karau, 2002; Huddy and Terkildsen, 1993; Brooks, 2013) and the evidence that women participate more (Schlozman, Burns, and Verba, 1994; Verba, Burns, and Schlozman, 1997; Schlozman, Burns, Verba, and Donahue, 1995; Burns, Schlozman, and Verba, 2001; Atkeson and Rapoport, 2003) and run campaigns in issues associated with 'women issues' (Herrnson, Lay, and Stokes, 2003) suggests that the associative and competence aspects of 'ownership' are intrinsically linked for gender too. In this sense, and following Herrnson, Lay, and Stokes (2003), I use the term "gendered issue ownership" to denote those issues that are perceived to be better handled by one gender over the other.

This study's kick-off point is to identify areas where there is a stereotypical gender division of political issues at the citizen level. Based on the evidence about this division found in studies about gender gaps in participation agendas at the citizen and elite level, I test whether specific issues are perceived to be 'owned' by specific genders. Once the issues are identified, I test if challenging them affects political engagement in those issue areas for each of the genders.

## 2.2.2 Challenging Gender Stereotypes

Many models of human psychology posit that the internalization of stereotypes influences self-perception, which influences behavior (Bem, 1974; Bem, 1981; Wigfield and Eccles, 2000; Eccles, Wigfield, and Schiefele, 1998). If these models are correct, gendered issue attribution may influence people's political behavior and representation. At the individual level, the belief that a specific issue is "better left to men," for example, might encourage male participation and engagement on that issue while discouraging female participation. At the societal level, differences in which types of issues receive media attention or focus on mobilization campaigns could result in gendered differences in overall political engagement.

In issues where women have different policy preferences than men (Shapiro and Mahajan, 1986) unequal political engagement, or even different levels of confidence to be vocal on the issues, may also result in unequal representation.

The impact of gender stereotypes at each of these levels has been tested for political and apolitical activities. Lane, Goh, and Driver-Linn (2012), and Nosek and Smyth (2011) show how implicit gender stereotypes account for the gender gap in the pursuit of academic careers in STEM fields, while Guillet et al. (2006), Chalabaev, Sarrazin, Stone, et al. (2008), and Chalabaev, Sarrazin, and Fontayne (2009) show that stereotypes and self-perceptions affect the sports people choose to play and even their performance. There is also evidence of a stereotype effect on public perceptions of politicians' capabilities (Sanbonmatsu, 2002; Sanbonmatsu and Dolan, 2009), women's access to different leadership positions (Bauer, 2015; Eagly and Karau, 2002; Lawless, 2004; Leeper, 1991; Dolan, 2010; Dolan, 2014), evaluations of political candidates and politicians in office (Huddy and Terkildsen, 1993; Alexander and Andersen, 1993; Dolan, 2010; Bauer, 2015; Bernhard, 2021)<sup>3</sup>, and women's ability to demonstrate their political knowledge (McGlone, Aronson, and Kobrynowicz, 2006) and express their political attitudes (Atkeson and Rapoport, 2003). Gender stereotypes have also been shown to affect Congresswomen's performance. They propose more bills on a wider range of issues than men, but they have to devote more effort to have the same success rate as Congressmen in deterring challengers (Anzia and Berry, 2011; Atkinson and Windett, 2019). Evidence at the elite level also shows that people who perceive women as competent to handle stereotypical 'male issues' are more willing to support their political careers (Dolan, 2010). In terms of mobilization, organizations related to men 'owned' issues have been found to struggle in mobilizing women (Goss, 2017).

<sup>&</sup>lt;sup>3</sup>It is important to note that the impact of stereotypes on candidates evaluations has presented mixed evidence. While some studies have shown that abstract stereotypes negatively affect women candidate's evaluations (Fox and E. R. Smith, 1998; Leeper, 1991; Rosenwasser and Seale, 1988; Bauer, 2015), others have focused on how stereotypes positively affect their evaluations when campaigns are centered on traditional female-dominated issues (Dolan, 2010; Fridkin and Kenney, 2009; Huddy and Capelos, 2002). Other studies have also presented evidence that women are not held to higher standards than men (Brooks, 2013) and that abstract stereotypes do not affect evaluations in the way that the literature has expected before (Dolan, 2014).

This association between stereotypes and political behavior posits the question of how challenging them would affect gender gaps. For example, if people perceive political issues through a gendered lens, how does challenging gender associations affect political participation in these issues? For instance, if men are considered better suited to handle issues related to gun ownership rights, what effect would it have on political participation if one were encouraged to participate in political activities related to gun ownership by a man versus a woman? Similarly, if women are perceived as better suited to handling Education issues, what effect would it have on people's willingness to vote on an education referendum if the encouragement to do so came from a woman versus a man?

Studies of the exposure to gender counterstereotypes at the elite level have presented mixed evidence. On the one hand, some evidence supports the idea that exposure to other women in male-dominated areas makes "women feel more connected to and a part of the political system in a way that they do not when they look around and see only men" (Atkeson, 2003, p. 1043). Beaman, Chattopadhyay, et al. (2009) show that exposure to female leaders in Indian Village Councils boosts future female candidates' electoral performance and improves career aspirations and actual career attainment among women adolescents (Beaman, Duffo, et al., 2012). Wolbrecht and D. E. Campbell (2007) find evidence that women are more likely to discuss politics with friends and participate politically in areas of the United Kingdom where there are more female members of parliament. There is also evidence that successful female politicians help other women believe they could be well-suited to careers in politics (D. E. Campbell and Wolbrecht, 2006), reduce bias in perceptions about women's effectiveness as leaders (Beaman, Chattopadhyay, et al., 2009), are associated with increasing women's interest in politics (Burns, Schlozman, and Verba, 2001), and promote political engagement among women (Atkeson, 2003). However, there is also evidence that increasing the number of women in government does not necessarily encourage other women to run for office (Broockman, 2014b) or participate more (Carreras, 2017).

While there is a lack of evidence of the effect of non-elite counterstereotypes on the

general public's political behavior, the mixed evidence at the elite level requires a closer look at the mechanisms in action when exposing people to counterstereotypes. For elites, the effect of counterstereotypical exposures have been argued to depend on other factors, such as the viability of female candidate (Atkeson, 2003; D. E. Campbell and Wolbrecht, 2006), and the salience of women's issues in the electoral race (Koch, 1997; Lawless, 2004), and even of their gender (D. E. Campbell and Wolbrecht, 2006). These claims bring up the idea that counterstereotypical exposure may not be equally effective in all circumstances. In other words, the type of counterstereotype also matters.

In this sense, psychological theories suggest that counterstereotypical information is ineffective if the presented subject is perceived as an "elite" (Hoyt and Simon, 2011) or their achievements are deemed "unmatchable," (Ramsey, Betz, and Sekaquaptewa, 2013). It is possible that presenting examples that contradict prior beliefs will not encourage engagement if these examples are perceived as dissimilar from the subject, which could even result in an adverse effect on the subject's motivation (Hoyt and Simon, 2011). As Asgari, Dasgupta, and Stout (2012) explain, exposure to in-group counterstereotypes helps change self-perceptions (and behavior) only when the role models are perceived to be similar to one's in-group and oneself (what they call "an assimilation effect"). Inspiration from role models arises when their achievements appear to be attainable by the observer (Lockwood and Kunda, 1999) and when they can identify as being similar to the exposed subject (i.e., when the answer to the question "am I similar to them?" is positive) (Asgari, Dasgupta, and Stout, 2012). Stereotypes can even be reinforced when the counterstereotypical exposure does not successfully generate identification (i.e., "an interpersonal connection between the perceiver and the successful target" (Asgari, Dasgupta, and Stout, 2012; Dasgupta, 2011, p. 371)). In Dasgupta (2011)'s "Stereotype Inoculation Model," the identification and similarity of the subject with the exposed in-group member/peer serves as a moderator for the negative stereotype and affects the subject's behavior. The dimension of similarity may be common academic or professional interests, life history, shared group membership, and similar goal orientations, to name a few.

Based on those theories, the second part of this chapter presents an experimental design that tests both mechanisms. In the first place, I randomize the gender of the sender of an invitation to get engaged in a stereotypical male/female-dominated area to test whether the exposure to counterstereotypes affects the behavior of the respondents. Secondly, I randomize the personal attributes of the sender to match/mismatch those of the respondent to test whether relatability with the counterstereotypes matters.

To sum up, stereotypical beliefs affect political behavior. Nevertheless, the possibility of breaking this mechanism by exposing subjects to counterstereotypes has mixed conclusions at the elite level and lacks evidence regarding non-elite subjects. The second part of this chapter contributes to both accounts by testing the effects of counterstereotypical exposure in gender issue ownership areas at the citizens' level. I use a two-by-two experimental design to test the effect of the type of counterstereotype on political behavior, by gender.

### 2.3 Testing Gendered Issue-Ownership

This chapter is composed of two experiments that address two different issues of the above-described theoretical inquiry. Both experiments were implemented on a national representative sample of 9,637 cases collected from the Lucid Fulcrum Exchange in January 2020. This platform connects researchers to panels of respondents who have already provided their demographic information, allowing me to achieve representative samples<sup>4</sup>.

### 2.3.1 Experimental Design

The conjoint experiment was designed to empirically test the extent to which people perceive political issues as being gendered in the sense that one gender is better suited to deal with that issue than another (what we refer to as "gender ownership"). Although popular constructions of particular issues as "men-issues" and others "women's" abound, I

<sup>&</sup>lt;sup>4</sup>For the validity of Lucid as a source of respondents, see Coppock and McClellan (2019).

am unaware of any research that provides empirical evidence for such perceptions at the mass level.

In the first experiment, I focus on understanding the extent to which issues are perceived as gendered, specifically which issues are associated with which gender. The results are critical for later examining how gender counterstereotypical or stereotypical information affects political engagement and if types of counterstereotypes matter.

Conjoint techniques like the one I use have recently gained traction in political science because they allow researchers to test multiple hypotheses simultaneously with a common outcome measure, are relatively simple to administer with online platforms, and reduce social desirability bias (Raghavarao, Wiley, and Chitturi, 2011; Hainmueller and Hopkins, 2014; Hainmueller, Hopkins, and Yamamoto, 2013; Wright, Levy, and Citrin, 2016; Bansak et al., 2021). Nevertheless, the external validity of these experiments can be affected by the unrealistic way people are exposed to choices. More specifically, the use of written tables to present the subjects' characteristics differs from how people are usually exposed to options (Bansak et al., 2021). For this study, I considered that the limitations are outweighed by the benefits of using a conjoint experiment.

In this design, respondents are presented with two individual profiles and are asked to keep those profiles in mind when answering the questions that follow. These two people, Person 1 and Person 2, are each described by six characteristics: the area they live in, education level, age, marital status, ethnoracial group, and, most critically to the study: their name (as an indicator of gender). The crucial element of the conjoint experiment is that each of the six characteristics of each profile that respondents evaluate is independently randomly assigned to the profile. Here, I am primarily interested in the causal effect of the gender variable, proxied by the gendered names such as "John" and "Mary." The impetus behind including the other characteristics—area of residence, age, education level, ethnoracial group, and marital status—is to conceal the fact that I was specifically interested in the effects of gender and therefore eliminate demand effects from the estimates. Table 2.1 shows the different

Attributes and Levels that were randomized.

Table 2.1: Profile Attributes with Levels to be Randomized

Attributes	Levels
Name	Male Names = {James, John, Michael, Kevin, Thomas},
	$Female Names = \{Mary, Jane, Chloe, Dana, Tiffany\}$
Age	25, 35, 45, 65
Area of Residence	Urban, Rural, Suburban
Level of Education	High School Degree, College Degree, Postgraduate Degree,
	Community College Degree
Marital Status	Single, Married, Widowed, Divorced/ Separated
Ethnoracial Group	Latino, Black, White, Asian

Figure 2.3.1 illustrates an example of the prompt and a set of two profiles a respondent could see:

Below, you will see a brief description of two different people. Please read each description carefully and keep it in mind when answering the questions that follow.

	Person 1	Person 2	
Name	John	Jane	
Ethnoracial Group	Latino	White	
Age	45	45	
Marital Status	Married	Divorced / Separated	
Level of Education	College Degree	High School Degree	
Area of Residency	Urban	Suburban	

Figure 2.1: Conjoint Prompt and Profiles Example

Below the profiles, respondents are asked:

"Now, imagine you find yourself in one of the following scenarios. In each one, you need to ask someone for advice on a different subject. Which of the two people described above would you ask for advice? Please state your preference by selecting either Person 1 or Person 2 for each scenario."

Figure 2.2 illustrates the four scenarios presented in the survey. Each scenario corresponds to a different political issue: Education, the Economy, Gun Rights, and Health Care. Subjects' selection of which person they would go to for advice is the first outcome measure for this study.

Figure 2.2: Issue Scenarios and Binary Choice Outcomes

	Person 1	Person 2
You have concerns about how public schools are being managed in your district and you want to learn more about the topic.	0	0
You are preparing a report about the country's economy and want to check if your facts are correct.	$\circ$	$\circ$
You are looking for information about the requirements for owning a firearm in your state.	$\circ$	$\circ$
You are wondering if you are eligible to receive government health insurance from and want to learn more about the requirements.	0	0

As the question explains, the respondent is asked to choose between two people to receive advice about the issue. They are requested to seek information about the different issues, not opinions or political advice. By focusing on information acquisition, I intend the person to choose the option whom they believe will have more knowledge on the topic, regardless of their position on it, capturing the association aspect of gender 'issue ownership' (Walgrave, Lefevere, and Tresch, 2012). I am not looking to identify how much they agree with their position on the issue, but who is identified to be more knowledgeable to go for advice in a real-life setting that is not political (such as the four scenarios presented). In this sense, the 'ownership' of the issue refers to the implicit association between a specific gender and

the issue, which, based on Petrocik (1996)'s theory, I assume to be related to the level of capability on the issue attributed to that gender.

The causal quantity the experiment identifies is the Average Marginal Component Effect (AMCE) of the gender attribute. That is the average difference in the probability of selecting a certain profile when two different values of an attribute are compared, where the average is calculated over all possible combinations of the other attribute values<sup>5</sup>. Principally, the ACME measures the marginal effect of attribute l averaged over the joint distribution of the remaining attributes:

$$\bar{\pi}(t_1, t_0, p(\mathbf{t})) = E[Y_i(t_1, T_{ijk[-l]}, \mathbf{T}_{i[-j]k}) - Y_i(t_0, T_{ijk[-l]}, \mathbf{T}_{i[-j]k})],$$

where  $T_{ijk[-l]}$  denotes the vector of L-1 treatment attributes for respondent i's jth profile in choice task k without the lth component.

Each respondent completed the conjoint task twice – that is, each respondent saw two pairs of profiles and answered the outcome questions two times, where the profile characteristics were randomized across profiles and tasks. The order of the characteristics was also randomized across respondents to prevent attribute ordering effects, but not within respondents, to reduce cognitive load (i.e., seeing attributes in different orders in each task would be unnecessarily cognitively demanding). In estimating the AMCE for the gender attribute, the experiment tests the extent to which men and women are perceived as having "ownership" over the political issues represented by the four scenarios.

Drawing from theories on gendered political participation at the elite level, I posit the following hypothesis:

Hipotesis 1 (H1): There is a gendered division of policy issues and political activities at the citizen's level, reflecting broader gender stereotypes in society.

I conduct a one-sided test of the null hypothesis that Education and Health Care issues are

<sup>&</sup>lt;sup>5</sup>The analysis follows the method outlined in Hainmueller and Hopkins (2014).

not considered more female than male and a one-sided test of the null hypothesis that firearms policies are not considered more male than female. I do not have clear expectations for economic issues, as there is mixed evidence in the literature about the stereotype associated with it, considering that the traits associated with better management of the Economy do not necessarily match stereotypical female or male traits (Huddy and Terkildsen, 1993).

# 2.3.2 Results: Gendered Issue Ownership

For this analysis, the AMCE of interest is the AMCE for the 'woman' trait (i.e., using a Female name) compared to the 'man' trait (i.e., using a Male name). To account for the fact that each respondent completed two tasks, I clustered the standard errors by respondent in each analysis.

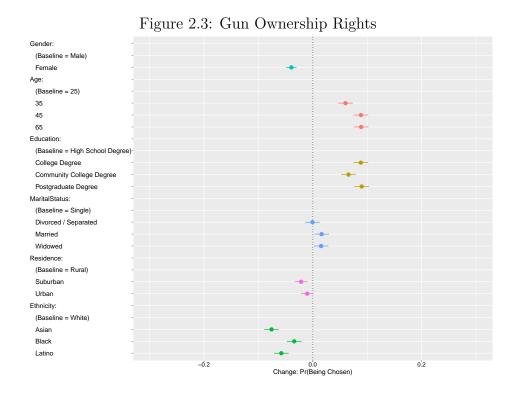
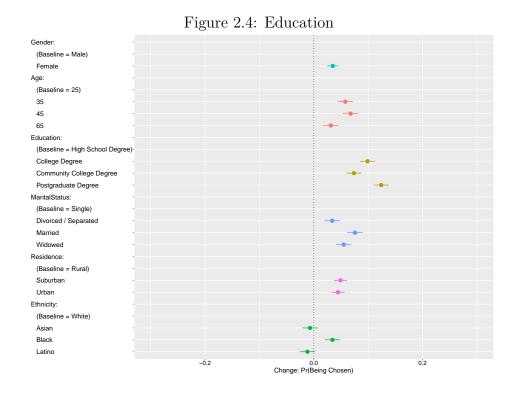


Figure 2.3 plots the AMCEs for each attribute on the gun rights outcome. As expected, being a woman leads to an average of four percentage points decrease in the probability of being chosen (-0.04, significant at the 0.001 level) as an advisor about gun ownership rights,

suggesting that gun rights are considered to be an issue men are more knowledgable, and potentially better at handling. More educated, older, and white people are more likely to be asked for advice too.

Survey data of the U.S. adult population (Schaeffer, 2021) show that 47% of Whites have a gun in their household (compared to 37% of Blacks and 26% of Latinos), which may explain why Whites are more likely to be consulted on this issue. However, the same relationship does not hold for education level or age. For Education, more educated people are less likely to own guns (Postgrad 33%, College grad 35%, some college 45%, and HS or less 40%). On their side, differences in gun ownership between age groups are very small (42% for over sixty-five years old and fifty to sixty-four, 1% for thirty to forty-nine, and 35% for eighteen to twenty-nine).

In the case of gender, 39% of men personally own a gun, and 43% have a gun in their household, compared to 22% and 38% for women (Schaeffer, 2021). Men are also more 'immersed in gun culture' than women (Parker et al., 2017). In this sense, it may be that the preference for men over women as advisors may be related to the fact that men are more likely to own guns than women, and thus being perceived as more knowledgable on the issue.



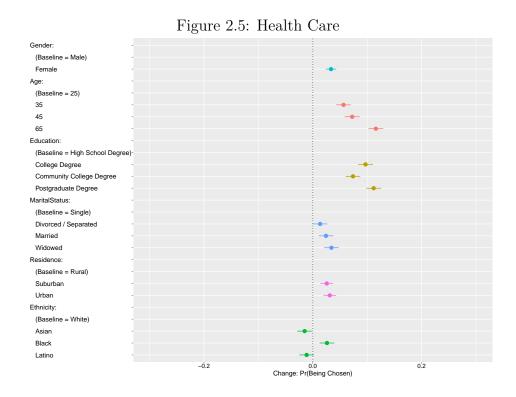
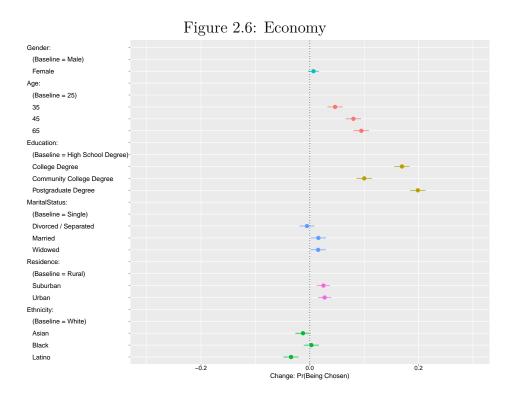


Figure 2.4 and Figure 2.5 plot the AMCEs for the Education and Health Care issue. As a nearly perfect mirror for gun rights, when considering public schools and health insurance,

the female attribute leads to an average of four percentage point increase in the probability that the person would be chosen as an advisor on the issue (0.04, significant at the 0.001 level). Expectedly, this evidence suggests women are perceived as more knowledgeable and thus better able to deal with Educations and Health Care issues.

This relationship was expected based on the stereotypical association of women with more nurturing and gentle personal traits that portray them as more capable of handling issues related to the traditional gender roles that women have at home (Eagly and Karau, 2002). Moreover, it provides further evidence to understand why women are most represented on congress committees that handle issues involving nurturing, caretaking, and managing the home and family (Eagly and Steffen, 1984; Swers, 2002; Childs and Withey, 2004; Dolan, 2006b; Dolan and Lynch, 2014). This explanation is consistent with the effects identified in Figure 2.4 for age and marital status. Those people who are more likely to have children at school (older and not single) are also more likely to be asked for advice on the education issue.



The results show no significant effect of the gender of the putative person on the probability of being chosen for advice in the economic scenario, indicating that the Economy issue is not 'owned' by any of the genders. A higher level of Education and older age are the stronger predictors of who is chosen for advice. In this case, the results are consonant with Huddy and Terkildsen (1993) 's explanation of why they do not expect voters to rate male or female politicians as better able to handle economic issues: "the personality traits that might improve a candidate's standing on economic matters are simply not thought of as exclusively male or female characteristics."

For all the issues, more educated profiles are more likely to be chosen. This suggests that the gender effect, which varies in direction by issue, is not capturing only perceptions about the person's capability but a stereotypical association. These results indicate that people perceive different genders as having differential "ownership" over political issues in the ways I expected. Moreover, the effects are significant for Gun Rights, Education, and Health Care issues and not identifiable for the Economy issue. The effect sizes are small but consistent with those usually detected by conjoint experiments. As explained by Schuessler and Freitag (2020, p. 10), "to get an impression of the magnitudes of published AMCEs, we look at a sample of 15 highly cited forced-choice conjoint experiments. The median of published AMCEs in this sample lies at ca. 0.05, 40% of the AMCEs lie below 0.038 and 25% below 0.020, while 75% lie below 0.087."

Finally, in Figure 2.7 and Figure 2.8 I graph the distribution of responses to the questions "What percentage of men and women would you expect to see in a political meeting organized to debate about the public-schools system/gun rights?"<sup>6</sup>. This question intends to check if there is consistency between those chosen to give advice and those expected to be engaged with the issue. As explained before, the conjoint experiment uses tasks related to information acquisition, which intend to capture whom people believe are more capable of handling the

<sup>&</sup>lt;sup>6</sup>As this question is used to measure one of the outcomes for the engagement experiment, I used only the responses of those who had received a general encouragement to engage in the political activities regarding these issues (without a specific gender or reference to stereotypes)

issues. This question contributes to further understanding of whether those perceived to have 'ownership' (in terms of being more informed/capable) are also expected to be more involved with these issues.

In both issues, we can see a clear distribution of beliefs about how many men would be expected to be found in a meeting to discuss the issues. In the case of Education, more people believe there will be more women than men in the meeting than the other way around. In the case of the Gun Rights discussion meeting, the belief is the opposite. More people believe there will be more men than women in the meeting than the other way around. In both cases, the mean response of women and men are very close (Gun Rights= 57.8% for women and 57.4% for men; Education = 37.8% for women and 41.7% for men), indicating that both genders perceive the issues to be gendered in the same way.

Figure 2.7: What percentage of men and women would you expect to see in a political meeting organized to debate about the public-schools system? (MEN)

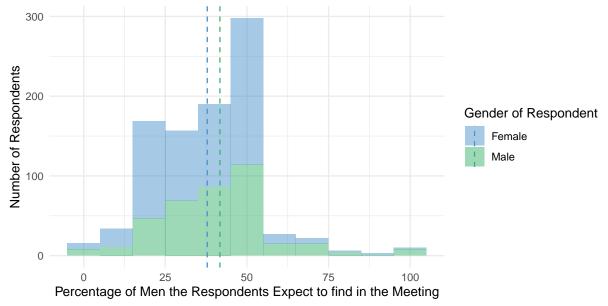
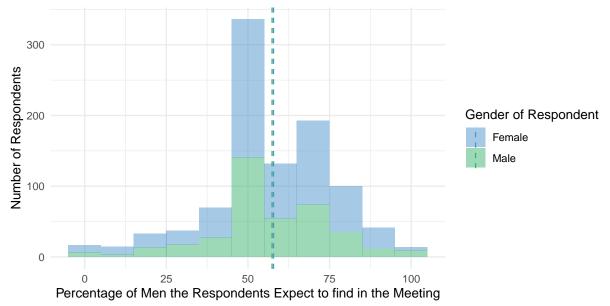


Figure 2.8: What percentage of men and women would you expect to see in a political meeting organized to debate about Gun Rights? (MEN)



The results of the conjoint experiment are the first to my knowledge to present evidence of a gender division of ownership over issues at the mass level. While it is not surprising nor counter-intuitive, this information allows us to avoid making unproved assumptions when testing other mechanisms that explain gendered behavior. The results also present evidence that not every issue is gender-owned. While Education and Health Care were identified as "owned" by women, Gun Rights was identified as "male-owned," and no effect was found on the Economy issue. The findings are consistent with the literature on the topic, which at the elite level identifies that women and men get more engaged and are considered to be better in issues that match their stereotypical gender roles (Atkeson and Rapoport, 2003; Conway, 2001; Huddy and Capelos, 2002; Paxton, Kunovich, and Hughes, 2007). Notwhitstandingly, the experiment identified the associative aspect of 'gendered issue ownership' and assumed its relationship with its 'competence aspect.' More empirical research must examine whether this assumption holds for these cases.

# 2.4 Exposure to Counterstereotypes and Political Engagement

## 2.4.1 Experimental Design

The second experiment tests whether exposure to counterstereotypes on the identified gendered issues affects behavior. Based on Ashmore and Del Boca (1979), and Huddy and Capelos (2002), I define *gender stereotypes* as a set of beliefs about the "personal attributes" of men and women that are applied to an individual based on expectations about women/men in general, but not on the specific individual's attributes. In the same sense, I define a *counterstereotype* as a mismatch between reality and a stereotypical belief, creating dissonance in the subject's judgment.

I chose two policy issues to examine, each of which I expected to be gendered in the United States (Gun Rights - stereotypical gendered male- and Education policy - stereotypical gendered female). The experimental design consists of randomizing the sender of an invitation to participate in one of these issues. The sender of the invitation can be either a stereotypical or counterstereotypical sender (concerning the 'ownership' of the issue) and be either similar or dissimilar to the respondent in relation to their demographic traits. In this sense, the experiment aims to test whether exposure to counterstereotypes can encourage participation by providing evidence that a person who does not match the stereotype of an alleged authority on the issue is indeed involved with that issue. Moreover, it will test the extent to which subject role-model similarity moderates participation effects in counterstereotypical scenarios. For that purpose, I used the demographic information gathered in the initial questions of the survey (age group, state, area of residency, and education level) and programmed it to either match or mismatch the respondent's answers.

For each issue, I used a two-by-two factorial design where I randomly assigned subjects to one of the following groups and analyzed the outcomes by gender and issue<sup>7</sup>:

<sup>&</sup>lt;sup>7</sup>The survey design (see Appendix B.1) also included a control group that received a general encouragement to engage in the political activities regarding these issues (without a specific gender or reference to stereotypes). This control group was used for robustness checks on the index construction, but it is not included in the analysis due to the lack of theoretical expectations.

- 1. In the first treatment group, subjects were encouraged to participate in a political activity associated with a person whose gender is stereotypical regarding the topic. The putative person was described as a long-time activist who shared the subject's views on the issue and had similar demographic characteristics. For example, a man's encouragement to participate in political activities related to Gun Rights would be stereotypical, as would a woman's encouragement to participate in political activities related to Education. I call this treatment "stereotypical similar."
- 2. In the second treatment group, subjects were encouraged to participate in a political activity by a person whose gender is stereotypical regarding the topic but whose demographic characteristics did not match the respondent's. I call this treatment "stereotypical dissimilar."
- 3. In the third treatment group, subjects were encouraged to participate in a political activity by a counterstereotypical person whose demographic characteristics matched the respondent. I call this treatment "counterstereotypical similar."
- 4. In the fourth treatment group, subjects were encouraged to participate in a political activity by a counterstereotypical person regarding the topic (e.g., men for Education and women for Gun Rights) but whose demographic characteristics did not match the respondent's. I call this treatment "counterstereotypical dissimilar."

In all the stereotypical messages, the text emphasized the stereotype by mentioning that the person had been involved with other people of the same gender in that activity and showing a picture where they can only see people of the stereotypical gender participating in an activity. On the other hand, the counterstereotypical treatments included a more general language about "people" getting involved, without reference to gender; a phrase that explicitly stated the counterstereotype (e.g., "Unlike many people's beliefs, there are many women like us who get involved in politics related to Gun Ownership"); and a picture that

showed a mix-gendered activity, to show that the sender of the message is not the unique counterstereotypical person engaged.

In the demographically similar treatments, the demographic characteristics of the sender were programmed to be similar to the respondent's (see Table B.1 in Appendix). The message also included language that intended to signal relatability with the sender (i.e., reference to "people like us"). In the dissimilar treatment groups, the demographic characteristics were programmed to be as different as possible from the sender's.

After seeing the randomly assigned prompt for each issue (the order of the issues was also randomly assigned), the respondents were asked to engage in different ways. The primary outcome variable measures the subject's willingness to engage in activities related to the issue. The "index of political engagement" aggregates the results of four behavioral outcomes<sup>8</sup>:

- Respondents were asked whether they would like to receive more information on organizations where they can get involved. I measured whether the respondent agreed to be contacted.
- 2. Respondents were asked whether they were interested in following different organizations on the topic on social media (a list of links to the social media pages Twitter, Facebook, and Instagram of different organizations is provided). I measured whether the respondent clicked on any of the links.
- 3. Respondents were asked whether they were interested in taking action on the topic and presented with links to the "Take Action" website of different organizations. I measured whether the respondent clicked on any of the links.
- 4. Respondents were shown different links to petitions on the topic and asked to click on the ones they are interested in signing (I also provided a link where they can find a

<sup>&</sup>lt;sup>8</sup>The creation of an aggregated measure of political engagement contributes to the clarity of the chapter as well as controls for imbalances in the preferred way of participation of the respondents.

petition of their interest in the topic). I measured whether the respondent clicked on any of the links.

On top of the index, I include a dummy variable for the behavioral outcomes, which measures whether the respondent participated in *at least* one of the four different activities. Using this outcome, I intend to differentiate the effect on participation from the effect on the intensity of participation (captured by the index).

Finally, I asked respondents what percentage of men and women they would expect to see in a political meeting regarding each topic. This outcome captures how the stereotype about the gender ownership of the issues is affected by the treatments. This way, I can untangle the effect of the treatments on behavior versus beliefs about gender ownership of the issues.

Considering the mixed evidence in the literature, I posit different hypotheses related to the different dimensions of the analysis. The first hypothesis for this experiment (H2) proposes differential effects of exposure to counterstereotypes based on the 'ownership' of the issue. I argue that those who pertain to the gender stereotypically associated with the issue will not be affected by a counterstereotypical encouragement, but those who are not 'owners' would be positively encouraged by this exposure. In other words:

Hypothesis 2 (H2): Exposure to a counterstereotypical encouragement will increase political engagement of respondents who do not match the stereotype (i.e., men being encouraged to participate in "female" issues and women being encouraged to participate in "male" issues), but will have no effect on those who do not match it compared to a stereotypical encouragement.

Hypothesis 3 refers to the similarity of the sender and the recipient of the message, addressing the literature that proposes that counterstereotypical exposures are not enough if they are not deemed as relatable (Asgari, Dasgupta, and Stout, 2012). Similar to the previous hypothesis, I argue that similarity with the sender will encourage those who do not

match the stereotype but not those who match it. In other words, those who already feel like belonging will not be affected by the type of sender, while those who are less likely to feel like belonging will be more mobilized by seeing 'someone like them' participate.

Hypothesis 3 (H3): The similarity in traits of the sender to the respondent will have a positive effect on political engagement of those who do not match the stereotype and no effect on those who match the stereotype.

Hypothesis 4 suggests that the previous mechanisms reinforce each other, and the interaction between demographic similarity with the sender and counterstereotypical exposure will only improve the engagement of those who do not match the issue stereotype.

Hypothesis 4 (H4): The interaction between a counterstereotypical encouragement and the similarity between sender and respondent will have a positive effect on those who do not match the stereotype and no effect on those who match it.

Hypothesis 5 suggests that exposure to counterstereotypes will promote beliefs that participation in the issue is more diverse in terms of gender, regardless of the gender of the receiver. On its side, Hypothesis 6 suggests that the demographic similarity between sender and receiver will not affect beliefs (as it does behavior, according to H3).

Hypothesis 5 (H5): Exposure to a counterstereotypical encouragement will increase the belief that people who identify with the gender that does not "own" the issue gets involved in its activities, compared to a stereotypical encouragement.

Hypothesis 6 (H6): The similarity in traits of the sender to the respondent does not have an effect on the beliefs about which gender participates more in the issue.

I will conduct two-sided tests of the null hypotheses of no effect between treatment groups, using a regression model by gender and issue where I can identify treatment-by-treatment interactions on the right-hand side of the equation to estimate the Conditional Average Treatment Effects (CATEs):

$$Y_i = \alpha + \beta C_i + \gamma S_i + \delta(C_i S_i) + PositionFE + \mu_i$$

Where  $C_i$  is an indicator variable scored one if the respondent is exposed to a counterstereotypical subject and zero if they are exposed to a stereotypical one, and  $S_i$  is an indicator variable scored one if the subject's demographic characteristics are matched and zero otherwise. I include fixed effects to account for the order in which the issue was displayed to the respondent.

For two reasons, the statistical analysis will be done separately by gender and by issue. First, the treatment of stereotypical or counterstereotypical exposure refers to whether the respondent matches the stereotype. We expect different effects on whether the respondent belongs to the gender who "owns" the issue compared to when the respondent is not part of that group. In the second place, by doing separate analyses, we can identify different effects by gender on similar treatments on different issues.

# 2.4.2 Results: Counterstereotypes, Similarity, Beliefs, and Behavior

In the first place, I analyzed the Gun Rights issue. This issue was identified in the previous experiment and descriptive data to be "owned" by men. Therefore, we were expecting that men did not change their behavior when exposed to a counterstereotypical encouragement (a woman), but women to get more engaged when they did. Moreover, we expected women who were encouraged by a woman who was demographically similar to them to participate even more. Finally, we expected both men and women to change their beliefs about what percentage of men participate in political activities related to the issue.

In Table 2.2, we see three regression models for each of the genders. The first one uses

the participation index as the dependent variable, the second one uses the dummy outcome for participation, and the third one uses the percentage of men expected to be seen in a political meeting on the issue.

Contrary to my expectations (H2), women do not get more engaged in political activities on this issue "owned" by men when invited by another woman (compared to when invited by another man). The level of similarity was not identified to have an effect either. Nevertheless, women do change their beliefs when exposed to a counterstereotype (consistent with H5). On average, receiving a counterstereotypical exposure generated a 2,3 points increase in the percentage of women they expected to see in a Gun Rights meeting (a 3.8% increase compared to a stereotypical dissimilar exposure).

The results went as expected for the behavioral outcomes in relation to men. Men invited to participate in an issue in which they have "ownership" participate at the same rates when the message's sender is a woman or a man (partially supporting H2 and H3). Demographic similarity to the sender does not have an effect on the propensity to get engaged either (partially supporting H3). Contrary to our expectation (H5), exposure to counterstereotype does not change the belief about what percentage of men are engaged in the issue.

In this sense, exposure to counterstereotypes does not seem to affect women's behavior in the way the literature suggests. The findings on this issue align with those by (Broockman, 2014b) who presents evidence that seeing more women participate does not encourage other women to participate more, and even when beliefs change, behavior does not change in the same direction. It also shows that the proposed alternative hypothesis does not apply to this case: even when invited by women to whom they can relate, they do not participate more in a male-dominated issue. In this sense, the difficulties that both Gun rights and Gun regulation groups have in mobilizing female sympathizers identified by Goss (2017) do not seem to be solvable by having those women who participate encourage others to get engaged.

An alternative explanation of the null effect is related to the lack of power of the treatment due to the fictional setting in which the exposure takes place. Nevertheless, the small but significant effect of the counterstereotypical treatment on the 'beliefs outcome' shows that the treatment was effective in signaling what it intended, although it may not have been powerful enough to change behavior. Moreover, in the Education model that follows, I identify an effect of the treatment in the expected direction for the counterstereotypical group.

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Table 2.2: Results for Gun Ownership Issue

	Dependent variable:					
	Female Behavior	Female Behavior (D)	Female Beliefs	Male Behavior	Male Behavior (D)	Male Beliefs
	(1)	(2)	(3)	(4)	(5)	(6)
Similarity	-0.046	-0.013	0.137	0.027	0.005	0.344
	(0.030)	(0.018)	(0.778)	(0.040)	(0.024)	(1.010)
Counterstereotype	-0.040	-0.002	-2.293***	0.034	0.012	-1.120
•	(0.031)	(0.018)	(0.790)	(0.039)	(0.024)	(1.003)
Similarity: Counterstereotype	0.060	0.008	-0.279	-0.033	-0.025	-0.302
V V I	(0.043)	(0.025)	(1.111)	(0.055)	(0.034)	(1.415)
Constant	0.581***	0.377***	60.548***	0.606***	0.443***	59.526***
	(0.024)	(0.014)	(0.624)	(0.032)	(0.019)	(0.814)
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Meann	0.39	0.268	59.295	0.473	0.346	59.274
Outcome SD	0.755	0.443	19.086	0.778	0.476	19.488
Outcome Min	0	0	0	0	0	0
Outcome Max	4	1	100	4	1	100
Observations	4,709	4,709	4,709	3,045	3,045	3,045
Adjusted $R^2$	0.047	0.054	0.003	0.037	0.040	-0.0001
Residual Std. Error	0.737 (df = 4704)	0.431 (df = 4704)	19.055 (df = 4704)	0.763 (df = 3040)	$0.466  (\mathrm{df} = 3040)$	19.489 (df = 3040)
F Statistic	$58.629^{***} (df = 4; 4704)$	$67.954^{***} (df = 4; 4704)$	$4.870^{***} (df = 4; 4704)$	$30.606^{***} (df = 4; 3040)$	$32.582^{***} (df = 4; 3040)$	0.926  (df = 4; 3040)

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The results for the Education Issue are presented in Table 2.3. In this case, our expectations mirrored the previous ones. Considering that Education was identified as a "women-owned" issue, I did not expect to see an effect on women's behavior when exposed to a counterstereotypical invitation compared to a stereotypical one. I expected to identify a positive effect of the counterstereotypical exposure, the similarity to the sender, and their interaction on the behavior of men. I also expected a positive effect (for both genders) of the counterstereotypical exposure on their beliefs about the percentage of men participating in an education meeting.

In the results for women, we can confirm our expectations. Women do not participate less or more when encouraged to participate by a man in an issue that is "owned" by their gender (partially supporting H2). We can also see that counterstereotypical exposure does change the belief about how many men get involved in women's issues in the direction that was expected: a 1.6 percentage point (significant at the 0.05 level) increase in the percentage of men expected to find in a meeting to discuss the public school system (H5). The results show that the interaction between counterstereotype and similarity has a negative effect (-2.32 percentage points, significant at the 0.05 level) on the percentage of men the respondents expect to see at the meeting. Contrary to expectations on H6, whenever women are invited to participate in Education issues by a man, they believe that more men get engaged in the issue when the sender is not similar to them (1.58 percentage points, significant at the 0.05 level). Whenever the sender is similar to them, the interaction's effect outweighs the counterstereotype's effect (-2.31 percentage points, significant at the 0.05 level), leading the respondent to believe that there are more women involved in the issue (in comparison to a stereotypical dissimilar exposure).

For men, the results show a very interesting finding. Both relevant independent variables (counterstereotype and similarity) positively affect the respondent's behavior (partially supporting H2 and H3). Men participate 0.08 points more in the participation index when the sender is another man and 0.09 points more when the sender is similar in traits to themselves

(a 43% and 47% relative increase, respectively, in the index compared to a stereotypical dissimilar exposure). Nevertheless, the interaction between the two variables has a negative effect on men's behavior of 0.15 points (significant at the 0.001 level) in the participation index (contrary to the expectation of H4).

The results for the dichotomic outcome are more intuitive for interpretation; men whom other men invite are on average 6.1% more likely to get engaged in at least one of the proposed activities than those invited by a woman, and 4.3% more likely when the sender is demographically similar to them. Nevertheless, when the invitation comes from a man demographically similar to them, they are only 1% more likely to get engaged compared to a stereotypical dissimilar encouragement. In other words, men participate more when invited by another man who is demographically dissimilar to them or by a woman who is similar to them, but not more when invited by a similar man, compared to a dissimilar woman.

Finally, we can see that my expectations were not met for the belief outcome (H5 and H6). While there is no effect of counterstereotypical exposure on the percentage of men expected to see in the meeting (H5), similarity to the sender has a 2.7 percentage point (significant at the 0.01 level) increase effect on the outcome (contrary to H6). Once again, the interaction between the two independent variables has a negative effect (-2.158, significant at the 0.1 level), which means that the effect of the similarity is almost outweighed when the message's sender is another man.

The magnitudes of the effects need to be contextualized for interpretation. Only a small proportion of the male participants (34%) got engaged in at least one of the outcomes for the Education issue. This may be related to the unrealistic setting of the experiment but also reflects general low levels of political engagement<sup>9</sup>. In this sense, the small magnitude of the effect reflects a substantive change considering the low baseline level of participation in the

<sup>&</sup>lt;sup>9</sup>A 2021 survey by Education-Next (2021) showed that 65% of respondents responded 'never' or 'almost never' to 'How frequently do you participate in political activities to support a candidate or issue, such as making phone calls, campaigning door-to-door, or distributing leaflets?'. Another survey showed that 87% of the population rarely or never signed a petition in the last 12 months (*Gallup–Knight Foundation Survey*, 2021 [Dataset] 2021).

American society and the limitations of the research design. For future research, it would be interesting to interact these results with the level of engagement of the respondents to identify heterogenous effects by levels of participation to further contextualize the magnitude of the effect.

For the education issue, the independent effect of counterstereotypical exposure and similarity of the sender are the expected ones in the literature (Asgari, Dasgupta, and Stout, 2012). Nevertheless, the interaction between them identifies an unexpected adverse effect that is surprising<sup>10</sup>. One possibility is that men felt discouraged from participating in a "women-owned" issue when they saw someone they could relate to because seeing someone like them participate reinforces their idea that they do not belong there. Another possibility is that seeing someone like them participate shows that their voices are already represented in this issue and minimizes incentives to get engaged. While both alternatives seem plausible, the negative effect of the interaction between similarity and counterstereotypes on the beliefs about more men being involved makes the second explanation less plausible. In any case, when they see a man who is different from them, the mismatch between stereotype and ownership does not show in the same way as when they see someone exactly like themselves participate. A third explanation can also be that seeing a man similar to them as the sender made the treatment less believable or more obvious, affecting their behavior. This explanation seems weaker because I would have found similar results in the women's models in the Gun Rights issue.

 $<sup>^{10}</sup>$ While the experimental design with random allocation of treatments ensures balanced samples between treatment groups and unbiased estimates, alternative models including party/ideology and ethnicity controls by respondents showed that the results are robust

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Table 2.3: Results for Education Issue

	Dependent variable:					
	Female Behavior	Female Behavior (D)	Female Beliefs	Male Behavior	Male Behavior (D)	Male Beliefs
	(1)	(2)	(3)	(4)	(5)	(6)
Similarity	-0.012	0.003	0.989	0.077**	0.061***	2.669***
V	(0.028)	(0.018)	(0.648)	(0.036)	(0.024)	(0.873)
Counterstereotype	-0.002	0.003	1.583**	0.090**	0.043*	1.085
	(0.028)	(0.018)	(0.655)	(0.036)	(0.024)	(0.873)
Similarity: Counterstereotype	-0.017	-0.006	-2.316**	-0.155***	-0.095***	$-2.158^*$
· · · · · · · · · · · · · · · · · · ·	(0.039)	(0.025)	(0.917)	(0.050)	(0.033)	(1.221)
Constant	0.213***	0.155***	36.618***	0.191***	0.176***	40.404***
	(0.022)	(0.014)	(0.519)	(0.029)	(0.019)	(0.704)
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Meann	0.357	0.265	37.357	0.443	0.342	42.28
Outcome SD	0.691	0.442	15.725	0.716	0.474	16.852
Outcome Min	0	0	0	0	0	0
Outcome Max	4	1	100	4	1	100
Observations	4,709	4,709	4,709	3,045	3,045	3,045
$\mathbb{R}^2$	0.051	0.061	0.002	0.081	0.082	0.004
Residual Std. Error	0.674 (df = 4704)	0.428 (df = 4704)	15.720 (df = 4704)	0.687 (df = 3040)	0.455 (df = 3040)	16.828 (df = 3040)
F Statistic	$63.055^{***} (df = 4; 4704)$	$76.803^{***} (df = 4; 4704)$	1.823  (df = 4; 4704)	$67.171^{***} (df = 4; 3040)$	$67.926^{***} (df = 4; 3040)$	$3.157^{**} (df = 4; 3040)$

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Overall, the results bring an exciting insight to explaining political engagement in civil society organizations, where it is more usual to see men as allies of women in their issues than the other way round. The findings suggest that when men dominate the issue, women do not engage more if they see more women participating, not even if they can relate to these women. On the other side, men participate more in women's issues when they get encouraged by another man who is not similar to them or even by a woman to whom they can relate. The latter is particularly relevant as it is more likely to happen in a real-world setting. People are more likely to be invited to participate in an issue by someone of the gender who "owns it".

The reasons why counterstereotypical encouragement has different effects by gender still need to be explored. Previous studies have explained different patterns of behavior by gender when exposed to similar situations based on socialization theories. For them, "women tend to be more passive than men in stating controversial opinions and directing others to implement those views. That is, they are less motivated to carry influence in allocating values and resources because that activity is deemed masculine territory" (Karpowitz, 2014, p. 40). If this is the case, gender stereotypes would perpetuate gender gaps more than I initially expected.

These findings present a significant challenge to organizations that seek to end unequal participation by presenting counterstereotypical incentives. If women do not engage more on "men-owned" issues, but men engage more on "women-owned" ones when presented with counterstereotypes, these interventions will only reduce gender gaps in participation in "women-owned" issues. This difference is particularly worrisome in issues such as gender violence, where the literature has shown that having men as allies led to the reproduction of gender inequality practices within the organizations (Macomber, 2012). Moreover, evidence has also shown that men are more vocal than women when being minorities (Mendelberg, Karpowitz, and Oliphant, 2014; Mendelberg and Karpowitz, 2016; Karpowitz, 2014), generating further inequalities in the voices that are heard for representation. In this sense,

women would be worse off in their organizations and not better off in male-dominated ones.

As this study does not test the effect of the encouragement itself (versus no encouragement), I cannot confirm that men are more easily encouraged to participate than women. However, considering that people are usually recruited into political activities directly by other people, we find that there is a way of increasing the participation of men in a "female-owned" issue, but there is no evidence that the same happens for women.

### 2.5 Conclusion

In this chapter, I conducted two survey experiments that address different gaps in the literature on gender and political behavior. The conjoint experiment systematically documents the extent to which the public perceives political issues as gendered. The engagement experiment looks for evidence to clarify the mixed results in previous studies about how exposure to counterstereotypes affects political behavior and beliefs at the mass level. It tests the alternative explanation that the type of counterstereotype may matter when assessing the effects of their exposure. I used a two-by-two factorial design to test the hypotheses for women and men on both women and men "owned" issues (Education and Gun Ownership).

The results of the conjoint experiment are the first to my knowledge to present evidence of a gender division of ownership over issues at the mass level. The findings are consistent with the literature on the topic, which at the elite level identifies that women and men get more engaged and are considered to be better in issues that match their stereotypical gender roles (Atkeson and Rapoport, 2003; Conway, 2001; Huddy and Capelos, 2002; Paxton, Kunovich, and Hughes, 2007). While Education and Health Care were identified as "owned" by women, Gun Rights was identified as "male-owned", and no effect was found on the Economy issue. The evidence from this experiment shows the existence of the 'associative' aspect of gendered 'issue ownership' (Walgrave, Lefevere, and Tresch, 2012). Further research needs to be done to prove the assumption that this association is intrinsically related to the attribution of more capability to the owner of the issue.

The results of the encouragement experiment are very interesting. For respondents who match the "ownership" of the issue (women for Education and men for Gun Ownership), there was no identifiable effect of the counterstereotypical exposure, of the similarity of the sender, or of the interaction between them, on the behavior of the respondents. The lack of effect matched my expectations. I did not expect the behavior of the 'owners' of the issues to change based on the gender of the sender of the invitation.

The results are more surprising when exposing people to counterstereotypical encouragement on issues that are not "owned" by their gender. In the case of women, I did not find an effect of counterstereotypical exposures, regardless of the type, on their political behavior on the Gun Rights issue. Nevertheless, counterstereotypical encouragement affects female beliefs about more women being engaged on the issue. The identified lack of effect confirms the difficulties associated with mobilizing women in male-dominated issues (Goss, 2017). The findings also align with those by (Broockman, 2014b), who shows women do not participate more when they see other women participating, even when their beliefs about participation change.

The results for men are very different. The counterstereotypical exposure and the similarity to the sender have a small positive effect on the behavior of men in Education issues. Holding all the other factors constant, men participate more when encouraged to participate by another man and when the sender of the invitation is similar in traits to them. Nonetheless, the interaction of the two factors has a negative effect that almost outweighs the direct effect of the two variables. In other words, men participate more in Education issues when invited to participate by another man, but when that man is similar to them, the effect is practically unexistent. They also participate more when invited by a woman similar in traits (compared to a dissimilar or a similar man). This last scenario is particularly relevant as it is the most likely to happen in a real-life setting.

One possibility to explain these findings is that men felt discouraged from participating in a "women-owned" issue when they saw someone they could relate to because seeing someone like them participate reinforces their idea that they do not belong there. In other words, when they see a man who is different from them, the mismatch between stereotype and ownership does not show in the same way as when they see someone exactly like themselves participate. In the same sense, relatability has a positive effect, especially when the sender is a woman. The encouragement from a woman similar to them promotes their participation and increases the belief that more men are engaged in Education issues. An alternative explanation can also be that seeing a man similar to them as the sender made the treatment less believable or more obvious. This explanation seems less plausible as it was not mirrored in the male 'owned' issue.

Overall, the results bring an interesting insight to explaining political engagement in civil society organizations, where it is more usual to see men as allies of women in their issues than the other way round. The findings also challenge organizations that seek to end unequal participation by presenting counterstereotypical incentives. If women do not engage more on "men-owned" issues, but men engage more on "women-owned" ones when presented with counterstereotypes, these interventions will only reduce gender gaps in participation in "women-owned" issues. In this sense, women would be worse off in their organizations and not better off in male-dominated ones.

To conclude, it is essential to address some of the challenges of this research. Based on the literature, I expect gendered 'issue ownership' to be highly correlated to gender stereotypes on each gender's role in society (Eagly and Karau, 2002), with issues related to the traditional roles of women as home carers and raising the children to be attributed their gender. Whereas the conjoint experiment's results present evidence of gender division of ownership over issues, the evidence is not exhaustive for every political issue. More research is needed to confirm if the results can be generalized to all issues in which one gender potentially has "ownership". Moreover, the engagement experiment tests the effect of counterstereotypical exposures of different types (similar and dissimilar in traits to the subject) on just two issues (Education and Gun Rights). Testing the mechanisms for other issues would present further insights,

particularly in issues where there are gender differences in preferences or attention towards them(Shapiro and Mahajan, 1986).

In the second place, the experimental setting of the survey is not a real-world setting that resembles a scenario where people are invited to get engaged. Replicating the experiment in a closer-to-reality setting can be a good next step to verify the results. For example, recruiting respondents through social platforms (e.g., using Facebook for Business) may resemble better a setting in which people are encouraged to get engaged. While the sample would be less representative of the general population (compared to my sample), it would present a more realistic setting and, thus, increase the power of the treatments.

Finally, I assume in this chapter that people feel more related to people who are similar in traits to themselves. It would be interesting for further research to test the effect of similarity in ideology and/or life experiences. For example, if the sender and receiver of the message have had similar life experiences with the issue (i.e., exposure to gender violence), that may create a stronger bond than a match in demographic characteristics.

# Chapter 3: Do the Benefits of Descriptive Representation Require a Specific Match? Evidence from an Audit Experiment of State Legislators

### 3.1 Introduction

This chapter presents the final results of an audit study designed to explore intra-minority dynamics at the elite level in the state legislatures of the United States. While a lot has been said about the benefits of descriptive representation for those members of the represented groups (Bratton and Haynie, 1999; Bratton, Haynie, and Reingold, 2007; Bratton, Haynie, and Reingold, 2010; Canon, 1999; Grose, 2011; Tate, 2003; Fenno, 2003; Lowande, Ritchie, and Lauterbach, 2019), little has been studied on how other minorities could benefit from having a cominority representative. Therefore, this audit study aims to identify whether legislators from different ethnoracial groups present different levels of responsiveness towards coethnics, cominorities, or non-coethnics that could reflect patterns of between-group solidarity.

The experimental design by Rivera-Burgos and Rubio (2019) consists of each one of 5,911 state legislators with an available valid email address being sent an email by a putative Black, White, or Latino constituent. The treatment consists of a combination of the ethnoracial cue posed by the sender's name and an explicit mention of the ethnoracial group in the text of the email (for Blacks and Latinos). The ethnorace of the sender, the type, and the text of the email were randomized at the individual legislator level. The outcomes of interest departed from the usual use of response rate as the unique indicator of responsiveness bias. I also included three new variables to measure different aspects considered in the literature to be indicative of responsiveness: the quality of the response, the level of informality in the

salutation, and the level of engagement of the legislator with the response.

In the analysis, I differ from the previous literature in two ways. On the one hand, I shift the focus from White legislators and Minorities as a homogeneous group to exploring between-minority dynamics. By analyzing the results by ethnoracial identity of the legislators, I can identify discrimination patterns by ethnoracial group. On the other hand, I use four indicators of responsiveness as outcomes to identify different types of bias in legislators' responses that could potentially have different consequences in terms of representation.

My findings are in accordance with the preliminary findings of Rivera-Burgos (2020) in that Latino constituents are the most disadvantaged citizens. I find significant differences in all outcomes of interest that indicate biases against Latinos, mostly among White and Republican legislators. Moreover, I find evidence that Latinos have a sense of cominority solidarity toward Blacks, which is expressed in favoring them alongside Latinos when compared to Whites for several outcomes. Blacks, on their side, do not present signs of reciprocating this solidarity. Findings show they are not biased against any ethnoracial group when responding to constituents' service requests.

The chapter is organized as follows. First, in Section 3.2 I review the literature on descriptive representation, coethnicity, and representation. Next, in Section 3.3 I outline the design of the experiment, explain this chapter's contributions to the previous analysis of the experimental data, and discuss the ethical considerations. I then present and discuss the results of the analyses (Section 3.5, considering all legislators as a whole and the heterogeneous treatment effects by their ethnoracial and partisan identity. Finally, I present the conclusions of the study in Section 3.6.

# 3.2 Theoretical Framework

### 3.2.1 Descriptive Representation, Responsiveness, and Cominority Solidarity

Are minority groups equally well represented by members of their same minority groups than by members of other minority groups? Do the benefits of descriptive representation require a specific match? The literature on this subject has not provided a conclusive answer. While ethnoracial minorities are underrepresented in national and state legislatures in the United States<sup>1</sup>, there is general agreement that electing more members of minority groups presents benefits for the democratic system such as increasing participation and representation of those specific groups (Bratton and Haynie, 1999; Bratton, Haynie, and Reingold, 2007; Bratton, Haynie, and Reingold, 2010; Canon, 1999; Grose, 2011; Tate, 2003; Fenno, 2003; Lowande, Ritchie, and Lauterbach, 2019). The magnitude of these effects are even larger than those of partisanship (Canon, 1999; Tate, 2003).

In the case of the United States, we know that African-Americans and Latinos are better represented in their policy preferences by coethnics than by Whites (Minta, 2011; Griffin and Newman, 2008). Previous audit studies also show that legislators are more responsive to White than to minority constituents (Butler and Broockman, 2011). Nevertheless, little has been studied about the effects of descriptive representation on the behavior of cominority groups (minorities other than the one occupying the seat). Moreover, there are different speculations about the quality of representation by legislators of the same or different minority identities. Griffin and Newman (2008) considers that Black legislators may not represent Latino constituents better than White legislators, while Minta (2011) considers any tension that may exist between the two groups does not impede cooperation in policymaking.

In the case of African-Americans, Dawson (1995) proposed the theory of *linked fate* to explain how the belief of Blacks that their individual fate is tied to that of their racial group affects their political behavior. Blacks evaluate policies, parties, and candidates based on the benefits they will posit to their group (used as a proxy of their individual benefit) (Dawson, 1995; Tate, 2003; McClain et al., 2009). The stronger the sense of linked fate among coethnics, the more cohesive the group preferences and behaviors are (Verba and Nie, 1987; Dawson, 1995). At the elite level, the sense of linked fate reflects in Black legislators being

 $<sup>^1</sup>$ According to the National Conference of State Legislatures (2016), African-Americans represent 13% of the U.S. population but only account for 9% of state legislators, and Latinos represent only 18% of the population and 5% of state legislators.

"substantially more intrinsically motivated to advance blacks' interests" (Broockman, 2013, p. 522).

Based on this theory, scholars have assessed whether a sense of linked fate exists among other minority groups (McClain et al., 2009; Gay, Hochschild, and A. White, 2014). For Latinos, there is evidence that some Latinos perceive this sense of belonging despite the lack of shared history in the United States, but this sense is a temporary phenomenon that cannot be generalized to all the group, nor every period. (Sanchez and Masuoka, 2010). On her side, Masuoka (2008) presents evidence that when Latino racial group consciousness is present, it is the factor most linked to their political behavior. Sanchez and Vargas (2016) go a step further and argue that Latinos do not have a sense of linked fate but a sense of commonality. They explain that the identification of a person with a racial or ethnic group does not mean per se that they think that what happens to the group as a whole would affect their individual lives or political opinions.

In this chapter, I try to identify whether there is a sense of commonality that translates into cominority solidarity between minority groups and leads minority representatives to benefit all minorities and not only their specific groups. I explore black-latino relations at the elite level by measuring elected officials' responses to minority constituents. This way, I intend to open the black box of using the term 'minorities' when assessing behavior at the elite level, and to identify behavioral patterns between ethnoracial minorities.

The evidence to support the existence of cominority solidarity has been mixed. On the one hand, some think that "descriptive representatives take positional cues from sharing a background with their own coethnic groups, not from a universal minority advocacy cue" (Preuhs and R. E. Hero, 2011, p. 158). Blacks represent Blacks, and Latinos represent Latinos, as each group relies on different cues for policy advocacy. This idea is backed by evidence that Latinos do not think they share similar problems to Blacks (Fraga, J. A. Garcia, R. E. Hero, et al., 2011) and that they perceive they have less in common with African Americans and Whites than what these groups perceive of them (Espino, Leal,

and Meier, 2008). Blacks and Latinos support coethnic candidates in local elections but not necessarily candidates from other minority groups over Whites (Benjamin, 2017). For supporters of this position, being minorities does not make Latinos and Blacks natural allies (Benjamin, 2017), especially when considering the very different histories and discrimination experiences of these two groups (Espino, Leal, and Meier, 2008; F. C. Garcia, 1988).

On the other hand, Dovi (2002) believes that representatives and historically disadvantaged groups recognize each other to identify preferable descriptive representatives. Fraga, J. A. Garcia, R. E. Hero, et al. (2011) find evidence that a sense of liked fate exists between African-Americans and Latinos. Moreover, 40% of first-generation Latinos answered "a lot," and another 26% answered "some" when asked 'how much they believed that their "doing well depended on African-Americans also doing well" (Fraga, J. A. Garcia, R. Hero, et al., 2006). There is also evidence that Latinos identify slightly more with African-Americans than with Whites (Jones-Correa, 2011; Wilkinson, 2014). From this point of view, Latinos may exhibit some minority solidarity with Blacks due to having similar policy preferences and a sense of commonality (Espino, Leal, and Meier, 2008).

There is also a possibility that not all minority groups share this sense of solidarity; thus, the behavior would differ for different minority groups. Adida, Davenport, and McClendon (2016) find in a survey experiment on the effect of coethnic and cominority cues on voters' evaluations and monetary support for Afro-Latino legislators that Blacks respond positively to coethnic and minority cues. At the same time, Benjamin (2017) finds that Latinos' response is more muted.

In practical terms, it is reasonable to think that minorities would benefit by acting as a coalition. This way, they could balance the disadvantages of being minorities in the representative bodies by acting as a collective bloc (Sanchez and Masuoka, 2010). While some consider that this collaboration only would be beneficial under specific circumstances ("the prospects for political coalition will be inexorably tied to the relative size of the two groups, their joint local political history, the perception of rivalry or cooperation with respect to

resources, and the available candidate" (Espino, Leal, and Meier, 2008, p. 149)), the current context seems to meet these conditions. In recent years, the Latino or Black identified American population has drastically increased (N. A. Jones and Bullock, 2012), and the number of White non-Hispanic voters has declined (Barreto and Manzano, 2013).

This audit study estimates the effect of coethnic and minority cues on legislators' responsiveness. It departs from previous literature, which focused mainly on White elected officials' behavior toward minority groups (as a whole), to examine the differences in behaviors towards different ethnoracial groups by legislators with distinct ethnoracial identities. Aside from the preliminary findings by Rivera-Burgos (2020), this is the first study to employ an audit experiment to answer these questions.

Previous audit studies have shown conclusive evidence of racial bias in the rate and quality of the responses (Costa, 2017). This evidence has shown not only unequal levels of responses with a focus on White-Black relations (Butler and Broockman, 2011; Butler and Crabtree, 2017) but also against Latinos (especially by Republican legislators and bureaucrats) (Mendez, 2014; Janusz and Lajevardi, 2016; Einstein and Glick, 2017; A. R. White, Nathan, and Faller, 2015) and Asian-Americans (Gell-Redman et al., 2018). Fenton and Stephens-Dougan (2022) also explore Black intra-group politics and conclude that there is no evidence of intra-group discrimination. None of these studies has analyzed the dynamics of different minority groups.

In the experimental design (Rivera-Burgos and Rubio, 2019), we follow Adida, Davenport, and McClendon (2016, p. 2) in defining a coethnic cue as "a cue appealing to the respondent's ethnic or racial self-identification" (for a Black respondent, this would be a Black cue; for a Latino respondent, this would be a Latino cue). Similarly, a cominority cue is "a cue appealing to the respondent's identification as part of an ethnic, but not a coethnic, minority group (for a Black respondent, this would be a Latino cue; for a Latino respondent, this would be a Black cue)." Based on previous research and our initial expectations, I present the following hypotheses:

 $H_{1a}$ : Legislators' responsiveness level is greater for White than Black constituents.

 $H_{1b}$ : Legislators' responsiveness level is greater for White than Latino constituents.

 $H_{1c}$ : Legislators' responsiveness level is not equal for Black and Latino constituents.

 $H_{2a}$ : Black legislators' responsiveness level is greater for Black than Latino constituents.

 $H_{2b}$ : Black legislators' responsiveness level is greater for Black than White constituents.

 $H_{2c}$ : Black legislators' responsiveness level is greater for Latino than White constituents.

 $H_{3a}$ : Latino legislators' responsiveness level is greater for Latino than Black constituents.

 $H_{3b}$ : Latino legislators' responsiveness level is greater for Latino than White constituents.

 $H_{3c}$ : Latino legislators' responsiveness level is greater for Black than White constituents.

 $H_{4a}$ : White legislators' responsiveness level is greater for White than Black constituents (Butler and Broockman, 2011).

 $H_{4b}$ : White legislators' responsiveness level is greater for White than Latino constituents (Butler and Broockman, 2011).

 $H_{4c}$ : White legislators' responsiveness level is not equal for Black and Latino constituents.

Hypotheses  $H_{1a}$ ,  $H_{1b}$  and  $H_{1c}$  refer to the responsiveness levels of all legislators taken together. While there are clear expectations from the literature concerning differences in responsiveness levels to White vs. Black/Latinos constituents, the expectations for differences between minority groups are less clear. History of discrimination against both groups could explain differences in any direction.

Hypotheses  $H_{2a}$  to  $H_{4c}$  refer to the heterogeneous effects of ethnicity by ethnoracial identity of the legislators. In all cases, I expect legislators to be more responsive to ingroup constituents (White to Whites, Black to Blacks, and Latino to Latinos). I also expect Black and Latino legislators to identify themselves as part of a larger minority group (Adida, Davenport, and McClendon, 2016) and, thus, respond to coethnic and cominority cues. In

other words, I expect members of minority groups (Blacks and Latinos) to be more responsive to members of the other minority group than to Whites.

Finally, Hypotheses  $H_{5a}$ ,  $H_{5b}$  and  $H_{5c}$  present expectations in relation to partisanship identity of the legislators. I expect Republican legislators to be biased against Black and Latino legislators. Their bias against Blacks has been evidenced in the results of Butler and Broockman (2011)'s audit study, in which they find lower response rates to Black than White aliases. Their expected bias against Latinos is based on the increasing Anti-Latino attitudes evidenced mainly in the design of immigration policy during the last Republican administration (Daniller, 2019). Considering the running times when the experiment takes place, I expect the bias against Latinos to be bigger than the bias against Blacks. At the same time, I expect Democrats to be biased towards minority groups, not only because of the ethnoracial composition of their voters <sup>2</sup> but also because of their increasing identification as the party of the minorities (especially during the Trump administration). When comparing both minority groups, I do not have clear expectations about whom they will respond to the most.

 $H_{5a}$ : Republican legislators' response rate is greater for White than Black constituents.

 $H_{5b}$ : Republican legislators' response rate is greater for White than Latino constituents.

 $H_{5c}$ : Republican legislators' response rate is greater for Black than Latino constituents.

 $H_{6a}$ : Democratic legislators' response rate is greater for Black than White constituents.

 $H_{6b}$ : Democratic legislators' response rate is greater for Latino than White constituents.

 $H_{6c}$ : Democratic legislators' response rate is not equal for Black and Latino constituents.

 $<sup>^2\</sup>mathrm{According}$  to Pew Research Center, 86% of Republican voters and 57% of Democratic voters in 2016 were White.

#### 3.2.2 Preliminary Findings

This experiment was designed in collaboration with Viviana Rivera-Burgos (Rivera-Burgos and Rubio, 2019). Shortly after the experiment was launched, she conducted a preliminary analysis of the results (Rivera-Burgos, 2020). With the available data at that moment, she found that Latino legislators exhibit a form of minority solidarity by being more responsive to Black constituents than to White constituents. In this sense, Black voters could benefit from electing a Latino representative over a White one. Nonetheless, the inverse relationship does not hold. There is no evidence that Black legislators present different levels of responsiveness to different ethnoracial groups. Moreover, she finds evidence that Latino constituents are the most disadvantaged when observing White legislators' behaviour and Republican ones.

In her paper, she used a marketing-oriented platform (*Prospect*) to track which legislators had opened and responded to until approximately three weeks after reception. The outcome variables were limited to the open and reply rates based on the information gathered by the platform. This chapter extends the analysis to include more observations and outcomes (see Sub-section 3.3.4 below for details), aiming to confirm and extend the preliminary findings.

## 3.3 Experimental Design

This chapter presents the results of an audit experiment implemented in early February 2020. The between-subject design<sup>3</sup> aims to capture the effect of ethnoracial constituent cues on the legislators' level of responsiveness.

<sup>&</sup>lt;sup>3</sup>The design of this audit experiment was initially intended to identify within-subject variations in the level of responsiveness (see: Rivera-Burgos and Rubio (2019)). Nevertheless, the unforeseen circumstances of the COVID-19 pandemic resulted in only one round of emails (out of three) being sent to the legislators.

#### 3.3.1 State Legislators Sample

We selected the sample of state legislators during 2019 by identifying all legislators' names on the 49 states' legislative websites<sup>4</sup>. Then, we determined each legislator's ethnoracial identity based on their names, caucuses membership, biographical description, and/or phenotypes by using official websites, personal pages, and legislative rosters for reference. We cross-referenced the classification with data from the National Association of Latino Elected Officials, the National Black Caucus of State Legislators, and the National Conference of State Legislatures. Finally, when still in doubt, we contacted state legislative offices to ask for the legislators' ethnoracial self-identification.

We assessed the validity of the legislators' emails using an online email verification service (BriteVerify). When possible, we replaced the emails we identified as invalid with alternative ones found through an ad hoc online search. We repeated the process and included only those legislators with a verified email address in the dataset. This process resulted in a sample of 7,276 state legislators with a valid email addresses. They represent 99.2% of the total population of state legislators (N=7,334) in 2019.

Finally, the sample size was further reduced after the implementation of the experiment by two factors: i) the spam filters that some legislative mail services use (that resulted in hard bounces); ii) the unforeseen invalidity of some email addresses (i.e., when automatic responses informed that those email addresses were no longer in use/monitored). The final dataset comprises 5,911 legislators' emails, which represent 81.23% of the original sample and 80.1% of the total population. Table 3.1 shows how the sample is representative of the whole population of legislators by comparing rates of ethnoracial and partisan identity.

<sup>&</sup>lt;sup>4</sup>Nebraska's unicameral and non-partisan legislature was excluded.

Table 3.1: Ethnoracial and Partisan Composition of State Legislators in the Samples

	With Valid	lated Email	Received the Email		
	Frequency	Proportion	Frequency	Proportion	
Ethnoracial ID					
White	6,059	0.833	4824	0.816	
Black	733	0.101	650	0.11	
Latino	289	0.040	263	0.044	
Asian American	133	0.018	121	0.020	
Other	62	0.009	52	0.009	
Party ID					
Democrat	3,435	0.472	2,776	0.469	
Republican	3,819	0.525	3,115	0.526	
Independent	22	0.003	20	0.003	
Total	7,276		5,911		

#### 3.3.2 Treatment Conditions

The experiment consists of a between-subjects design in which each legislator was randomly assigned to one of three treatment conditions: a White, a Black, or a Latino constituent. For each treatment condition, the legislator received an email that contained an implicit ethnoracial cue based on the alias of the constituent and an explicit mention of the ethnoracial identity within the body of the email (only for the minority groups)<sup>5</sup>.

We made two decisions to minimize the risks of violating the non-interference condition. Firstly, following Bertrand and Mullainathan (2004), we selected three sets of names and surnames for each ethnoracial group. Initially, we chose five surnames from the "Frequently Occurring Surnames in the 2010 Census" report (Comenetz, 2016) and five names (for each group) from lists of common Latino, White and Black names in the United States. To verify our choice, we conducted an M-Turk pretest (N=100) in which we asked the respondents to match the presented full names to the three ethnoracial groups. Those three who were matched with the expected group the most times were selected to be used in this experiment (see results in Table C.1 in Appendix C.1).

Table 3.2 presents the list of putative White, Black, and Latino names and surnames.

<sup>&</sup>lt;sup>5</sup>The use of racially distinctive names to signal ethnicity is based in the excludability assumption that these names do not signal any other factors about the subjects. While critics of using name cues consider they violate this assumption (Landgrave and Weller, 2022), empirical evidence from previous audit studies shows that it is reasonable to believe that this assumption holds (Butler and Homola, 2017).

The gender of the sender was set to Masculine, and their partisan identity was set to match the receivers' to avoid gender and partisan effects (Magni and Leon, 2021; Rhinehart, 2020) and increase the power of the experiment.

Table 3.2: Putative White, Black, and Latino Names and Surnames

White Alias	Black Alias	Latino Alias
Jake Anderson	Tyrone Washington	José García
Dustin Miller	Jamal Jackson	Juan Hernández
Connor Clark	DeShawn Banks	Héctor Ramírez

Secondly, the theme and text of the email were also randomly assigned. The possible email themes were either an inquiry about internship opportunities, a request on how to get involved in the upcoming campaign (2020), or a general request for advice on how to become politically involved. The selection of these themes was based on the evidence that constituency service request is less likely to be perceived as contentious than policy-oriented messages (Butler, Karpowitz, and Pope, 2012). Within these three main themes, the text of the email was also randomly assigned from three different options (divergent in their wording). Figures C.1, C.2 and C.3 in Appendix C.2 provide the full text of the emails. This way, each legislator received one of 81 possible combinations of emails, resulting from 9 different aliases, three different topics, and three different email texts.

#### 3.3.3 Identification Strategy

The main estimands of interest are the Conditional Average Treatment Effects (CATEs) by ethnoracial identity of the legislators. These imply the calculation of the difference in means in outcomes between the different treatment groups using subsets of data based on the ethnicity of the receiver. While the Average Treatment Effects (ATEs) presents the overall differences in outcomes within treatment groups (White minus Black:  $\bar{y}_W - \bar{y}_B$ , White minus Latino:  $\bar{y}_W - \bar{y}_L$ , and Black minus Latino:  $\bar{y}_B - \bar{y}_L$ ), the CATEs allow identifying heterogeneous effects based on pre-existing conditions.

We also included two other estimands: the difference in outcomes means between White

aliases and Minority aliases  $(\bar{y}_W - \bar{y}_M)$  and the difference between White and Black aliases and Latino aliases  $(\bar{y}_{WB} - \bar{y}_L)$ . Their inclusion responds to the aim to identify evidence of cominority solidarity among members of the two minority groups.

The dataset we constructed for this experiment included additional variables: information on legislators' race, sex, party, state, chamber, and district; states' population by race; legislatures' total number of seats, number of seats by party, majority party, professionalization score and rank (Squire, 2017), whether term limits exist, and number of full-time staff. These variables were used for additional Ordinary Least Square (OLS) models, including legislators, legislatures, and state-level controls.<sup>6</sup>

#### 3.3.4 Outcomes and Contribution

In this chapter, I extend the preliminary analysis of this experimental data by Rivera-Burgos (2020) in three ways. First, I extend the time horizon of responses to all replies received after sending the email (as opposed to only three weeks after)<sup>7</sup>.

In the second place, I manually codified all the outcomes of interest. While Butler and Crabtree (2017) suggests using automated software as a more efficient way of coding the outcome variables, I found a manual approach to be more accurate. Manually coding the outcomes by reading all the incoming emails allowed me to identify automatic messages

<sup>&</sup>lt;sup>6</sup>The random assignment of treatment signifies that the estimates are unbiased and, hence, there is no need to control by covariates. Nevertheless, I include the alternative models per consideration that controlling for covariates can reduce the variability of the outcomes. As explained by Rivera-Burgos (2020), "the covariates are measured in the following ways: The categories for legislators' race include White, Black, Latino, Asian American, and Other. Sex is dichotomous (1 for female, 0 for male). Party includes Democrats, Republicans, and Independents; for some analyses, I exclude Independents and dichotomize the variable. State, chamber, and district are indicators of the state in which the legislator serves, whether they are a representative or senator, and the number or name of the state legislative district they represent. The dataset includes the total population in the state and district (in thousands) and the percent Black, White, and Latino in each state and district (calculated as the share of the total population). For each legislature, the dataset includes the total number of seats (i.e., the number of legislators in the legislature), the number of sets by party, and the majority party (Democrat or Republican) based on the party with the highest number of seats. The professionalization score and rank come from Squire (2017). The dichotomous measure of whether term limits exist and the number of full-time staff (count) come from the website of the National Conference of State Legislatures."

<sup>&</sup>lt;sup>7</sup>While extending the period does not significantly increase the number of responses (as suggested by Costa (2017)), the whole sample of data is available in this case. The time-distribution of the responses can be seen in Figure C.4 in Appendix C.3.

and invalid addresses messages passing for responses and to match responses coming from different email addresses than the ones where the request was sent to the legislators.

In the third place, I extended the primary outcome of interest to asses more than whether the legislator replied or not (Reply). As Costa (2021) explains, there is a lack of agreement on what makes a legislator's answer more responsive and a need for more standardized measures. With this aim, I add three measures that I believe capture the main aspects considered to make an answer 'more responsive.' Table 3.3 summarizes the outcomes.

Outcome	Table 3. Range	3: Outcomes of Interest Values / Indicators
Reply	0-1	Not replied $= 0$
терту	0-1	Replied $= 1$
		Not replied $= 0$
Engagement	0-2	Replied by $staff = 1$
		Replied by legislator $= 2$
		Not replied $= 0$
Informality	0-2	Replied with no informal salutation $= 1$
		Replied with informal salutation $= 2$
		Replied
		Answered question
		Provides personal contact information
Responsiveness	0.0	Offers to meet or call
(additive index)	0-8	Provides contact information of 3rd person
, , , , , , , , , , , , , , , , , , ,		Provides Instructions to take action
		Seeks for further assistance
		Asks for more information

The first additional variable indicates whether the legislator responded to the email (2), someone else did (1), or there was no response (0). This outcome is referred to as 'Engagement' and aims to assess how personally engaged the legislator is in responding to constituents' requests. It considers usual critics to audit experiments that point out that legislators' responsiveness cannot be assessed without knowing who answers the emails. While previous studies, like Butler and Broockman (2011) and Rivera-Burgos (2020), point out that these experiments treat state legislators' email addresses and not necessarily the state legislators themselves, an outcome that captures whether the legislator answered the email themselves could provide insightful information.

The second additional variable (Informality) indicates whether the response email in-

cluded an informal, personalized salutation (such as 'Hey (Name)', 'Hello (Name),' or '(Name)') (2) as opposed to a no-salutation or a formal salutation (1) (such as 'Dear,' 'Mr,' 'Name Surname'), or no response (0). This variable aims to capture the tone of the email by the component identified as its clearest indicator: the personalized, by name, salutation. Greeting the constituent by name in the salutation has been included in other studies (Einstein and Glick, 2017) and also found by Costa (2017) to be one of the best predictors of citizen's evaluations on the level of responsiveness of the email.

Finally, an index variable captures the quality of the legislator's response (Responsiveness). Many audit studies have used different aspects of the response as indicators of how 'helpful' the response is (e.g., providing a direct answer to the constituent's question, supplying contact information for another office, or inviting to follow up), but Costa (2017) finds that they are not necessarily indicative of what citizens may consider being more responsive. For that reason, I decided to take an inductive approach by using the actual responses to identify the different options of actions that legislative offices could take when responding to an email. This variable aims to measure how well the legislator answers the constituents' inquiry by measuring how many of these possible actions could be identified in each answer. Similar to other audit studies that have intended to capture differences in the quality of responses (Einstein and Glick, 2017; Grohs, Adam, and Knill, 2016; Adman and Jansson, 2015; McClendon, 2016), this outcome variable increases the variance of the outcome by capturing the differences in the content of the replies. The additive index (0 to 8) includes the following exclusive components:

- whether the email was responded to (Reply outcome)
- whether the respondents answered the question in the email
- whether the respondent included personal contact information
- whether the respondent offered to meet or talk by phone
- whether the respondent included the contact information of another person to contact
- whether the respondent included instructions to take action

- whether the respondent sought further assistance from another person
- whether the respondent asked for further information from the constituent.

The index was created following a three-step strategy. An initial assessment of the emails' content consisted of identifying the exclusive components that depleted the universe of the available types of responses. Then, I used these components to initially classify each email while deciding the inclusion criteria for specific cases. Finally, I verified the initial classification of the emails based on the initial components and the inclusion rules outlined in step two. In the cases where there were multiple responses to the same email, all the responses were considered one for classification purposes. A detail description of the inclusion criteria for each component can be found in Table C.2 in Appendix C.4.

For each of these three new outcome variables, post-treatment bias was avoided following Coppock (2019) 's recommendation of redefining the outcome. In this case, by setting unanswered emails at the lowest values of the index and defining that unsent emails have the lowest performance within the outcome (aka. "least formal," "least engaged,". "least responsive").

#### 3.3.5 Ethical Considerations

This experiment was reviewed and approved by Columbia University Internal Review Board and assessed to involve minimal harm to human subjects<sup>8</sup>. Still, the presence of deception in the design of the experiment raises ethical considerations. While avoiding deception in design would have jeopardized the study's results, we have acknowledged and considered the ethical considerations during the design of this audit study.

First, we have asked the legislators to complete a low-cost activity that is part of their routine duties. While deception is present, public officials are considered less vulnerable than other human subjects due to the public nature of their jobs and the public scrutiny they have to constantly face. Moreover, public officials do not expect the same level of privacy and confidentiality as other subjects.

<sup>&</sup>lt;sup>8</sup>Protocol AAAS1217(M00Y01)

Secondly, we considered the benefits of the study to outweigh the potential harms. Research that evaluates the quality of representation represents a contribution to the democratic system that can help remediate situations of discrimination and bias. As stated by Desposato (2022, p. 3), we believe that "political scientists have a responsibility to conduct research on the performance of powerful actors and institutions." In the same line, the American Political Science Association has stated in its Ad Hoc Committee on Human Subjects (2020) that "assessing the performance of public officials and other powerful actors and their role in political systems is seen by many to be both a specific responsibility of political science and a public service."

Thirdly, we have included inquiries that mimic those frequently received by legislators. In this way, we expected to minimize the marginal cost of responding to this particular email, as no extraordinary resources or actions would be needed to be used/done to reply to the email. As McClendon (2012, p. 15) notes, "whether public official or citizen subjects are involved, IRBs allow informed consent to be waived where interventions are ordinary, where answering the research question is of high social value and where obtaining informed consent in advance would damage the results of the experiment."

Finally, we designed the emails to minimize the burden placed on the subjects: we limited emails to service requests, kept the text short and simple and assured anonymity of the legislators' responses. Furthermore, the original design was modified from a within-subject study to a between-subjects once the COVID-19 pandemic started, as we considered the risks to have increased at that moment.

### 3.4 Descriptive Statistics

This section presents descriptive statistics of the treatment conditions and outcome variables. In the first place, Table 3.4 shows the distribution of treatment conditions among legislators by their ethnoracial identity. These numbers represent the total number of valid emails sent under each treatment condition. Slight discrepancies between treatment groups

are due to the data cleaning process described in the previous section. We can see from the sample that White legislators represent the vast majority of the sample (N=4,842), followed by a small number of Black legislators (N=650). Latino legislators are the smallest group (N=264). The ethnoracial composition of the sample is consistent with the overall distribution in the legislatures (as described in Table 3.1 above).

Table 3.4: Distribution of Assignments

	Ethnorace of Legislator		
Ethnorace of Constituent	White	Black	Latino
White	1,565	196	77
Black	1,567	224	95
Latino	1,692	230	92
N	4,824	650	264

Table 3.5 presents the descriptive statistics for all outcomes of interest and evidences different levels of variation by dependent variable. Regarding the Reply outcome, 37% of the legislators responded to the email. The means for the Engagement (0.61), Informality (0.59), and Responsiveness (1.09) variables evidence that most of the variation in the outcome is given by the difference between responding and not responding. The means that do not consider non-responses show that 67% of the legislators who replied personally answered the emails, and 62% used an informal salutation. The indicators' means of the Responsiveness Index (considering only responses) also show significant variations in the actions taken by legislators to answer: 67% answered the constituent's question, 7% provided personal contact information, 26% offered to meet or talk by phone, 14% offered a third person's contact information, 47% provided instructions to take action, 11% sought further assistant, and 28% asked for more information on the sender.

Table 3.5: Descriptive Statistics of Outcomes of Interest						
Outcome	Range	Mean	$\begin{aligned} \text{Means} \\ (\text{reply} = 1) \end{aligned}$	Values / Indicators	Indicators means $(reply = 1)$	
Reply	0-1	0.37	1	$     \text{Not replied} = 0 \\     \text{Replied} = 1 $		
Engagement	0-2	0.61	1.67	Not replied = $0$ Replied by staff = $1$ Replied by legislator = $2$	NA	
Informality	0-2	0.59	1.62	Not replied = 0  Replied with no informal salutation = 1  Replied with informal salutation = 2		
				Replied	0.37	
				Answered question	0.67	
				Provides personal contact information	0.07	
Responsiveness	0-7	1.09	2.98	Offers to meet or call	0.26	
(additive index)	0-1	1.03	2.90	Provides contact information of 3rd person	0.14	
			Provides Instructions to take action	0.47		
				Seeks for further assistance	0.11	
				Asks for more information	0.28	

Finally, Figure 3.1, 3.2, and 3.3 represent the mean outcomes by relevant covariates. These Figures include Asian American and 'other' ethnoracial identities, which are excluded from the rest of the analyses. The number of legislators within these categories (N=62) is too small for effect identification purposes.

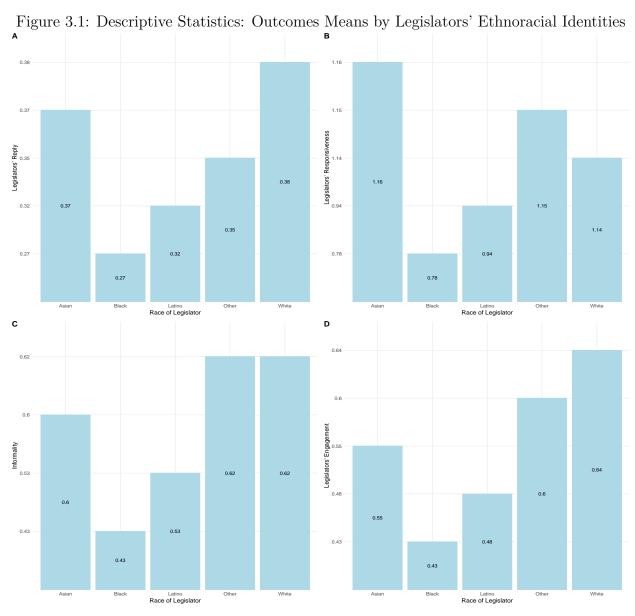


Figure 3.1 shows that White, Asian American, and those under the 'other' category legislators are the most likely to respond to emails, be responsive to constituent requests, provide an informal salutation, and answer the emails themselves. Latinos follow these three groups, and finally, Blacks. Some differences are quite large (for example, White legislators responded to 37% of emails while Black legislators only responded to 27%), but the ethnoracial distinctions by ethnorace of the sender are not shown here.

Figure 3.2 shows minimal differences in outcomes when considering the party of the

legislators. Democratic and Republican legislators appear to be equally responsive, informal and engaged in their behavior towards constituents' service requests.

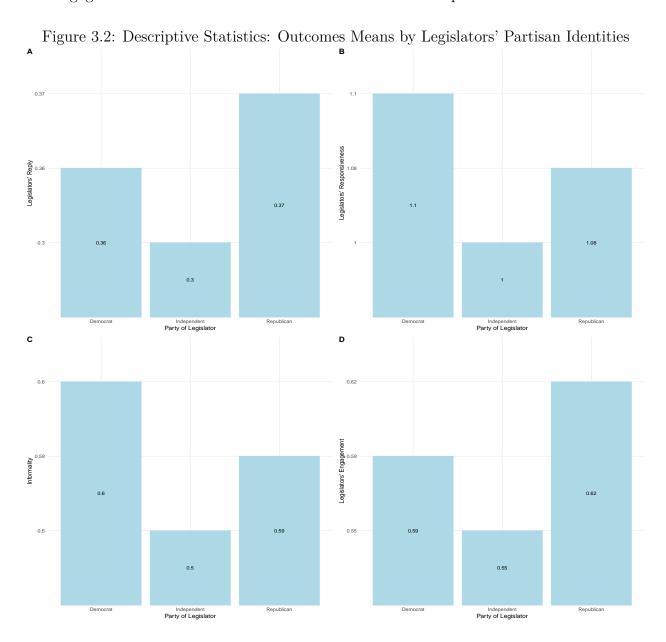
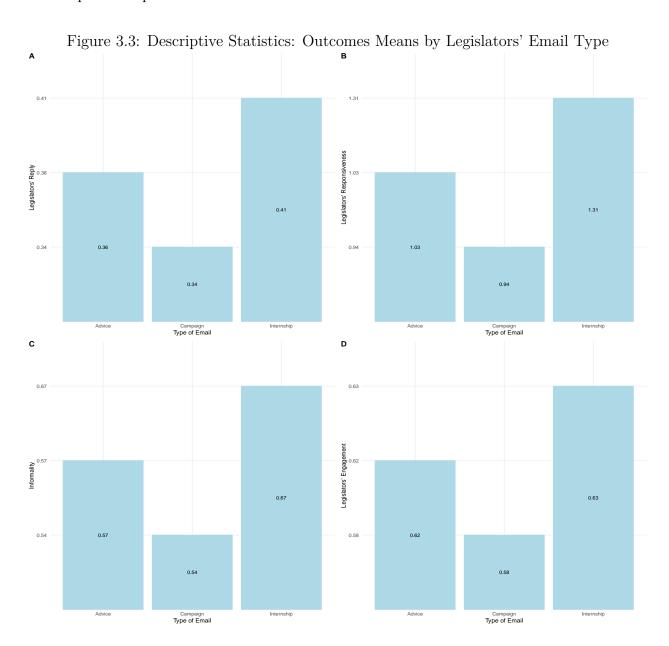


Figure 3.3 shows differences by email types. Political advice and Campaign emails are substantively similar in their outcomes, but larger differences are identified between these and the Internship email. Legislators receiving an Internship question were more likely to respond, be responsive to the request, and be more friendly. This difference could be related to the political nature of the campaign and advice emails. Many responses to the campaign

emails and some to the Political Advice mentioned that the legislator is legally bound to answer political questions from their official email addresses.



### 3.5 Results

In this section, I present the main results of the study. These consist of the average ethnoracial treatment effects and the heterogeneous treatment effects by legislators' ethnoracial and partisan identities. The tables in Appendix C.6 show OLS regressions, including control variables, to check the robustness of the finding to alternative explanations.

### 3.5.1 All Legislators

This section presents the difference in means of treatment conditions. It assesses whether all legislators (without ethnoracial distinctions) have a bias in their level of response, responsiveness, informality, and engagement when answering service requests from constituents.

Table 3.6 shows the means by ethnoracial group of constituents for all the outcomes. In the table, we can see that the response rates are slightly higher for Black constituents (38.6%) than for Whites (37%), but the most noticeable difference is with Latino constituents, whose response rate is 4.6 percentual points lower than Blacks (34%). This same pattern is repeated with all the other outcomes. We can see that Black constituents are the ones with higher means for all outcomes, followed by White constituents (by slight differences of 0.05, 0.01, and 0.01 for responsiveness, informality, and engagement, respectively), and Latino constituents lag behind (with differences of 0.14, 0.08 and 0.06 for responsiveness, informality, and engagement, respectively).

Table 3.6: Mean Outcome by Treatment Group

Ethnorace of Constituent	Reply	Responsiveness	Informality	Engagement	Total
All	0.365	1.091	0.595	0.609	5,911
White	0.370	1.103	0.613	0.622	1,902
Black	0.386	1.155	0.626	0.633	1,946
Latino	0.340	1.016	0.548	0.574	2,063

Table 3.7 presents the difference-in-means estimates and significance tests using one and two-sided p-values. For the four outcomes of interest, the difference in means for White and Latinos, Black and Latinos, and White and Black vs. Latinos are substantial and statistically significant. Reinforcing the findings by Rivera-Burgos (2020), I identify that Latino constituents are the least advantaged.

Latino constituents receive 3% fewer responses than White constituents, 4.6% fewer responses than Black constituents, and 3.8% fewer responses than Whites and Blacks. More-

Table 3.7: Difference-in-Means, All Legislators

Ethnorace of Constituent	Reply	Responsiveness	Informality	Engagement
White minus Latino	0.03** (0.015)	0.085** (0.049)	0.065*** (0.026)	0.047** (0.028)
White minus Black	-0.016 (0.015)	-0.053 (0.049)	-0.013 (0.027)	-0.011 (0.028)
Black minus Latino	0.046*** (0.016)	0.138*** (0.047)	0.078*** (0.027)	0.058** (0.027)
White minus Black & Latino	0.007 $(0.013)$	0.018 (0.042)	0.027 $(0.022)$	0.019 $(0.024)$
White & Black minus Latino	0.038*** $(0.013)^{\dagger}$	$0.112***$ $(0.041)^{\dagger}$	$0.071^{***}$ $(0.023)^{\dagger}$	$0.053**  (0.023)^{\dagger}$
Mean	0.365	1.091	0.595	0.609
Min	0	0	0	0
Max	1	7	2	2

Note: Standard Errors in brackets

† two-tailed test; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

over, on average, responses toward Latinos are 0.085 points lower in the responsiveness index than towards Whites. This difference represents 7.7% of the mean responsiveness value for Whites (1.103). Responses to Latinos are, on average, 0.138 points lower in the index than responses to Blacks (7.36% of the mean response to Blacks). They are also 0.112 points lower in the index than responses towards Blacks and Whites (9.9% from the mean response of Whites and Blacks).

The differences in the level of informality and engagement also evidence bias towards Latinos. Latinos receive more formal salutations by 0.065 points compared to White constituents (10.6% of the mean level of informality for Whites), by 0.078 points compared to Blacks (12.4% of the mean for Blacks), and by 0.071 points when responses to Whites and Blacks are considered together (11.5% of the mean for Blacks and Whites). Legislators are also 0.047 points less personally engaged in answering the request of a Latino constituent than a White one (7.6% of the mean level of engagement for Whites), 0.58 points less engaged when comparing Latinos to Blacks (9.2% of the mean for Blacks), and 0.053 points less engaged when taking responses to Blacks and Whites together (8.4% of the mean).

In summary,  $H_{1b}$  and  $H_{1c}$  are confirmed in these results for all the outcomes of interests. When taking the legislators as a homogeneous group, we can identify that Latinos receive fewer responses than Whites and Afro-Americans. They are also saluted more formally, receive poorer responses, and are less likely to be personally responded to by the legislator. In this sense, regardless of the indicator used to measure responsiveness, Latinos are found to be at a disadvantage. Moreover, while the coefficients are small, the impact of this bias can be better evidence when comparing the effects to the outcome's mean.

The differences in response rates between Whites and Blacks, and between Whites and minorities (i.e., Blacks and Latinos taken together) are statistically indistinguishable from zero. In this sense, there is no evidence to support the hypothesis that legislators are more responsive to White than Black constituents ( $H_{1a}$ ). Moreover, raw numbers show that Black constituents received slightly higher levels of response, responsiveness, informality, and engagement than their White counterparts (although these differences are not statistically significant).

The remaining question is whether these differences are indicative of a bias towards Latinos or can expose legislators' electoral incentives or even their level of professionalism. The OLS models in Appendix C.6 show that the results are robust to the inclusion of the control variables, including the ethnoracial composition of the district and the level of professionalism of the legislature (Squire Index).

#### 3.5.2 Heterogeneous Effects by Legislators' Ethnoracial Identity

In this section, I discuss the results from the difference-in-means analyses when subsetting the data by the ethnoracial identity of the legislator. In other words, I conduct the same analysis for Black, White, and Latino legislators separately and assess whether there is a response bias towards a specific ethnoracial group for each of them. Table C.3 in Appendix C.5 presents the means for each of the four outcome variables by treatment group and legislator's ethnoracial identity.

In the following tables, I present the estimated CATEs and significance tests by ethnoracial identity of the legislator<sup>9</sup>. Table 3.8 presents the results for the subgroup of Black legislators. In this case, no statistically significant differences are identified in their response rates, responsiveness level, informality, or engagement levels. There is not sufficient evidence to conclude that Black legislators have a bias that favors coethnics (Blacks) or cominorities (Latinos) compared to non-coethnics (Whites) when responding to service requests by email (refuting our  $H_{2a}$ ,  $H_{2b}$  and  $H_{2c}$ ) for any of the four outcomes.

Table 3.8: Difference-in-Means, Black Legislators

Ethnorace of Constituent	Reply	Responsiveness	Informality	Engagement
White minus Latino	0.023 (0.044)	0.003 (0.129)	0.054 (0.072)	0.030 (0.073)
White minus Black	-0.019 (0.043)	-0.066 (0.129)	0.017 $(0.073)$	-0.008 (0.072)
Black minus Latino	0.042 $(0.043)$	0.069 (0.127)	0.038 $(0.071)$	0.038 (0.071)
White minus Black & Latino	0.002 $(0.038)$	-0.031 (0.112)	0.036 $(0.063)$	0.011 $(0.063)$
White & Black minus Latino	0.034 $(0.037)$	0.038 (0.111)	0.045 $(0.062)$	0.034 $(0.063)$
Mean	0.274	0.777	0.430	0.429
Min	0	0	0	0
Max	1	7	2	2

Note: Standard Errors in brackets

† two-tailed test; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

These findings diverge from those in the preliminary study, where Rivera-Burgos (2020) found that "Black legislators are more likely to respond to emails from coethnics (DeShawn, Tyrone, or Jamal) compared to emails from cominorities (Héctor, José, or Juan)." These differences are likely to respond to the manual cleaning process, which allowed me to identify incorrect classifications of emails in the outcome categories and include emails that were not considered before.

<sup>&</sup>lt;sup>9</sup>Appendix C.7 shows the differences in CATEs and which of these differences are statistically significant.

Table 3.9 presents the results for Latino legislators. As seen in the first column, the differences in means for the reply and responsiveness outcomes are statistically indistinguishable from zero for all but one case: when comparing Whites to Blacks and Latino altogether. Latino legislators respond on average 8.3% less to White constituents than Blacks and Latinos (significant at the 0.1 significance level). At the same time, their responses to Whites are -0.262 points lower in the responsiveness index than their responses to minority groups. While the coefficients are small, they are substantial. They represent 27.9% of the mean responsiveness level of Latino legislators (0.939 points) and 25.9% of the average responsiveness level of Latino legislators to Latino constituents.

Table 3.9: Difference-in-Means, Latino Legislators

Reply	Responsiveness	Informality	Engagement
-0.077	-0.258	-0.176*	-0.071
(0.067)	(0.212)	(0.121)	(0.112)
-0.088	-0.268	-0.221**	-0.087
(0.071)	(0.219)	(0.124)	(0.119)
0.010	0.010	0.045	0.016
(0.009)	(0.212)	(0.122)	(0.113)
-0.083*	-0.262*	-0.199**	-0.079
$(0.061)^{\dagger}$	$(0.187)\dagger$	$(0.106)\dagger$	(0.100)
0.000	0.100	0.054	0.000
			-0.023
(0.059)	(0.182)	(0.104)	(0.095)
0.318	0.939	0.530	0.484
0	0	0	0
1	7	2	2
	-0.077 (0.067) -0.088 (0.071) 0.010 (0.069) -0.083* (0.061)† -0.029 (0.059) 0.318 0	-0.077 -0.258 (0.067) (0.212) -0.088 -0.268 (0.071) (0.219) 0.010 0.010 (0.069) (0.212) -0.083* -0.262* (0.061)† (0.187)† -0.029 -0.109 (0.059) (0.182) 0.318 0.939 0 0 1 7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Note: Standard Errors in brackets † two-tailed test; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Latino legislators are also less formal towards coethnics constituents than Whites (by 0.176 points, significant at the 0.10 level) and to cominorities than Whites (by 0.221 points, significant at the 0.05 level). The effect is also statistically significant (-0.199 points, at the 0.05 level) when comparing Whites to both minority groups. These differences represent 33.2%, 41.6%, and 37.8%, respectively, of the average level of informality of Latino legislators. In other words, Latino legislators are significantly more likely to be formal towards Whites

than Blacks and/or Latinos. This finding is particularly relevant, as an informal salutation is one of the best predictors of citizens' evaluations of the level of responsiveness of an email (Costa, 2017).

On its side, there is no evidence that Latino legislators are more personally engaged in responding to the emails of any ethnoracial group. In this sense, tone, content, and response level differences do not seem to be related to differences in who is responding to the emails.

The results for Latino legislators show important insights for the study of intra-minority cooperation. The evidence points to the existence of cominorities solidarity from Latinos towards Blacks in two ways. First, by showing that Latino legislators respond at a higher rate and their answers are more responsive to Blacks and Latinos than Whites. Second, they show that they are more informal in their treatment to cominorities and coethnics. These findings partially support  $H_{3b}$  and  $H_{3c}$ , and refute  $H_{3a}$ .

Table 3.10 presents the results for White legislators. The results are very similar to those in Table 3.7, as White legislators represent over 85% of the total legislators. Whites respond 5.2% less to Latinos than Blacks (significant at the 0.01 level) and 3.5% less to Latinos than Whites. Overall, the response rate for Latinos is 4.4% lower than for Whites and Blacks (significant at the 0.01 level). No statistically significant difference is found in response rates between Whites and Blacks.

White legislators hold the same bias in the quality of their response. Responses towards Latinos score 0.098 points lower in the responsiveness index than responses to Whites, 0.162 lower than responses to Blacks, and 0.130 lower than both groups considered together. These magnitudes represent 8.60%, 14.2%, and 11.4% (respectively) of the average responsiveness level of white legislators.

Regarding informality and engagement, White legislators are 0.09 points more informal towards Blacks than Latinos and 0.083 points more informal towards Whites and Blacks than Latinos (both significant at the 0.01 level). These magnitudes represent 14.4% and 13.3%, respectively, of the average level of informality of White legislators. The findings suggest that

Table 3.10: Difference-in-Means, White Legislators

Ethnorace of Constituent	Reply	Responsiveness	Informality	Engagement	
7771 ·	0.005**	0.000**	0.075	0.050	
White minus Latino	0.035**	0.098**	0.075	0.052	
	(0.017)	(0.053)	(0.029)	(0.03)	
White minus Black	-0.017	-0.063	-0.015	-0.019	
William Black	(0.018)	(0.057)	(0.032)	(0.031)	
Black minus Latino	0.052***	0.162***	0.090***	0.071**	
	$(0.017)\dagger$	$(0.054)\dagger$	$(0.030)^{\dagger}$	$(0.03)\dagger$	
White minus Black & Latino	0.01	0.020	0.032	0.018	
.,	(0.015)	(0.048)	(0.026)	(0.027)	
White & Black minus Latino	0.044***	0.130***	0.083***	0.061***	
White & Black limits Latino					
	$(0.014)\dagger$	$(0.045)\dagger$	$(0.025)\dagger$	$(0.025)\dagger$	
Mean	0.38	1.139	0.620	0.641	
Min	0	0	0	0	
Max	1	7	2	2	
Note: Standard Errors in brackets					

Note: Standard Errors in brackets

† two-tailed test; \*p<0.1; \*\*p<0.05; p < 0.01

White legislators are particularly more informal towards Blacks and more formal towards Latinos.

The results show similar patterns for their level of personal engagement in the response. White legislators are particularly more engaged in responses towards Blacks and particularly disengaged in responses towards Latinos. There are no significant differences between Whites and Blacks or Latinos, but White legislators are more engaged by 0.071 points in responses towards Blacks than Latinos (significant at the 0.05 level) and by 0.61 more points in responses towards Blacks and Whites than Latinos. These magnitudes represent 11% and 9.5% of White legislators' average level of engagement.

In this sense, the experimental results evidence a systematic bias of White legislators against Latinos constituents for all of the outcomes of interest (confirming  $H_{4b}$  and  $H_{4c}$ ). White legislators answer fewer emails, are less responsive in their content, and are particularly formal and personally disengaged towards Latino constituents. The differences in response rates and level of informality are (partially) consistent with previous findings (A. R. White, Nathan, and Faller, 2015; Einstein and Glick, 2017). However, contrary to previous findings by (Broockman, 2014a), I did not find evidence to support that White legislators' responsiveness level is greater for White than Black constituents  $(H_{4a})$ .

Overall, the results of this chapter confirm most of the preliminary findings of Rivera-Burgos (2020): Latinos are the most discriminated group in legislative responsiveness. I identified significant differences in response rates, level of responsiveness of the replies, level of informality, and personal engagement when comparing them to White and Black constituents. Black legislators do not make significant differences by ethnoracial group in any of the outcomes. White legislators favor Whites, Blacks, and Whites and Blacks over Latinos. On their side, Latino legislators tend to favor cominorities and coethnics over White constituents. The OLS models included in Appendix C.6 suggest that these biases cannot be accounted for by the legislator's electoral incentives or the legislatures' professionalization level. The detected biases reflect discrimination and favoritism towards specific ethnoracial groups, with Latinos being the most disadvantaged.

The findings make an important contribution in terms of understanding intra-minority cooperation. At the elite level, cominorities solidarity in the responsiveness level is only identified among Latinos to Blacks. However, Blacks do not reciprocate this solidarity as I expected from evidence at the citizen's level (Adida, Davenport, and McClendon, 2016). In this sense, Latinos are the most prejudiced. They are underrepresented in state legislatures (they are 18% of the population and 5% of the state legislators), and are the most discriminated against when they contact their legislators. Nevertheless, they do not benefit from electing a cominorities representative in the same way that Black citizens do. I found no evidence that black legislators present bias in their responses towards any specific ethnoracial group, supporting the theory by Minta (2011) that Black legislators do not represent Latino constituents better than White legislators.

## 3.5.3 Heterogeneous Effects by Legislators' Partisan Identity

In this subsection, I estimated the CATEs by the partisan identity of the legislators<sup>10</sup>. For better interpretation, it is essential to recall that all the emails contained a partisan cue that matched the partisan identity of the sender to the recipient's.

Table 3.11, shows no evidence that Democratic legislators favor any ethnoracial group over the others. None of the coefficients for the differences in means is statistically distinguishable from zero. These results contradict previous evidence by Butler and Broockman (2011) that suggested that Democratic legislators were equally biased towards responding to White constituents compared to Blacks.

Table 3.11: Difference-in-Means, Democratic Legislators

Ethnorace of Constituent	Reply	Responsiveness	Informality	Engagement
White minus Latino	0.01	0.053	0.033	0.003
	(0.022)	(0.069)	(0.038)	(0.038)
White minus Black	-0.019	-0.037	-0.019	-0.023
	(0.023)	(0.074)	(0.04)	(0.04)
Black minus Latino	0.031	0.09	0.053	0.0272
Black Immas Basine	(0.022)	(0.070)	(0.39)	(0.038)
White minus Black & Latino	-0.004	0.008	0.007	-0.010
Three minus Black & Bacine	(0.019)	(0.062)	(0.033)	(0.034)
White & Black minus Latino	0.021	0.071	0.043	0.015
Three to Black militar Batting	(0.019)	(0.059)	(0.033)	(0.033)
Mean	0.363	1.1	0.599	0.594
Min	0	0	0	0
Max	1	7	2	2

Note: Standard Errors in brackets

† two-tailed test; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 3.12 shows the results for Republican Legislators. Once again, Latinos are the more discriminated ethnoracial group. Republicans respond to 4.5% fewer emails from Latinos than Whites, 6% fewer emails from Latinos than Blacks, and 5.3% fewer emails from Latinos than Whites and Blacks (al significant at least at the 0.05 level). They also are 0.108 points

 $<sup>^{10}</sup>$ C.7 show the differences in CATEs and which of these differences are statistically significant.

less responsive in the content of their emails to Latinos than Whites, 0.181 points less responsive to Latinos than Blacks, and 0.145 points less responsive to Latinos than Whites and Blacks (al significant at least at the 0.1 level). These magnitudes represent 9.7%, 16.3%, and 13%, respectively, of the mean responsiveness level of Republican legislators.

Table 3.12: Difference-in-Means, Republican Legislators

Ethnorace of Constituent	Reply	Responsiveness	Informality	Engagement
White minus Latino	0.045** (0.021)	0.108* (0.067)	0.089*** (0.036)	0.086** (0.038)
White minus Black	-0.015 (0.022)	-0.073 (0.068)	-0.009 (0.038)	-0.001 (0.04)
Black minus Latino	0.060***	0.181***	0.098**	0.087**
White minus Black & Latino	$(0.021)^{\dagger}$ $0.017$	(0.066)† 0.023	$(0.037)^{\dagger}$ 0.043	$(0.037)^{\dagger}$ 0.045
White & Black minus Latino	(0.019) 0.053***	(0.059) 0.145**	(0.032) 0.093**	(0.034) 0.087***
M	(0.018)	(0.057)†	(0.031)†	(0.032)†
Mean	0.367	1.108	0.591	0.621
Min	0	0	0	0
Max  Note: Standard Francischer has shots	1	7	2	2

Note: Standard Errors in brackets

† two-tailed test; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Republican legislators are significantly more formal and personally engaged when responding to Latinos compared to Whites and Blacks (separately and taken together). Responses to Latino are 0.089 points lower in the informality score than responses to Whites, 0.098 points lowers than responses to Blacks, and 0.093 points lower than Whites and Blacks (all significant at least at the 0.05 level). These represent 15%, 16.5%, and 15.7% of the mean informality level of Republican legislators. GOP legislators are also less personally engaged in responding to Latinos. Responses to Latinos deviate from the mean engagement rate by 14% (0.086/7, significant at the 0.05 level) when compared to Whites, Blacks, and Whites and Blacks.

In toto, the results present interesting findings in two directions. Firstly, by showing no significant differences in means for any of the studied outcomes for the Democratic legislators

(refuting  $H_{6a}$ ,  $H_{6b}$  and  $H_{6c}$ ). Secondly, Republican differences in responsiveness levels show a bias against Latino constituents but not bias against Blacks (refuting  $H_{5a}$  and validating  $H_{5b}$  and  $H_{5c}$ ). The differences between these findings and previous ones in the literature are likely to show the particularities of the political environment of the 2020 elections. Democratic primaries were particularly competitive, and minority groups were considered fundamental for the Democratic party victory (thus explaining the Democratic legislators' results). However, there was also an anti-Latino political racialized rhetoric among Republicans incentivized by the white house (Zepeda-Millan and Wallace, 2018).

#### 3.6 Conclusion

This chapter presents the final results of an audit experiment of State Legislators in the United States. The study aimed to identify whether ethnoracial bias exists when legislators respond to service requests from their constituents. It also aimed to identify whether there is bias when considering the legislator's ethnoracial identity. In other words, if legislators from different ethnoracial groups present different biases towards constituents and if a sense of cominority solidarity could be derived from those biases.

Moreover, this chapter intends to extend the usual outcome used in audit studies (response rate) to capture other aspects of what could be considered a more responsive answer. I included three other outcomes: the level of responsiveness (which measures the quality of the response), the level of informality in the salutation, and the level of personal engagement of the legislator with the response. Diversifying the outcomes allowed me to identify variations in types of biases and, thus, in the quality of the representation.

The results show significant bias against Latinos in state legislatures, particularly among White and Republican legislators. Latino constituents are responded to at lower rates, with lower quality in the responses, with more formal salutations, and are less likely to be personally responded to by the legislator compared to Whites and Black constituents. These differences are small but substantive when considering the average levels of responsiveness

for each outcome. The relevance also derives from Latino legislators being underrepresented in state legislatures. They are more likely to contact a non-coethnic legislator than White or Black constituent. Moreover, the existent bias is especially prejudicial to Latino constituents in the many legislatures that do not have any Latino legislators.

Latino legislators are biased against White constituents in their responsiveness levels while presenting signs of cominorities solidarity. They respond to fewer emails and with lower quality in their response to Whites than Blacks and Latinos. They are also more informal in their responses to coethnics, cominorities, and minorities than Whites.

Contrary to previous findings, both Democrat legislators and Black legislators do not present a statistically distinguishable bias against any racial group. In the case of Democrats, I speculate that the context of the experiment (the 2020 election) may account for these findings. For Black legislators, I found no evidence of any type of cominorities solidarity towards Latino legislators.

The findings of this chapter are relevant for two main reasons. Firstly, it presents evidence that Latinos have a sense of cominority solidarity that is not reciprocated by their Black counterpart. Latinos are the most consistently disadvantaged, especially by Republican and White legislators. As explained by Rivera-Burgos (2020) "it may be explained by their lower levels of voter registration and turnout, their immigration status, or their geographic concentrations in a small number of key states." Black constituents, on their side, are not only not subject to bias by Whites but also favored by Latinos. In this sense, Black constituents may gain more from descriptive representation from electing a Latino over a White legislator, but this benefit does not apply in the opposite direction. On their side, White constituents are at a disadvantage when writing to Latino legislators, but the small number of Latino legislators compared to Whites makes this bias less problematic in democratic representation. This is especially true as evidence shows that White (and Black) legislators are less likely to communicate to their representatives not of their race (Broockman, 2014a).

In the second place, this chapter presents evidence of the utility of using different out-

comes to measure responsiveness. Using these outcomes allowed me to identify different types of bias that may differ substantially in their effects on representation. If one of the outcomes is more meaningful for citizens than the others, as Costa (2021) suggests, it may be the case that bias is not perceived on occasions when still present. For example, bias in the informality outcome may affect the perception of responsiveness by the constituent (Costa, 2021) and, thus, their evaluations. In contrast, bias in the responsiveness level may result in the constituent not getting enough information to achieve what they wanted (in this case, a job, getting involved in the campaign, or more involved in politics).

Finally, it is essential to address some limitations and further directions of this experiment. First, the specificity of the service requests sent to legislators may limit the generalization of the findings. Alternative models with controls by type of email show the robustness of the results, but it may be the case that other types of requests may not be associated with similar biases. Second, the timing of the experiment is important to understanding the findings but may also be considered a specific circumstance that can not be replicated in another setting. Third, the manual codification of the responses is valuable but subject to subjectivity. The lack of standard measurement of responsiveness challenges the results as it requires a correct understanding of the codification of the variables for interpretation. Last, further research must be done to understand how constituents perceive these different identified biases and how they impact the democratic system.

# Concluding Remarks

The aim of the dissertation is double. First, it addresses the literature's theoretical and methodological challenges that the mixed evidence in the literature enlightens. In the second place, it intends to contribute to the problem of underrepresentation with insights that can be practically used. Each of the three papers of this dissertation addresses a different topic, uses a different innovative methodological approach and has different theoretical and practical implications. These concluding remarks expand on the contribution of these papers.

Theoretically, this dissertation contributes to the literature in two ways. First, the results confirm two longstanding assumptions in the literature that have yet to be empirically tested. The first assumption is the existence of a gender affinity effect in the electoral behavior of women. The first paper of this dissertation is the first one (to my knowledge) not to rely on survey data but use actual electoral data segregated by gender (thanks to Ecuador's rare electoral design) to prove that women support female candidates more than men do. The second underproved assumption is the existence of a gendered 'issue ownership' at the mass level. The conjoint experiment in the second paper presents evidence that such division of issues by gender exists in the United States, where Education and Health issues are associated with Women and Gun-Ownership with Men. Both results can be read as 'quite obvious' based on the longstanding assumption that these mechanisms are in place, but this dissertation provides evidence to support them.

On the other hand, the dissertation disproves other longstanding ideas too. The first paper shows in the Ecuadorian case that identification between the electorate and a Female candidate is not always associated with smaller gender gaps as the descriptive representation literature assumes. Identification, measured as the level of demographic similarity of the electorate with the candidate, is conditional on the female candidate's demographic characteristics and personal experience. In other words, the type of woman candidate matters to understand differential levels of support by gender.

The second paper challenges the idea that counterstereotypical exposures promote the political engagement of those who do not match the stereotype (e.g. Women being invited to participate by another woman in a male-dominated issue). It shows that the effect of counterstereotypical exposures can vary by gender and by the level of relatability that the subject has with the counterstereotype.

The third paper shows that different ethnoracial minority groups should not be considered as one when studying legislators' biases in representation. Moreover, it challenges the expectations about the existence of cominority solidarity in the United States by proving that Latino legislators are biased towards Black legislators but not reciprocated by them. In this sense, all three papers contribute to the study of their topics by filling gaps in the literature that help to explain previous mixed results. Overall, the dissertation enlightens the complexity of the study of its issues, the importance of exploring the intersections of a subject's multiple identities/attributes (especially between gender and ethnoracial identity), and the need to deeply explore those theoretical generalizations that assume that the exact mechanisms apply to different groups of subjects.

Methodologically, each of the papers contributes to the literature by proposing an innovation to traditional studies on the topic:

• In the first paper, I use actual electoral data by gender to study the political behavior of women in Ecuador and merge it with an original candidates survey in which I gathered information on local female candidates for four elections. This way, the

paper is the first on its topic to interact actual electoral data by gender (thus, avoiding self-reporting bias) with information on the candidates running for the election to present insights about electoral behavior.

- In the second paper, I present a methodological innovation when using a mix between a conjoint and a framing experiment (called an 'exposure experiment' in the paper). I randomized the attributes of the sender of an invitation to either match or mismatch those of the survey respondents. I also used behavioral outcomes such as 'clicking' on links to measure their willingness to engage in political activities. This methodological innovation helps explore the theoretical question about the effects of exposure to different counter-stereotypical subjects on political engagement. It is important to note that, while innovative, the experiment setting may have affected the credibility of the treatment, explaining the small effect sizes identified.

  Nevertheless, I expect the lack of credibility to have affected the magnitude but not the direction of the identified effects, as the design of the experiment allowed me to test for this bias when comparing the identified effects across the two studied issues (Education and Gun-Ownership rights).
- The methodological contribution of the third paper is motivated by dismissing assumptions usually made in audit experiments about who is responding to the emails and the assumed uniformity of the response's content. I propose using multiple outcomes to measure the level of responsiveness (response rate, quality of response, level of formality, and level of engagement of the legislator). This methodological innovation allowed me to identify more variation in the overall level of responsiveness of the legislators. Moreover, it contributes to the goal usually claimed in the literature of having more standardized measurement for responsiveness outcomes.

Finally, each of these papers leads to practical implications that could help decision making for different stakeholders. Parties can learn from the opportunities and relationships identified in the first papers when selecting their candidates. Political organizations can consider the results of the second paper when designing recruiting strategies. On their part, voters from different ethnoracial groups can weigh in their voting decision on how much the level of responsiveness and the identified biases affect their representation. While the specific results of the studies can only be attributed to the analyzed countries, I expect their general implications to apply to any democracy. I expect the type of woman candidate to matter in the electoral decision of any woman around the world. However, the specific type associated with smaller gender gaps would depend on the specific idiosyncrasy of each country. In the same sense, I expect a gender division of issues in every country, but which gender is associated with each issue would vary based on cultural norms. Finally, each country's historical and cultural background would inform the level of cominority solidarity expected from each minority ethnoracial group. In conclusion, the implication of this dissertation should not only be derived from the size of the identified effects but from the importance that finding these effects (or no effects) has on the literature. They show the complexity of the studied issues and inform the agenda on the topics. They also present innovative methodological approaches that could be replicated in different (and more believable, for the survey experiments) settings and inform interested stakeholders of new insights that could benefit underrepresented groups' representation.

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# Appendix A: Does the Type of Woman Matter? Gender Affinity Vote, Identification and Representation in Ecuador's Local Elections

### A.1 Maps: Political Organization of Ecuador



Figure A.1: Provinces of Ecuador, 2010

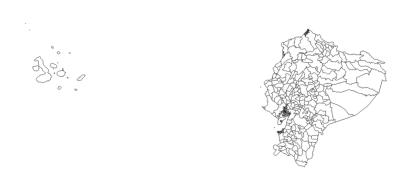


Figure A.2: Cantons of Ecuador, 2010



Figure A.3: Parishes of Ecuador, 2010

#### A.2 Interviews Quotes by Topic

All interviews were conducted personally, in Quito (Ecuador), during June 2019.

#### a) About parties strategies to recruit women

- 1. "They looked for me from all the political parties. In my house, it was 12 o'clock at night, and the political parties were in line. Every party: from right to left, from the centre. (...) Because the constitution required them to have parity. My territory is a very chauvinist canton, a very sexist province even Today. They had to find out which women could attract votes. People from the country alliance tell me, "you owe the council to me", and I tell them "you wouldn't have looked for me if I didn't have votes. I was your best option." (Karina Arteaga, National Assembly Member)
- 2. "In my province, there is still a men's respect for ladies. And when it suits us, we take advantage of it. They looked at me as an opportunity as a candidate for the National Assembly. I was going to be fourth on the list, and I said I didn't deserve it. I was never going to be elected. As a fact, we knew that we were not going to get four out of four. I ended up accepting, but it became a complicated and difficult goal. Imagine all the strategies you have to do to travel to a large province like mine. (...) But I made it. The first and third in the list, who were men, began to worry. I started reaching out to people, and there was noise from my name. As she was the last, she always spoke last when the four of us were there. The second woman had never done anything. They put her in for a political commitment without her knowing how to read or write. I considered that it was not fair. Everyone started to worry about me. They did not worry in vain. I went from fourth to second." (Karina Arteaga, National Assembly Member)
- 3. "They invited me to candidacies from various parties. The ideology thing is not so strict for me. The mayor called me to run for mayor. I was a recent graduate, TV host, host of national events." (Cristina Reyes, National Assembly Member)

- 4. "Many times, for complying with the law, you can include women who don't reach the levels of representation that you would like." (Elizabeth Cabezas, President of the National Assembly of Ecuador)
- 5. "Even when the political parties know that the lists should be 50% and 50%, most of the lists are headed by men. It is very difficult to see a list headed by a woman. If it was not mandatory, they would be fewer (women)." (Elizabeth Cabezas, President of the National Assembly of Ecuador)
- 6. "I got involved in politics 20 years ago, almost by chance. I started supporting a mayor who had been elected, and they loved me very much. After that, the mayor's campaign to be re-elected began, and I supported him. He asked me to support him because I was already a well-known figure." (Elizabeth Cabezas, President of the National Assembly of Ecuador)
- 7. "I got married very young and married a politician, a lawyer. And almost immediately after they were married, he was a council member, then president of the council, then prefect, deputy, mayor, and so on throughout the years. And I was always supporting him. There are many women who are motivated, who like and are called by politics. (...) When the children were a little older, I entered the social sphere. Bringing support for children in the rural areas with very specific actions. In fact, I joined Rosalía Arteaga Serrano (Ecuador's first female president), who was the wife of the mayor of Cuenca at that time, and together we did a lot (...). From the position of the mayor's wife, I summoned all the council members' wives to be part of the Institute for Childhood and Family." (Gloria Astudillo Loor, National Assembly Member)
- 8. "The lists are filled with women who, prepared or not, are willing to be there. This is how television stars emerge; beauty queens (who are also prepared) are popular figures who can draw votes. And by the time they take office, because of their

popularity and not their training, they do us, women, a disservice. The "she is a singer, she is not ready" arrives. They are women who hold public office because of their popularity; they are not interested; they say it themselves: "I am not interested, if they want to put my name... put it." And what happens then? The representation of women does not become real; it does not become active." (Lourdes Cuesta, National Assembly Member)

- "In my case, I come from a political family, from my great-grandfather's generation.
   But I am the first woman in my family who got involved" (Mercedes Serrano Viteri, National Assembly Member)
- 10. "Some time ago, what happened was that, as there was equity, men and women had to be guaranteed equal participation. But in practice, we, women, had the filling positions; they put us in fourths, fifth, sixth places, depending on how many positions there were. Then, when parity was guaranteed, that allowed us to have a woman, a man, a man, a woman in the lists. But in general, you can realize that when we talk about uni-nominal candidacies, you have mostly male candidates and then a small percentage of women. And from this percentage, it is not that people choose women." (Johanna Cedeno, National Assembly Member)
- 11. Taking about reinitas: "There are a lot of stereotypes about pretty women who are not necessarily so intelligent, they looks good on a list because people will vote for them, they beautify the list because they are also popular. Because the image of a queen is a woman, who is positioned. In your year of reign, you have a lot of prominence on a social level. The reign is a beauty pageant, and once you win, you have a lot of social work to do. It is usually sponsored by the municipality." (Johanna Cedeno, National Assembly Member)
- 12. "When preparing the lists, it is still true that there are always more male candidates.

  Being a woman is often an advantage for plurinominal lists because you have less

competition. For one-man candidacies, it is a disadvantage because they will prefer a man. If your positioning levels are well above, then you are going to be the candidate. In the long lists, it is true that there are not always enough women to fill all the spaces when the lists are long." (Johanna Cedeno, National Assembly Member)

#### c) About political violence

- 1. "Political violence is more powerful among men. They, in their subconscious, believe that one steals their space, and that means that one cannot climb as much as they want. Because they are men, they have a crown, and we don't." (Karina Arteaga, National Assembly Member, 2019)
- 2. "I had pressure in the municipality from men to do what they wanted." (Karina Arteaga, National Assembly Member)
- 3. "We already know what are the commonplaces of mediocre people who criticize us for our physical appearance, our condition as women." (Cristina Reyes, National Assembly Member)
- 4. "On many occasions, I have experienced political violence. I take all those situations as challenges. (...) The president of the republic on occasions when he has run out of arguments, his catchphrase has been to detract from us, he has cited physical appearance in a social security debate, for example. The political language is still loaded with sexism and violence and, in many cases, it comes from the highest authorities." (Cristina Reyes, National Assembly Member.)
- 5. "Women still find it difficult for others to appreciate that the work we do is good.

  People are too critical of women. It always puts you under scrutiny that men never are exposed since they assume that they are capable of doing it. It is a cultural issue that we still see ourselves differently." (Elizabeth Cabezas, President of the National Assembly of Ecuador)

- 6. "There is an issue with the use of networks for aggression and violence against women. The use of phrases that are extremely harsh in the sexual sphere that criticize your integrity. Things you would never say to a man. When entering the political sphere, women are exposed. Women are more critical of women themselves. I feel that we are more envious of women themselves." (Elizabeth Cabezas, President of the National Assembly of Ecuador)
- 7. "Today I had to do the groceries for my house, and I went after an interview and then continued working. And it came out on a social network that what an assembly woman was doing shopping. Men do not receive these criticisms." (Lourdes Cuesta, National Assembly Member)
- 8. "There have been cases of women assembly members who have had to carry out a solidarity procedure due to the media harassment they have had. Personally, I have had media and social harassment. For example, if you have a kind behavior with a group of people, older (in my case, the issue of youth also comes into play, I am barely 33 years old), surround yourself with a group of people who have political experience and my intention it is learning from them ... all of that is misunderstood. That gives you a bad image." (Mercedes Serrano Viteri, National Assembly Member)
- 9. "Women always measure us with higher standards than men. They look at us for being political, and they also look at us for being women. When a woman makes a mistake, it automatically affects other women. (Johanna Cedeno, National Assembly Member)
- 10. "I can tell you a personal experience. I was pregnant; 7 months ago, I gave birth to twins. A twin pregnancy is considered high-risk (...). However, I had a well-managed pregnancy and everything. I aspired to be a candidate for local government in this last electoral process. Some fellow assembly members, fellow

- politicians, even women, told me, "how do you want to be a candidate if you have "the problem" of pregnancy?" (Johanna Cedeno, National Assembly Member)
- 11. "If you are pretty, you are doubly complicated, because nobody says she is in her space because she is capable. They say what has she done, as she is beautiful, to get to that space. We are always more exposed than men because we live in a sexist society. Nobody asks men with whom they have slept to be in their positions."

  (Johanna Cedeno, National Assembly Member)

#### d) About how women perceive them and women's political engagement

- 1. "Women see me as a warrior. They see themselves in the political space, but they are afraid of it. That is why they do not participate. They believe that I am the warrior, that I am the strong one, that I am the one who stands up. (...) This is how people see me." (Karina Arteaga, National Assembly Member)
- 2. "Women can be scared. Many women congratulate me and see this as "how do you do it?" Many see it with fear "how are you there sailing with sharks?"." (Cristina Reyes, National Assembly Member)
- 3. "Women are too critical of women, and we expect more from them. We are setting the limitations. When we have to choose a woman candidate, we first see if they are perfect, which does not happen with men." (Gloria Astudillo Loor, National Assembly Member)
- 4. "In the case of popularly elected positions, the common cry here is "we lack women".

  (...) Unfortunately, at the moment you want to get involved in politics, politics is so dirty that you think for a moment and say, "well, I have a profession, a job, an activity, why am I going to leave that to get into trouble? Because getting into politics is often getting into trouble". (...) Assembly members who are from other provinces must leave our cities and move to Quito, and we have to leave our families,

- who cannot always move here. (...) That makes the woman think if she wants to leave what she has to get involved. We are used to the men being the ones who leave the house." (Lourdes Cuesta, National Assembly Member)
- 5. "There is also a bit of fear. They begin to ask who her husband is, who her son is, why is she shopping at the supermarket at 11 in the morning. I talk to friends, and they tell me, "I don't know how you're involved in that, I couldn't hold out".

  Someone has to endure ... someone has to. (...) I am not exceptional. I am a woman like any other. Women say ... "she, who is like me, is doing this. Sometimes it goes very badly, but sometimes it goes well. Maybe I can do it too." (Lourdes Cuesta, National Assembly Member)
- 6. "A humble lady approached me to say 'I love it when you speak because I feel that I am speaking'." (Lourdes Cuesta, National Assembly Member)
- 7. "We are a reflection of Today's society. I have come across cases of women who love politics, but they tell me "I don't want to do it because I'm going to expose my family." (Mercedes Serrano Viteri, National Assembly Member)
- 8. "I think women in my district perceive me as a fighter. (...,) The people saw the character of my father in me. They said, "he has a bad temper, he is arrogant." That affects, that hurts, and that is a point against. Something that my father has and he transferred to me and all the time is "he must be the same as father." (Mercedes Serrano Viteri, National Assembly Member)
- 9. "It happens to many friends of mine that there is a lot of sexism not only in society but also in the family. Sometimes it is the same family structures that tell you not to participate." (Johanna Cedeno, National Assembly Member)
- 10. "I believe that women identify with me. Politics has to be humanized, and politicians cannot be seen as distant from the people. You have to create a connection with

citizens, and they have to see that the problems that women have also been carried out by their authorities. I come from a conservative province, where the fact of having children and not being married is frowned upon or is hidden from you. And I told the media about them, and I told how with a daughter, I have been able to succeed. In Loja, they know my personal reality and the support I had from my family (...). I publicly stated it because there are many women who go through my situation. The fact is that they do not want to say it, and there is a stigma that is generated around women who have children and have not married. (...) I told it publicly so that women can see that there is an authority that has gone through these difficulties, through those same ups and downs that life has." (Verónica Arias, National Assembly Member)

#### A.3 Baseline Questionnaire - Individual Interviews, Quito 2021.

- 1. How would you describe the Ecuadorian woman?
- 2. What role do you think they occupy in the society?
- 3. What role do you think they occupy in the family structure?
- 4. What place do women occupy in politics in your country?
- 5. How has this changed over time?
- 6. When do you identify the biggest changes occurred?
- 7. Who are the women who participate in politics? How much do they resemble the average woman in your country?
- 8. Who are the women with political positions? How much do they resemble the average woman in your country?
- 9. What do you think about the electoral quotas?
- 10. What do you think about parity laws?
- 11. On what political issues do you think women should focus?
- 12. What do you think women contribute to the politics of your country?
- 13. Do you think that women participate more, less or equally than men?
- 14. In which political activities do you think women participate more than men? Why?
- 15. In which political activities do you think women participate less than men? Why?

#### A.4 Candidates' Survey

#### Initial Message

Welcome!

You have been selected to be part of an investigation by Columbia University in New York on women in Ecuadorian politics.

Within the survey's framework, we ask you to answer the following questions that will take you approximately 10 (ten) minutes. In exchange for your participation, we will invite you to attend the Online Seminar "Women in Latin American Politics" for free. At the end of the survey, we will ask you if you are interested in attending and we will ask for your contact details to invite you to the seminar.

Your participation in this research study is voluntary. We ask that you read the questions carefully before answering. You are not required to answer any of the questions and you can leave the survey at any time. We do not anticipate any risk involved in participating and there are likely to be no direct benefits. When sharing your information, you should know that there is a minimal risk of a breach of confidentiality that you are assuming. If you have questions, requests, concerns, or complaints about this research study, you may contact Julia Maria Rubio, who can be reached at: julia.rubio@columbia.edu.<sup>1</sup>
If you agree to participate, please skip to the next question.

#### **Filters**

- 1. Please, state your full name.
- 2. Have you ever run for public office? (yes/no)

 $<sup>^{1}</sup>$ This research has been reviewed by the Columbia University Institutional Review Board. If the investigation team does not respond to your questions, concerns, or complaints, you may contact them at +1 212-305-5883. Please note that Columbia University's Office of Human Research Protection and the Federal Office of Human Research Protection may gain access to the data.

3. please indicate the position for which you were a candidate each year and if you were elected. If you were not a candidate in a particular year, you can leave it blank.

#### Political Career

Now we will ask you some questions about your political career...

- 1. Do you consider politics to be your main profession? (yes/no)
- 2. What is your profession, or main job?
- 3. Do you have another profession or role besides politics?
- 4. How old were you when you began your political career? Please indicate your age (in years) when you consider you first became involved in politics.
- 5. Why did you get involved in politics? You can tick more than one answer:
  - I've always had interest in politics
  - A friend encouraged me
  - An unexpected opportunity appeared
  - A relative encouraged me
  - A political party offered me to be a candidate
  - Other:
- 6. At the time you became involved in politics, did you have any relatives involved in politics? You can tick more than one answer:
  - Grandparent
  - Son / daughter
  - Spouse / former spouse
  - Father

- Mother
- Sibling
- Grandmother
- Another close relative
- I didn't have any relatives involved in politics
- 7. Have you been elected as a "reinita" in your district? (yes/no)
- 8. Have you held any non-elective political position? (those in which it was not necessary to compete in elections. For example: minister, secretary, etc.). Please list the non-elective positions you have held and the years you held them.

#### Socioeconomics

Now we will ask you some questions about yourself.

- 1. Where were you born? Province/canton/parish
- 2. Where do you live now? Province/canton/parish
- 3. Since what year have you lived in this place?
- 4. What race/ethnicity do you identify with? Please mark all options that apply:
  - Indigenous
  - Mestiza
  - Mulata
  - Afroecuadorian
  - Black
  - Montubia
  - White

- Other:
  5. What is the Nationality or Indigenous People you belong to?
  6. Do you speak other language, in addition to Spanish? (no/which language: )
  7. Do you have any permanent physical, sensory or mental disability? (no/which: )
  8. What is your marital status?
  Widow
  Separated
  Married
  Divorced
  In a de facto relationship
  Single
  - 9. Since what year do you have that marital status?
- 10. What is the highest level of education you reached?
  - None
  - Literacy Center
  - Primary School (incomplete)
  - Primary School (complete)
  - Secondary School (incomplete)
  - Secondary School (complete)
  - Post-secondary school diploma
  - Tertiary Education (incomplete)
  - Tertiary Education (complete)

• University Degree (incomplete)
• University Degree (complete)
• Post-graduate Education (incomplete)
• Post-graduate Education (complete)
11. Are you a member of any peasant organization? (yes/no)
12. Are you affiliated to social security?
13. Do you have any children?
14. In what year were they born and what's their sex? Please complete only for the amount of children that you have.
15. Do you consider yourself the head of your household?
16. Now we will ask you some questions about the place where you live
17. What type of housing do you live in?
• Covacha
• Private room in your landlord's house
• Hut
• House or Villa
• Apartment
• Mediagua
• Rancho
• Other:
18. Regarding the property where you live

- You own the property and it is fully paid
- You own the property and you still have a mortgage
- You own the property, and it has been gifted, donated or inherited
- You pay rent to a landlord
- You don't pay rent, someone else lends you the property to live
- Is in anti crisis regime
- You don't pay rent, you are allowed to live in exchange for services
- Other:
- 19. How many rooms does the property have? Excluding bathrooms and the kitchen.
- 20. Is any part of the property used for any economic activity?
- 21. Where does the water you receive come from?
  - public network
  - well
  - from a river or creek
  - from a delivery carriage
- 22. The water that household members drink...
  - is drunk as is
  - is boiled first
  - chlorine is added prior to drink it
  - is filtered
  - household members buy bottled water

#### Contact details

- 1. Would you like to participate in the Seminar "Women in Latin American Politics"? (yes/no)
- 2. Would you like to be contacted for an interview? (yes/no)
- 3. Please provide your contact details. (full name, email, phone number)

# A.5 Candidates Population vs. Sample Comparison Tables

Type of Election	Provincial	Cantonal	Total
Percentage in Sample	14.38	85.63	100
Percentage in Total Candidates	10.81	89.19	100

Age Group	1	2	3	4	5	6	Total
Percentage in Sample	5	36.88	35	18.13	3.75	1.25	100
Percentage in Total Candidates	3.82	26.46	40.46	23.54	3.82	1.91	100

Year of Election	2004	2009	2014	2019	Total
Percentage in Sample	6.25	15	22.5	56.25	100
Percentage in Total Candidates	18.96	21.12	20.74	39.19	100

Province Code	Percentage in Sample	Percentage in Total Candidates
1	5	5.60
2	2.5	2.67
3	1.88	1.91
4	1.25	0.89
5	3.75	2.54
6	0.63	2.42
7	6.25	6.11
8	6.25	6.11
9	16.8	21.37
10	1.25	2.04
11	1.25	3.69
12	8.13	8.27
13	13.13	10.94
14	2.5	2.29
15	4.38	2.29
16	0.63	1.78
17	6.88	4.33
18	3.13	2.80
19	0.63	1.02
20	1.88	0.89
21	4.38	3.05
22	0.63	2.29
23	3.13	2.04
24	3.75	2.67
Total	100	100

## A.6 Maps: Percentage of Women Candidates

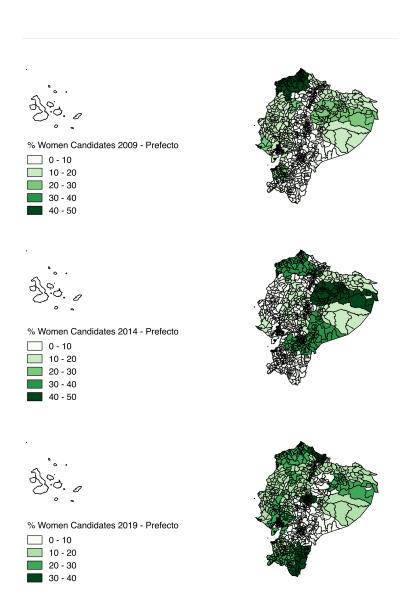


Figure A.4: Percentage of Women out of Competitive Total Candidates. Prefects.

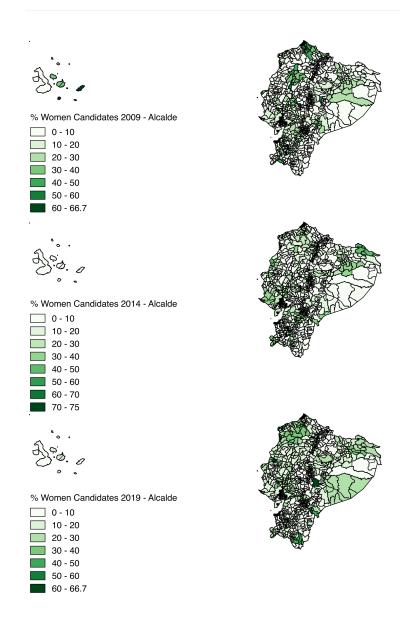


Figure A.5: Percentage of Women out of Total Candidates. Mayors.

#### A.7 Votes Gender Gap: Prefects and Mayors 2019, by Sex of Candidate

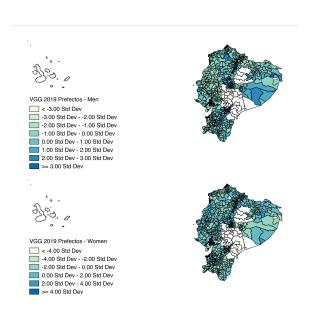


Figure A.6: VGG Prefects by Gender of Candidates, 2019

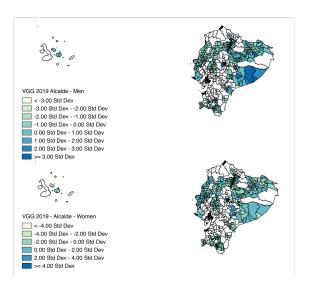


Figure A.7: VGG Mayors by Gender of Candidates, 2019

#### A.8 Votes Gender Gap: Prefects and Mayors 2014, by Sex of Candidate

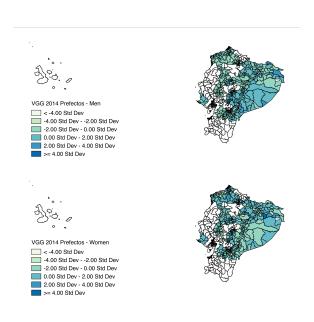


Figure A.8: VGG Prefects by Gender of Candidates, 2014

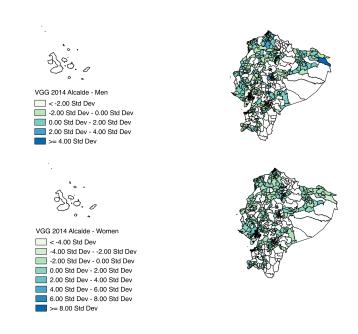


Figure A.9: VGG Mayors by Gender of Candidates, 2014

#### A.9 Votes Gender Gap: Prefects and Mayors 2009, by Sex of Candidate

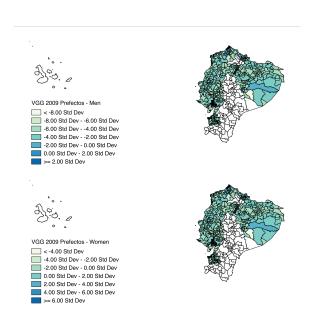


Figure A.10: VGG Prefects by Gender of Candidates, 2009

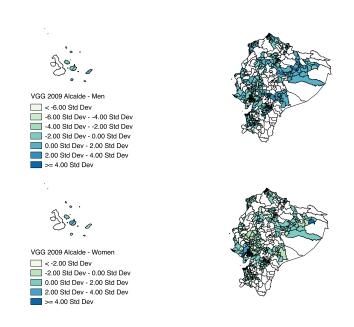


Figure A.11: VGG Mayors by Gender of Candidates, 2009

A.10 VGG and Candidates Gender Baseline Model including Party Fixed-Effects, at Candidate-Parish level

	Model 1	Model 2	Model 3	Model 4
Woman Candidate	-0.74***	$-0.67^{***}$	-0.66***	-0.74***
	(0.08)	(0.06)	(0.07)	(0.08)
Candidate Won		0.09		
		(0.16)		
Woman Candidate: Candidate Won		$-0.69^*$		
		(0.34)		
Left-Wing Party				0.05
				(0.06)
Right-Wing Party				-0.02
				(0.08)
Indigenous Party				0.17
				(0.14)
Independent party				-0.04
				(0.21)
Fixed-Effects	Yes	Yes	Yes	Yes
Party-Effects	No	No	Yes	No
Outcome Mean	0.04	0.04	0.04	0.04
Outcome SD	1.55	1.55	1.55	1.55
Outcome Min	-11.45	-11.45	-11.45	-11.45
Outcome Max	9.89	9.89	9.89	9.89
$\mathbb{R}^2$	0.08	0.08	0.35	0.08
Num. obs.	3811	3811	3811	3811
RMSE	1.57	1.57	1.48	1.57
N Clusters	203	203	203	203

<sup>\*\*\*</sup>p < 0.001; \*\*p < 0.01; \*p < 0.05; 'p < 0.1

# Appendix B: Who is the boss? Gendered Issue Ownership, Stereotypes, and Political Engagement

# B.1 Questionnaire

# **Demographics** What is your gender? O Male O Female O Other How old are you? O 18 to 25 O 26 to 35 O 36 to 45 O 46 to 55 O 56 to 65 O more than 66 Which of these categories best describes your racial or ethnic identity? O Black O Pacific Islander O American Indian White Continue Latino Asian O Native Hawaiian O Alaska Native In which state do you currently reside? Which of the following best describes the immediate area where you live?

O rural area
O urban area

O suburban area O small town						
What is the higher  O Less than high school  High School degree  O Community Colleg  O College degree  O Graduate Level degree	ool degree e e degree	school yo	u have co	mpleted?		
Generally speaking Independent, or s	-	-	ink of your	self as a	Republican, a Democrat	i, an
O Independent O Democrat O Republican O No preference		Other				
Political Activity	У					
Next, we are goin activity.	ng to ask yo	ou a few c	questions c	ibout you	r political	
In the last 6 mo			/e you par	icipated	in the	
	$\circ$	$\circ$	0	$\circ$	$\circ$	
	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$	

$\circ$	$\circ$	$\circ$	0	$\circ$
$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
$\bigcirc$	$\circ$	$\circ$	$\circ$	$\circ$
$\bigcirc$	$\circ$	$\circ$	$\circ$	$\circ$
0	$\circ$	$\circ$	0	0
$\circ$	$\circ$	$\circ$	$\circ$	$\circ$

# Conjoint Experiment - Issue Ownership

Below, you will see a brief description of two different people. Please read each description carefully and keep it in mind when answering the questions that follow.

	Person 1	Person 2
\${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}
\${e://Field/F-1-6}	\${e://Field/F-1-1-6}	\${e://Field/F-1-2-6}

Now, imagine you find yourself in the following scenarios. In each one, you need to ask someone for advice on a different subject.

Which of the two people described above would you ask for advice? Please state your preference by selecting either Person 1

or Person 2 for each scenario.

0	0
$\circ$	$\circ$
$\circ$	$\circ$
0	$\circ$

Now, we would like to you to do the same exercise with two new people. Please read each description below carefully and keep it in mind when answering the questions that follow.

	Person 1	Person 2
\${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}
\${e://Field/F-2-6}	\${e://Field/F-2-1-6}	\${e://Field/F-2-2-6}

Which of the two people described above would you ask for advice in the same scenarios? Please state your preference by

selecting either Person 1 or Person 2 for each scenario.

$\circ$	0
0	0
0	0
0	$\circ$

#### **Education Control**

Please, read the following script.

Many believe that people need to get more involved in political activities related to education.

They think that wherever you stand on the topic, having citizen's voices heard is essential for having more representative policies.

There are many ways in which to participate, all of them being equally important.

Join them by engaging more!

#### **Education Outcomes**

Would you like to like to receive more information on education related organizations where you can get involved?

O Yes

1	$\overline{}$		
(	- )	N I	$\overline{}$
Λ.	1	IΝ	

Please, complete with your email address below so we can send you more	Э
information on organizations in which you can get involved.	

# Would you like to follow any of the following organizations on social media (Twitter, Facebook, Instagram)?

If you do, please click on the link(s) to their social media and follow them.

Organization	Twitter	Facebook	Instagram
National Education Association: America's largest professional employee organization. Committed to advancing the cause of public education.	Click here	Click here	Click here
Teach for America: a diverse network of leaders who confront educational inequity by teaching and working.	Click here	Click here	Click here
The American Council on Education (ACE): mobilizes the higher education community to shape effective public policy and foster innovative, high-quality practice.	Click here	Click here	х
Jumpstart: a national early education organization. Works toward the day every child in America enters kindergarten prepared to succeed.	Click here	Click here	Click here
TNTP: fights education inequality by providing excellent teachers to the students who need them most and advancing policies and practices that ensure effective teaching in every classroom.	Click here	Click here	Click here
The Education Trust: works to close opportunity gaps that disproportionately affect students of color and students from low-income families.	Click here	Click here	Click here

If you don't want to follow any of them, just continue to next question.

Would you like to sign a petition on the topic?

Here are some options for petitions that you can explore and sign. Please, click on the Link of the one(s) you want to sign.

Petition	Link
Make Schools Better in America	Click Here
Demand Equal Education Funding for All Public Schools Now	Click Here
Urge Congress to Support the Rebuild Americas School Act	Click Here
Find a petition of your interest in the topic at Change.org	Click Here

If you don't want to sign any petition, you can just continue to the next question.

#### Do you want to Take Action?

• <u>CLICK HERE</u> to navigate to the "Take action" page for the Alliance for Excellent Education, an organization dedicated to improving educational outcomes for students.

You may advance at any time by clicking the blue arrow at the bottom of this page.

#### **Gun Control - Control**

Please, read the following script.

Many believe that people need to get more involved in political activities related to gun ownership.

They think that wherever you stand on the topic, having citizen's voices heard is essential for having citizen having	aving more representative policies.
There are many ways in which to participate, all of them being equally	important.
Join them by engaging more!	
Gun Control - Outcomes	
Would you like to like to receive more information on gun-ov organizations where you can get involved?	vnership related
O Yes O No	
Please, complete with your email address so we can send your organizations in which you can get involved.	ou more information on
Would you like to follow any of the following organizati (Twitter, Facebook, Instagram)?	ons on social media
If you do, please click on the link(s) to their social media and	d follow them.
Organization	Position Twitter Facebook Instagram
<b>Brady Campaign:</b> it works to pass and enforce federal and state gun control laws, regulations, and public policies.	Gun Click here Click here Click here Control
National Rifle Association (NRA): defends US citizens' second amendment rights and lobbies for gun rights legislation.	Gun Click here Click here Click here Rights

Coalition to Stop Gun Violence (CSGV): seeks to secure freedom from gun violence through research,	Gun	Click here Click here	x
strategic engagement and effective policy advocacy.	Control		
Gun Owners of America (GOA): seeks to preserve and defend the Second Amendment rights of gun owners.	Gun Rights	Click here Click here	Click here
<b>Gun Off Campus:</b> works with colleges and universities to oppose legislative policies that would force loaded, concealed guns on campuses.	Gun Control	Click here Click here	Click here
Second Amendment Foundation: organization dedicated to promoting the right to privately own and possess firearms.	Gun Rights	Click here Click here	Click here

If you don't want to follow any of them, just continue to next question.

# Would you like to sign a petition on the topic?

Here are some options for petitions that you can explore and sign. Please, click on the Link of the one(s) you want to sign.

Link
Click Here

If you don't want to sign any petition, you can just continue to the next question.

#### Do you want to Take Action?

- <u>CLICK HERE</u> to navigate to the "Take action" page for the Brady Campaign, an organization that supports increasing gun control.
- <u>CLICK HERE</u> to navigate to the "Take action" page for the National Rifle Association (NRA), an organization that **opposes increasing gun control**.

You may advance at any time by clicking the blue arrow at the bottom of this page.

#### **Education Treatments**

Please read the following message, written by Tiffany before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is Tiffany and I am a \${q://QID159/SelectedChoicesRecode} years old \${q://QID18/ChoiceGroup/SelectedChoices} woman from a \${q://QID23/ChoiceGroup/SelectedChoices} of \${q://QID31/ChoiceGroup/SelectedChoices}.

I have a \$ {q://QID20/ChoiceGroup/SelectedChoices} degree and I am part of a group of women who are committed to improve the educational system in our country.

I believe that having more people like us involved in the process when it comes to our schools is essential. Most lawmakers just don't understand what is important, and we need to have our voices heard. Whether it is attending rallies, writing letters, joining organizations, or voting in elections, we need to get

involved in education politics.

Please, join me by engaging more to improve our education system. We need more people like us! "



Please read the following message, written by Michael before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is Michael and I am
a \$ {q://QID159/SelectedChoicesRecode} years old
\$ {q://QID18/ChoiceGroup/SelectedChoices} man from
a \$ {q://QID23/ChoiceGroup/SelectedChoices}
of \$ {q://QID31/ChoiceGroup/SelectedChoices}.

I have a \$ {q://QID20/ChoiceGroup/SelectedChoices} and I am part of a group of people who are committed to improve the educational system in our country.

Having more people involved in the policy-making process when it comes to our schools is essential. Unlike many people's beliefs, education is a problematic that concerns women and men, so we all need to get engaged.

Whether it is attending rallies, writing letters, joining organizations, or voting in elections, we need to get involved in education politics.

Please, join me by engaging more to improve our education system. We need

#### more people like us! "



Please read the following message, written by Tiffany before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is Tiffany and I am a \${e://Field/age\_dif} years old \${e://Field/ethnicity\_dif} woman from a \${e://Field/area\_dif} of \${e://Field/state\_dif}.

I have a \${e://Field/education\_dif} degree and I am part of a group of women who are committed to improve the educational system in our country.

I believe that having more people involved in the process when it comes to our schools is essential. Most lawmakers just don't understand what is important, and we need to have our voices heard. Whether it is attending rallies, writing letters, joining organizations, or voting in elections, we need to get involved in education politics.

Please, join me by engaging more to improve our education system!"



Please read the following message, written by Michael before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is Michael and I am a \$ {e://Field/age\_dif} years old \$ {e://Field/ethnicity\_dif} man from a \$ {e://Field/area\_dif} of \$ {e://Field/state\_dif}.

I have a \${e://Field/education\_dif} and I am part of a group of people who are committed to improve the educational system in our country.

Having more people involved in the policy-making process when it comes to our schools is essential. Unlike many people's beliefs, education is a problematic that concerns women and men, so we all need to get engaged.

Whether it is attending rallies, writing letters, joining organizations, or voting in elections, we need to get involved in education politics.

Please, join me by engaging more to improve our education system!"



#### **Gun Control - Treatments**

Please read the following message, written by John before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is John and I am a \${q://QID159/SelectedChoicesRecode} years old \${q://QID18/ChoiceGroup/SelectedChoices} man from a \${q://QID23/ChoiceGroup/SelectedChoices} of \${q://QID31/ChoiceGroup/SelectedChoices}.

I have a \$ {q://QID20/ChoiceGroup/SelectedChoices} and, along with many other men, have been involved in politics related to gun-ownership issues for many years now.

I believe that people like us need to get more involved in political activities related to gun ownership. Wherever you stand on the topic, having our voices heard is essential for having more representative policies. There are many ways in which we can participate, all of them being equally important. We definitely need more people like us to get involved in gun politics.

Please, join me by engaging more! We need more people like us!



Please read the following message, written by Jane before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is Jane and I am a \${q://QID159/SelectedChoicesRecode} years old \${q://QID18/ChoiceGroup/SelectedChoices} woman from a \${q://QID23/ChoiceGroup/SelectedChoices} of \${q://QID31/ChoiceGroup/SelectedChoices}.

I have a \$ {q://QID20/ChoiceGroup/SelectedChoices} and, along with many other women, have been involved in politics related to gun-ownership issues for many years now.

Unlike many people's beliefs, there are many women like us who get involved in politics related to gun ownership and we need even more people to join us!

Wherever you stand on the topic, having our voices heard is essential for having more representative policies. There are many ways in which we can participate, all of them being equally important. We definitely need more people like us to get involved in gun politics.

Please, join me by engaging more. We need more people like us! "







Please read the following message, written by John before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is John and I am a \${e://Field/age\_dif\_guns} years old \${e://Field/ethnicity\_dif} man from \${e://Field/area\_dif} of \${e://Field/state\_dif\_guns}.

I have a \${e://Field/education\_dif\_guns} and, along with many other men, have been involved in politics related to gun-ownership issues for many years now.

I believe that people need to get more involved in political activities related to gun ownership. Wherever you stand on the topic, having our voices heard is essential for having more policies. There are many ways in which we can participate, all of them being equally important. We definitely need more people to get involved in gun politics.

Please, join me by engaging more!"





Please read the following message, written by Jane before answering a few questions about your plans for engaging with politics in the future.

"Hi! My name is Jane and I am a \${e://Field/age\_dif\_guns} years old \${e://Field/ethnicity\_dif} woman from \${e://Field/area\_dif} of \${e://Field/state\_dif\_guns}.

I have a \${e://Field/education\_dif\_guns} and, many other women, have been involved in politics related to gun-ownership issues for many years now.

Unlike many people's beliefs, there are many women like me who get involved in politics related to gun ownership and we need even more people to join us!

Wherever you stand on the topic, having our voices heard is essential for having more representative policies. There are many ways in which we can participate, all of them being equally important. We definitely need more people to get involved in gun politics.

Please, join me by engaging more."







#### **Beliefs Question**

What proportion of men and women would you expect to see in a political meeting organized to debate about gun-rights?

Please, complete the fields.

Women

Men

What proportion of men and women would you expect to see in a political meeting organized to debate about the public-schools system?

Please, complete the fields.

Women	<b>+</b>
Men	<b>*</b>

Powered by Qualtrics

# ${\bf B.2}\quad {\bf Similar/Dissimilar\ Traits\ for\ Randomization}$

Table B.1: Similar/Dissimilar Traits for Randomization

Thait	Donondont's Angree	Similar Trait	Dissimilar Trait	Dissimilar Trait
Trait	Repondent's Answer	Similar Trait	Gun Ownserhip	Education
	Urban	Urban	Rural	Rural
Area of residency	Rural	Rural	Urban	Urban
	Suburban	Suburban	Urban	Urban
State	All but Alaska	Selected State	Alaska	Alaska
State	Alaska	Alaska	New York	New York
	Less than High School degree	Selected Level	Postgraduate Degree	Masters Degree
	High School degree	Selected Level	Postgraduate Degree	Masters Degree
Level of Education	Community College Degree	Selected Level	Postgraduate Degree	Masters Degree
	College Degree	Selected Level	High School Degree	High School Degree
	Graduate Level Degree	Selected Level	High School Degree	High School Degree
	18 to 25	21	60	65
	26 to 35	32	60	65
A mo	36 to 45	39	60	65
Age	46 to 55	51	25	22
	56 to 65	62	25	22
	More than 65	68	25	22

# Appendix C: Do the Benefits of Descriptive Representation Require a Specific Match? Evidence from an Audit Experiment of State Legislators

#### C.1 M-Turk Pretest

Table C.1: M-Turk Survey Results (N = 100)

Ethnoracial Group         Dustin Miller         Colin Martin         Connor Clark         Jake Anderson         Dustin Baker           Hispanic/Latino         2.00%         1.00%         1.00%         2.00%         2.00%           Black/African-American         5.00%         6.00%         3.00%         2.00%         7.00%           White         93.00%         95.00%         95.00%         89.00%           Don't Know         0.00%         2.00%         1.00%         2.00%         2.00%           Black Names           Ethnoracial Group         Tyrone Washington         Terrell Jefferson         Trevon Booker         Jamal Jackson         DeShawn Banks           Hispanic/Latino         3.00%         92.00%         83.00%         93.00%         94.00%           White         3.00%         7.00%         14.00%         5.00%         4.00%           Don't Know         1.00%         0.00%         1.00%         2.00%         3.00%           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00% <th colspan="11">Tuble C.I. W Talk Salvey Results (14 100)</th>	Tuble C.I. W Talk Salvey Results (14 100)										
Hispanic/Latino         2.00%         1.00%         1.00%         1.00%         2.00%           Black/African-American         5.00%         6.00%         3.00%         2.00%         7.00%           White         93.00%         91.00%         95.00%         95.00%         89.00%           Don't Know         0.00%         2.00%         1.00%         2.00%         2.00%           Ethnoracial Group         Tyrone Washington         Terrell Jefferson         Trevon Booker         Jamal Jackson         DeShawn Banks           Hispanic/Latino         3.00%         1.00%         2.00%         2.00%         1.00%           Black/African-American         93.00%         92.00%         83.00%         93.00%         94.00%           White         3.00%         7.00%         14.00%         5.00%         4.00%           Don't Know         1.00%         0.00%         1.00%         3.00%         1.00%           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         0.00%<	White Names										
Black/African-American         5.00%         6.00%         3.00%         2.00%         7.00%           White         93.00%         91.00%         95.00%         95.00%         89.00%           Don't Know         0.00%         2.00%         1.00%         2.00%         2.00%           Ethnoracial Group         Tyrone Washington         Terrell Jefferson         Trevon Booker         Jamal Jackson         DeShawn Banks           Hispanic/Latino         3.00%         1.00%         2.00%         2.00%         1.00%           White         3.00%         92.00%         83.00%         93.00%         94.00%           Don't Know         1.00%         1.00%         1.00%         1.00%         1.00%           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         96.00%         96.00%         93.00%         93.00%           Black/African-American         2.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         2.00%	Ethnoracial Group	Dustin Miller	Colin Martin	Connor Clark	Jake Anderson	Dustin Baker					
White         93.00%         91.00%         95.00%         95.00%         89.00%           Don't Know         0.00%         2.00%         1.00%         2.00%         2.00%           Black Names           Ethnoracial Group         Tyrone Washington         Terrell Jefferson         Trevon Booker         Jamal Jackson         DeShawn Banks           Hispanic/Latino         3.00%         1.00%         2.00%         2.00%         1.00%           Black/African-American         93.00%         92.00%         83.00%         93.00%         94.00%           White         3.00%         7.00%         14.00%         5.00%         4.00%           Don't Know         1.00%         0.00%         1.00%         1.00%           Latino Names           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         2.00%	Hispanic/Latino	2.00%	1.00%	1.00%	1.00%	2.00%					
Don't Know         0.00%         2.00%         1.00%         2.00%         2.00%           Black Names           Ethnoracial Group         Tyrone Washington         Terrell Jefferson         Trevon Booker         Jamal Jackson         DeShawn Banks           Hispanic/Latino         3.00%         1.00%         2.00%         2.00%         1.00%           Black/African-American         93.00%         92.00%         83.00%         93.00%         94.00%           White         3.00%         7.00%         14.00%         5.00%         4.00%           Don't Know         1.00%         0.00%         1.00%         0.00%         1.00%           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	Black/African-American	5.00%	6.00%	3.00%	2.00%	7.00%					
Black Names           Ethnoracial Group         Tyrone Washington         Terrell Jefferson         Trevon Booker         Jamal Jackson         DeShawn Banks           Hispanic/Latino         3.00%         1.00%         2.00%         2.00%         1.00%           Black/African-American         93.00%         92.00%         83.00%         93.00%         94.00%           White         3.00%         7.00%         14.00%         5.00%         4.00%           Don't Know         1.00%         0.00%         1.00%         0.00%         1.00%           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	White	93.00%	91.00%	95.00%	95.00%	89.00%					
Ethnoracial Group         Tyrone Washington         Terrell Jefferson         Trevon Booker         Jamal Jackson         DeShawn Banks           Hispanic/Latino $3.00\%$ $1.00\%$ $2.00\%$ $2.00\%$ $1.00\%$ Black/African-American $93.00\%$ $92.00\%$ $83.00\%$ $93.00\%$ $94.00\%$ White $3.00\%$ $7.00\%$ $14.00\%$ $5.00\%$ $4.00\%$ Don't Know $1.00\%$ $0.00\%$ $1.00\%$ $0.00\%$ $1.00\%$ Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino $96.00\%$ $96.00\%$ $92.00\%$ $96.00\%$ $93.00\%$ Black/African-American $2.00\%$ $0.00\%$ $2.00\%$ $4.00\%$ White $2.00\%$ $4.00\%$ $2.00\%$ $0.00\%$ $0.00\%$	Don't Know	0.00%	2.00%	1.00%	2.00%	2.00%					
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$			Black Names								
Black/African-American         93.00%         92.00%         83.00%         93.00%         94.00%           White         3.00%         7.00%         14.00%         5.00%         4.00%           Don't Know         1.00%         0.00%         1.00%         0.00%         1.00%           Latino Namer           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	Ethnoracial Group	Tyrone Washington	Terrell Jefferson	Trevon Booker	Jamal Jackson	DeShawn Banks					
White         3.00%         7.00%         14.00%         5.00%         4.00%           Don't Know         1.00%         0.00%         1.00%         1.00%           Latino Namer           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	Hispanic/Latino	3.00%	1.00%	2.00%	2.00%	1.00%					
Don't Know         1.00%         0.00%         1.00%         0.00%         1.00%           Latino Names           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	Black/African-American	93.00%	92.00%	83.00%	93.00%	94.00%					
Latino Names           Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	White	3.00%	7.00%	14.00%	5.00%	4.00%					
Ethnoracial Group         Juan Hernández         José García         Pedro Sánchez         Héctor Ramírez         Javier González           Hispanic/Latino         96.00%         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	Don't Know	1.00%	0.00%	1.00%	0.00%	1.00%					
Hispanic/Latino         96.00%         96.00%         92.00%         96.00%         93.00%           Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%			Latino Names	3							
Black/African-American         2.00%         0.00%         6.00%         2.00%         4.00%           White         2.00%         4.00%         2.00%         0.00%         2.00%	Ethnoracial Group	Juan Hernández	José García	Pedro Sánchez	Héctor Ramírez	Javier González					
White 2.00% 4.00% 2.00% 0.00% 2.00%	Hispanic/Latino	96.00%	96.00%	92.00%	96.00%	93.00%					
	Black/African-American	2.00%	0.00%	6.00%	2.00%	4.00%					
Don't Know 0.00% 0.00% 0.00% 2.00% 1.00%	White	2.00%	4.00%	2.00%	0.00%	2.00%					
	Don't Know	0.00%	0.00%	0.00%	2.00%	1.00%					

#### C.2 Email Topics and Texts

#### Figure C.1: Internship Email

#### **HEADING:**

From: [Treatment Name]

To: [Legislator's Email Address]

Subject: A question about internship opportunities

Dear [Representative/Senator] [Legislator's Last Name],

#### **BODY - OPTION 1:**

As a fellow [Partisanship] of your district, I am quite interested in learning about the work your office does.

I am committed to helping [Black/Hispanic/-] people, and so I am particularly interested in internship opportunities that may be available to me. Could you instruct me on what to do to get more information?

#### **BODY - OPTION 2:**

I am a [Partisanship] in your district who is very interested in politics. I am very invested in helping the [Black/Hispanic/-] community, so I was wondering if there are any internship opportunities that I could apply to.

#### **BODY - OPTION 3:**

I'm looking for internship opportunities in politics. I live in your district, I'm also a [Partisanship], and I care deeply about helping [Black/Hispanic/-] people, so I thought it would be a good idea to inquire about internship programs or to see if you have information on where I can look for some.

#### **CLOSING:**

I'm looking forward to your answer.

Thank you,

Treatment Name

Figure C.2: Political Advice Email

#### **HEADING:**

From: [Treatment Name]

To: [Legislator's Email Address]

Subject: Question about how to get more involved

Hello [Representative/Senator] [Legislator's Last Name],

#### **BODY - OPTION 1:**

I have lived in your district my whole life. As a fellow [Partisanship], I was wondering what is the best way to get involved in politics here and thought it would be a good idea to ask you for advice. I am particularly interested in work related to improving the quality of life of the local [Black/Hispanic/-] community.

#### **BODY - OPTION 2:**

I'm a [Partisanship] of your district who is interested in getting involved in politics. I believe the current situation of the country requires many of us to get more involved, especially on issues related to our [Black/Hispanic/-] community. Do you have any recommendations on how to start?

#### **BODY - OPTION 3:**

As a fellow [Partisanship], I am really interested in getting more involved in the activities of the party in our district. I am specifically interested in activities that promote better living conditions for the local [Black/Hispanic/-] community. Do you know where I can get information on this?

#### **CLOSING:**

I'm looking forward to your answer.

Thank you,

Treatment Name

Figure C.3: Campaign Email

#### **HEADING:**

From: [Treatment Name]

To: [Legislator's Email Address]

Subject: Question about this year's campaign

Dear [Representative/Senator] [Legislator's Last Name],

#### **BODY - OPTION 1:**

I hope this email finds you well.

I am one of your [Partisanship] constituents, and I was wondering where I can get information on how to get involved in this year's electoral campaign. I am already involved in many activities with the local [Black/Hispanic/-] community but have never participated in a campaign. Can you guide me on where to go or whom to contact?

#### **BODY - OPTION 2:**

I voted [Partisanship] in the last election and would really like to get involved in this yearâs campaign activities. I figured that planning should be starting now, so I would like to know how can I help? I am particularly engaged in activities of the local [Black/Hispanic/-] community, so that may be useful.

#### **BODY - OPTION 3:**

I am a [Partisanship], and I am part of your district's [Black/Hispanic/-] community. I am really interested in participating in this year's campaign activities. Is there a place where I can sign up for doing so?

#### **CLOSING:**

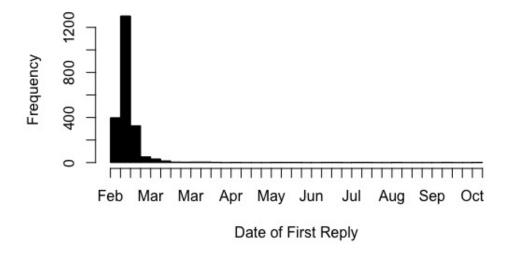
I look forward to your answer.

Thank you,

Treatment Name

# C.3 Reply Dates

Figure C.4: Emails Distribution by Date of First Reply



## C.4 Responsiveness Index Inclusion Criteria

Table C.2: Responsiveness Index. Inclusion Criteria.

Indicator	Value and Inclusion Criteria
	1 when the answer was received
	0 when:
Replies	-no answer was received
	-automatic response received
	-invalid email message received
	1 differs by topic of email:
	Internship: 1 when at least one of the following applies:
	-No internships available
	-Positive answer but asks for more info.
	-No clear answer but asks for more info to give one (e.g. asks what kind of internship or if willing to do unpaid work)
	-Asks Resume
	-Provides link, pamphlet, more info.
	Advice: 1 when at least one of the following applies:
	-Negative answer.
	-Suggest a way to get involved
	-No clear answer but asks for more info to give one (e.g. tell more about interests to give an answer)
	-Provides link, pamphlet, more info
	-Positive answer asks for more info
Describer on Assessed	Campaign: 1 when at least one of the following applies:
Provides an Answer	-Provides contact
	-Added to email list of volunteers
	-Says they can participate in their campaign.
	-Suggest other campaign to participate
	-Says they are not running and cannot help
	-Provides link, pamphlet, more info.
	-Asks if they want to get involved in a specific activity/campaign
	0 when:
	-For Internship and Advice: asks for more information but do not refer to subject being asked with a suggestion on what to do (e.g. where do you live)
	-For Campaign asks for more info but doesn't give suggestion, contact, or clear answer
	-Just offers to meet/talk
	-Instructs to contact someone else to get an answer.
	-Forwards email to someone else to get answer
	-Says they cannot answer from that email address and give other email to re-send the question
	1 when at least one of the following applies:
Gives Personal Contact	-Provides personal email
Gives Personal Contact	-Answers from personal email
	-Provides phone number other than office
	1 when at least one of the following applies:
	-Offers to meet in personal 1-1 meeting
Offers to meet or talk	-Offers to talk by phone (call or be called)
Ollers to meet or talk	0 when:
	-offers to shadow, meet on an event, attend a meeting with other people
	-says contact me if you have doubts, want more information, or as a salutation
Provides Contact	1 when provides contact information of someone working for them to contact or someone to contact that has the answer.

	1 when at least one of the following applies:
	-Clear pathway to achieved what was asked such as:
	i) Send resume
	ii) Follow a link for more information
	iii) Contact someone (contact not provided as it would be in previous category)
	iv) Contact University/ Organization
	v) Says to write back in other moment to follow up.
Provides Instructions to take action	- Suggests something as alterative to what asked. For example:
Provides instructions to take action	i) shadow (for internships)
	ii) come visit the office,
	iii) Invites to a meeting
	- General suggestion on what else they could do to achieve what they want (with instructions).
	0 when instructs to:
	- Call or meet them (included in previous indicator)
	- Contact someone (included in previous indicator)
	- Answer questions they made (included last indicator)
	1 when at least one of the following applies:
	- Copies someone in the email (but not when also asks to contact this person)
Seeks further help or information	- Mentions has forwarded the email / called someone
beeks further help of information	- Offers to put in contact if agreed
	- ffers to find more information
	- Mentions having seek for more information
	1 when asks for further information of the constituent in relation to the asked question. For example:
	- District, address.
	- Interests.
Asks for more information	- More details on the request.
Asks for more information	0 when asks for:
	- Phone number to be called
	- Best time to be called or best date to arrange meeting
	- Questions not related to subject. For example: Gives an alternative to take action and asks if interested.

# ${ m C.5}$ Mean Outcome by Treatment Group and Ethnorace of the Legislator

Table C.3: Mean Outcome by Treatment Group and Ethnorace of the Legislator

	Reply			Responsiveness		
	Ethnorace of Legislator			or Ethnorace of Legislat		
Ethnorace of Constituent	White	Black	Latino	White	Black	Latino
White	0.387	0.276	0.26	1.152	0.755	0.740
Black	0.404	0.295	0.347	1.215	0.821	1.021
Latino	0.352	0.252	0.337	1.053	0.752	1.010

	Informality			Engagement			
	Ethnorace of Legislator			or Ethnorace of Legislato			
Ethnorace of Constituent	White	Black	Latino	White	Black	Latino	
White	0.642	0.454	0.39	0.653	0.439	0.601	
Black	0.657	0.438	0.611	0.671	0.447	0.409	
Latino	0.566	0.400	0.565	0.601	0.516	0.500	

## C.6 OLS Regressions

Table C.4: OLS Regression of Legislative Responsiveness on Hispanic Treatment and Control Variables (Reply and Responsiveness Outcomes)

			]	Dependent Variable: Le	gislators' Responsive	ness		
		R	eply			Respo	nsiveness	
	All Legis.	White Legislators	Black Legislators	hispanic Legislators	All Legislators	White Legislators	Black Legislators	Hispanic Legislators
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Hispanic Treatment	-0.284*** $(0.103)$	-0.286** $(0.116)$	0.191 (0.311)	-0.323 (0.450)	$-0.094^{***}$ $(0.032)$	-0.093** $(0.036)$	$0.050 \\ (0.103)$	-0.092 (0.143)
Republican	-0.101** $(0.048)$	-0.118** $(0.052)$	0.135 $(0.395)$	0.027 $(0.291)$	-0.018 (0.015)	-0.021 (0.016)	0.030 (0.131)	0.034 $(0.093)$
Female	0.125** (0.057)	0.127* (0.066)	-0.029 (0.135)	0.444* (0.226)	0.030* (0.018)	$0.029 \\ (0.021)$	-0.003 $(0.045)$	0.136* (0.072)
Minority	$-0.306^{***}$ $(0.061)$				-0.088*** (0.019)			
Squire Index	-0.526** (0.245)	-0.384 (0.280)	-0.112 (0.857)	-1.926** (0.786)	-0.117 $(0.077)$	-0.058 (0.087)	-0.067 $(0.285)$	-0.572** (0.250)
Senator	-0.010 (0.046)	0.011 $(0.052)$	-0.251** $(0.128)$	-0.119 (0.212)	0.002 (0.014)	0.011 (0.016)	-0.101** (0.043)	-0.052 (0.068)
South	$-0.117^{**}$ $(0.047)$	-0.079 (0.054)	-0.218 (0.145)	$0.100 \\ (0.245)$	$-0.041^{***}$ $(0.015)$	-0.035** $(0.017)$	-0.075 (0.048)	0.026 (0.078)
District hispanic $\%$	-0.102 (0.157)	-0.248 (0.224)	$0.470 \\ (0.453)$	-0.398 (0.383)	-0.032 (0.049)	-0.045 (0.070)	$0.075 \\ (0.151)$	-0.122 (0.122)
hispanic * Squire	0.757* (0.389)	$0.610 \\ (0.452)$	-0.380 (1.168)	1.878 (1.339)	$0.210* \\ (0.122)$	$0.152 \\ (0.141)$	-0.153 (0.389)	$0.454 \\ (0.426)$
Hispanic * Female	-0.019 (0.095)	0.044 (0.111)	-0.299 $(0.226)$	-0.120 (0.391)	0.017 (0.030)	0.042 $(0.035)$	-0.096 $(0.075)$	$0.007 \\ (0.124)$
Constant	1.368*** (0.079)	1.348*** (0.088)	0.949*** (0.277)	1.402*** (0.329)	0.436*** (0.025)	0.424*** (0.027)	0.354*** (0.092)	0.457*** (0.105)
Observations R <sup>2</sup>	5,614 0.010	4,553 0.007	636 0.019	256 0.054	5,614 0.010	4,553 0.007	636 0.020	256 0.054
Adjusted R <sup>2</sup> Residual Std. Error F Statistic	$0.009$ $1.526 \text{ (df} = 5603)$ $5.934^{***}$	0.005 $1.549 (df = 4543)$ $3.518****$	$ \begin{array}{c} 0.005 \\ 1.335 \text{ (df} = 626) \\ 1.366 \end{array} $	$ \begin{array}{r} 0.019 \\ 1.440 \text{ (df} = 246) \\ 1.562 \end{array} $	0.008 $0.478  (df = 5603)$ $5.759****$	$0.005$ $0.483 \text{ (df} = 4543)$ $3.533^{***}$	0.006 $0.444  (df = 626)$ $1.412$	0.020 $0.458  (df = 246)$ $1.570$

Table C.5: OLS Regression of Legislative Responsiveness on Hispanic Treatment and Control Variables (Informality and Engagement Outcomes)

				Dependent Variable: Leg	gislators' Responsive	ness		
		Info	rmality			Enga	gement	
	All Legis.	White Legislators	Black Legislators	Hispanic Legislators	All Legislators	White Legislators	Black Legislators	Hispanic Legislators
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Hispanic Treatment	-0.139**	-0.125**	0.035	-0.138	-0.180***	-0.200***	0.178	-0.249
	(0.056)	(0.063)	(0.173)	(0.248)	(0.057)	(0.065)	(0.173)	(0.236)
Republican	-0.044*	-0.050*	0.128	0.122	-0.032	-0.037	0.092	0.019
	(0.026)	(0.028)	(0.220)	(0.160)	(0.027)	(0.029)	(0.220)	(0.153)
Female	0.057*	0.061*	-0.045	0.301**	0.028	0.021	0.021	0.103
	(0.031)	(0.036)	(0.075)	(0.124)	(0.031)	(0.037)	(0.075)	(0.118)
Minority	-0.159***				-0.155***			
v	(0.033)				(0.034)			
Squire Index	-0.140	-0.024	0.003	-0.812*	-0.847***	-0.839***	-0.255	-1.378***
	(0.133)	(0.152)	(0.477)	(0.433)	(0.135)	(0.155)	(0.479)	(0.412)
Senator	0.003	0.012	-0.108	-0.087	-0.026	-0.011	-0.202***	-0.077
	(0.025)	(0.028)	(0.071)	(0.117)	(0.025)	(0.029)	(0.071)	(0.111)
South	-0.085***	-0.078***	-0.080	0.002	-0.143***	-0.133***	-0.119	-0.174
	(0.026)	(0.029)	(0.081)	(0.135)	(0.026)	(0.030)	(0.081)	(0.129)
District Hispanic %	-0.041	-0.064	0.285	-0.234	-0.030	-0.015	0.102	-0.122
	(0.085)	(0.121)	(0.252)	(0.211)	(0.086)	(0.124)	(0.253)	(0.201)
Hispanic * Squire	0.269	0.123	-0.013	0.662	0.466**	0.471*	-0.511	0.759
	(0.212)	(0.246)	(0.650)	(0.737)	(0.214)	(0.251)	(0.652)	(0.702)
Hispanic * Female	0.005	0.029	-0.173	0.073	0.048	0.096	-0.203	0.131
	(0.052)	(0.060)	(0.126)	(0.215)	(0.052)	(0.061)	(0.126)	(0.205)
Constant	0.714***	0.691***	0.496***	0.692***	0.913***	0.911***	0.589***	0.932***
	(0.043)	(0.048)	(0.154)	(0.181)	(0.043)	(0.049)	(0.154)	(0.172)
Observations	5,614	4,553	636	256	5,614	4,553	636	256
$\mathbb{R}^2$	0.011	0.008	0.018	0.068	0.019	0.013	0.023	0.064
Adjusted R <sup>2</sup>	0.009	0.006	0.004	0.034	0.018	0.011	0.009	0.030
Residual Std. Error	0.829  (df = 5603)	0.841  (df = 4543)	0.743  (df = 626)	0.793  (df = 246)	0.841  (df = 5603)	0.858  (df = 4543)	0.745  (df = 626)	0.755  (df = 246)
F Statistic	6.270***	4.168***	1.278	1.982**	11.001***	6.862***	1.668*	1.882*

Table C.6: OLS Regression of Legislative Responsiveness on Black Treatment and Control Variables (Reply and Responsiveness Outcomes)

	Dependent Variable: Legislators' Responsiveness									
		R	eply			Respon	nsiveness			
	All Legislators	White Legislators	Black Legislators	Hispanic Legislators	All Legislators	White Legislators	Black Legislators	Hispanic Legislators		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Black Treatment	0.023	0.010	0.131	-0.014	0.100	0.076	0.297	0.045		
	(0.033)	(0.037)	(0.103)	(0.148)	(0.106)	(0.120)	(0.310)	(0.467)		
Republican	-0.018	-0.017	0.017	0.049	-0.106**	-0.103**	0.061	0.077		
	(0.015)	(0.016)	(0.133)	(0.091)	(0.049)	(0.052)	(0.401)	(0.287)		
Female	0.032*	0.046**	-0.077*	0.121	0.122**	0.170***	-0.267**	0.355		
	(0.018)	(0.020)	(0.044)	(0.075)	(0.056)	(0.065)	(0.133)	(0.236)		
Minority	-0.091***				-0.294***					
	(0.020)				(0.065)					
Squire Index	-0.055	-0.059	0.119	$-0.465^*$	-0.254	-0.304	0.462	-1.319		
-	(0.074)	(0.085)	(0.277)	(0.270)	(0.237)	(0.272)	(0.834)	(0.851)		
Senator	0.001	0.010	-0.103**	-0.062	-0.012	0.006	-0.253**	-0.152		
	(0.014)	(0.016)	(0.042)	(0.069)	(0.046)	(0.052)	(0.127)	(0.216)		
South	-0.040**	-0.048**	-0.074	-0.005	-0.097*	-0.116*	-0.208	-0.001		
	(0.016)	(0.019)	(0.049)	(0.073)	(0.052)	(0.062)	(0.147)	(0.229)		
District Black %	-0.005	0.099	-0.032	0.084	-0.123	0.259	-0.199	0.306		
	(0.045)	(0.073)	(0.075)	(0.295)	(0.145)	(0.235)	(0.225)	(0.930)		
Black * Squire	0.014	0.113	-0.651*	0.011	-0.051	0.220	-1.746	-0.327		
	(0.125)	(0.145)	(0.390)	(0.416)	(0.398)	(0.465)	(1.173)	(1.310)		
Black * Female	0.016	-0.006	$0.127^*$	0.059	-0.004	-0.083	$0.417^{*}$	0.181		
	(0.030)	(0.035)	(0.076)	(0.123)	(0.096)	(0.113)	(0.227)	(0.387)		
Constant	0.395***	0.382***	0.345***	0.390***	1.237***	1.198***	1.017***	1.144***		
	(0.024)	(0.027)	(0.095)	(0.098)	(0.078)	(0.086)	(0.286)	(0.309)		
Observations	5,614	4,553	636	256	5,614	4,553	636	256		
$R^2$	0.009	0.006	0.025	0.046	0.009	0.006	0.025	0.041		
Adjusted R <sup>2</sup>	0.007	0.004	0.011	0.011	0.008	0.004	0.011	0.006		
Residual Std. Error	0.479  (df = 5603)	0.484  (df = 4543)	0.443  (df = 626)	0.460  (df = 246)	1.527 (df = 5603)	1.550  (df = 4543)	1.331  (df = 626)	1.450 (df = 246)		
F Statistic	5.012***	2.905***	1.817*	1.318	5.295***	3.010***	1.761*	1.182		

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table C.7: OLS Regression of Legislative Responsiveness on Black Treatment and Control Variables (Informality and Engagement Outcomes)

	Dependent Variable: Legislators' Responsiveness								
		Info	rmality			Enga	gement		
	All Legislators	White Legislators	Black Legislators	Hispanic Legislators	All Legislators	White Legislators	Black Legislators	Hispanic Legislators	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Black Treatment	$0.027 \\ (0.058)$	-0.010 (0.065)	$0.276 \\ (0.172)$	$0.035 \\ (0.256)$	$0.050 \\ (0.058)$	$0.035 \\ (0.067)$	0.197 $(0.173)$	$0.078 \\ (0.244)$	
Republican	$-0.049^*$ (0.027)	$-0.047^*$ (0.028)	$0.045 \\ (0.222)$	$0.152 \\ (0.158)$	-0.032 (0.027)	-0.032 (0.029)	$0.076 \\ (0.224)$	0.041 (0.150)	
Female	0.046 (0.031)	0.069** (0.035)	-0.176** (0.074)	0.284** (0.130)	$0.045 \\ (0.031)$	0.064* (0.036)	$-0.127^*$ (0.074)	$0.201 \\ (0.124)$	
Minority	$-0.145^{***}$ $(0.035)$				-0.154*** $(0.036)$				
Squire Index	-0.053 (0.129)	-0.079 (0.147)	0.571 $(0.462)$	-0.688 (0.467)	$-0.666^{***}$ $(0.131)$	$-0.714^{***}$ $(0.151)$	-0.012 (0.465)	-1.116** $(0.445)$	
Senator	$0.001 \\ (0.025)$	0.010 $(0.028)$	-0.107 $(0.071)$	-0.094 (0.119)	-0.027 $(0.025)$	-0.013 (0.029)	$-0.206^{***}$ $(0.071)$	-0.083 (0.113)	
South	-0.068** $(0.028)$	-0.087*** (0.034)	-0.063 (0.082)	-0.065 $(0.126)$	-0.139*** $(0.029)$	-0.151*** $(0.034)$	-0.118 (0.082)	-0.200* (0.120)	
District Black %	-0.108 (0.079)	0.063 $(0.127)$	-0.212* (0.125)	$0.440 \\ (0.510)$	-0.020 (0.080)	0.143 (0.130)	-0.058 $(0.126)$	-0.059 (0.486)	
Black * Squire	0.013 (0.216)	$0.250 \\ (0.252)$	$-1.497^{**}$ $(0.650)$	-0.089 (0.719)	-0.062 (0.219)	0.077 $(0.258)$	$-1.160^*$ (0.655)	-0.018 (0.685)	
Black * Female	$0.044 \\ (0.052)$	$0.009 \\ (0.061)$	0.218* (0.126)	$0.107 \\ (0.212)$	$0.001 \\ (0.053)$	-0.028 (0.063)	0.238* (0.127)	-0.118 (0.202)	
Constant	0.661*** (0.042)	0.645*** (0.047)	0.514*** (0.158)	0.550*** (0.169)	0.833*** (0.043)	0.822*** (0.048)	0.615*** (0.160)	0.774*** (0.161)	
Observations $R^2$ Adjusted $R^2$ Residual Std. Error	5,614 0.010 0.008 0.830 (df = 5603) 5,635***	4,553 0.007 0.005 0.841 (df = 4543) 3.329***	636 0.030 0.016 0.738 (df = 626) 2.143**	256 0.062 0.028 0.795 (df = 246)	5,614 0.018 0.016 0.841 (df = 5603) 10.038***	4,553 0.012 0.010 0.859 (df = 4543) 5.910***	636 0.028 0.014 0.743 (df = 626) 2.020**	256 0.058 0.023 0.758 (df = 246)	

Table C.8: OLS Regression of Legislative Responsiveness on Black and Hispanic Treatments and Control Variables (Reply and Responsiveness Outcomes)

				Dependent Variable: Les	gislators' Responsive	ness		
			eply				nsiveness	
	All Legislators	White Legislators	Black Legislators	Hispanic Legislators	All Legislators	White Legislators	Black Legislators	Hispanic Legislator
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Hispanic Treatment	$-0.114^{***}$ $(0.038)$	$-0.120^{***}$ $(0.042)$	$0.154 \\ (0.119)$	$ \begin{array}{c} -0.172 \\ (0.171) \end{array} $	$-0.319^{***}$ $(0.121)$	-0.338** (0.136)	$0.455 \\ (0.359)$	-0.514 (0.540)
Black Treatment	-0.038 (0.039)	-0.054 (0.044)	0.206* (0.120)	-0.132 (0.178)	-0.069 (0.124)	-0.102 (0.140)	0.514 $(0.360)$	-0.301 (0.560)
Republican	-0.019 (0.015)	-0.018 (0.016)	$0.012 \\ (0.135)$	$0.029 \\ (0.093)$	-0.111** (0.049)	-0.112** (0.053)	$0.056 \\ (0.405)$	0.017 $(0.294)$
Female	0.014 $(0.025)$	0.018 (0.028)	-0.064 (0.066)	0.054 $(0.111)$	0.133* (0.079)	0.162* (0.091)	-0.225 (0.198)	0.254 $(0.348)$
Minority	$-0.087^{***}$ $(0.021)$				$-0.280^{***}$ $(0.067)$			
Squire Index	$-0.207^*$ (0.107)	$-0.202^*$ (0.122)	0.433 $(0.366)$	-0.866** (0.388)	$-0.763^{**}$ $(0.343)$	$-0.783^{**} (0.391)$	1.217 (1.100)	$-2.711^{**}$ $(1.220)$
Senator	$0.002 \\ (0.014)$	0.011 $(0.016)$	-0.101** (0.043)	-0.059 (0.069)	-0.010 (0.046)	$0.009 \\ (0.052)$	$-0.249^*$ (0.128)	-0.133 (0.217)
South	$-0.040** \\ (0.017)$	-0.048** (0.019)	-0.073 (0.049)	$0.030 \\ (0.079)$	-0.093* $(0.053)$	$-0.111^*$ (0.062)	-0.204 (0.148)	0.108 (0.249)
District Black	(0.047)	(0.073)	(0.079)	(0.296)	(0.150)	(0.235)	(0.239)	(0.933)
District hispanic	(0.051)	(0.070)	(0.159)	(0.124)	(0.162)	(0.224)	(0.478)	(0.389)
Hispanic * Squire	0.302** (0.143)	0.284* (0.165)	-0.643 (0.450)	0.727 $(0.515)$	1.013** (0.457)	0.979* (0.528)	-1.670 (1.354)	2.601 (1.620)
Black * Squire	0.173 (0.146)	0.261 $(0.169)$	-0.966** (0.455)	$0.448 \\ (0.502)$	$0.484 \\ (0.467)$	0.731 $(0.542)$	$-2.531^*$ (1.368)	1.185 (1.578)
hispanic * Female	$0.034 \\ (0.034)$	0.053 $(0.040)$	-0.036 (0.090)	$0.089 \\ (0.151)$	-0.028 (0.110)	$0.010 \\ (0.127)$	-0.108 (0.269)	$0.071 \\ (0.474)$
Black * Female	$0.034 \\ (0.035)$	$0.022 \\ (0.040)$	$0.112 \\ (0.090)$	$0.121 \\ (0.147)$	-0.013 (0.111)	-0.073 (0.129)	$0.366 \\ (0.271)$	$0.266 \\ (0.462)$
Constant	0.457*** (0.032)	0.447*** (0.035)	0.266** (0.114)	0.541*** (0.149)	1.414*** (0.101)	1.389*** (0.113)	0.765** (0.342)	1.597*** (0.469)
Observations R <sup>2</sup> Adjusted R <sup>2</sup> Residual Std. Error F Statistic	5,614 0.011 0.008 0.479 (df = 5599) 4.346***	4,553 0.008 0.005 0.483 (df = 4539) 2.850***	636 0.029 0.009 0.443 (df = 622) 1.439	256 0.062 0.012 0.460 (df = 242) 1.239	5,614 0.011 0.008 1.526 (df = 5599) 4.430***	4,553 0.008 0.005 1.549 (df = 4539) 2.742***	636 0.028 0.008 1.333 (df = 622) 1.375	256 0.060 0.009 1.447 (df = 242) 1.184

Table C.9: OLS Regression of Legislative Responsiveness on Black Treatment and Hispanic and Control Variables (Informality and Engagement Outcomes)

	Dependent Variable: Legislators' Responsiveness								
			rmality				gement		
	All Legislators	White Legislators	Black Legislators	Hispanic Legislators	All Legislators	White Legislators	Black Legislators	Hispanic Legislator	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Hispanic Treatment	$-0.171^{***} (0.066)$	$-0.176^{**}$ $(0.074)$	0.235 $(0.199)$	-0.238 (0.296)	$-0.213^{***}$ $(0.067)$	$-0.249^{***}$ $(0.075)$	$0.367^*$ $(0.200)$	-0.328 (0.283)	
Black Treatment	-0.064 (0.067)	-0.102 (0.076)	0.385* (0.199)	-0.142 (0.307)	-0.063 (0.068)	-0.097 $(0.077)$	$0.376^* \\ (0.201)$	-0.127 (0.294)	
Republican	-0.051* (0.027)	-0.048*  (0.029)	$0.045 \\ (0.224)$	$0.115 \\ (0.161)$	-0.033 (0.027)	-0.032 (0.029)	$0.059 \\ (0.225)$	$0.018 \\ (0.154)$	
Female	0.025 $(0.043)$	$0.042 \\ (0.049)$	-0.142 (0.110)	0.106 (0.191)	0.010 (0.043)	0.007 $(0.050)$	-0.087 (0.110)	0.113 (0.183)	
Minority	$-0.137^{***} (0.037)$				$-0.152^{***}$ $(0.037)$				
Squire Index	-0.239 (0.186)	-0.247 (0.212)	1.041* (0.609)	$-1.261^*$ (0.669)	$-0.977^{***} (0.189)$	$-1.078^{***}$ $(0.217)$	$0.720 \\ (0.613)$	$-1.749^{***}$ $(0.640)$	
Senator	$0.003 \\ (0.025)$	$0.012 \\ (0.028)$	-0.103 (0.071)	-0.095 (0.119)	-0.026 (0.025)	-0.013 (0.029)	-0.200*** $(0.071)$	-0.078 (0.114)	
South	-0.066** $(0.029)$	-0.088*** (0.034)	-0.062 (0.082)	-0.001 (0.137)	-0.139*** $(0.029)$	-0.153*** $(0.035)$	-0.114 (0.082)	-0.167 (0.131)	
District Black	(0.081)	(0.128)	(0.132)	(0.512)	(0.082)	(0.130)	(0.133)	(0.490)	
District Hispanic	(0.088)	(0.122)	(0.265)	(0.213)	(0.089)	(0.124)	(0.266)	(0.204)	
Hispanic * Squire	0.383 (0.248)	0.338 (0.286)	-1.020 (0.750)	1.006 (0.888)	0.599** (0.252)	0.694** (0.292)	$-1.469^*$ (0.755)	1.146 (0.850)	
Black * Squire	0.213 $(0.254)$	$0.426 \\ (0.294)$	$-1.979^{***}$ $(0.758)$	0.552 $(0.866)$	$0.255 \\ (0.257)$	0.441 (0.300)	$-1.887^{**}$ $(0.762)$	0.651 $(0.828)$	
Hispanic * Female	$0.036 \\ (0.060)$	0.048 (0.069)	-0.082 (0.149)	$0.272 \\ (0.260)$	$0.066 \\ (0.061)$	0.111 $(0.070)$	-0.096 (0.150)	0.118 $(0.249)$	
Black * Female	$0.066 \\ (0.060)$	$0.037 \\ (0.070)$	0.180 (0.150)	$0.275 \\ (0.254)$	$0.036 \\ (0.061)$	$0.029 \\ (0.072)$	$0.198 \\ (0.151)$	-0.036 (0.243)	
Constant	0.755*** (0.055)	0.740*** (0.061)	0.390** (0.189)	0.784*** (0.257)	0.947*** (0.056)	0.953*** (0.062)	0.433** (0.191)	1.016*** (0.246)	
Observations R <sup>2</sup> Adjusted R <sup>2</sup> Residual Std. Error	5,614 0.012 0.009 0.829 (df = 5599) 4.782***	4,553 0.009 0.006 0.841 (df = 4539) 3.100***	636 $ 0.034 $ $ 0.014 $ $ 0.739 (df = 622)$	256 0.081 0.032 0.794 (df = 242)	5,614 0.020 0.017 0.841 (df = 5599) 7.967***	4,553 0.014 0.011 0.858 (df = 4539) 5.053***	636 0.035 0.015 0.743 (df = 622) 1.743**	256 0.068 0.018 0.760 (df = 242)	

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Table C.10: Heterogeneous Treatment Effects by Professionalization Score (Reply and Responsiveness Outcomes)

			Dependent Variable: Le	gislators' Responsiveness		
		Reply			Responsiveness	
	(1)	(2)	(3)	(4)	(5)	(6)
Hispanic Treatment	-0.038*** (0.013)		$-0.094^{***}$ $(0.036)$	-0.239** (0.098)		$-0.285^{**}$ $(0.114)$
Black Treatment		$0.018 \\ (0.032)$	-0.032 (0.037)		$0.065 \\ (0.101)$	-0.087 (0.118)
Squire Index	-0.031 (0.071)	0.010 (0.069)	-0.138 (0.101)	-0.260 $(0.225)$	-0.113 (0.219)	$-0.569* \\ (0.322)$
Hispanic Treatment * Squire Index						
Black Treatment * Squire Index	0.168 (0.117)					
black_const:prof_score		$0.057 \\ (0.120)$	$0.205 \\ (0.141)$		$0.135 \\ (0.384)$	$0.592 \\ (0.451)$
hispa_const:prof_score			0.274** (0.138)	$0.538 \ (0.374)$		0.847* (0.440)
Constant	0.386*** (0.019)	0.352*** (0.018)	0.403*** (0.026)	1.192*** (0.059)	1.085*** (0.057)	1.237*** (0.084)
Observations $R^2$ Adjusted $R^2$ Residual Std. Error F Statistic	5,911 0.002 0.001 0.481 (df = 5907) 3.578** (df = 3; 5907)	5,911 0.001 0.001 0.481 (df = 5907) 2.065 (df = 3; 5907)	5,911 0.002 0.002 0.481 (df = 5905) 2.793** (df = 5; 5905)	5,911 0.002 0.001 1.535 (df = 5907) 3.106** (df = 3; 5907)	5,911 0.001 0.0004 1.535 (df = 5907) 1.826 (df = 3; 5907)	5,911 0.002 0.001 1.534 (df = 5905) 2.448** (df = 5; 5905)

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Table C.11: Heterogeneous Treatment Effects by Professionalization Score (Informality and Engagement Outcomes)

			Dependent Variable:	Legislators' Responsiveness		
		Informality			Engagement	
	(1)	(2)	(3)	(4)	(5)	(6)
Hispanic Treatment	$-0.071^{***} $ $(0.023)$		$-0.150^{**} (0.062)$	$-0.142^{***} (0.054)$		$-0.167^{***} $ (0.063)
Black Treatment		$0.022 \\ (0.055)$	-0.057 (0.064)		$0.040 \\ (0.056)$	-0.049 (0.066)
Squire Index	$0.039 \\ (0.123)$	$0.082 \\ (0.120)$	-0.113 (0.176)	-0.588*** $(0.125)$	-0.453*** $(0.122)$	$-0.727*** \\ (0.179)$
Hispanic Treatment * Squire Index						
Black Treatment * Squire Index	$0.209 \\ (0.204)$					
black_const:prof_score		$0.099 \\ (0.209)$	$0.294 \\ (0.246)$		-0.007 (0.213)	$0.268 \\ (0.250)$
hispa_const:prof_score			0.361 $(0.240)$	0.371* (0.207)		0.510** (0.244)
Constant	0.610*** (0.032)	0.560*** (0.031)	0.640*** (0.046)	0.767*** (0.033)	0.704*** (0.032)	0.793*** (0.046)
Observations $R^2$ Adjusted $R^2$ Residual Std. Error	5,911 0.002 0.002 0.836 (df = 5907)	5,911 0.001 0.0004 0.837 (df = 5907)	5,911 0.002 0.001 0.836 (df = 5905)	5,911 0.005 0.004 0.850 (df = 5907)	5,911 0.004 0.003 0.851 (df = 5907)	5,911 0.005 0.004 0.850 (df = 5905)
F Statistic	$4.059^{***}$ (df = 3; 5907)	1.872 (df = 3; 5907)	$2.766^{**} (df = 5; 5905)$	$9.707^{***}$ (df = 3; 5907)	$7.695^{***}$ (df = 3; 5907)	$6.108^{***}$ (df = 5; 5905)

#### C.7 Heterogeneous Effects: Differences in CATEs

Table C.12: Heterogeneous Effects by Ethnorace of Legislator. Reply and Responsiveness Outcomes

	Reply		R	esponsive	ness
		Ethnorace	of Legislat	or	
White	White	Black	White	White	Black
minus	minus	minus	minus	minus	minus
Latino	Black	Latino	Latino	Black	Latino
0.112*	0.011	0.101	0.356*	0.095	0.261
0.070	0.044	0.082	0.219	0.135	0.252
0.070	0.002	0.068	0.204	0.003	0.201
0.073	0.046	0.083	0.227	0.140	0.254
0.042	0.01	0.032	0.151	0.093	0.059
0.071	0.046	0.081	0.219	0.139	0.246
0.092	0.007	0.085	0.283*	0.052	0.232
0.062	0.039	0.072	0.194	0.119	0.222
	minus Latino 0.112* 0.070 0.070 0.073 0.042 0.071 0.092	White minus minus Latino Black 0.112* 0.011 0.070 0.044  0.070 0.002 0.073 0.046  0.042 0.01 0.071 0.046  0.092 0.007	White White Black minus minus minus Latino Black Latino 0.112* 0.011 0.101 0.070 0.044 0.082 0.070 0.002 0.068 0.073 0.046 0.083 0.042 0.071 0.046 0.081 0.092 0.007 0.085	Ethnorace of Legislat           White minus         White minus minus         Black minus minus         White minus minus           Latino         Black Latino         Latino           0.112*         0.011         0.101         0.356*           0.070         0.044         0.082         0.219           0.070         0.002         0.068         0.204           0.073         0.046         0.083         0.227           0.042         0.01         0.032         0.151           0.071         0.046         0.081         0.219           0.092         0.007         0.085         0.283*	Ethnorace of Legislator           White minus         White minus         White minus minus         White minus minus         White minus minus           Latino         Black         Latino         Latino         Black           0.112*         0.011         0.101         0.356*         0.095           0.070         0.044         0.082         0.219         0.135           0.070         0.002         0.068         0.204         0.003           0.073         0.046         0.083         0.227         0.140           0.042         0.01         0.032         0.151         0.093           0.071         0.046         0.081         0.219         0.139           0.092         0.007         0.085         0.283*         0.052

Note:Standard Errors in Brackets

all two-tailed tests; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table C.13: Heterogeneous Effects by Ethnorace of Legislator. Informality and Engagement Outcomes

		Informalit	У		Engageme	nt
			Ethnorace	of Legislat	or	
Ethnorace of Constituent	White	White	Black	White	White	Black
	minus	minus	minus	minus	minus	minus
	Latino	Black	Latino	Latino	Black	Latino
White minus Latino	0.251**	0.021	0.23*	0.123	0.022	0.102
	0.125	0.074	0.144	0.116	0.074	0.136
White minus Black	0.206	-0.032	0.237	0.068	-0.011	0.08
	0.127	0.076	0.143	0.122	0.077	0.138
Black minus Latino	0.045	0.053	0.008	0.055	0.033	0.022
	0.125	0.076	0.142	0.117	0.076	0.133
White minus Minorities	0.230**	-0.004	0.234	0.097	0.006	0.091
	0.11	0.065	0.125	0.104	0.065	0.119

 $Note: Standard\ Errors\ in\ Brackets$ 

all two-tailed tests; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table C.14: Heterogeneous Effects by Party of Legislator

10010 01111 110001	0		<u> </u>	0				
	Party of Legislator							
	Republican minus Democrat							
Ethnorace of Constituent	Reply	Respons.	Informal	Engagement				
White minus Latino	0.034	0.055	0.055	0.083*				
	0.031	0.097	0.053	0.055				
White minus Black	0.004	-0.036	0.010	0.023				
	0.030	0.098	0.054	0.055				
Black minus Latino	0.03	0.091	0.044	0.06				
	0.030	0.097	0.052	0.054				
White minus Minorities	0.021	0.015	0.035	0.056				
	0.026	0.085	0.047	0.048				

Note: Standard Errors in Brackets all two-tailed tests; \*p<0.1; \*\*p<0.05; \*\*\*p<0.01