

STATUS QUOTA:  
THE REPRESENTATIONAL EFFICACY OF LEGISLATIVE GENDER  
QUOTAS UPON PUBLIC POLICY

BY

DANIEL DORAN PARTIN

DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of Doctor of  
Philosophy in Public Policy in the Helms School of Government at Liberty University in  
Lynchburg, Virginia, November 22, 2021

Advisor: Melissa Beaudoin, PhD

Liberty University  
Helms School of Government  
Department of Public Policy

We hereby approve the dissertation of

Daniel Doran Partin

Candidate for the degree of Doctor of Philosophy in Public Policy

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Professor Melissa Beaudoin, Chair

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Professor Georgiana Constantin-Parke, Committee Member

**ABSTRACT**

Legislative gender quota policies are political rules which are designed and implemented with the goal of increasing the representational presence and influence of women in government. Fundamentally, representation operates along two separate dimensions and can be considered as either descriptive or substantive. Descriptive representation is the numerical proportion of a group within a deliberative assembly while substantive representation concerns the ability of a group to shape influence policy outcomes in accordance with their preferences. Past research into legislative gender quotas has been prolific but has also been largely focused upon the tendency of quotas to shape the descriptive dimension of representation. This research considers representation comprehensively, and is intended to discern how quotas along both dimensions of representation. Substantive representation can be discerned through consideration of a wide number of policy issues that are considered "women's issues." For the purpose of this research, only the one policy outcome of infant mortality is considered, because of its strong theoretical connection to women as opposed to men due to the unique role of women as mothers and primary care givers. It is expected that as women gain descriptive representational power as a consequence of legislative gender quota policies that their substantive representational power should also be affected resulting in lower levels of infant mortality as a consequence of public policies that are produced. The results from this analysis indicate that the ordinal power of gender quotas is inversely associated with infant mortality, while higher thresholds for quotas are positively related to infant mortality.

**DEDICATION**

First, and foremost, it is essential that I give all glory to God for the success that He has given me in producing this research. All praise is due to Him. He has been faithful to lead me in all ways. Without Him, I am nothing, and I hope that this work glorifies His name.

Notably, this work is about the political influence that women have upon their societies under quota conditions. I am the product of the influence of many great women, and this dissertation is dedicated to them. Mom, you were my first and best friend. You believed in me when I did not, and when I did not deserve your belief. You are an inspiration, and I still hope that I make you proud. Thank you for being my mama! My grandmother, Ma. You were a powerful influence on me when I was a child. Thank you for being willing to talk about the things that I was interested in discussing, and being willing to listen to the ramblings of a child. You sparked my inquisitiveness and my desire to learn. To my wife, Jessica, you have tolerated me taking over the tables in the house to work, and you have been patient when I have needed to work. You are a miracle, the wonder of my life, and I am grateful to have you as my wife. To my daughter Joanie Abigail, I am so excited to meet you soon! I hope that I make you proud, and that you know that you have been loved since I first knew that you were. You are the product of many great women who have come before you, and you will be an amazing woman as well!

**ACKNOWLEDGEMENTS**

I am incredibly indebted to the graciousness of many faculty members within the Helms School of Government. In my time at Liberty University, I have had the privilege of working with many outstanding faculty members, and I have had the distinct honor to call some of these people my friends. I wish to thank and acknowledge Dr. David Van Heemst and Dr. Melissa Stewart for their guidance through the Master's degree thesis process. Both have continued to offer guidance even after I completed my work with them. Similarly, Dr. Timothy O'Brien is due tremendous thanks for his continuous willingness to assist and advise me throughout this process. Most of all, I wish to extend the deepest of thanks to the fine team that comprised my dissertation committee. Dr. Constantin-Parke has given deeply of her time to advise my research, and to make the final product as robust as possible. Dr. Beaudoin has been the best chair, advisor, and friend that any doctoral student could ask for while in a doctoral program. Her excitement has lifted my spirits and kept me motivated. I would be a complete success if I were able to only be a fraction of the teacher that she has been to me.

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**LIST OF ACRONYMS**

IPU	Inter-Parliamentary Union
IMR	Infant Mortality Rate Replication Data
OLS	Ordinary Least Squares Regression
UN	United Nations
V-DEM	Varieties of Democracy
WDI	World Development Indicators

## CHAPTER ONE

### Introduction

Electoral quotas are political tools which are used to increase the proportion of membership of a specific group within legislatures and parliamentary assemblies. These policies have been used to promote racial, ethnic, language, age, professional, religious, and gender groups within politics (Hughes, 2011; Hughes, Paxton, and Krook, 2017; Krook and O'Brien, 2010; Paxton, Hughes, and Barnes, 2021, p. 190). Quota policies are comprised of rules at the party or governmental level which designate a proportional threshold of seats that are to be occupied by female actors (Krook, 2009; Paxton, Hughes, and Barnes, 2021, p. 182). Legislative gender quotas emerged within democratic systems during the late 1970s, and these policies quickly developed into a source of political debate and empirical consideration throughout the few decades which have passed since their first appearance within electoral politics (Jones, 1998; Reynolds, 1999). Gender quota policies have been utilized by both quasi-democratic and authoritarian systems since their emergence specifically because of their utility in establishing a façade of equality within the government (Bush and Zetterberg, 2021). According to Zetterberg (2009), legislative gender quotas have, “been perhaps the most radical and intensely debated reform in the area of gender equality in the past fifty to sixty years” (p. 715). Despite rampant debate concerning the issue, states within the international system have increasingly adopted some variation of these policies, and incorporated them into the electoral structure of the political framework of government.

Within the states that have employed quota policies, these policies have proven to be contentious from the onset of their original design and implementation, drawing

attention and criticism from a segment of citizens who perceive the motivation behind the development over these policies as being antithetical to the principles of equality which warranted their original design and development (Dahlerup and Freidenvall, 2005; Krook, 2016). Further, even amongst those within academic circles, gender quotas have also been a significant development that has further shaped the existing conception of democratic governance. While quota policies are not exclusive to democracies, because non-democratic governments have used quotas as a symbol of equity, gender quotas represent an emergent feature within democratic systems that seek to promote gender equity within governmental processes. Fundamentally, legislative quotas have forced a re-examination of the concept of democracy, because they have presented fresh challenges to the accepted understanding of democratic governance through their implementation in nations around the world.

Scrutiny of quota policies has prompted an abundance of questions aimed at probing the attributes of gender quotas, including the political rationale for their original design and implementation, their efficacy in achieving their intended representational goals, and the long-term effect of these policies upon democratic integrity. Arguably, one of the most substantively critical questions which has emanated through the proliferation of legislative gender quotas concerns whether these policies are able to effectively increase representation for women, as specified through the explicit constraints which are outlined within the quota (Kittlson and Schwindt-Bayer, 2012). Because of this, one of the most prominent rationales for promoting electoral quotas has been to promote increased access for women. Through access to the processes of policy-making, quotas are also posited to act as a political instrument which ensure that the

group interests associated with women are more fully represented within government and in the public policy outcomes that are eventually produced (Larsrud and Taphorn, 2007, pp. 36-37). This dissertation is directed at engaging the relational effect of gender quota which is expected to be established through greater political representation for women in the societies where these policies have been utilized. The research focus of this dissertation is directed toward addressing three interrelated questions regarding the effect of legislative gender quotas in the systems which employ these electoral rules. These questions are as follows:

**Generally, do legislative gender quotas increase the descriptive and substantive representation for women within the population of a democracy?**

**Do stronger gender quota policies promote greater substantive representation for women's interest by allowing for women in legislatures to establish public policy which thereby reduces infant mortality?**

**Do the effects of gender quotas upon infant mortality rates differ based upon the punitive or numerical dimension of its power?**

Representation is multi-faceted, and operates along multiple dimensions within government and society (Carroll and Liebowitz, 2003; Childs, 2006; Franceschet and Piscopo, 2008). Past research efforts have identified two specific forms of representation which could be manifested in government, and described how these dimensions do not necessarily coexist evenly within a government (Franceschet and Piscopo, 2008, pp. 393-396). Within past empirical analysis into women's political influence, representation has been categorized into two groups which are defined as either descriptive or substantive in

nature (Franceschet and Piscipo, 2008, p. 394). Descriptive representation entails the numerical power, or the proportional share, of women within a legislative assembly (Beckwith, 2007; Reingold, 2000, p. 2; Wangnerud, 2009). Substantive representation is the reflection of women's ideals and preferences translated into policy outcomes which affect the larger framework of societal status quos (Beckwith, 2007; Reingold, 2000, p. 2; Wangnerud, 2009). As separate components of the same concept, the theoretical linkages between descriptive and substantive representation offer strong face validity.

Interestingly, the research into these linkages have not delivered uniform conclusions about the connection of these two forms of representation. Some research has identified a strong linkage between the two forms of representation. According to Mansbridge (2005), the "descriptive representation by gender improves substantive representation for women in every polity for which we have a measure" (p. 622). By contrast, Franceschet and Piscopo (2008), argued that quotas, and the increases in descriptive representation that they fostered, were not sufficient to counteract institutional constraints placed upon women, thereby limiting policy changes (p. 396).

Due to the empirical uncertainty regarding how, or if, quotas influence representational outcomes for women, these separate categorizations are important in framing the comprehensive efficacy of legislative quota policies. Descriptive and substantive categorizations of representations can be present within a government to varying combinational degrees. cursory consideration of these two categories of representation would suggest that the most conducive means of achieving greater substantive female representation would be through prior increases to the descriptive representational levels of women in legislatures. It is possible to imagine a scenario in

which a majority of seats within a legislature are held by women, but this relative power does not translate into substantively representative policies for women due to any number of institutional or cultural reasons. Similarly, one might posit a case in which women consist of only a small fractional contingent of members in a parliament, but they are able to use that power to adjust the status quo in a manner that is more, even if narrowly so, threshold of substantive representation within public policy outcomes. One notable example would be the movement for female suffrage within the United States, which culminated in the ratification of the Nineteenth Amendment to the United States Constitution. In this case, substantive representation was increased without the presence of strong descriptive representational power in legislatures (Keyssar, 2000; Mansbridge, 2003; Murray, 2014). Considered together, greater descriptive representation need not be considered as a necessary or a sufficient condition for increased substantive representation.

The purpose of this dissertation is to provide clarification on the relationship between legislative gender quota policies and political representation for women in both descriptive and substantive formations. Previous scholarship on quota policies has largely focused upon one domain or the other. Prolific amounts of research have been conducted into the descriptive representational changes as a result of quotas (Dahlerup, 2006; Dahlerup and Nordlund, 2004; Jones, 2004; Jones, 2005; Paxton, Hughes, and Painter II, 2010; Schmidt and Saunders, 2004). The research which has been conducted to analyze substantive representational effects of quotas have only considered policy differences through broad categories (Weeks, 2019). Empirical attempts aimed at linking descriptive and substantive representation have not provided consistent information about

the relationship between representational attributes, and whether quotas are relevant in strengthening the connection between these two domains (Franceschet and Piscopo, 2008; Mansbridge 2005; Wangnerud, 2009).

This dissertation considers representation holistically by addressing the influence of quota policies upon descriptive and substantive representation. Numerous studies have examined the changes in the numerical proportion of women in legislatures that have occurred through the acceptance and implementation of various forms of gender quota policies (Higgs, 2012). As government has grown, the domain of public policy has expanded in tandem, and practically all aspects of societal operation are under the auspices of governmental policy. Because of the broad reach of public policy, substantive representation of women has the potential to be observed across an exceptionally wide range of policy outcomes (Blanton and Blanton, 2007, pp. 149-150; Doepke and Tertilt, 2019, pp. 313-314; Macmillan, Shofia, and Sigle, 2018, pp. 1906-1908; Meyer, 1996, p. 373). It is not possible within the confines of any single study to consider the complete spectrum of policy outcomes that might be affected through legislative gender quotas. For the purposes of this study substantive representation examined through the causal effect of quotas upon a singular policy outcome which has theoretically and empirically been connected to policy issues that are associated with women's interests and preferences. Specifically, this study examines substantive representation by consideration of the effect of quota laws upon the specific policy outcome of infant mortality rates (Macmillan, Shofia, and Sigle, 2018).

### Variations of Legislative Gender Quotas

Although gender quotas are often considered together, there are significant distinctions in their construction and their formation. The most substantial difference in legislative quotas is in their legal status, and the ability to enforce these policies within an electoral system. Quotas can vary in the legal power through which they are enacted. Based upon the severity of their legal authority, legislative gender quota can be divided into one of three categories (Paxton, Hughes, and Barnes, 2021). Considering each type of quota by moving from most stringent to least severe, quotas can be classified as either reserved seat systems, legal candidate quotas, or as political party quotas (Krook, 2009).

The initial two categorizations, reserved seat systems and legal candidate quotas, are legally enshrined quota policies that are often mandated constitutionally. In these systems there are legal protections to ensure that women are represented in an outlined proportion. Candidate quotas have historically resulted in some success in increasing the number of women within legislative assemblies. Argentina's adoption of a strong candidate quota system in 1991 resulted in an immediate increase in the proportion of female legislators from 4% to 21%. This success served as a model to other states in the region which adopted similar quota systems over the following decade (Barnes and Jones, 2018; Jones 1998; Paxton, Hughes, and Barnes, 2021). Reserved seat systems mandate a specific proportion of seats that are to be held by women within a legislature. Legal candidate quotas are similar in design to reserved seats. Reserved seat quota systems pertain to the gender of the candidates which are put forth by the various parties within a system, and their placement in the ballot structure.

Finally, party quotas are voluntary in their composition. Their voluntary nature arguably makes these types of quotas easier to implement, but they do not carry the same legal authority as other quota systems that are constitutionally protected (Paxton, Hughes, and Barnes, 2021). While there are no constitutional consequences for failing to adhere to party quotas, this does not mean that there is a complete lack of enforcement. Failure to meet party quota thresholds can have both inter and intra party consequences through the weakening of coalitions within governments.

Despite the compositional differences that exist between forms of legislative gender quotas, they all exist to achieve similar outcomes. Specifically, they are each aimed at increasing the numerical representation of their specified target demographic population within legislative bodies, and to construct a deliberative assembly that is more equal and reflective of the distribution of men and women within a state. While certain features, such as a higher numerical threshold, have been attributed with greater success, it is not prudent to normatively categorize one type of quota as conclusively superior to other forms (Paxton and Hughes, 2015, p. 355; Schwindt-Bayer, 2009). Scholars have recognized that quotas are not monolithic, and that the appropriateness of a specific form of quota legislation is contingent upon individual factors within the case of each state (Jones, 2005). Similarly designed quota policies have been shown to vary significantly with respect to the levels of success that they have achieved through their implementation (Paxton, Hughes, and Barnes, 2021).

### **Representation Through Government Process**

Representation is a principle which is integrally connected to the fundamental processes of democratic politics. Within classical political thought, Plato famously

eschewed democratic governance as a model for his ideal republic specifically because of the prominence of the representation of the public body within democracies (Strauss, 1964). The interconnectedness between democracy and societal representation has intensified as more segments of the population have been included through political suffrage. Therefore, representation is a principle which has become integrated into the modern framework of the democratic concept, yet democracies have often failed throughout history in permitting and promoting the representation of women in the political operation of the state (Paxton, Hughes, and Green, 2006, p. 905; Sundstrom, Paxton, Wang, and Lindberg, 2017, p. 326). Quotas policies are systemic rules designed for the specific purpose of achieving representational parity of targeted groups. Although representation is not a concept which is necessarily unique to democracies because communistic governments were founded upon the dogma that all peoples within a state would be equal (Held, 1981, p. 297; Koyzis, 2003, p. 172; Schumpeter, 1947, p. 269), it is a principle that should operate more easily within societies which are more democratically-oriented. From this expectation, the presence of representational import can be discerned through some of the most integral aspects of the democratic process, such as candidate selection, policy design, and within the societal outcomes which emanate from public policies. Through voting, the candidates who are elected to office represent the choice of the people in their constituency. Similarly, elected officials are expected to support policies that are congruent with the will and interest of their people. A transitive chain can be discerned. Because officials are chosen by the people, it is expected that they will generally be similar to their constituents with respect to policy

preferences, and will pursue policies with outcomes that would be valued and supported by voters if they had the opportunity to directly cast a ballot over these issues.

Yet, even within this rudimentary scenario presented above depicting democratic operation, there remains the potential for the political marginalization of groups with distinct preferences, values, and political priorities. Those within various identity groups maintain policy ideals that could shift the status quo of policy if they were proportionately included in the process of policy deliberation. There is an expectation that greater levels of descriptive representation, the presence of identity groups within the political process, will result in political outcomes that are more closely aligned with the policy preferences which are associated with a specific group (Weeks, 2016, p. 1). As a consequence, the policies that are produced should be more representative of the balance of ideals that are present within the population of a state based upon the distribution of power within the legislature (Krehbiel, 1998).

Ideally, within democratic systems, the preferences of the public will be represented in the policies that are produced and implemented because voters selected a candidate or party which was in closer alignment with their political ideals. Yet, despite these basic assumptions there are still groups which have remained marginalized, with policy not truly reflecting their ideal set of preferences. Group identity can be constructed using a practically limitless number of personal features which are part of an individual, and tie them to a larger group of people who share similar features or characteristics. Group identities based upon race and gender have been shown to be especially salient, and the race and gender of an individual can potentially shape the personal worldview of these individuals (Hawkesworth, 2010, pp. 686-687; Jardina,

2019, pp. 260-263). For women, political marginalization has been a historical reality (Elshtain, 1993, pp. 12-15). Women over generations shared similar experiences which influenced the group identity of women, and shaped the framework of how women view the world and themselves (Phillips, 1995; Mansbridge, 1999; Young, 2001; Swers, 2002). Further, women have also been characterized as caregivers who are apt to view the world through a nurturing lens due to their roles as mothers (Ruddick, 1995, pp. 2-15). These shared experiences and characteristics of women form a unique worldview that has been attributed to a shared identity, which would subsequently contribute to distinct political preferences and policy goals (Pitkin, 1967).

Inclusion of women into political processes is accompanied by marginalization. Even after gaining suffrage, women often faced an electoral choice between male candidates, who were unlikely to share the exact political and social priorities as themselves. Women who chose to shape policy by seeking elected office in national legislatures faced systemic and cultural biases which were exclusively applied to women, and restrained the ability of women to win in electoral competitions (Runyan, 2019, pp. 60-65). In elected assemblies where women were able to secure election, they were a small minority of the legislative body, which was dissimilar to the proportion of the population which is comprised by women.

The presence of gender quota policies within the political structure of contemporary states is widespread, and these policies are not confined to geographical regions, or limited by historical or cultural traditions which would seem antithetic to policies that promote women's political power and interests. States which have been historically characterized by cultural traditions which act as contributing sources to the

marginalization of women and their autonomy have exhibited a willingness to incorporate quota mechanisms into their constitutional framework as they attempt to move toward democratic transition and consolidation (Onishi, 2017, pp. 1-4). For example, after the collapse of the Taliban regime, the Afghan people drafted a Constitution which established reserved seats for women in both chambers of the new legislature in the newly developed Islamic republic (Krook, O'Brien, and Swip, 2010). Likewise, the Iraqi people adopted a similar strategy in the wake of their conflict with the United States and the collapse of their former ruling regimes. The Iraqi Constitution established a representative threshold that twenty-five percent of legislative seats be occupied by women (Al-Tamimi, 2019, p. 4).

In a study of gender quotas and democratic institutions, Drude Dahlerup (2004) asserted that legislative gender quotas mark a seminal event in women's history because through the spread of norms associated with the design and implementation of legislative gender quotas women are obtaining political power in nations which have been historically resistant to the political empowerment of females. This phenomenon is not isolated to a single region. Instead, the scale of governmental integration of quota policies into the electoral functions of states is global in nature. Disparate nations from all regions of the globe such as, "Rwanda, Costa Rica, Argentina, Mozambique and South Africa are now placed very high in the world league of the Inter-Parliamentary Union (IPU). The five Nordic states, Denmark, Finland, Iceland, Norway, and Sweden, which for a long time were virtually alone at the top of the ranking table [for percentage of women in parliamentary houses], are now being challenged" (Dahlerup, 2004, p. 16). Examination of the 2021 list of nations with the highest percentage of women in national legislatures

from the same data source, the IPU, reveals that the Nordic nations are no longer the pre-eminent group in their proportion of women occupying legislative office. Rather, the five states which have the highest percentage of women within their legislatures do not include a single Nordic nation, but consist of Rwanda, Cuba, United Arab Emirates, Nicaragua, and New Zealand (IPU.org).

This distribution is relevant because legislative gender quotas are not a regional political phenomenon, but these policies can be global in their scope. The states which have the greatest proportion of women within legislatures and parliaments are geographically disparate and culturally varied. This anecdotal evidence aligns with a constructivist theoretical perspective of international relations, and the power of ideas within a political system (Bueno de Mesquita 2006, 176-177; Sikkink 2011, 236-237). The conclusion derived from these statistical figures is salient, and suggests a global trend in which norms and values have aided women in their ability to enter into the political arena in some capacity. Women are being integrated into political processes across the world through the political tools of legislative quota policies to address the imperative of gender equality norms that are simultaneously spread within the political system. Descriptive statistics of the composition of legislative chambers serves as a testament to the political power of quotas to promote cultural changes, and to offer an avenue for women to achieve greater political empowerment through their descriptive representation within various political systems across the world. Indeed, the universal nature of gender quotas affords an opportunity for quantitative empirical analysis using a global set of data and the discernment of generalizable trends and features (Paxton, Hughes, and Painter II, 2010).

The growth of quota policies, and the increase to the proportion of legislative power which is held by women in democracies across the world is readily observable and well-documented. The inclusion of greater numbers of women in policy-making positions within the legislatures of their government through quotas has achieved numerical representation for women in democratic systems across the world. Yet, numerical representation does not necessarily translate to representation for women with respect to the policies and their effects which result from greater membership in legislative bodies. While quotas have been observed as instrumental in their ability to increase numerical representation of women, the broader societal implications associated with a given quota policy have remained relatively ambiguous.

Despite increasing the proportion of female legislators, the theoretical and empirical literature has remained divided over whether greater representation of broadly categorized identity groups within policy-making assemblies has a significant effect in moving the status quo of policies toward group identity preferences (Pitkin, 1967; Phillips, 1995). The political and social effect of gender quotas is still largely uncertain, and questions regarding whether gender quotas enable women to exert a significant influence on policy and alter the status quo have persisted as a topic of inquiry. As will be discussed in the following chapter, past research which has identified discernable policy shifts that have occurred through legislative gender quotas is limited, and the linkages between descriptive and substantive representation due to gender quotas is mixed (Franceschet and Piscopo, 2008; Mansbridge 2005; Wangnerud, 2009). Specificity of which issues should experience change as a result of increased representation for women is also sparse. A recent study conducted by Weeks (2019) addressed the question of how

policy is altered through various quota mechanisms, but the author did not consider how these policies influence specific issues, but only broadly examined conceptual policy domains (pp. 849-851). Even accounting for recent attempts to study the results of policies within these systems, there is still considerable ambiguity regarding how specific political indicators are affected through quota policies.

### **Why Quotas?**

Over the course of the past two centuries, the political phenomenon of democracy has proliferated and expanded tremendously (Huntington, 1993, pp. 14-15). Through a series of systematic waves, both the geographic domain, and the conceptual range of democracy have been pushed outward to be more encompassing and to be more theoretically nuanced and conceptually refined over time. Theoretical development has been accompanied by proliferation. As more nations embraced democratic institutions, the criteria of identification became more delineated, and the necessary political characteristics, such as universal suffrage among the population, became firmly established. Within the contemporary international system, democratic features are now exhibited by an overwhelming majority of nation-states across the globe, and over 90 percent of states now are characterized by having at least partial democratic institutions in their political compositions (van Ham and Lindberg, 2015, pp. 521-523).

This rapid development of gender quota protections has allowed for deep systemic changes to the electoral and representative systems within democratic, and even within quasi-democratic, states around the world which have determined to integrate quotas into their political processes (Bush, 2011). These systemic shifts have afforded greater proportions of the population increased access to exert an influence upon

democratic political operations. The status quo of electoral and representative governance is no longer limited to universal suffrage, or the ability of any person to seek elected office within a governmental body. Most substantively, representation has been tied to equality as groups within quota-adopting political systems have established a conceptual interpretation of democracy which is constructed in terms of composition and proportion (Verba, 2006). These arguments are based on the assertion that political representation is best achieved through governmental composition that is similar to the societal distribution of identity groups. Specifically, there is concern that traditionally-marginalized groups will still remain politically excluded within governmental legislative bodies. Exclusion of these groups is problematic because it is likely that the government, and by extension the policies that are produced from within the government, do not reflect of inputs from all segments of the population. This is especially true of women. A wide segment of states within the international system have established institutional mechanisms which are designed to ensure that a minimum threshold of representative seats are allocated according to the gender of those who are elected to office.

The swift acceptance and proliferation of legislative gender quotas has been described as the most significant developments to democratic governance in the past generation. Legislative gender quotas are often described as an institutional tool that is designed and implemented to achieve representation within a government that is more proportional to the distribution of gender within a society. Generally, it is expected that if the legislature includes a more diverse range of identity groups which contribute to policy creation, the final outcomes will more accurately represent the preferences of the

entire citizenry. For women, this would mean that as more women are able to influence the development of policy, that the policies would reflect their interests and preferences.

Ascertaining whether legislative gender quotas are effective in shaping political outcomes is substantively significant toward understanding not only the efficacy of these policies, but also an emergent feature that is associated with the politics of candidate selection of both democratic and quasi-democratic states within the international system. It remains unclear whether the rapid proliferation of these types of policies will eventually be associated with the recognition of democratic governance, or with a transitional aspect of democratic reform. Because these policies represent a salient and rapidly-developing feature which has the potential to eventually serve as a criterion of democratic consolidation in a similar manner to how just over a century ago, suffrage for women was novel but rapidly became essential to the concept of democracy for scholars and policy-makers. The push toward equality rooted within legislative gender quotas could eventually be comparable to universal suffrage which was afforded to women during the end of the Nineteenth Century and beginning of the Twentieth Century. Like the extension of suffrage, the presence of a quota would not necessarily be a sufficient condition of democracy, but the lack of one could be integral for democratic classification. Indexes of polity are routinely utilized to classify the democratic strength of all states within the international system (Munck and Verkuilen, 2002; Polity IV). Based upon an interval scale of measurement, it is possible that a state could be classified as being less democratic than other similar states in which gender quotas are present within the electoral process. Quota policies are insufficient for democratic governance because they can be employed by communistic and authoritarian governments to

establish a façade of equality within a society. The most notable example of authoritarian adoption of legislative gender quotas occurred in 2007 when China implemented a quota threshold that 22% of the legislature be comprised of women (Paxton, Hughes, and Barnes, 2021). It is not uncommon for non-democratic regimes to engage in superficial efforts to increase the descriptive representation of women, or other traditionally marginalized groups, as a cheap signal to appear more democratic to observers (Valdini, 2019, p.125). Although seemingly democratic features are present within a government, the polity could still operate as authoritarian despite an equal or competitive façade (Levitsky and Way, 2002; Levitsky and Way, 2010).

The research presented within this dissertation is intended to address a substantial gap that is present within the existing literature on the relationship between legislative gender quotas and public policy. Existing research within the literature analyzing legislative gender quotas has focused primarily on the origination and the effectiveness of these policies at achieving their specified goal levels of female representation within legislative bodies. Assuming that quota systems are effective at increasing the number of women in elected positions to a more proportional level, it still is unclear whether increased numerical power translates into discernable differences in policy outcomes. If policy outcomes are unaffected by the presence of legislative gender quotas within the electoral system, the rationale for these policies is subject to question. In the best-case scenario, they serve little substantive purpose. Worse, if there are no policy differences that can be discerned, these laws highlight differences where there are none and might actually prevent democratic choice by limiting candidate selection based upon gender (Bergoffen, Gilbert, and Harvey, 2010, pp. 3-4; Tickner, 1992, p. 39). Addressing these

political issues will also simultaneously add to the study of democracy and allow insight into the dynamics of its continuing evolution.

### **An Initial Summary of the Research Question: Why Quotas Should Make a Difference**

Although women have been relegated to the private domain throughout much of democratic history, their relatively recent integration into the political domain has shown that women have influenced public policy through engagement with civil society and politics. Their previous history exclusion from the political realm has been integral in the shaping of a unique set of shared identity features among women, and has guided their sense of importance within the world as a consequence (Mansbridge 1999; Onishi 2017; Philips 1995; Swers 2002; Young 2001). Shared perspective and experiences establish a set of values and preferences which guide the political ideals that women would like to see in society (Ruddick, 1989, p. 51). Despite modern efforts at incorporation, women still are treated as political outsiders, and this perspective in congruence with a historical legacy of marginalization factor into the formulation of a political identity which is instrumental in predicting policy preferences (Escobar-Lemmon and Taylor-Robinson, 2016; Lazarus and Steigerwalt, 2018).

Preferences are able to translate into policy through greater integration of women into the legislative process. With their access to put forth policy initiatives which are reflective of their personal values, debate proposed legislation, and fight against policies that they view as incongruent with their own interests, policy will reflect an equilibrium that is more closely aligned with their ideal preferences (Krehbiel, 1998). Through quota laws, women are afforded greater representation within legislatures. Inclusion into a

legislative assembly allows for direct engagement with public policy, and enables women to influence the form and direction of policy initiatives (Celis, 2009; Childs and Krook, 2009). It should be expected that as more women are included in the legislature the policies will more closely align with the ideals preferred by women because of their representational power.

Quotas are able to shape the representational power of women in legislature through two separate features within their design. First, the language of the quota establishes a minimum threshold of female representation that is allowed. Higher numerical thresholds for the percentage of seats that are reserved for female legislators is directly equated to their ability to influence policy outcomes that are more aligned with their ideal political preferences. Second, while thresholds establish a minimum floor for the allowable numerical level of representation, there is the potential that these standards could not be achieved due to a wide number of reasons. For example, party leaders might choose to not cooperate with quota policies in systems where there is no cost associated with non-compliance because quotas are voluntary, or confined to the political party apparatus (Celis, Krook and Meier, 2011, p. 518). Further, even in situations where there is a punitive cost associated with failure to achieve an established level of female candidates, or legislative members, parties could still determine that the cost of non-compliance is acceptable and absorb the consequences that are issued (Rosen, 2017, pp. 84-85). The institutional strength and punitive costs associated with a quota increase the likelihood that it will be successful in achieving the level of female representation desired.

Based upon this understanding, increases in both dimensions of quota strength should allow for policy outcomes that are more reflective of the policy preferences that are generally held by women. Specifically, the primary policy outcome examined within this dissertation is the infant mortality rate of a nation in a given year. It is the purpose of this study to discern the role of gender quota policies in influencing changes to the infant mortality rates which are observed within a state. It is not to be assumed that quota policies should be understood as the singular variable which affects infant mortality rates. Quotas alone should not be framed as a sufficient condition of infant mortality rates. Rather, this study is directed at understanding how quota policies influence this specific policy, and result in marginal changes to this outcome.

The determination to utilize infant mortality rates as a proxy indicator of women's substantive representational power is not an arbitrary choice. Infant mortality rates are an important proxy indicator of substantive representation of women because it is an issue that is intimately tied to the values typically associated with women due to their unique roles as mothers, and the carriers of their children (Doepke and Tertilt, 2019, pp. 313-314; Macmillan, Shofia and Sigle, 2018, pp. 1906-1908). The role of women as mothers highlights how traditional social roles and emergent progressive values are able to coalesce to shape a worldview that has the power to influence policy outcomes. Within existing literature on the topic of feminism and women's politics, women have been framed as both socially traditional and progressive. For the purpose of this study, the ideological alignment of women, although interesting, is not relevant. Rather, the primary concern related to women's group identity is the establishment of a political worldview that shapes policy preferences in a largely identifiable manner.

Before moving forward, it is necessary to establish the theoretical framework that is used to explain not only the diffusion of legislative gender policies as a norm throughout the international system, but also the values associated with women's group identity. Constructivism is a theoretical approach within the field of international relations that is utilized to explain behavior through the sharing of norms between a multitude of actors within the international system. Under the theoretical domain of constructivism, political power, and by extension, policy is initiated from ideas, and it is discursive (Bueno de Mesquita, 2006, pp.176-177; Sikkink, 2011, pp. 236-237). From this framework, values associated with women's gender identity are shared across cultures, as are their political preferences that emanate from this social identity (Elshtain, 1993; Phillips, 1995; Mansbridge, 1999; Ruddick, 1995). The uniformity of these political values facilitates the spread of gender quotas as an electoral norm across cultures and throughout various societies. Utilizing constructivist theory to frame policy outcomes originating from gender quotas represents a novel application of this theory because it is being applied to domestic policy outcomes as opposed to international politics.

Despite the historical tradition of women relegated to non-political roles, they have been shown to have very salient, and recognizable political goals which can be associated with this historical role. Women have been associated with a preference to support more-progressive policies (Bolzendahl, 2011; Brady and Lee, 2014; Ladd-Taylor, 1994). Progressiveness encompasses a wide range of policy areas, but past research has shown that women are likely to favor social spending in areas that include healthcare, education, and daycare, all of which affect children (Ladd-Taylor, 1994; Mies, 1986; Woloch 2011, 257). State mandated and subsidized healthcare is part of the expansion of

the welfare state, and health and wellness access for mothers and children is contained within these initiatives (Weeks 2019, 854). Further, healthcare is increasingly viewed as a fundamental human right within certain segments of the international community, such as the World Health Organization, which is to be equally provided to all people within a state (Cingranelli, 1988, p. 29; WHO.int). Yet, while some internal groups and organizations might adhere to healthcare as a human right, it is not universally accepted like first-generation physical integrity rights such as torture, political imprisonment, or extra-judicial state killing (Donnelly, 2003, p. 10; Abouharb and Cingranelli, 2007; Karns and Mingst, 2010).

Healthcare is still conceptually broad, and encompasses a wide range of indicators. Infant mortality rates should be expected to be especially salient to women because of their traditional roles as mothers and caregivers of children, and this identity establishes a rationale to support more-expansive governmental policies to support their interests. It should be expected that these values will translate into policy initiatives as they obtain greater representation. Therefore, as women are included the policy making process, it is expected that women will create and enact policies that reflect their interests in these outcome areas which should influence the infant mortality rate within a state.

As stated above, the determinants of the rate of infant mortality within a state are certainly complex, and are shaped by a multitude of different variables that operate simultaneously within a nation. This research does not suggest that legislative gender quotas are the exclusive determinant, or even the primary cause of variation in rate of infant mortality that is observed within a state. Rather, legislative gender quotas are expected to have an influence upon this specified social indicator, and should exert a

marginal change in the level of infant mortality as a consequence of its presence within the political structure of the polity that is being observed.

Within the existing literature regarding women's influence on politics and public policy, there are a range of specific policy outcomes that can be addressed through research, this analysis is currently limited to a few policy areas that have been associated with traditional areas of interest for women who are engaged in politics. Specifically, this research is interested in assessing the impact of gender legislative quotas upon the infant mortality within a society. Narrowing down to focus explicitly upon a single policy issue allows for the research questions which were presented earlier in the chapter to guide this project. These questions were as follows:

**Generally, do legislative gender quotas increase the descriptive and substantive representation for women within the population of a democracy?**

**Do stronger gender quota policies promote greater substantive representation for women's interest by allowing for women in legislatures to establish public policy which thereby reduces infant mortality?**

**Do the effects of gender quotas upon infant mortality rates differ based upon the punitive or numerical dimension of its power?**

These questions draw together multiple aspects of social operation to holistically assess the power of gender quotas as a means of achieving greater representation for women across both descriptive and substantive dimensions. Together these questions serve as the basis for a deeper and more comprehensive understanding how identity

translates into specific policy changes through the political tool of gender quota rules within democracies.

### **Selection of Methodological Framework**

The specific research questions identified above do not necessarily favor one methodological approach over another. Both quantitative and qualitative methodologies could be appropriately applied to address each of the questions, and both quantitative and qualitative approaches could have specific empirical advantages over the other approach in ascertaining information and features of quota policies. While both methodological approaches are applicable, this research is quantitative in its structure, and addresses the descriptive and substantive representational consequences of gender quota policies through a quantitative lens. While multiple categories of quotas based upon their strength can be discerned within various democratic systems, these categories can be compared between nations. Based upon the global ubiquity of legislative gender quotas across the globe, this dissertation will address the research questions quantitatively through a global longitudinal sample of observations.

Both dimensions of representation through legislative quotas lend themselves toward global time-series analysis. Descriptive representation is inherently numeric in nature because this form of representation is focused upon the proportion of women that are integrated into a legislative assembly as a product of the implementation of the quota policy. The wide-scale diffusion of quotas throughout democratic governments around the world is also conducive to a quantitative global analysis of the descriptive and substantive effect which results from legislative gender quota policies. Gender quotas are a global phenomenon that has taken root in numerous political systems across regional

and cultural boundaries. Although legislative gender quotas represent a historically novel development within the field of democratic studies, these policies have existed within nations since the 1970s. In the time since their origination, they have proliferated rapidly over the past decades (Jones, 1998, pp. 3-6). At the time of writing, there are over 90 democratically-oriented states in the world that utilize some form of gender quota to promote, or to ensure, a more equitable proportion of women within legislative assemblies (Finke, 2019, p. 66). Rapid proliferation and broad acceptance of these policies established gender quotas as a prominent feature of various governmental entities, especially within democratically- structured organizations (Wangnerud, 2009, p. 64).

The third wave of democracy, as identified by Samuel Huntington, commenced in the 1970s with the Carnation Revolution in Portugal and Spain's transition to democracy shortly afterward. Likewise, regions of Latin American and Asia experienced dramatic political change as nations in both regions engaged in the process of democratic transition during the 1980s (Schenoni and Mainwaring, 2019, pp. 269-287). Consideration of the historical development and expansion of these policies reveals that they are a modern and dynamic enough phenomenon to allow for in-depth consideration of individual cases without substantial fear of obfuscation due to the passage of time. The rapid spread of these policies throughout democracies across the global system has also provided a large number of observations that can be used to detect global aggregate trends.

Substantive representation is not as neatly identified through numerical analysis as descriptive representational data, but features associated with substantive representation can be quantified. When considered broadly, women's integration into the

legislative process should affect a large range of policy issues because of the unique shared worldview and political preferences which are attributed to women with the past political and psychological research. Comprehensively articulating the substantive representation associated with gender quotas requires aggregately addressing each of the individual policy outcomes that should be altered due to increases of the descriptive representation of women within governmental positions. This research is focused upon two indicators of substantive representation. Specifically, the questions directed at discerning the propensity of quotas to influence substantive representation utilize the infant mortality rates within nations as a proxy indicator to assess the level of substantive representation that is achieved. This indicator is inherently numeric in its composition, and is ideal for quantitative analysis into the topic of substantive representation, which can be difficult to assess outside of qualitative means.

### **The Plan and Outline of the Book**

This dissertation represents a quantitative inquiry into the marginal effects of varying forms and features of legislative gender quotas upon two specific policy areas that are assumed to be influenced through greater inclusion of women within the legislative process based upon the assumption that there are identifiable issues which are more personally prioritized by women, and the subsequent expectation that the personal significance of these issues to women will be reflected in policy outcomes. The progression of this book consists of five chapters, and the following chapters are outlined below.

Chapter Two of this book is a survey of the relevant previous literature which is used to build a theory of the relationship between the properties of a legislative gender

quota policy that is present within a system and the infant mortality rate values that are observed. The research within this dissertation draws from numerous sets of literature and previous research to explain a small set of specific political outcomes that are a consequence of the presence of variations of legislative gender quotas within electoral procedures. As such, the literature review is comprised of three areas of previous empirical study. I begin with an empirical assessment of the evolution of the concept of democracy, and how legislative gender quotas represent a progression of the democratic development.

The second component of the second chapter is focused upon the various dynamics regarding the formation of an identifiable group identity which can be associated with women. Because I am interested in discerning whether policy outcomes under quota policies are reflective of issues that are associated with women's interests, a survey of the relevant research concern women's political dynamics is included in the review of the literature. The convergence of group identity and unique socio-political ideals has been debated within academic fields across a variety of disciplines. Yet, identity groups are frequently more cohesive than other sources of personal and collective identity, and feminist political research has repeatedly concluded that women tend to maintain political preferences which are substantively and significantly distinct from their male counterparts within society. Explanations for the origination of policy preference cleavages based in gender identity vary significantly by the field of research. My theoretical pathway explaining how quotas are expected to afford women the opportunity to shape policy in accordance to preferences that are associated with their female identity operates under the assumption that women do possess unique and discernable ideals

which can be identified on average. Although the topic of how gender policy preferences have developed is interesting, it is not relevant for this context, and is beyond the scope of this study. These values associated with women's group identity is used as a basis to connect how substantive representation of women in legislatures should be manifest through decreases to the infant mortality rate that is observed within a state.

The final component of the second chapter is a presentation of the theoretical framework that is used to connect varying forms of legislative gender quotas to changes in descriptive and substantive representational levels. This dissertation builds upon constructivist theory, and expands upon it in the process, by applying constructivism to explain the diffusion of values and norms throughout the international system, and also to explain the operationalization of domestic features of electoral politics as a consequence. In this regard, the boundaries of constructivism are expanded to resemble a theoretical framework which explains phenomena at both the international and domestic level of politics, similar to the two-level game proposed by Putnam (1988). Based upon the literature, a theoretical explanation of the relationship between legislative quota policies and the selected social indicators is offered, and testable hypotheses are drawn from the theory.

The subsequent two chapters which follow the review of the literature are each intended to build upon the second chapter. The third chapter of this dissertation is focused upon the selected methodological approach, and consists of two components. First, the choice of individual variables, sources of data, and their operationalization is outlined and explained. Because quota strength is not accurately interpreted along a single dimension, but can be understood through the punitive consequences of non-

compliance and also the numerical proportion of seats which it reserves for women, I consider each dimension in isolation. By considering the individual features of quotas in isolation, the efficacy of quota design is able to be addressed with greater precision. The Varieties of Democracy (V-DEM) database contains statistical information for the primary variables including both dimensions of quota strength and the rates of infant mortality. Second, the methodological approach is explained and justified. Research into various aspects of gender quota laws is especially well-suited to quantitative methodological approaches of inquiry. Because quotas are a relatively modern political phenomenon, the quantifiable data is comprehensive, and it is possible to analyze the political lifespan of quotas from their origination through to the present time. Quotas have also proliferated to all regions of the world, allowing for a large number of observations over time in many different cases, and increases the generalizability of the results which comprise the following chapter. In the fourth chapter of the dissertation, the findings from the ordinary least-squares regression models are evaluated and considered in relationship to the theoretical expectations contained in the second chapter of this book.

Within the fifth, concluding chapter of this dissertation, the results presented in the preceding chapter are considered within the context of policy alternatives that could be utilized as more appropriate means for increasing women's involvement in the legislative process and in achieving more desirable social outcomes. When considered against certain social indicators that are traditionally associated with women's interests, it is not prudent to consider legislative gender quotas as homogenous. If legislative gender quotas are considered to be a tool to achieve gender parity, and to further the social and

political interests of women within society, then quota policies must not be viewed as a sledgehammer. Quotas are not monolithic political tools, but they can vary in their punitive power and the minimum threshold for female representation that they mandate. These differences are salient, with the power to influence policy differently based on the construction of quota rules. As policy tools for achieving parity in gender representation, purposeful and deliberate design of the features which comprise these policies are critical, and quotas should be framed carefully based upon their outcomes.

Every research endeavor must take into account the limitations that operate through a number of ways. This research is only focused upon two specific indicators of social outcomes that are associated with the progressive political preferences of women. As such, it is not possible to apply conclusions of the effect of various types of gender quota policies with a broad brush to issues extending beyond infant mortality rates. This narrow focus does not negate the value of this book in expanding the literature for each of the fields which are included. Rather, this narrow set of indicators presents a theoretical framework that can be applied in subsequent analyses on similar policy questions can be expanded. This dissertation is intended to provide theoretical and empirical evaluation of the relationship between various manifestations of gender quota policies and the infant mortality rate which is observed within a state in a given year. These variables are proxy indicators of the level of health and well-being within a state, and align with socially-progressive policy values that are associated with women's interests. Certainly, other indicators are applicable to consider alongside legislative quotas based on gender identity, and progressive policy preferences extend beyond the health of a population and encompass virtually every policy dimension. As such, this dissertation adds to the larger

universe of literature on democracy, and its evolution through gender quotas, and is intended to provide empirical insight into the relationship of quotas upon infant mortality and, by extension help provide clarity of the utility of legislative gender quotas in strengthening the substantive representation of women through their presence.

### **Summary**

Democracy and political representation are intimately intertwined. Modern democratic systems are the products of theoretical and political developments which have occurred over the past centuries. Waves of democratization have included movements to draw various identity groups deeper into the political process, and establish policies that are closer to the ideal which is associated with these groups. Despite extensions of suffrage to women, and removing legal barriers that have prevented women from seeking political office, a substantial proportion of women were still dramatically under-represented within legislative assemblies based upon their proportion within the population. Legislative gender quotas are an institutional effort to close the gap in legislative composition between men and women, and establish legislative bodies that are proportionate to societal demographics of gender. Efficacy of legislative gender quotas must be considered along two dimensions of success. First, these policies must be assessed in their ability to achieve a standard of female participation which is outlined by the quota.

Based upon empirical and anecdotal observations of greater female inclusion in policy-making bodies as a consequence of quotas, it can be confidently assumed that gender quotas are largely successful in altering the gender distribution of legislative assembly members. This is achieved through the implementation of institutional rules

which ensure that a minimum threshold of women is included in governmental legislation, and allows for the second, and more substantive parameter, of policy success to be applied to legislative gender quotas. Successful gender quotas, according to the second dimension, are those which result in changes to policy through greater female involvement in policy-making. It is this question which is the subject of this book, and it is arguably the more substantively significant of the two dimensions because the conclusions obtained have the potential to challenge the motivation behind the adoption and implementation of quota policies. Yet, the motivating premise and political rationale behind gender quota policies is largely predicated through the assertion that quotas offer an institutional “fast-track” to strengthen women’s ability to influence policy through their increased proportion of legislative power and, that public policy within these systems will be more congruent with the social and political preferences of women, which are distinct from those of men. If the second dimension of success is not achieved through legislative quotas based upon gender, it becomes necessary to reconsider the role of gender quotas as an instrument to facilitate representation within democratic legislatures.

Quota systems are arguably one of the most powerful political developments within modern democracies. These policies are designed to promote substantive political representation to women, which as a group have experienced challenges to democratic engagement and have been largely marginalized through traditional democratic institutions. As such, it is essential to consider quotas comprehensively. Descriptive statistics of the percentage of women in national legislatures is only a partial measure of efficacy. Moving beyond numerical representation, and discerning whether stronger

quotas are associated with the realization of women's issues in society is necessary for a complete understanding of the operationalization of quotas. Comprehensive insight into the full trajectory of quotas allows for political refinement and greater predictive power of the expected outcomes under certain quota conditions. It is the purpose of this dissertation to address the issue of whether gender quotas provide an avenue for women to engage in policy in a substantively meaningful manner through institutional rules which ensure that female legislators are able to occupy a minimum level of positions within house bodies. Considering only one proxy indicator of substantive representation, infant mortality rates, through this framework is a small, but essential, first step toward a more comprehensive understanding of this emergent feature of democratic governance.

## CHAPTER TWO

### Literature Review

The intended functional purpose for the composition of this dissertation is to contribute in the pursuit of a more-holistic perspective regarding the specific changes in all forms of political representation that is achieved for women through the implementation of various manifestations of legislative gender quotas. Representation is a multifaceted concept which has been considered along two distinct dimensions of achievement. Quota success must be considered both in their numerical efficacy in promoting women through the electoral process, and also in the political changes which are a consequence of the heightened ability of women to shape legislation, and ultimately, public policy. Quota policies must be assessed in their ability to influence not only descriptive representational changes, but also in the propensity for these policies to elicit alterations in policy outcomes that reflect substantive representational achievement for women (Franceschet and Piscipo, 2008, p. 394). Full consideration of the dynamics of legislative gender quotas, their effectiveness at achieving substantial representational increases for women within legislative assemblies, and their eventual influence upon the status quo of public policy outcomes is complex, and is a process that is shaped by a variety of different facets. Due to this inherent complexity, there are multiple empirical strands of research which must be considered, and subsequently woven together to form the foundation for the theoretical basis of this research. This chapter is comprised of two sections, and positions this study within the larger framework of research of democracy and legislative gender quotas.

The first component of this chapter will be an in-depth review of past empirical research of the various concepts which are necessary to discern the representative efficacy of legislative gender quota policies in all stages of the political process. This research encompasses research traditions which are derived from an array of different academic domains, which when considered together in unison can be utilized to explain the operation of how legislative quotas increase descriptive and substantive representation for women within democratic societies.

The second portion of this chapter is comprised of a presentation and explanation of the theoretical framework for the research, the expectations that are expected to be observed as a consequence of my theoretical explanation, and finally, the hypotheses that have been derived from this theory. By deductively drawing each set of literature into topically-relevant focus, I am able to present a theoretical explanation for the political trajectory of legislative quotas in operation within democratic systems with respect to their intended purpose of building legislative bodies, deliberative processes, and in producing public policy outcomes which are more representative of the gender distributions within these societies. Specifically, by connecting the sets of literature together, a more comprehensive framework for interpreting the comprehensive representational efficacy of gender quotas is presented. This analysis moves beyond addressing descriptive cursory substantive representational gains that are attributed to quota policies. Instead, this research presents a test of gender quotas against a specific policy outcome, infant mortality rates, which is closely aligned with women's interests, and serves as a proxy indicator through which substantive representational changes can be considered.

### **The Growth of the Conceptual Requisites of Democracy**

Legislative gender quotas represent neither a necessary, nor a sufficient condition for the identification of a democracy. Democracies have existed before, and in the time since, the origination and political proliferation of legislative gender quotas throughout the global system of states. Likewise, quotas cannot be considered either a necessary or sufficient condition of democratic governance because of their incorporation into the politics of quasi-democratic, and even within the structure of authoritarian states (Celis, Krook and Meier, 2011, p.515; Krook, 2009). However, numerous political scholars have connected these policies to democratic systems because of the increasing frequency of quota implementation within democratic structures across the globe. As such, quotas rules, and their political consequences, represent governmental features that hold the potential to exert a salient influence upon future interpretations of democratic governance. Because these policies are increasingly being integrated into the electoral functions of democratic political systems, it is essential to frame these regulations within the greater concept of democracy. Democratic political governance has roots that extend back through millennia of history into antiquity. The political, conceptual, and theoretical borders of democracy have continually been pushed outward, and have enveloped features which are initially viewed as being radical, but through diffusion are eventually viewed as immutable norms which are engrained into the conception of democratic identity. Alexander Kioukiolis described democratic evolution through the lens of ontological speculation which he maintained as a process which is able to, “paint the picture of a mutable world that is pregnant with rich possibilities, inspiring and encouraging the kind of unlimited contestation, generative politics and solidary ethics

that mark out radical democracy” (p. 692). From this perspective, democracy has the potential to change, and to evolve to address political challenges and realities.

Democracy is not a static concept, but rather it is a system that has been developing and changing for millennia (Putnam, Leonardi, and Nanetti, 1993, 121). The conceptual adjustments of democracy which have occurred have been efforts to achieve a more holistic realization of democracy that is based upon equality and a government that is representative of the people and the policy preferences that they possess (Paxton, Hughes and Barnes 2021, 243). Democracy is a nuanced and recognizable form of governance. These nuances are evident in the various forms, and individual applications of similar institutions which shape democratic, and democratically-oriented systems across regions and cultures (Cheibub and Limongi, 2002; Linz, 1990; Stepan and Skach, 1993). As democracy has conceptually broadened over the past centuries it has been characterized by an increasing number of characteristics that are used to define and identify these regimes. These essential definitive characteristics are integral to the political development of legislative gender quotas and are foundational in establishing a framework for analyzing the policies that are produced as a consequence of these laws.

Consideration of the criteria of democracy expanded in the wake of the Second World War, as nations across the globe attempted to transition to democratic self-government. Seymour Martin Lipset (1959) presented an analysis into the dynamics of democracy by articulating the conditions the he believed are necessary for democracy to not only be achieved, but also maintained within a state. To achieve this goal, he provided a conceptual definition for democracy, at least within complex societies. Democracy, according to Lipset (1959) can be best understood as, “a political system

which supplies regular constitutional opportunities for changing the governing officials” (p. 71) However, Lipset was somewhat inconsistent with his operational definition of democracies across different geographical regions. According to Lipset (1959), democracies across the range of European and English-speaking nations can be identified through the, “uninterrupted continuation of political democracy since World War I, and the absence over the past 25 years of a major political movement opposed to the democratic ‘rules of the game’” (73). Therefore, those states which have not experienced upheavals to routine election cycles, or challenges to the political authority of election outcomes could be considered democratic. Latin American nations, by contrast, are merely determined through the criteria of whether a, “given country has had a history of more or less free elections for most of the post-World War I period” (Lipset 1959, 74). Certainly, there is more flexibility in the latter definition as the degree of how free an election process must be is not firmly established.

The most basic conception of democracy has maintained the political system as a, “competitive struggle for power” (Schumpeter 1947, 269). What separates democracy from other governmental variants is the “competitive” nature that typifies the struggle for power. In defining the method of democracy, Joseph A. Schumpeter (1947) asserted a minimalist interpretation of the system as an, “institutional arrangement for arriving at political decision in which individuals acquire the power to decide by means of competitive struggle for the people’s vote” (p.269). Therefore, this arrangement can be understood as the process of elections, by a selectorate group, which can vary in size (Bueno de Mesquita 2011, 16-20). Competition for votes is hardly sufficient to be considered democratic if the selectorate is small and not inclusive, because even socialist

and communist parties held elections that only included a very small set of elites (Duverger 1954, 143). Democratic elections must include the entire population to be represented in government, and free from arbitrary barriers and prohibitive barriers (Paxton, Hughes, and Painter II 2010, 28).

Based upon the theoretical parameters established by scholars such as Lipset (1959) and Schumpeter (1947), suffrage, which is ideally universally applied, is the most basic condition that is necessary for a government to be considered democratic. Without suffrage, there is no competitive struggle for power, and power is absolute. Within a modern framework of democracy, universal suffrage is considered to be an essential component that must be present (Paxton, Bollen, Lee, and Kim 2003, 93-94). By extension, the notion of suffrage implies that there will be participation in the process by the population (Beaulieu 2014, 85). It is through large-scale participation in elections that legitimacy is fostered, and confidence in the government is supported (Classen 2020, 118; Linz and Stepan 1996, 15). In situations where elections do not produce high voter turnout, the electorate might not view their vote as consequential, or they have a diminished view of their ability to impact government (Downs 1957). For example, within developing nations electoral turnout in democratic elections averages about 67% (Beaulieu 2014, 84). When fewer voters participate in elections processes, the citizens are disconnected from their government and their leaders. The low turnout in these democratic states has been offered as a factor in democratic protest, and even in regime recidivism and collapse (Beaulieu 2014, 84-85; Cheibub 2002, 287).

Arguably one of the most critical developments has been the inclusion of larger segments of the represented society into the deliberative process of politics. Throughout

much of democratic history, the concept was narrowly conceptualized, and although there was deliberative input from the citizenry, there were still large portions of society who were excluded from the process, and were unable to use the political system to reflect their desires and preferences (Elshtain 1993, 12-15). Women especially were the targets of this exclusion because, “within the political tradition, the world of work and the sphere of the household, where the hierarchy of age and gender favours adult males, have been out of political bounds” (Edwards 1994, 52). Within both the public and the private spheres, women have traditionally been marginalized. Certainly, they were affected by the decisions made by others within the political and private realms, but they were largely powerless to exert an influence upon their own realities.

Women’s social and political marginalization has exhibited an observable and influential relationship with the polity within a state. Political marginalization of specific groups, such as women who make up a substantial proportion of the population within all states, has adverse ramifications for the fulfilment of democratic ideals. According to Yilmaz (2007), the political disparity of women in government is not only a numerical issue but threatens the validity of democracy within a state because:

A male dominated democracy is an incomplete democracy; lack of women in legislative and executive bodies means a democratic deficit. Gender parity and partnership in politics are central to the functioning and strengthening of democracy. Indeed, only joint and equitable political action by women and men can guarantee that politics truly interprets and responds to the needs and aspirations of society as a whole. In this respect, women’s representation in decisionmaking is also a question of justice and making use of the resources (p. 35).

From this theoretical perspective, the political exclusion of women from the deliberative process serves as a truncation of the substantive representation of the society within a state.

Women's representation in government is not only a domestic political issue, but has assumed importance as an international policy goal. Equal inclusion of women is not only germane to the issue of democratic governance, but it is also inexorably intertwined with the development of human rights ideals and the diffusion of these standards within the international system (Bacchi, 2006, p.40). Connecting the domains of women's representational equality in legislatures and the recognition of human rights carries substantial normative value for the compositional structure of democratic systems around the globe. Geraldine Fraser-Moleketi (2012) tied women's equal representation within government to the greater domain of human rights development when she stated:

Promoting increased women's political leadership and gender equality is a development issue, a human rights issue and also a moral obligation. More inclusive parliaments also have the capacity to strengthen civic engagement and democratic participation among its citizens .... A political system where half the population does not fully participate limits the opportunity for men and women to influence and benefit from political and economic decisions. (p. 2)

Through the positioning women's equality within legislatures, the rapid expansion of quotas among democratic systems within the international system is both expected and natural.

### **The Development and Purpose of Quota Policies**

#### Historical

Political participation of women within the democratic process is a relatively modern phenomenon, and has only been formalized within the past century. Within the United States, women were only granted the right to vote through the passage of the Nineteenth Amendment to the Constitution in 1920 (Kyvig, 1996). Despite their entrance into the political arena, women have generally still lagged behind with respect to their

representative power in legislatures and parliaments. In the case of female democratic integration, “it is not democracy per se—as measured by a nation’s level of democratic freedoms at a particular moment in time—but rather the democratization process that matters for women’s legislative representation...the series of political events in a nation that, over time, shape the available opportunities for women’s entrance into democratic politics” (Fallon, Swiss, and Viterna 2012, 381). Legislative quotas represent a recent development in women’s historical involvement in government, and their development is reflective of the conceptual evolution of democratic governance.

Women’s suffrage became interconnected with the concept of democracy, and any nation which did not integrate women into the electoral process would not be categorized as a democratic state regardless of the strength of other features of democratic governance which might be present. Despite suffrage for women being broadly accepted and integrated into the democratic structure of nations across all regions of a global scale, women often remain politically marginalized and underrepresented within elected positions. In an attempt to increase the role of women within legislative bodies, policies developed solely to increase the proportion of women elected into political office were produced. In the time since their inception, gender quota policies have spread outward at a rapid rate into the fabric of democracy and are currently utilized in some form or capacity in over 90 nations around the world (Finke, 2019, 66).

The political history of the nation which is engaging with gender quotas is also essential toward articulation of the implementation and the operationalization of these rules. Due to the social and cultural resistance that often precede and accompany these policies, some nations are inherently more amenable to adopt these policies as a

component of their own democratic culture. Specifically, Mansbridge (2005) argued that the, “effectiveness of quotas also depends on the degree to which a particular culture at a particular moment in history can accept them as legitimate” (p. 629). Democratic culture is deeper than the composition of democratic electoral and legislative institutions; that is, whether a democracy is plural or majoritarian (Mansbridge 2005; Welch and Studlar, 1990). These differences appear somewhat superficial compared to the deeper, and more substantially engrained cultural features that have developed within national systems through generations of history which predate the adoption of democratic governance. Rather cultural attunement toward gender quotas has been posited to require ideal conditions within the population in their attitudes toward women, and how they are viewed within the greater framework of society (Mansbridge, 2005, 630).

#### Changes at the Party Level

Recalling that women’s representational equality has been tied to international human rights goals and norms, it is worth noting that legislative quota policies have largely been implemented through domestic political party mechanisms, as opposed to developing purely through international commitments or pressure. This evolution has occurred in an identifiably similar manner within a variety of political systems, both democratic and non-democratic, across disparate geographical and cultural regions. The conceptual evolution of democracy mirrors the dynamic emergence of gender quota laws. Legislative gender quotas represent a new part of this evolutionary process, and have emerged as an integral feature of democracy and public policy that scholars and leaders must understand and consider. Just as democracy is not static, neither are the legislative gender quotas. These policies have emerged from within democratically-oriented

regimes as an effort to create diversity in government and within policy. Not all quotas are identical, and quota policies that are present within one case can include distinct features when compared to the quota laws which have been implemented within a separate government.

Not all democratic systems utilize quota policies. Democratic systems have recognizable features that must be present, but democracies are not monolithic in their diffusion of power, or in the operation of elections. Rather, even amongst democratic structures, there are unique and individual systems, customs, and practices that serve to allocate and diffuse power (Dahl 1972, 3). These electoral and governmental differences divide democracies into subcategories, most commonly parliamentary and presidential systems (Stepan and Skach 1993). Parliamentarian systems are characterized by plural elections and decentralization of political power among a larger spectrum of actors (Lijphart 1999,7; Stepan and Skach 1993, 41-44). Pluralistic elections are more often issue and party driven, rather than focusing on specific candidates as with a winner-take-all system. Party and issue predominance facilitate power to manifest through coalitions which make power more diffuse within a system (Lijphart 1999, 34). Under this type of system, even smaller parties and interests are able to be included in the governing process (Lijphart 1999, 34-41). It is within plural democracies, which allow multiple political parties to succeed that quotas are most likely to develop in any form.

Plural democracies allow for a spectrum of political ideas to be represented because even smaller fringe parties are able to translate even minor electoral support into a proportionate share of political power. In systems in which quotas are operationalized at the party level, and therefore voluntary, acceptance of these policies must occur at the

party level due to the absence of legal mandates and the threat of punitive ramifications. The development of gender quotas is attributed to competition among and between political parties (Weeks 2018, 1941). As quotas become increasingly accepted, pressure forms for other parties within the governmental system to accept the validity of quotas and to integrate them into their selection processes. This can occur through party, statutory, or constitutional implementation based upon the variation of quota that is being debated. Centrist and right-leaning party leaders face pressure to support some form of gender quota as a means of maintaining or growing their electoral support among women within the population (Baldez 2004, 234). As more parties accept the quota as politically desirable, it becomes engrained into the political structure of the state and is legitimized. If the quota policy is significantly resisted, or does not result in desired representational gender parity, it is possible that the policy will be adjusted. This type of political course correction is not uncommon or unique. In the time period of 1947 through 2015, twenty-eight percent of states with some form of gender quota engaged in revision of the existing policy, and over half of these states have engaged in substantial efforts to reassess the composition of their quota policy multiple times (Paxton, Hughes, and Barnes, 2021, p.190).

#### Negative Political Association of Gender Quotas

Implementing and supporting gender quotas often carries a political risk that must be considered. In many cases, both men and women perceive these quotas with a negative perception (Meier 2008, 335). Greater diversity among elected officials serving in government is a desirable ideal for any democracy. Greater diversity promotes an exchange of ideas and the policies that are produced are more reflective of the citizenry

within a nation and increases the legitimacy of the government and its processes.

Because the motivation for these policies is rooted in the goal to model legislative bodies into an assembly that reflects the proportion of identifiable features present within the population, quotas could be expanded to reflect any range of characteristics which typify the diversity that is observed within society (Barnes and Holman 2020, 1271-1272). It is likely that expansions of legislative quotas that are based upon other features of the population would be perceived negatively by segments of the population.

Quota legitimacy has largely been established upon the concept of political equity for women within the government of a state (Larsrud and Taphorn, 2007, pp. 36-37). Jane Mansbridge (2005) refuted the necessity of legislative bodies to proportionately reflect societal distribution of various identity groups. According to Mansbridge (2005), “Democratic theory does not mandate that every group, no matter how defined, should be represented in proportion to its numbers in the population” (p. 623). Quotas based upon the gender of an individual appear undemocratic because the establishment of a representational threshold floor for women simultaneously operates as a threshold ceiling that limits the ability of male candidates (Dahlerup, 2005, pp. 20-21). Some quotas have been designed as “gender-neutral,” in which no gender may occupy more than 60 percent of the seats within an elected assembly (Dahlerup, 2005, p. 21).

Even in political systems that are conducive to quota policies, implementation of these policies might be aimed at achieving female political support and not aimed at deeper integration of women into the democratic process (Keith and Verge 2018, 399). In looking at a cross-national comparative study of European nations, Jennifer Rosen (2017) concluded that quotas in many instances were established as a means to pull votes

away from more radical parties and to build support (p. 92). This strategy is not always guaranteed to achieve political success. Women who are included on a party ticket might replace other candidates who appeal to voters. In France, party leaders were openly skeptical of quotas, and feared that a ticket populated with women who were unknown relative to their male counterparts would lead to electoral loss (Murray 2007, 571). Similarly, some citizens might be resistant to the presence of a quota, and either abstain from voting, or support a party that opposes the quota law. Legislative quotas which are based upon the gender of candidates operate within a conceptual area that can simultaneously be considered both democratic and undemocratic (Dahlerup and Freidenvall 2005; Meier 2008). While these policies might seem undemocratic by establishing institutional constraints upon the free choice and prerogative of parties, voters, and candidates, it is asserted that facilitating greater gender diversity among leadership will have a substantial influence upon policy outcomes. Because of these factors, it is possible that women will still remain marginalized once they are in office and viewed as illegitimate compared to other elected officials.

Gender quotas represent an emerging policy norm in democratic nations around the world. In a relatively short period of time, gender quotas have emerged to become intertwined into the larger fabric of democratic governance (Rosen 2017, 84). These policies have resulted in doubling of the global number of women who hold positions within lower house assemblies over the course of twenty years (Annesley, Beckwith, and Franceschet, 2019). The relevance for policy outcomes under the electoral structure of gender quotas is immense. It remains to be understood how public policy will be affected as gender quotas become the status quo and women begin to exercise more legislative

influence into political affairs of the state (Weeks 2018). As more women assume leadership in policy-making, it is expected that the status quo of public policies that are enacted will shift to more closely reflect the perspectives of women, just as has been shown in cases in which women are granted suffrage and have assumed a more active role within civil society. Current research remains largely silent on the effect of women in legislative bodies in systems that utilize gender quotas. Addressing the long-term societal effects of gender quotas upon the policy outcomes within democratic states will be fertile ground for public policy research as time offers more clarity and opportunity for empirical assessment of this important issue.

### **Social Identity and Identifiable Women's Issues**

#### **Sources and Pathways for the Coalescence of Personal and Group Identification**

Identification of various salient group identities, and the compositional attributes which define the parameters for inclusion for membership, has been a robust topic of inquiry within a variety of academic fields ranging from psychology to political science. The term “identity politics” entered into the cultural consciousness in the late 1970s through the writings of members of the Combahee River Collective (Sigerman, 2003, p. 316; Taylor, 2017; Wiarda 2016, p.150). The early history pertaining to the emergence of the phenomenon of identity groups and their individual political perspectives is significant because members of the Combahee River Collective simultaneously occupied multiple dimensions of personal identity (Smith, 1977, xxxiv). The formation of the Combahee River Collective was motivated through the personal identification of its members according to three distinct dimensions that included gender, race, and sexual orientation (Combahee River Collective, 1977, p. 291). Personal identification, and

group identities that follow, are comprised of distinct psychological layers and are constructed with categorical overlap with other sources of identity.

Tajfel (1978) asserted that the self-identification of an individual is associated with an emotional and affective connection with the values of the larger group and its membership (p. 63). According to Wiarda (2016), the power of personal perspective, which is manifested as a consequence of similar and dissimilar attributes of members within an identity group, found an outlet in the form of coalescence into, “groups who claimed injustice and who wanted to increase their own power so as to reduce their marginalization” (p.150). Marginalization, similar to the concepts of personal or group identity, is the product of multiple inputs which operate within society and influence the reality that is perceived by an individual (Jardina, 2019, p. 55). Political marginalization is only one of the critical dimensions which has been cited within previous scholarship upon the relationship between personal identity and membership within a group based on an attribute, characteristic, or other individual feature (Citrin, Wong, and Duff, 2001; Junn and Masuoka, 2008; Huddy, Mason, and Aaroe, 2015; Winter, 1996).

Fundamentally, identity is only politically relevant insofar as it has the potential to influence policy through goals that are viewed as important to members (Cameron, 2004). Based on social identity theory, political change that results from the specific goals associated with group identification can be associated with the desire to achieve or maintain self-regard (Jardina, 2019, p. 57). This can be achieved through deeper identification and integration within the group. Engagement in an identity group not only should further the condition of those within the group, but also is expected to affect the greater universe that consists of all groups. In this manner, identity assumes a deeper

affective quality that serves as a basis for associated goals and the positive valence for the individual is influenced through membership (Tajfel, 1978; Tajfel and Turner, 1979).

### **Framing a Female Group Identity**

Group identity can be established broadly, along a potentially limitless number of personal attribute dimensions. Despite the seemingly arbitrary and limitless potential of personal identification classification, the most prominent sources for group identity have traditionally been the most salient. The political importance of gender differences cannot be overstated. It is arguably the most critical social distinction, and the social reality has been predicated on this identity (Elshtain, 1993, p. 9).

The historical standing of women within society is essential to the articulation of the worldview that has served as a framework of a distinct group identity. Although the nomenclature of identity groups is relatively modern, and only emerged in the latter half of the twentieth-century within academic circles, the social mechanisms that operate to create, and culturally engrain, social group identifications are historically deep. This is especially true of gender group identification. In summarizing the historical condition of women, Paxton, Hughes, and Barnes (2021) stated, “that women have been oppressed throughout history” (p. 25). Arguably, the locus of oppression can be traced back to the practice of exclusion that women have experienced (Barnes, 2016; Elshtain, 1993).

Oppression through exclusion has served as a primary influence for the formation and coalescence of the group identity for females. Critically, women have experienced bias and discrimination due to their gender (Wang and Dovidio, 2017, 65). Bias and discrimination have arisen in the form of various stereotypes and prejudices throughout history which women have experienced. This bias has been instrumental in shaping the

worldview, and the political preferences of women as an identity group. It is worth noting that these biases are not isolated events, but rather, they are influential in shaping the greater framework of societal norms as well. More importantly, systemic bias and discrimination that is experienced by women is able to prohibit entry into the political process via two forms of barriers.

One the primary influences upon female group identity has been through the process of exclusion from the political domain entirely (Barnes, 2016, 6). The most obvious example of political exclusion was through the prohibitive barriers that disenfranchised women within democratic systems (Paxton, Hughes, and Painter II, 2010, pp. 25-26). Arguably, the most apparent example has been the disenfranchisement of women throughout most of history. In the United States, women have only possessed the right to vote for just over a century (Kyvig, 1996). The social hierarchy which prevailed, even within democratically-structured systems, constrained the ability of women to directly engage with their government and to influence the social outcomes which directly influenced their lives.

Similarly, in cases when women have been integrated into the political realm, they still face obstacles that are built upon negative stereotypes of their ability and competence to engage with public matters (Barnes, 2016, pp. 6-8). It is not uncommon that the biases constrain women once they are in elected office are strikingly similar to the arguments and beliefs that were used to prevent their initial access into the political process (Bystrom, 2008, pp. 59-61; Reingold, 2008, p. 6). These factors culminate in a political environment which is especially hostile toward the entry of women into public office. Challenges for traditionally marginalized groups, specifically women, persist even

after a candidate has been successfully elected into office. For example, women who are able to secure electoral success must confront the biases which are maintained by members of their constituency (Mansbridge, 2005, p. 627). In these situations, women are often viewed with skepticism and negatively-associated biases by those around them, and they must work to overcome the challenges that are a consequence of pre-existing gender stereotypes (Mansbridge, 1999; Mansbridge 2005; Williams, 1998). Valdini (2019) described this behavior of skepticism as prominent, and as a characteristic of, “men who actively fight against women’s inclusion due to their own misogyny, or ‘backlash’ against women in power due to discomfort with their presence (p.1).” As candidates, women are often unfairly portrayed as less-qualified candidates than their male counterparts, even when they possess equal, or greater, qualifications than their opponents (Paxton, Hughes, and Barnes, 2021, pp.198-199). Similarly, even once women have won election, past research has indicated that women have more difficulty in obtaining funds for their re-election efforts (Green, 2003; Palmer and Simon, 2008; Reingold, 2008, p. 6).

Most notably, the separation of public and private spheres has perpetuated an image of women as weak and incapable of dealing with the difficulties inherent within the domain of politics (Barnes, 2016; Duerst-Lahti, 2005; Holman, Merolla, and Zechmeister, 2011; Kathlene, 1994; Powell and Mukazhanova-Powell, 2019). At national levels, decisions of legislatures and parliaments carry national consequences, and poor decisions in economic policy, security, or conflict can threaten national survival. According to John Keegan, “if warfare is as old as history and as universal as mankind, we must now enter the supremely important limitation that it is an entirely masculine

activity” (Keegan, 1993, p. 76). With many policy areas, women in leadership face more scrutiny than their male counterparts, but this is especially heightened within the domain of military conflict (Powell and Mukazhanova-Powell, 2019, p. 245). Women in positions of leadership, especially in the role of an executive, face contradictory expectations toward their performance and stereotypical expectations about their behavior.

As an elected leader, even within a democratically-oriented government where power is distributed among multiple actors, it is still assumed that the actions of the leader are typically perceived as being representative of the actions of the state. Based upon traditional gender stereotypes, Ann J. Tickner (1992) described the historical dilemma facing political women with the assertion that the worst possible political action that can be taken by a state or government, “is to be like a woman because women are weak, fearful, indecisive and dependent” (p.39). Under this belief, voters could be hesitant to elect a female leader. Likewise, male executives within a democratic government could believe that assigning females to high-ranking appointments could project a weak appearance to other actors within the international community.

Interestingly, examinations into the willingness of women in positions of national authority to engage in warfare have not supported the traditional stereotype of pacifist female leadership. While female political empowerment is associated with higher levels of international peace, the presence of a female leader often makes a conflict worse once it commences (Powell and Mukazhanova-Powell 2019, p. 243; Schroeder, 2017, pp.565-566). This finding coupled with the fact that nations with greater levels of female representation are less-likely to use military force in international disagreements, opting

to negotiate suggests that women are less war-prone than males, but once engaged in a political course of action are deeply committed to it (Schroeder and Powell, 2018, p. 461).

### **Making Membership Matter**

From a political perspective, group identity is only substantively relevant if the existence of different groups elicits some form of alteration in the status quo through the preferences and ideals associated with these groups. Yet, past research has indicated that group differences, especially between racial and gender groups, is related to significant shifts in political status quos (Smooth, 2008, 178). Notably, the Combahee River Collective was organized with the intention of highlighting and rectification of societal injustices experienced by black lesbian women through cultural and political processes (Taylor, 2017). The inquiry presented within this dissertation is focused upon determining the power that legislative gender quotas exert upon increasing the representative power of women in democratic governments and the policies that are products of their involvement in the deliberative process. This question consists of two distinct aspects because representation for women has been interpreted along two discernable fronts (Franceschet and Piscopo, 2008, pp. 393-397). The first, and most observable standard of quota success, is their ability to increase the proportion of women who are elected to office. The issue of considering numerical representative increases within legislatures as a result of the implementation of a form of quota policy only distinguishes men and women according to their gender. Substantively, any other distinctive features that might exist are superfluous in this respect because men and women are categorized by physical characteristics.

The second component of quota efficacy which is considered in this book is the political differences that are discerned between men and women which are expected to influence public policy initiatives and outcomes based upon women's possession of a larger share of legislative power derived from the presence of quota regulations.

Franceschet and Piscopo (2008) described this aspect of representation as substantive representation, which is the ability of women to personally and meaningfully participate in political engagement and directly influence policy initiative and outcomes from their positions as elected officials in democratic governments (p. 394). Substantive differences in policy outcomes through gender quotas are predicated on the assumption that there are significant political preference differences between men and women.

These differences extend beyond physical gender and are require deeper investigation to accurately discern. Further, distinctions in the political preferences of men and women are arguably more salient than descriptive distinctiveness, because it is through political differences that policy consequences originate. If the differences between men and women are purely biological, then there would likely be no discernable distinction between the political actions and preferences between these groups. The coalescence of women as an identity group is attributed to shared identities and experiences, which have been influential in the formation of a largely distinct worldview from their male counterparts (Mansbridge 1999; Onishi 2017; Philips 1995; Swers 2002; Young 2001). Notably, Sara Ruddick (1995) posited the worldview of women as being overtly nurturing, and aligned with the role of women as mothers and caregivers (p. 13). This identity should not be expected to only pertain to women's interests within the

private realm, but should instead factor into the framework of a larger worldview regarding the whole of society and culture.

Because women have generally identifiable interests, which are unique to them through their shared experiences and group characteristics, these preferences are expected to guide their political ideals in all forms of political expression, as activists, voters, and elected leaders within governmental bodies. These discernable policy interests are not deterministic, and the identification of specific policy interests does not mean that all women will display perfect alignment regarding these policy preferences. Women's political preferences, as with preferences that are associated with other group categorizations, are not deterministic or monolithic in their composition. Not all women will be in congruence, and individual women will likely be diametrically opposed to policies within this domain. When considered in aggregate, it is expected that the policy preferences of women should coalesce around similar points, which can be identified, and considered in relation to the presence of legislative gender quotas within a state. Thus, through quota policies, differences in policy preferences result in alterations to the political status quo based upon the distribution of power possessed by men and women within legislative bodies.

### **Changes to the Status Quo**

Based upon the prolific scholarship on the power associated with personal and group identities, it could be assumed that the preferences maintained by these groups would be a primary causal mechanism in changes for the status quo of public policies. For women, group identity has been shown to be salient in a social and psychological context. However, it is not certain whether identity forces are able to shape policy

outcomes, or if there are other factors in operation that dictate policy shifts and norms. Interestingly, women's group identification has been framed through both traditional and progressive lenses within different studies. Although this seems contradictory, previous empirical research has framed women through both lenses because of their roles as mothers and caregivers (Childs, 2006; Ruddick, 1989; Skocpol, 1992). Past research has offered evidence that women are apt to adhere to some traditions more closely than men. For example, religious affiliation has been shown to have a stronger influence upon women than men. For example, in Ireland, Catholic faith had experienced slower decline among women than men in the same time period since the 1970s (Randall and Smyth, 1987, pp. 198-199). It is possible that this is also related to their roles as mothers, and that adherence to sets of values which are in accordance with this identity are efforts to pass these same traditions forward. What is certain from the literature, is that the preferences of men and women are generally discernable, and that these distinctions are largely attributable to the unique histories and perspectives that have been experienced by men and women. Women's roles as mothers, and the policy interests that extend from this identification can be tied to both traditional and progressive political attitudes (Skocpol, 1992, p. 321). For the purpose of this study, women's interest is constrained to the primary dependent variable of infant mortality rates within a state. The attitudinal origin of the political interest is irrelevant for the purpose of this inquiry.

Among commonly cited identity group classifications, women represent one of the most recognized and well-studied of such groups (Elshtain, 1993; Phillips, 1995; Mansbridge, 1999; Young, 2001; Swers, 2002). It would be incorrect to assume total homogeneity regarding the political preferences of women. As a group, women are not

monolithic (Young, 2000). While there is variation among women, there are predominant policy preferences that have been identified, and are largely associated with women's issues (Poggione, 2004, 309). With respect to political preferences, women have been shown to exhibit favor toward policy tendencies that align with increased social welfare measures, especially for children, and to pursue these types of initiatives (Childs, 2006, 9; Weeks, 2019). The identity of women has been aligned with a number of different factors that include issues of reproduction because of their roles as mothers and primary caregivers (Paxton, Hughes, and Barnes 2021, 25). Increased political empowerment of women allows women to pursue goals that were once prohibited, such as higher education and personal entrepreneurship. Empowerment, and greater involvement within the public domain of society, is associated with positive outcomes such as increased levels of education among a population, increases to the national GDP, lower infant mortality rates, and overall higher respect for human rights (Blanton and Blanton 2007, 149-150; Doepke and Tertilt 2019, 313-314; Macmillan, Shofia, and Sigle 2018, 1906-1908; Meyer 1996, 373).

The current comprehensive state of the literature on the representative effect of legislative gender quotas is primarily oriented toward inquiry on the change exerted upon descriptive outcomes through the implementation of these policies within democratic entities. Research into the substantive representational effect of gender quotas is sparse, and only beginning to develop. Within a recently published study on the topic, Ana Catalano Weeks (2019) conducted one of the few studies directed toward discerning the political outcomes that are associated with legislative gender quota laws. Weeks recognized the inherent potential for greater numbers of women within a legislature to

exert discernable political changes along a broad spectrum of policy issues. Her choice of policy issue area is grounded in the predominant assessment of women being interested in socially progressive policies and is reflected in her choice to use social justice and welfare state expansion as her primary independent variables (Weeks 2019, p. 855). The results reported by Weeks (2019) support the assertion that women are able to leverage quotas into political power and enact social policy changes in line with broadly identified women's issues, but specific policies issues that exist within social justice and welfare state expansion remain elusive.

### **Linking Descriptive Power to Substantive Representation- Counting on Coalitions**

The representative power of legislative gender quotas are able to be considered across two distinct, but simultaneously interrelated dimensions. These policies outline a minimum threshold for the proportion of female candidates and there are punitive consequences for failure to achieve the outlined standards. The standards which are outlined for female participation varies significantly between the global collection of nations which comprise the world's democratic systems. Even within those systems which have incorporated quota thresholds which have substantially increased in their specified proportional floor over time, or within those systems that have incorporated quota policies which mandate national electoral thresholds that are above the global average, the expected level of women's share of political seats derived from the quota still represents a minority within the legislative or parliamentary body (Franceschet and Piscopo, 2014, p. 89).

Electoral success is only part of the process in achieving political representation that is experienced by women. Once women are elected into legislative power, whether a

gender quota is present or absent, women still often face considerable challenges in exercising the power typically afforded to their elected position. These challenges constrain the ability of women to operate effectively from within government and influence the composition of public policies, thereby limiting the substantive representational efficacy of women.

One of the most prominent systemic tools that has been used to overcome representational challenges from within the governmental system is the formation of coalitions within legislative and parliamentary assemblies. Coalitions are not a unique phenomenon that is exclusively associated to women, but can instead be found through other compositional forms within governmental bodies. Past research has indicated that there might be a reciprocal effect of coalitions and societal influence as women have been able to translate their political into greater societal changes, and vice versa. According to Fallon, Swiss and Viterna (2012), “Higher levels of women’s legislative representation correlate with the passage of more women-friendly policies, as well as increases in women’s representation in other areas of political and civil society, such as labor unions and government structures” (p. 381). This is to be expected and unsurprising because once in power and able to influence policy and society, women will influence both in a manner that is aligned with their interests, and promotes other women to enter into the political and social process.

### **Why Infant Mortality?**

For the purpose of this inquiry, women’s substantive representation is considered through a singular policy dimension. This policy outcome is the infant mortality rate within a state in a given year of observation. Substantive representational influence of

women can be considered through analyzing any number of specific policy issues and outcomes. As the descriptive representational power of women is increased, it is expected that an array of policy issues across the breadth of society will be influenced as a natural response. Infant mortality rates have been chosen specifically because this variable is very likely to be marginally influenced through greater numbers of women holding legislative power as a consequence of the presence of gender quotas within a system.

Infant mortality is an ideal social component to use to assess the substantive representational power which is consequential of electoral quota rules because of how intimately connected this issue is to women relative to their male counterparts. Identification of infant mortality as of special interest to women does not indicate that men are disinterested in the issue of infant mortality and the welfare of children. However, reproductive health, including natal care, is distinctly connected to women (Auerback and Figert 1995; Skocpol, 1992). Women's reproductive health has been shown to be connected to, and influenced by various social and political constraints. For example, democratic governance has been empirically connected to the fertility rate of women within a state (Forman-Rabinovici and Sommer, 2018). Democracies have also been empirically connected to lower levels of infant mortality (Przeworski, Alvarez, Cheibub, and Limongi, 2000). This is likely due to the fact that women within these systems are able to self-determine when, or if, to pursue a family because they have greater levels of personal autonomy. These findings suggest that as women gain personal autonomy, they work within their society in their roles as citizens to promote these values. These reproductive health values should remain salient as women are elected to

political office, and could even strengthen through engagement with like-minded women in coalitions within government (Fallon, Swiss and Viterna, 2012).

### **Theory, Research Question, and Hypotheses**

In the relatively brief period of time since the emergence of legislative gender quotas, both political scholars and policy-makers have investigated the role of quotas in promoting women within legislative assemblies. Numerical increases in the composition of deliberative assemblies within democracies affords empirical insight into the change in descriptive representation, which is a direct consequence of the implementation of some form of quota rule. The next step in understanding the dynamics of gender quota policies is to move the issue forward, and consider the impact of these policies upon the final link in the chain of public policy. This research is an effort toward this end. The primary intention for composing this analysis is to move beyond a simple assessment of how quotas shape descriptive representation by analyzing the impact of these policies in achieving substantive representational increases in two policy outcome areas.

Assuming that gender quotas are efficacious in achieving greater representation for women in legislative bodies, and that women in quota systems are able to use their power to influence political debates, there remains the question as to how this influence shapes the policy outcomes within the societies they represent. If the final policy outcomes are identical to those in systems with institutionally weaker legislative gender quotas, or to those systems which do not utilize legislative quotas, then the rationale behind these policies and laws is subject to increased scrutiny.

### **Quotas as Political Norms**

Gender quotas are not only salient political phenomena because of their relative historical novelty and their rapid proliferation, but also because these political rules traverse the divide between international and domestic politics. The study of gender quotas has been conducted through various theoretical lenses in the course of previous research based upon the feature of the phenomenon that was being examined. Arguably, one of the most prominent theoretical frameworks that has been applied to quota policies is feminist theory. Feminism is a theoretical evolution which is derived from the root of Marxist ideology. Where Marxism maintained that the poor laborers were oppressed by the wealthy capitalists, feminist theory opened up the dichotomy presented by Marx and argue that the real conflict occurs over gender identity and sexuality (Hawkesworth, 2010, pp. 686-687). Through feminist theory, the societal norms, language, religious foundation, and political status quo each represent a means of oppression against the gender and sexuality of many individuals. These cultural, political, and religious aspects of society have created a system of injustice which, like their Critical Theorist predecessor and counterparts, feminist theorists perceive as requiring systemic change (Storper, 2001, p. 156). Therefore, under feminist theory, it is females which are the marginalized and oppressed segments of society through the features of the cultural and political system in which they reside (Hennessy, 1994, p. 85). Quotas based upon gender represent an attempt at rectification, and a correction of systemic injustice in the form of political marginalization.

While these theoretical frameworks can explain some of the features that are associated with gender quota policies, they do not allow for understanding into the rapid

diffusion of these policies across political systems. The political norms associated with legislative gender quotas have been extended across a variety of democratic governments throughout the global system, and have become engrained into the electoral fabric of a wide range of individual states. A robust explanation for the power of political norms which have accompanied legislative gender quotas can be found within constructivist theory.

As a theoretical domain, constructivist theory is applied to the context of international relations issues, and is maintained as an explanation of the interactions that occur between state actors. This research expands the umbrella of constructivist theory to domestic political phenomena within democratic states. Constructivism serves as an explanation for the diffusion of norms associated with legislative quota policies among democratic states, and also the integration of these policies in the framework of domestic political operations within states. According to constructivists, ideas are essential forms of power, and these ideas are then diffused among the international system via interaction which serve to engrain these features into society, government, and culture (Bueno de Mesquita 2006, 176-177; Sikkink 2011, 236-237).

The reality of social and political behavior is inherently complex, and both of these theories are not necessarily mutually-exclusive. It is possible that both feminist and constructivist theoretical approaches are at operation within the dynamic of the integration of gender quotas and their eventual effect upon policy outcomes. Both feminist and constructivist theory can be applied to this topic, with each holding greater explanatory power relative to the other in relation to certain aspects of the causal chain.

**Summary**

As shown within the preceding sections of this chapter, the reality of the relationships and causal mechanisms which exist between social identity and representation are complex, and it is essential that any theory which is presented be able to succinctly explain the interconnectedness which is in operation between the outlined combinations of these societal features. The theory that has been presented is novel in that constructivist theory is expanded beyond the scope of international relations, and applied to domestic operations (Jung, 2019).

Because this research is focused on attaining a holistic framework of representation, the effect of quotas must be considered against both their efficacy at placing women within positions of leadership within legislative bodies, and also how effectively quotas enable women to translate descriptive representation into substantive representation. These two dimensions of representation are not identical, and it is not sufficient to assume that presence within one domain of representation is fungible among the other dimension of representation. Most important for the purposes of this dissertation, it cannot be assumed that the implementation of a quota policy will result in similar representational levels between both the descriptive and substantive representational dimensions in government for the women which they are designed to achieve.

**Conclusion**

The inquiry that is presented within this book is an advancement of the empirical inquiry of democracy through the analysis of one of its newest, and most dynamic, facets: legislative quota rules based upon the gender of the candidate. Past research has often

focused on the effect of quotas upon their ability to shape the descriptive attribute of representation for women. Similarly, the research which has engaged the substantive representational power associated with quotas has not addressed these policies in relation to a specific policy area that is theoretically intertwined with women's interests. By discerning the impact of legislative quota policies upon specific outcomes, a more comprehensive understanding of the representational efficacy of these policies can commence. The political substantive implications associated with this research are considerable, and they have the potential to challenge the existing logic which have been offered to necessitate the development and implementation of gender quota policies. Considered in its entirety, the history of democracy is a story of political novelty and expansion. The criteria to identify democracies, or its attributes, have developed with the passage of time and the emergence of political norms which have proliferated and become more deeply engrained with the concept. Because of the emergent prominence of legislative quotas as a tool to achieve more equitable gender representation within democratically-structured states, it is essential to more thoroughly analyze the power of quotas in influencing specific policies within the states where quotas are utilized.

## CHAPTER THREE

### Introduction

Although legislative gender quotas are a novel political phenomenon having largely developed and spread in the period of time since the 1970s, these policies have been the subject of numerous empirical inquiries which have sought to elucidate the various attributes of these policies (Clayton, 2016; Hughes, Paxton, Clayton and Zetterberg, 2019; Rosen, 2017). In the decades since their emergence and proliferation, a considerable amount of research has been conducted, yet there are still critical questions related to the effect of quotas upon public policy outcomes. This dissertation is intended build upon the existing empirical tradition and to add to the greater body of knowledge of legislative gender quotas and ascertain how various manifestations of these policies influence specific social outcomes in the societies in which they have been enacted.

Past empirical inquiry into the dynamics of how women shape policy from within the institutions of a governmental structure has been achieved through both qualitative and quantitative means (Paxton, Hughes, and Painter II, 2010). Both methodological approaches are viable and each approach is able to reveal specific insight into the nature of the relationship between legislative quotas and public policy outcomes. Considering the representational effect of legislative gender quotas in a quantitative manner through a global time series analysis has a number of empirical benefits. Based upon the conceptual and theoretical foundation outlined in the previous chapter, the next step to empirically study the effect of various aspects of legislative gender quotas upon the identified policy issue of infant mortality is by the connection of these concepts to quantifiable measurement that can be utilized to test each of the hypotheses that have been drawn. It

is important that the measurements utilized in the models that test the hypotheses are both valid and reliable reflections of the concepts that are being studied. The following sections will describe the data source, the selected indicators that are used to measure the relevant concepts, and it will conclude with an outline of the methodological tests that are used to model the hypotheses.

### **Research Questions and Hypotheses**

This dissertation is intended to address the representational efficacy of gender quotas in a holistic manner by discerning the effect of electoral quotas upon a single specific policy outcome which has been aligned within the political interests that are typically associated with women. The theory that has been presented within the preceding section allows for multiple sets of hypotheses based upon the expected effect of legislative gender quotas upon the two distinct categorizations of representation which have been identified within past research. Representation is considered in the context of both its descriptive and substantive efficacy, and how both of these dimensions are affected through variations of legislative gender quotas which have been implemented within the states that are observed. Therefore, this research consists of three inter-related questions:

**Generally, how do legislative gender quotas increase the descriptive and substantive representation for women within the population of a democracy?**

**How do stronger gender quota policies promote greater substantive representation for women's interest by allowing for women in legislatures to establish public policy which thereby reduces infant mortality?**

**How do the effects of gender quotas upon infant mortality rates differ based upon the punitive or numerical dimension of its power?**

From this list of interrelated research questions, the following series of hypotheses have been devised:

**H1:** Both institutionally stronger and quotas containing higher numerical thresholds for female participation will result in legislatures that are comprised of greater proportions of women than in systems without quota legislation.

**H2:** Quotas which are institutionally stronger (ordinal) will be negatively correlated to infant mortality rates within a state.

**H3:** Quotas which contain a higher percentage of females to meet a minimum threshold will be negatively correlated to infant mortality rates within a state.

**H0:** There is no relationship between gender quotas and infant mortality rates within a state.

These hypotheses are based upon the expectation that women are generally more interested in socially-progressive initiatives, and favor policies that promote their interests (Weeks, 2019). There are logical assumptions based upon the literature to support each of the three alternative hypotheses based upon the association that women have identifiable policy interests that are associated with their unique roles as mothers, and that women experience greater opportunity to occupy legislative positions through electoral quotas, and are subsequently able to influence political outcomes. Findings that are in alignment with the null hypothesis could suggest that women, regardless of the volume of their representation within a legislative body, still face difficulty in moving

their preferred policy initiatives into practice. A null finding would align with previous gender quota research which has maintained that women experience new forms of marginalization once they are members of legislative groups (Barnes 2016, 31; Meier 2008, 335).

### **Source of the Data**

The primary data source for this analysis is the Varieties of Democracy (V-DEM) database. This dataset includes most of the relevant indicators that are associated with the statistical analysis within this research, including one of the measurements of the dependent variable for infant mortality that is used to assess the substantive representational efficacy associated with legislative gender quotas influence upon public policy. The ninth version of the (V-DEM) database is a, “multidimensional and disaggregated dataset that reflects the complexity of the concept of democracy as a system of rule that goes beyond the simple presence of elections. The V-DEM project distinguishes between five high-level principles of democracy: electoral, liberal, participatory, deliberative, and egalitarian, and collects data to measure these principles” (Coppedge et. al., 2020). The V-DEM database contains longitudinal information for key variables within a global sample of nations over more than two centuries, from 1789-2018. This time frame is relevant because it captures data for each historical wave of modern democracy, dating back to the ratification of the United States Constitution (Huntington 1993, 14-15). As such, this chronological range of observations is more than sufficient for the purpose of this research. Because gender quotas are a modern phenomenon, and only emerged about half a century ago, the historical range of this dataset allows for gender quotas to be considered comprehensively across the time and

through all forms which they have taken. By including data over an extended period of time during which democracy has developed, the V-DEM Database contains information about every wave of democratization and information about how nations have aligned with democratic values. This information includes multiple measurements of legislative gender quotas where each separate measurement is an indicator of a specific attribute of the quota that is observed within a state. The V-DEM database serves as the predominant source of data for this analysis because of the breadth of information that it contains. Each of the primary independent variables are included in this database. Similarly, the V-DEM database contains one measure of infant mortality and all of the control variables which are used in the empirical analyses.

### **The Independent Variable**

While quotas across the globe all share some similar features, they are not homogenous in their composition. Rather, gender quotas can vary in their statutory power, and in the designated minimum threshold of women that are included in the quota. This is a substantively significant distinction, and it is necessary to consider both features separately. For this study, two measurements of legislative gender quotas have been selected for inclusion into the analysis. Quotas are measured in an ordinal manner, along a four-point scale in which a value of 1 is assigned to cases with party quotas that do not have sanctions for non-compliance. Cases which fall into this categorization are voluntary quotas in which there are no punitive mechanisms in place for non-compliance. Penalties can vary according to the state that is being observed and can range from party-level fines to political exclusion of the party from electoral politics until compliance is achieved (Hughes, Paxton, Clayton and Zetterberg, 2019, p. 220). A value of 2 is given

for observations in which there are legal penalties that are associated with instances of non-compliance by parties. Cases in this category are associated with minor punishments such as the imposition of a fine if the specified threshold is not achieved. Moving forward along the scale, a value of 3 is assigned for cases which have severe punishment, such as the formal exclusion of the party from the political process. Finally, a value of 4 designates cases with constitutionally reserved seats that cannot be circumvented. The second indicator of quotas is a continuous measurement of the minimum acceptable percentage of female representation designated by a quota. Both measurements offer information regarding the strength of the quota based upon different components of the law.

### **Measuring Descriptive Representation**

The governing hypotheses of this dissertation, which have been outlined previously, are designed to offer a holistic test of the efficacy of legislative gender quotas in furthering the representational power of women within a state. The descriptive power of women is considered to be the share of power that is held and maintained by women within a legislative body of government (Franceschet and Piscipo, 2008). The indicator which is used in this analysis is an interval variable that ranges from a value of 0 for perfect inequality to a value of 1 for a system which is comprised entirely of women within a government. The values of the observation can fall within these lower and upper limits based upon the proportion of women within a lower house or assembly.

### Measuring Infant Mortality

Infant mortality is a variable that is often difficult to accurately measure, especially in developing nations, and in periods of national crisis leading to estimations based upon values for a given year to be derived through information that is obtained for surrounding periods (Kimball and Abouharb, 2017). Similarly, the information that is offered by some states is often unreliable and underreported (Kimball and Abouharb, 2017). Because of the potential for error and uncertainty associated with measurements of this variable, and the fact that infant mortality is used as the exclusive indicator of the change in substantive representational efficacy levels for women under legislative quota conditions it is prudent to use multiple measurements of infant mortality.

This research incorporates measurements of infant mortality that is derived from two different data sources. The first measurement is from the V-DEM database, which is the source of the other primary indicators that are included in this analysis. The V-DEM database includes an indicator of infant mortality rate that is measured as the number of deaths for children aged one year or less per 1000 births within a year. Missing observation years are interpolated based upon values that are observed within surrounding years. The measurement of infant mortality that is included within the V-DEM database was originally compiled from information that was collected and organized on Gapminder.org. While the founders of Gapminder describe the organization as inherently apolitical and view the organizational goal as the proliferation of information and the elimination of empirical misconceptions, they do state that:

Most of our data are not good enough for detailed numeric analysis. They are only good enough to revolutionize people's worldview. But we only fill in gaps whenever we believe we know roughly what the numbers would have been, had

they existed. The uncertainties are often large. But we comfort ourselves by knowing the errors in peoples (sic) worldview are even larger. Our data is constantly improved by feedback in our data forum from users finding mistakes (Gapminder).

Despite the dubious description of the reliability of their data, the documentation for the Gapminder infant mortality data suggests that it was originally sourced from UNICEF data on childhood mortality. Despite being originally being collected by UNICEF, there was heavy reliance upon the use of interpolation to account for missing values within relatively long periods of time. According to the data documentation, “From 1960-1990, Unicef (sic) only have estimates every 10 years, 1990-2005 every five years. Except where otherwise stated, the trend for intervening years is interpolated in the graph (Gapminder).” While this measurement of infant mortality was originally derived from UNICEF data, this source of infant mortality will be classified as the V-DEM indicator of democracy for the purpose of clarity and simplicity.

The second measurement of infant mortality is obtained from the infant mortality replication (IMR) data which was compiled by Kimball and Abouharb (2017). Their data is based in an identical threshold as the V-DEM database and considers the value of infant mortality to be the number of deaths of those one-year-old or less per 1000 children in a given observation year. This data was derived using a number of sources which included information from the United Nations (UN), International Monetary Fund (IMF), World Bank (WB), National Research Council (NRC), and other sources which could provide information about infant mortality within a nation at a specific time (Kimball and Abouharb, 2017). In cases where there are missing values, data is also interpolated based upon surrounding values. For missing values after 1950, the UN five-year reported average was used if there was no other available information for the infant

mortality rate in a state (Kimball and Abouharb, 2017). By utilizing multiple measurements, the robustness of the findings is strengthened and it is possible to ascertain a more accurate understanding of the substantive influence of various forms of gender quotas upon infant mortality rates.

### **Control Variables**

The majority of control variables which are utilized in this analysis are germane to both descriptive representation of women, and the proposed substantive representation of women as posited through the policy outcome of the infant mortality rate. It should be expected that as women achieve empowerment that they will use their power to influence society to reflect their ideals. Empowerment is not unidimensional, but can be discerned along a range of different societal aspects. Many modern indicators that are typically associated with the social and political empowerment of women, such as universal suffrage, the right for women to hold elected office, and legal gender quotas for representation, were slowly adopted by democratically-oriented states around the globe and the measurements for these events are included within this database. These variables serve as critical indicators for how women are able to effectively participate within political systems, especially democracies, and how powerfully women can shape policy outcomes within their leadership positions. Because of the comprehensive and exhaustive nature of this data, these indicators of women's empowerment can be used to assess the power of women within a given democratic system (Coppedge et. al., 2020). The measurement of women's empowerment is a three-dimensional indicator which is based upon the civil liberties of women, the participation of women in civil society, and the involvement of women in political organizations.

The other control variables used in this analysis are generally associated with the welfare and general health of a population within a nation. The gross domestic product per capita should be indicative of stronger healthcare systems that are capable of protecting life. Educational level is incorporated and is an aggregation of the highest level of education obtained by the population. A more educated society is generally associated with more socially-progressive policy interests, which would include the healthcare outcomes which are studied in this project. Likewise, wealthier and more educated states have been shown to be more interested in promoting women to positions of leadership and to promote an image of gender equality within the apparatus of the government (Sen, 2009). The GINI index is a ratio measurement of inequality, and greater societal equality are primarily related to longer lives and lower infant mortality because society is equally able to access healthcare resources. Likewise, population is included based upon the expectation that population increases will be associated with greater levels of infant mortality due to the increased pressure that is placed upon the healthcare system within a state.

Civil war is included in this analysis and is measured as a dichotomous measurement of conflict. Civil war is especially important to social measurements because it is occurring within a nation and has the acute potential to result in severe harm to the population. Casualties will be experienced by citizens and the conflict is primarily confined within the borders of the state. Both international and civil conflict are theoretically influential with respect to the level of infant mortality that is observed within a state experiencing either of these conditions. Both civil and international wars have the potential to create social, economic, and political disruptions to the domestic

system that could adversely impact the health and well-being of individuals within a population, especially the most young and vulnerable. International conflict is especially salient because the survival of the state is at risk (Waltz 2010). State survival often demands a strong commitment of resources to successfully combat an opposing state that could threaten the longevity of state autonomy (Owen and Rosecrance, 2019; Reiter and Stam, 2002). Of these two variants of conflict, international war should be expected to adversely impact infant mortality outcomes because societal resources will be pulled away from healthcare initiatives for both mothers and their children and instead are likely to be redirected toward the conflict. Peace years are included in the models as well, based upon the expectation that longer periods since a conflict will promote societal spending on welfare policy as opposed to military sectors. Because there is less demand for spending on military development, the available funds can be directed toward initiatives that are conducive to the health and well-being of mothers and children.

The fertility rate which is observed within a state during a given year must also be considered and factored into analysis that is focused upon the infant mortality rate within the specific state. Fertility rate has been shown within previous scholarship to be directly related to observed infant mortality rates through a positively-associated relationship (Bean, Mineau, and Anderton 1992; Kaplan, 1996; Kaplan, Hooper, Stieglitz and Gurven, 2015; Olsen, 1980). Past researchers into the topic of the factors of infant mortality have discerned that higher fertility rates, and subsequently more births, are intimately tied to greater levels of infant mortality due to the increased strain placed on mothers and the necessity to distribute care and resources to a larger number of children (Haines, 1998). This relationship is easily understood, and is a critical influencing force

upon infant mortality. It is essential that fertility rate be included to accurately ascertain the marginal influence upon infant mortality from various forms of legislative gender quota policies which is theoretically outlined in this dissertation. Because of the theoretical connection to infant mortality, this control variable is only used in the models that include infant mortality as a dependent variable.

In the models which test the effect of quotas upon women's descriptive representation, the quantity of political parties must be considered (Banducci and Karp, 2000). Political systems which are characterized by a multi-party-political system should be more conducive to the political promotion of women to positions of leadership. Also, these systems are grounded on the principle of coalition building, and as left-leaning parties move to promote women, and their interests, within the party platform, other parties in the system will feel political pressure to align with this standard. The number of parties is measured as an ordinal variable which is comprised of four categories based upon the quantity of political competition that is present within the electoral system.

Other independent variables which are less obvious at initial inspection, but still theoretically relevant and could influence the dependent variable, are included in the models that are used to test the hypotheses. Dummy variables which indicate whether a nation was a former British colony and the predominance of Catholicism are also included. These variables could be relevant to the dependent variables of this study. Former British colonies often inherited the democratic traditions of Britain, and these values are reflected in the society of the former colony in the form of a developmental legacy. Religious identification has been shown to be correlated with various indicators related to societal health and well-being, and the religious beliefs associated with

Catholic faith could also be associated with infant mortality based upon the reproductive tendencies that have been associated with increasing the size of many traditional Catholic families (Adsera, 2006).

### **Methodological Design**

Based upon the continuous nature of the primary dependent variable, which is the rate of infant mortality that is recorded within a nation during a given year of observation, it is acceptable to use ordinary least squares (OLS) regression estimation to test the each of the hypotheses based upon the assumptions which are associated with OLS regression. Both data sources of infant mortality include data that encompasses the overwhelming majority of the global presence of gender quota policies. Both the V-DEM database and the IMR replication data from Kimball and Abouharb (2017) includes information about political state systems over a time period that spans nearly two centuries. Because much of the data that is included within both of the data sources, the V-DEM database and the Kimball and Abouharb infant mortality replication data, is not historically relevant to the intent of this research, a majority of the observations were excluded and dropped, thereby leaving only modern observations for this analysis. The global proliferation of legislative gender quotas as a prominent feature of electoral politics is a relatively new phenomenon and allows for analysis that features relatively recent and modern observation years. Constraining the data toward modern observations of infant mortality eliminates the bias that could be present due to primitive medical conditions that existed across the globe in the pre-modern period of history, and helps to theoretically isolate the influence of various forms of gender quota policies upon the dependent variable. The tests of the

hypotheses that are outlined consist of two primary OLS regression equations which are presented and explained within the following chapter.

### **Lagging Infant Mortality**

Although the usage of OLS regression is methodologically appropriate design to test the second and third hypotheses that have been outlined, the true causal relationship between the implementation of a quota policy within a state and marginal influence upon the infant mortality rate is unlikely to be realized within the same observation year. Rather, marginal shifts in the rate of infant mortality that occur from gender quota implantation are likely to be observed in subsequent years after the implementation of the gender quota and the placement of women into positions of legislative authority through the auspices of these laws. Therefore, a more accurate assessment of this relationship requires that the dependent variable be lagged to account for the temporal delay that exists between the implementation of a policy procedure and the eventual policy outcome's diffusion through society.

Determination of the precise number of years that the dependent variable should be lagged is difficult to uniformly determine across all cases. Further, policy outcomes are not necessarily binary in that they are manifest in an "all-or-nothing" modality. Rather, policy effect might be observed in an escalating and de-escalating pattern with the passage of time. Public policy outcomes can be perceived similar to waves within a pond. If the water is disturbed, the waves take time to distribute across the surface of the body, and the waves themselves vary in their intensity.

For the purpose of this study, four versions of a lagged version of infant mortality at one-, two-, three-, and five-year lags have been generated and are included to more fully assess the marginal effect of quotas and contribute to the overall robustness. By incorporating multiple versions of the lagged dependent variable, the models are able to more intimately reflect the temporal delay that exists between quota implementation and alterations to the policy outcome status quos. Simultaneously, the usage of multiple models which are drawn from a range of interval lags provides evidence about the persistence of policy outcomes and whether these changes are likely to endure over time in a significant manner.

### **The Data Estimation Procedure**

The empirical test of the first hypothesis is comprised of three regression equation models. The format for these models is as follows:

#### **Descriptive Representation Models**

$$DR = \alpha + \beta_1 Q + \beta_2 GDP + \beta_3 WE + \beta_4 DG + \beta_5 W + \beta_6 AE + \beta_7 FB + \beta_8 G + \beta_9 POP + \beta_{10} C + \beta_{11} PY + \beta_{12} PN + \dots + \varepsilon$$

In the above equation notations, Q is the indicator of quota strength as indicated by either the numerical threshold of quota strength or through the ordinal measurement of the enforceable power of the quota policy; GDP is the GDP per capita; WE indicates women's political empowerment; DG is the dummy variable indicating whether there is divided government present within a state; W is an abbreviation for the dummy variable that indicates whether there is current engagement in an international conflict; AE is the average educational level that has been achieved within a state's population; FB is a

dummy variable based upon whether a state is classified as a former British colony; G represents the GINI coefficient of inequality; POP is the logged population of a state; C is an indicator of the predominance of Catholic adherence of a population; PY is a measure of the number of years since a conflict; and PN is an measurement of the plurality of political parties within a political system.  $\varepsilon$  represents the error term and the stochastic randomness which is inherent within all probabilistic analysis.

The regression models for the empirical tests of the second and third hypotheses are similar to the models that were used to test the first hypothesis and they follow a similar format. These series of regression equations will be modeled as:

Model Series 1: Baseline without lag

$$IMR = \alpha + \beta_1 Q + \beta_2 GDP + \beta_3 WE + \beta_4 DG + \beta_5 W + \beta_6 AE + \beta_7 FB + \beta_8 G + \beta_9 POP + \beta_{10} C + \beta_{11} PY + \beta_{12} FR + \dots + \varepsilon$$

Model Series 2: One-year lag of infant mortality

$$IMR+1 = \alpha + \beta_1 Q + \beta_2 GDP + \beta_3 WE + \beta_4 DG + \beta_5 W + \beta_6 AE + \beta_7 FB + \beta_8 G + \beta_9 POP + \beta_{10} C + \beta_{11} PY + \beta_{12} FR + \dots + \varepsilon$$

Model Series 3: Two-year lag of infant mortality

$$IMR+2 = \alpha + \beta_1 Q + \beta_2 GDP + \beta_3 WE + \beta_4 DG + \beta_5 W + \beta_6 AE + \beta_7 FB + \beta_8 G + \beta_9 POP + \beta_{10} C + \beta_{11} PY + \beta_{12} FR + \dots + \varepsilon$$

Model Series 4: Three-year lag of infant mortality

$$IMR+3 = \alpha + \beta_1 Q + \beta_2 GDP + \beta_3 WE + \beta_4 DG + \beta_5 W + \beta_6 AE + \beta_7 FB + \beta_8 G + \beta_9 POP + \beta_{10} C + \beta_{11} PY + \beta_{12} FR + \dots + \varepsilon$$

Model Series 5: Five-year lag of infant mortality

$$IMR+5 = \alpha + \beta_1 Q + \beta_2 GDP + \beta_3 WE + \beta_4 DG + \beta_5 W + \beta_6 AE + \beta_7 FB + \beta_8 G + \beta_9 POP + \beta_{10} C + \beta_{11} PY + \beta_{12} FR + \dots + \varepsilon$$

Within each of these models, IMR represents the value of infant mortality as indicated by either the V-DEM, IMR, or the WDI measurements of infant mortality. Each model series will include similar equations that utilize all the measurements of this variable. Therefore, each model series will consist of six equations to allow for analysis with each of the three indicators of infant mortality and both indicators of quota strength. FR is a measurement of the fertility rate that is observed within a state in a given year.

### **Conclusion**

Legislative gender quotas are a modern global political phenomenon. The broad global scope in the distribution of these policies is congruent with a global analysis of these policies and their effect upon infant mortality rates in the societies in which they operate. By conducting a cross-national analysis across the entire timeframe in which these policies have operated, the external validity of this research will be strengthened, and the conclusions that are achieved will have greater generalizability to other cases. Further, the implementation of multiple iterations of lagged dependent variables over a range of different time intervals will allow for a more realistic model of policy diffusion as a consequence of the implementation of legislative gender quotas to be established. The research design which has been described here offers a framework for the quantitative examination into the relationship between legislative gender quotas and a specific policy outcome which is expected to be influenced by the political and social preferences that are associated with women.

## CHAPTER FOUR

### Introduction

The first three chapters of this dissertation can be viewed a framework for an empirical analysis into efficacy of legislative gender quota rules and how these policies influence the holistic representation of women within a state. Representation is not unidimensional, but can be understood as being descriptive and substantive in composition. The second and third hypotheses concern the substantive relationship that is present between the various formulations of legislative gender quota rules and the infant mortality rate that is observed within a state. This chapter of the dissertation is a continuation of the preceding section of this study, and is focused upon reporting and interpreting the findings that are derived through the quantitative analysis that has been conducted.

The empirical analysis of this research is an empirical attempt directed at testing hypotheses which are related to the relationship between quota policies and descriptive and substantive representation. In the previous chapter, the following hypotheses were derived from the expected theoretical relationship between the implementation of various features of legislative gender quotas and the observed infant mortality rate within a state:

**H1:** Both institutionally stronger and quotas containing higher numerical thresholds for female participation will result in legislatures that are comprised of greater proportions of women than in systems without quota legislation.

**H2:** Quotas which are institutionally stronger (ordinal) will be negatively correlated to infant mortality rates within a state.

**H3:** Quotas which contain a higher percentage of females to meet a minimum threshold will be negatively correlated to infant mortality rates within a state.

**H0:** There is no relationship between gender quotas and infant mortality rates within a state.

This chapter will consist of three separate sections that serve as the findings and interpretation of the hypotheses which were outlined in the second chapter of this dissertation, and above.

The findings contained within this chapter predominantly consist of six separate series of coefficient tables. Testing of the first hypothesis is contained within the first set of models, and includes three regression equations regarding the component attributes of gender quotas and the numerical representation of women who hold office within the lower chamber of a legislature. The majority of the findings consist of the statistical analysis of the second and third hypotheses, which are categorized into five models according to the temporal value of the lag of the measurement of infant mortality. The lag of infant mortality is considered in one-, two-, three-, and five-year values. There is also a baseline model included in the analysis in which infant mortality is not lagged. Due to the volume of the coefficient tables the findings are best explained according to categorical groupings.

### **Testing the Hypotheses through Analysis of Regression Models**

Within the preceding chapter of this dissertation the quantitative methodological approach of this research was outlined and framed. The quantitative analysis of this research consists of twenty OLS regression equations. These models are organized in

series based upon the data source of the primary dependent variable, and multiple series of equations that utilize a lagged measurement of infant mortality as opposed to a simple concurrent measurement. As stated within the previous chapter, this research is conducted using the V-DEM data base as the primary sources of data. The V-DEM database includes all of the independent variables, the control variable and also one indicator of the dependent variable. An additional two measurements of infant mortality are also included in this research to assist in verifying the validity, and to strengthen the robustness of the findings.

The primary results of the methodological tests for the hypotheses of this dissertation consist of a series of OLS regression analyses which are presented within sets of separated coefficient tables that are organized within the domain of six separate models. For the purpose of simplicity and cogence within the presentation of these results, the conveyance of the findings of the OLS regression are divided according to the model series in which they are categorized. The first model series contain the tests that pertain specifically to the first hypothesis, and are focused upon corroborating the influence of legislative gender quotas upon the descriptive representational influence of women within legislative bodies. The models which test the second and third hypotheses directed as discerning the substantive representational influence of legislative gender quotas upon the infant mortality rate within a state. These tests consist of the results contained within the second through the sixth model series. These tests are separated based upon the data source of the infant mortality measurement and also according to the period of time in years which these measurements of infant mortality have been lagged.

### **Findings on Descriptive Representation- Hypothesis One**

The findings for the test of the first hypothesis are presented in the three OLS regression coefficient tables that comprise Model One. The three regression equations that are used in these tests consist of a similar set of control variables as the controls that comprise the OLS regression models which are employed to test the second and third hypotheses. The only difference in the equations relating to descriptive representation is that the fertility rate is omitted and is replaced with a measurement which indicates whether a political system is comprised of many political parties.

In Table 1-A of Model 1, the regression results for the model which utilizes the threshold indicator of quota power are presented. Within this model many of the control variables display statistical significance with a p value of .05 or stronger. GDDPPC, women's empowerment and divided government are each positively correlated with descriptive representation and statistically significant. Both the war and average education control variables displayed negative association and were statistically significant. The directionality of average education in this model is interesting because it suggests an inverse relationship between national wealth and female representation. The primary independent variable, quota threshold, operates in the expected positive direction and is significant at the .05 level.

The second model in this series of tests is displayed in Table 1-B, and is focused upon the primary independent variable of the ordinal legal power of gender quotas. Many of the control coefficients in this model behaved in a similar manner as with the previous regression model that was contained the threshold measure of quota strength. Once again, GDDPPC, women's empowerment and divided government, war and

average education displayed statistical significance and operated in the same direction as the previous model. In addition to these control variables, the indicators representing the identification as a former British colony and variable measurement of the number of parties within a political system also appear as statistically significant. The legal strength of a quota policy is strongly significant with a p value that less than .01, and is positively correlated with women's descriptive representation. Just as with quotas which establish higher numerical thresholds for representation, those quota policies which contain more-stringent legal rules for compliance are strongly associated with increases in descriptive representation.

The previous models explain the influence of isolated aspects of a quota policy upon the numerical power of women within legislatures. In reality, these aspects are not guaranteed to act in isolation, but rather a quota with a higher threshold could also consist of enforcement through severe legal penalties for those parties which fail to achieve a minimum level of compliance. The final regression model that is used in this analysis to test the influence of gender quotas upon descriptive representation uses an interaction term of indicators of quota threshold and the ordinal measurement of quota strength to produce a comprehensive variable of quota power. The results for this analysis are presented in Table 1-C and is based on regression analysis which consisted of 241 observations. The relevant coefficients in this table are similar to the findings displayed in Table 1-B because similar controls are significant and these variables operate in the same direction. In this model, the coefficient of the interacted measurement of quota strength is positive and is statistically significant with a p value that is less than .01. This

finding regarding comprehensive quota strength is similar to the initial two findings which included the individual aspects of quota power.

These series of results operate together to corroborate the political calculus that is frequently cited as a motivation for the development and implementation of gender quotas within the electoral framework of a state (Barnes and Holman, 2020). These results are not surprising, and serve to strengthen the existing academic consensus that quotas are generally successful toward the goal of increasing the numerical presence of women within legislative assemblies (Barnes and Holman, 2020; Schwindt-Bayer, 2009). Fundamentally, the descriptive outcome of a quota based upon the gender of candidates is a visible, and therefore an essential, metric in the political and societal assessment regarding the successfulness of the policy. The results of these tests confirm the first alternative hypothesis and suggest that stronger quotas in all dimensions of strength positively contribute to greater numerical power of women within legislative bodies of governments.

### **Findings on Quotas and Infant Mortality- Hypotheses Two and Three**

#### **Model Series Two- No Lag Period**

The first six coefficient tables which constitute Model Two consist of the baseline regression equations in which infant mortality was not lagged by any period of time. Public policy outcomes are rarely influenced immediately, but these models serve as a baseline for framing the marginal influence of the different features of legislative gender quotas upon infant mortality. Tables 2-A and 2-B contain the baseline regression results which used the V-DEM measurement of infant mortality. In Table 2-A, the control

variables GDPPC, Catholic societal prominence and the fertility rate each displayed statistically significant results with a value of  $p \leq .1$  or greater. Quota threshold was highly significant, with a  $p$ -value less than .01, and is negatively correlated with infant mortality, thereby aligning with the expectations of the third hypothesis. The negative relationship indicates that as the numerical strength of the quota threshold is increased, there is a statistically significant decrease in the infant mortality rate within a state within the same observation year.

The results contained in Table 2-B display the baseline regression coefficients for the baseline model of the ordinal indicator of quota power. In this baseline equation, GDPPC, the log of the population, Catholicism and the fertility rate are positively correlated with infant mortality and display some degree of statistical significance. Women's empowerment displays strong significance, and is inversely correlated with infant mortality, as expected. Notably within this test, the sign of the coefficient is reversed from the threshold finding, and the direction of the coefficient for the ordinal measurement of quota strength is positive and is strongly statistically significant at the .05 level of probability.

Table 2-C and Table 2-D contain the coefficient tables for the equations which used the IMR indicator of infant mortality as the primary dependent variable. Between both tests, the average educational level, status as a former British colony, and logged population are each statistically significant and inversely correlated with infant mortality. Similarly, the GINI coefficient of inequality is statistically significant in both tests, and is positively associated with infant mortality, indicating that increased inequality is conducive to greater values of infant mortality, as expected. Peace years appears as

significant in the test pertaining to quota threshold, but it operates as would be expected, and is negatively associated with infant mortality rates. Just as with the findings in Tables 2-A and 2-B, the coefficients for quota threshold and the ordinal measurement of quotas are reversed from one another. However, in the tests using the IMR data quota threshold is positively correlated while the ordinal measurement is negatively correlated. Both independent measurements of quota strength are statistically significant with p values that are less than .01, indicating very strong significance.

The last two coefficient tables in Model 2 present the findings that are obtained by utilizing WDI indicators of infant mortality without a lag period. These findings are contained within Tables 2-E and 2-F. In comparison to the IMR models, the R-squared indicator is considerably stronger in the WDI models and explain roughly twice of the amount of variance of the dependent variable. Between both sets of findings, the control variables of GDPPC, women's empowerment, divided government and the fertility rate each displayed statistical significance and positive correlation with the dependent variable. Similarly, the control variables for average education, logged population, and peace years were statistically significant and negatively correlated, as would be expected. The control for former British colonies was significant in the quota threshold model, but not in the ordinal quota model.

Just as with the previous two sets of analyses based upon the V-DEM and IMR infant mortality data, the coefficients for the two indicators of quota strength are reversed when regressed against the WDI measurement of infant mortality. According to the findings from the WDI regression tests, greater quota thresholds are positively associated with increased infant mortality rates and institutionally stronger quotas are inversely

correlated with the observed infant mortality rate. Both indicators of quota strength were statistically significant. Most important, these findings are in congruence with the results that were obtained through the IMR regression analyses. It is important to note that the congruence between the WDI and IMR results for both indicators of quota strength is maintained across all model sets which test the relationship between gender quota power and infant mortality.

### **Model Series Three- One Year Lag Period**

Political initiatives rarely result in an immediate outcome (Weimer and Vining, 2017). Instead, public policies are moved to a new status quo over time, and the final consequences of a political decision are observable only after the passage of many years (Sowell 2003). Model Series 3 is the first tests which account for temporal separation between the presence of a legislative gender quota and the infant mortality rate. A one-year lag allows for analysis of short-term influence on the dependent variable which is possible within a system that utilizes electoral quotas based upon gender.

The results of the regressions utilizing a one-year lag of the V-DEM indicator of infant mortality are displayed in Table 3-A and 3-B, and reveal a similar pattern as the findings which were obtained by the V-DEM indicator which was not lagged. The results of both models are based upon analysis using 457 observations. Once again, the relevant indicator of quota strength is statistically significant across both models. Quota threshold and punitive enforcement are both statistically significant with p values that are less than .01. The directions of the coefficients for both variants of quota strength operate in a similar patten to the coefficients of the quota strength indicators which were presented in Table 2-A and 2B. Once again, the findings based on the V-DEM indicator of infant

mortality suggest that greater quota thresholds are associated with reductions in infant mortality while punitively-stronger forms of quota policies are correlated with increased values of infant mortality which are experienced in the following observation year.

The findings based upon the regression analyses which were conducted using the IMR measurements with a single year lag are reported within Tables 3-C and 3-D. Between both tests, the control variables of the average educational level of the population, former British colonial status, inequality as measured by the GINI index and the logged population of a state are statistically significant in their correlation to the dependent variable. Within these two models, educational achievement, former British colonial history, and the logged population displayed negative directionality in the sign of their coefficient. Inequality was positively associated with infant mortality and strongly significant, indicating that economic disparity in society fosters or exacerbates the dilemma of infant mortality within a state. In the threshold model which is displayed in Table 3-C, the amount of peace years was negatively correlated to infant mortality, while the ordinal model presented in Table 3-D revealed a negative correlation between divided government and infant mortality.

The primary independent variables of the quota threshold value and the ordinal power of the gender quota are strongly significant within their respective models. Once again, the direction of the coefficients is congruent with the previous models which incorporated the IMR and WDI indicators of infant mortality and they are converse to the V-DEM measurement. The direction of the coefficients between quota threshold and ordinal power remains reversed from one another. Higher quota thresholds are positively

associated with infant mortality, while ordinally-stronger quota rules are inversely related to infant mortality as measured by the IMR indicator.

The statistical results of the models which incorporated the WDI indicators of infant mortality with a one-year lag are included in the next set of tables, 3-E and 3-F. Both models share numerous significant control variables. Between both models, the control variables of GDPPC, women's political empowerment, divided government, average educational level, the log of the population within a state, the number of peace years and the fertility rate each display statistical significance. Former British colonial history is inversely correlated with infant mortality in both the threshold and ordinal models, but it is only significant in the threshold model that is presented in Table 3-E. The primary independent variables, the power of a quota in its numerical threshold and its ordinal capacity, are both strongly significant with p values that are less than .01. Similarly, the coefficients of quota strength between these two models are flipped in comparison to one another. These findings align with the other results that were obtained through analysis using the IMR and WDI indicators of infant mortality. In Table 3-E, the coefficient for the threshold of a quota is positive; while in Table 3-F, the regression coefficient for the ordinal power of quotas is negative and is inversely correlated with increased infant mortality within a state that is observed over a two-year lag period.

#### **Model Series Four-Two Year Lag**

The findings which were displayed in the preceding series of models incorporated a temporal lag of a single observation year in each of the measurements of infant mortality. The findings that are presented within Model Series 4 extends this lag to include a two-year period. Although the timeframe of legislative sessions can vary across

governments, a range of two to five years generally serves as an interval between election events (Ferland, 2016; Powell, 2009). A period of two years allows for an even greater level of political diffusion to have occurred between the operation of a legislative gender quota within an election and the substantive influence that is expected to be exerted upon the level of infant mortality within a state as a result.

Tables 4-A and 4-B include the analysis using the two-year lagged indicator of infant mortality which is drawn from the V-DEM database. Both models have an identical set of control variables that display statistical significance. Former British colonial identity, logged population and the fertility rate are each strongly statistically significant and each of the three variables are positively correlated with infant mortality as described by the V-DEM data. In congruence with the earlier findings regarding the relationship between quotas and the V-DEM indicator of infant mortality, quota threshold displays a negative correlation coefficient, while the coefficient for the ordinal measure of quotas is positive. Both indicators achieve statistical significance, although the threshold indicator is significant at the .05 level of significance and the ordinal indicator has a p value that is less than .01. It is also worth noting that the R-squared in these two tests dropped substantially from the previous two sets of models that were based upon the V-DEM infant mortality data. In Table 4-A and 4-B, the R-squared is .507 and .509 respectively, whereas within the previous two sets of models the amount of variance in the dependent variable that was explained through the models was 77.8 in 2-A, 76.7 in 2-B, 64.9 in 3-A and 64.7 in 3-B.

The IMR models which have incorporated a two-year lag period are presented within the coefficient tables labeled 4-C and 4-D. These tables are very similar to the

single-year lag findings which were presented in Tables 3-C and 3-D. Specifically, each of the control variables which were significant in Table 3-C are also significant in Table 4-C, and the directions of their coefficients remain unchanged. The relevant controls from the model of Table 3-D also maintain their direction and statistical significance when the infant mortality is lagged by an additional year. Interestingly, within the ordinal model that is outlined within Table 4-D, Catholicism gains moderate statistical significance with a p value that is less than .1, and is inversely correlated with infant mortality as is theoretically expected. The primary explanatory variables of quota threshold and enforcement power retain their strong statistical significance with coefficients that display p values which are less than .01 within both of the two-year lag models for the IMR indicator. These findings regarding each of the quota indicators aligns with the other findings based upon the other IMR models and the various models which utilize the WDI infant mortality measurements.

The results from the models which incorporated the WDI indicator of infant mortality with a two-year lag period are closely aligned with the previous models that were reliant upon this data source. Both WDI models remain consistent and aligned with the findings from Models One and Two with respect to the direction and significance of the control coefficients. Likewise, the indicator of quota power within each model retains its strong significance and its relational direction. Quota threshold is again positively associated with infant mortality and ordinal enforcement power is negatively related to infant mortality. These findings are consistent with the framework of quota operation that has been depicted by the findings that are delivered through the IMR and WDI tests through this point in the analysis.

**Model Series Five- Three Year Lag**

In the fifth set of models, the lag period of each of the infant mortality indicators is increased further to include a delay of three observation years. This timeframe serves as an intermediate-range for the delay that can exist between the implementation or presence of a legislative gender quota within an electoral system, and the time that a policy outcome, it is assumed, would need to diffuse into the public and become readily observable.

Examination of the V-DEM models which are presented in Tables 5-A and 5-B portray the relationship between each form of quota strength and infant mortality similarly to the models with one-year, two-years or without a lag. The ordinal intensity of quota strength remains associated with increased values of infant mortality, and is strongly significant. It is within the fifth set of regression models directed at testing the second and third hypotheses that the significance of association with the primary independent variable appears as marginally significant. In Table 5-A the quota threshold indicator is negatively correlated with the dependent variable, as in the other V-DEM analyses, but this indicator's p value is less than .1, and does not achieve significant at the .05 level.

The models in which the IMR indicator of infant mortality is lagged by three years are featured in Tables 5-C and 5-D. Average education, former British colonial status, economic inequality and the logged population display statistical significance with both sets of regression models. Within the quota threshold model featured in Table 5-C, peace years is moderately significant and is negatively correlated with infant mortality. The measurement of divided government maintains a negative coefficient value in the

ordinal model that is presented in Table 5-D, and is also marginally significant. Both quota threshold and the ordinal measurement of quotas maintain strong significance and their coefficient directions from previous models.

The imposition of a three-year lag upon the WDI measurement of infant mortality does little to alter the results that are obtained. These findings are presented in Tables 5-E and 5-F. Within both tests, GDPPC, women's empowerment, divided government, average educational level within the state, the logged population, the number of peace years and the fertility rate all operate at some level of accepted statistical significance within their respective models. Having been a former British colony is significant in the threshold model, and has a p value which is less than .1. Most important, the coefficients for the correlation with the primary independent variables remain strongly statistically significant, and each of the coefficients retain the direction that can be observed within all of the sets of analyses which have relied upon the IMR and WDI indicators as the primary independent variable.

### **Model Series Six- Five Year Lag**

These final sets of analysis consist of six OLS regression tests and further consider the longer-term influence of legislative gender quotas upon the infant mortality rate that is observed under the conditions of a five-year lag. Public policy outcomes can be the product of inputs that occurred over periods of many years or decades, and the marginal influence exerted on the infant mortality rate is not an exception. Therefore, the effects of a gender quota should be observable within a period of five years.

The findings associated with the V-DEM indicator of infant mortality change dramatically when subjected to a lag period of five-years. The analysis that is presented in Table 6-A indicates that a statistically significant and inverse relationship between quota thresholds and infant mortality is still observed even under the conditions of a five-year lag interval. This finding is largely in line with the findings from the previous models, and quota threshold appears as more significant than it did within the models based upon a three-year lag of infant mortality. In looking at the findings presented in Table 6-B, the ordinal power of a quota is no longer significant at any accepted level of certainty. Comparison of the R-squared from the V-DEM analysis presented in Model Two to the analysis that is represented in Model Six reveals a substantial drop of roughly 35% in explanatory power.

Moving forward to the final set of tests which involve the IMR measurement with a five-year interval lag reveals findings which are congruent with each of the previous test that involve this indicator. Just as with the previous sets of regression tests, the coefficient for quota threshold is positively correlated with infant mortality. Likewise, the correlation coefficient for quota's ordinal component is inversely related to the lagged measurement of infant mortality. Both of these coefficients are strongly significant with good p values which are both less than .01. The R-squared figure for the regression findings cited in Tables 6-C and 6-D stands at .401 and .391, respectively.

The findings presented in Tables 6-E and 6-F depict the regression results obtained from the models which included the WDI indicator of infant mortality that has been lagged by a period of five years. These findings are largely congruent with the previous sets of models that featured the WDI data. Within both models, the coefficients

for GDPPC, women's political empowerment, divided government, average educational level of the public, logged population, the number of peace years since a conflict and the observed fertility rate each displayed statistical significance. Economic inequality as measured by the GINI coefficient was significant within the threshold model, albeit only slightly, and is positively related to the value of infant mortality that is observed. Once again, quota threshold was positively correlated to the dependent variable, and ordinal quota enforcement exhibited a negatively correlation coefficient within their respective models. Each of the models that have relied upon the WDI infant mortality measure have featured a strong R-squared that is above .700. The R-squared within the models using a five-year lag of this indicator are not excepted from this trend.

### **Understanding the Contradictory Findings Regarding Infant Mortality**

The preceding sections consisted of a large volume of information with readily discernable patterns that are easily observable when considering the findings according to the data source of infant mortality which is utilized. When considered in their totality, the thirty coefficient tables that comprise Models Two through Six offer insight into the manner in which the specific attributes of a quota policy have the potential to marginally influence infant mortality. The converse findings that are presented between the models that use the V-DEM infant mortality measurement and those models which incorporate the IMR and WDI indicators of infant mortality initially appear to present an empirical quandary.

The findings that are presented above depict divergent directions in the marginal influence of legislative gender quota strength upon infant mortality based upon the specific indicator of infant mortality that is being considered. Examination of the

findings of this analysis allows for multiple interpretations of the effect of different aspects of legislative gender quotas upon the infant mortality rate that is experienced within a state as a consequence. Fundamentally, it is not possible that both of trends in the findings can be considered an accurate reflection of the marginal influence of quota power upon infant mortality rates within society. This analysis has incorporated multiple data sources of infant mortality in an attempt to alleviate the obfuscation which was a consequence of the conflicting findings that are associated with the V-DEM indicator of infant mortality. Each of these three datasets incorporate a global sample of cases across a similar range of time. The number of observations that are utilized between the three data sources are different, and the IMR contains approximately 140 less observations than the V-DEM database within a given regression, and the WDI is further reduced by about 120 observations. Even with the reductions in the n, this difference in the number of observations is not sufficient to create significantly disparate results and would not account for the changing direction of the coefficient for the gender quota indicator. The distribution of observations between the three datasets is visually represented within Figures 6, 7 and 8.

Critical consideration of the aggregate direction of the findings associated with the test of hypotheses two and three cast doubt upon the reliability of the V-DEM indicator of infant mortality. Despite the apparent deficiency in the reliability of the V-DEM data, it was included in this analysis because of its application as a source of information about infant mortality and its inclusion in the V-DEM database. Through its inclusion in this data collection, it is a convenient measurement, and has the potential to result in spurious conclusions in the analysis in which it is included.

What is evident, is that within all of the models the direction of quota power as measured by its numerical threshold and its ordinal level of enforcement capability were never similarly oriented. Most important, the direction of the relevant quota coefficients remained consistent between the entirety of the series of test which incorporated the IMR and the WDI indicators of infant mortality, and the infant mortality coefficients from these data sources were strongly significant across every model and test.

The fundamental question which lingers based upon these results, and is essential to consider pertains to why this diametric trend is occurring. This question requires additional inquiry, and could be the subject of its own research project, but there are explanations which can be derived through a cursory examination of the literature. The most prominent reason that higher thresholds are associated with stronger infant mortality rates, while more institutionally engrained quotas lead to reductions in the rates of infant mortality is marginalization remains a salient force within the operation of systems that rely upon strong quota thresholds as opposed to stronger enforcement of quotas. It is possible that there is a counter-response by male legislative colleagues to work against the initiatives of their female counterparts due to an innate bias, and a concerted effort to counteract the higher threshold. Recall that marginalization is based upon stereotypes and bias, leading males within the system to pursue policies that do not align with their female colleagues to prevent legislative victories for the women elected because of the presence of a quota with a greater threshold (Bystrom 2008, 60-62). In this type of scenario, social spending directed toward healthcare, specifically for mothers and older citizens, could be reduced to direct funds toward other policy goals that are not identified

as prominent women's issues such as military spending (Keegan 1993, 76). This is one possibility, and further research is needed to discern the dynamics of this relationship.

### **Comparing the Hypotheses and the Findings**

Based upon the results obtained from the analysis conducted in Model One, alternative hypothesis one is retained in favor of the null hypothesis. The descriptive representation of women is shown to be increased through the application of all forms of quotas. Similarly, the positive relationship indicates that stronger forms of quotas result in more women within the legislature. This should not come as a surprise based upon the expectations which are used as a basis for the implementation of the quota policy. The threshold aspect specifically outlines the minimum number of women that are expected to be promoted under the auspice of a quota system. Therefore, systems with higher thresholds should expect to generally result in more women in political office.

The second alternative hypothesis maintained that quotas which were designed with stronger punitive enforcement measures would be associated with reduced infant mortality rates because these standards would be costly to ignore, thereby ensuring that a specified number of women are able to hold political office and exercise legislative authority within a government. The results presented above corroborate the assumptions outlined in this hypothesis. Those quota policies which contain stronger means of enforcement, and are more costly to shirk, are associated with decreased infant mortality.

The third hypothesis is similar in composition to the second hypothesis and is focused upon the thresholds of a legislative gender quota. This final hypothesis asserted that legislative gender quotas which were comprised with greater numerical thresholds

would be associated with decreased infant mortality. The logic on which this hypothesis is built is similar to the second hypothesis because stronger thresholds should result in greater proportions of women included in the legislative assembly of the government. This alternative hypothesis was not supported by this analysis as it was outlined above. Rather, the weight of the findings indicates that greater quota thresholds affect the rate of infant mortality in an opposite manner than was expected based upon the theoretical assumptions.

### **Conclusion**

The majority of the findings which are presented in the preceding sections of this chapter suggest that it is necessary to engage in a practical and theoretical reconsideration of the prevailing understanding regarding the causal influence of legislative gender quotas and the totality of women's representational presence within government and policy. The specific constructed manner in which legislative gender quotas are designed is critical in determining the manner in which policy will likely be influenced through their application to the electoral system. Not all formulations of quotas operate identically, and it cannot be assumed that a quota will achieve substantive policy changes in proportion to its designated power.

The prevailing understanding on the issue of quota policies is that generally stronger variations of legislative gender quotas will be uniformly associated with increases in the substantive representation of women. These increases in substantive representation are manifest through observable changes in policy outcomes toward a status quo which is more intimately aligned with the political and social interests of this group. The findings contained in this research, even when considered in whole, suggest

that quota strength cannot be considered monolithically when seeking to further the substantive representational impact of women within legislative deliberative assemblies. Most notably, across all of the statistically significant models, the coefficients of both the quota threshold and ordinal quota indicators are directionally similar between the IMR and WDI measurements of infant mortality rates. Although the reliability of the V-DEM infant mortality measurement is questionable, the directional divergence between the coefficients of both of the quota strength indicators is still present, albeit diametrically opposite from the other two selected indicators of the dependent variable in these tests.

If quotas are to be viewed as a political tool which is designed and implemented in an effort to achieve the political goal of increasing the comprehensive representation of women within governments, then they cannot be viewed as a hammer. Viewing quotas as such might lead to the erroneous conclusion that quotas, which are more strongly designed and applied, will result in more representation. Rather quotas should be considered as a precision tool, and applied strategically based upon the specific goals that are desired within a society. Once applied, it is prudent to engage in careful assessment of these rules within political systems to ensure that they operate as intended while simultaneously increasing the presence of women within the government.

## CHAPTER FIVE

### Introduction

Women's engagement in the political system has been heralded by policy-makers and academics as a salient event within modern political history. Women's political inclusion is not only significant because of the social equality that is further through integration, but also because of the manner in which political norms and public policy are reshaped through the involvement of women into the operations of their governments. Despite significant increases in the proportion of women acting within positions of policy-making authority, the numerical presence and power of women in government, relative to their male counterparts, has remained marginal. The design and implementation of legislative gender quotas is an attempt to achieve the goal of greater parity for women within the governmental process (Childs and Hughes, 2018; Kerevel, 2019; O'Brien and Rickne, 2016). The preceding chapter presented the results of the statistical analyses which were used to empirically test the hypotheses concerning the theoretical relationship between legislative gender quotas and infant mortality, and has shown that quotas cannot be considered as monolithic policies which exert a uniform influence upon political and social outcomes. Rather, quotas affect women's substantive representation, as identified through infant mortality, in entirely different directions based upon the compositional characteristics within the design of the quota policy.

### Policy Implications

Legislative gender quotas have largely been promoted and implemented based upon their ability to diminish the representational inequality of women in governmental

legislatures, the descriptive representation of women, and also as a mechanism to promote the preferences and interests of women within policy outcomes within society, the substantive representation. Because quota policies have assumed a prominent role within the electoral systems of many states around the world, it is critical that scholars and policymakers acquire an accurate understanding of the dynamics of legislative gender quotas and ascertain how they are likely to influence the political status quo of the system in which they operate.

The conclusions that are presented in this dissertation largely dismiss the results obtained from the models which incorporated the V-DEM indicator of infant mortality due to the unreliability of this measure because of the heavy reliance of interpolation for observational values. When omitting the unreliable V-DEM indicator of infant mortality from consideration, the political implications that are associated with quota policies and infant mortality become clearly defined. Infant mortality is not the only policy outcome that can be influenced by the implementation of a gender quota. Rather, infant mortality serves as a “most-likely” outcome that is connected to gender quotas based upon its theoretical connection to the social policy interests that have been associated with women (Childs, 2006; Ruddick, 1989; Skocpol, 1992). Based upon the findings using the IMR and WDI measurements of infant mortality the assertion that generally stronger quotas are more conducive in influencing substantive representation of women within a state appears dubious. Rather, the results featured in the previous chapter depict a consistent relationship between both forms of quota strength and infant mortality.

If the purpose of implementing gender quotas is about full representation for women within a government and society, then it is not sufficient to adopt a quota with a

high threshold and protect it constitutionally because it appears to be the strongest option, and is therefore most conducive to promoting women and their interests. This strategy is fine for achieving descriptive representation for women, as both high quota thresholds and greater enforcement power are associated with numerical increases for women within lower legislative chambers. In situations where a visible sign of gender parity is the goal, these findings indicate that the power of the quotas will generally result in women possessing a greater share of the legislative power as a consequence of the policy. This implication is true regardless of which dimension of the quota is bolstered.

It is important reiterate that these findings do not indicate that the pattern presented in this research concerning the influence of quota's ordinal power and the numerical threshold of a gender quota policy will operate identically across all indicators of policy outcomes which could be associated with women's' issues. Rather, infant mortality is a singular policy issue, but it has been shown through this analysis to be marginally influenced in a differential manner based upon the specific compositional features of quota policies. Further, the conclusion that greater numerical thresholds are associated with higher infant mortality should not be interpreted that these forms of quotas act as an absolute causal mechanism in determining infant mortality.

### **Identifying the Limitations within this Analysis**

Due to the contradictory results between the IMR and V-DEM measurements of infant mortality under different gender quota conditions, it is difficult to assert a generalizable framework of which quota parameters are likely to influence infant mortality in a specific direction. Within the tests using the V-DEM database measurement of infant mortality, greater numerical thresholds were generally associated

with reductions in infant mortality while institutionally stronger forms of quota rule were correlated with increases to the level of infant mortality. The exact opposite trend was uncovered when utilizing the IMR replication data as the source of information of infant mortality and the coefficients for quota threshold and strength were reversed in comparison to the V-DEM analyses.

The discrepancy of outcomes between the two general findings which are revealed by the application of multiple data sources is substantively significant. The divergent trends in the direction of quota influence highlights the importance of reliable and valid data. The models that are reliant upon the V-DEM indicator of infant mortality offer a systematically contrasting perspective about the marginal effect of gender quotas upon infant mortality rates. These contradictory conclusions are best ascribed to the influence of unreliable data that is built upon the process of vast periods of extrapolation to fill in observation values. These findings are best considered dubious, especially in comparison to the findings which resulted from analysis utilizing the IMR and WDI indicators. Although robust conclusions were obtained through the IMR and WDI indicators, the findings based on the V-DEM models serves as an empirical call which requires further investigation on this issue, and on other interrelated research questions. The similar directionality and significance that is shared between the IMR and WDI models act as a robustness check for the findings of this project, but subsequent analysis should be conducted in an attempt to falsify these findings. Similarly, the development of additional novel datasets which might provide more valid and reliable conclusions is an effort that should be promoted through additional empirical efforts. Additional

measurements only add to the robustness of any findings that are obtained, and strengthen both the internal and external validity of the conclusions.

This research was exclusively quantitative in its approach, and because of the data was comprised of a global sample of state-level data, the external validity of the findings was strengthened through the usage this methodological approach. Yet, the findings regarding quota threshold and punitive power could be more accurately assessed through different methodological approaches. This specific research question, and other similarly-oriented inquires, could be addressed through a qualitative methodological approach, and could provide insight as to the source of the coefficient flips that have been observed between data sources. The explanation provided within this research serves as a “best guess” attempt to explain the divergence of these findings based upon similarly-oriented research that has been previously conducted. It is not conclusive, and this explanation needs to be tested empirically if it is to be retained. However, it is an essential next-step that is needed to accurately explain and to further predict how quotas are likely to influence public policy. Arguably, a qualitative study might be best suited to discern why ordinal quotas operated as expected by the second hypothesis, while quota thresholds exerted an entirely opposite effect upon infant mortality from what was outlined within the third hypothesis because the in-depth nature of qualitative research is conducive in the discovery of information and interpretive description (Thorne, 2016; Tolley et al, 2016).

### **Suggested Directions for Future Scholarship**

The research presented in this dissertation represents an attempt to advance the general understanding of how legislative gender quotas influence the representation of

women within the domains of policymaking and policy outcomes. Although this analysis was focused upon the influence of quotas upon both dimensions of representation, only one dimension of substantive representation was considered. Infant mortality, while especially salient, is a narrow indicator which allowed for a more nuanced understanding of gender quota policies to be discerned. It does not represent the only policy issue that can be considered under the conditions of quota imposition.

One of the most prominent questions which this research leaves unanswered is whether increased descriptive representation is directly associated with infant mortality. This research has only considered the relationship that exists between quota policies and representation within its two forms. It was beyond the scope of this project to further tether descriptive representation to substantive representation, specifically the policy outcome of infant mortality. Although this question was not addressed by this research, the groundwork for this inquiry has been completed with this project. The findings of this project have indicated that there is a positive relationship between all aspects of quota policies and descriptive representation of women within government (Tables 1-A, 1-B and 1-C). These models suggest that the presence of stronger quota policies, regardless of their form or composition, are likely to result in greater descriptive representation of women within legislative bodies. Likewise, two of the datasets (IMR and WDI) provided similar results which indicate that higher thresholds are associated with increases in infant mortality, while legally stronger quotas are associated with decreases to the rate of infant mortality that is observed. Research which is aimed at connecting these findings by considering the effect of greater descriptive representation

on political and social outcomes is an essential next step in the process of discerning the impact of women in policy.

This research also did not address the specific conditions that operate to make quota implementation more likely within a specific state. It also did not consider the domestic conditions which worked to establish the specific legal and threshold parameters that constitute the quota policy. The theory employed for this dissertation operated under the general assumption that all states were equally likely to implement some form of quota, and that the strength of the quota is stochastic rather than calculated based upon a set of conditions that are present within a state. A comprehensive understanding of the issue of quota policies requires a political understanding of the conditions which are necessary and sufficient to produce certain forms of quota policies within political systems. It is possible that these undetermined theoretical pre-existing conditions are more salient factors in explaining infant mortality, and that once these factors are determined with confidence that the establishment of a specific quota system could operate as an intervening variable rather than an independent variable. Exploration of the causal forces behind quotas is an ideal question to be addressed through qualitative or mixed methods analysis.

Finally, it is essential that the scope of inquiry regarding the political influence of gender quotas upon specific areas of public policy be further expanded through subsequent scholarship. This project has presented a portrait of the dynamic between quotas and a singular policy dimension. As such, additional empirical research is needed to facilitate greater consideration of a range of policy outcomes which have the potential to be influenced through the existence of a gender quota rule within an electoral system.

Arguably, this number is constrained only by the number of policy issues that operate within a system. Additional research which addresses the ramifications of gender quotas in electoral politics is integral to the larger understanding of political quotas, and also promises to add to the scholarly interpretation of how women engage in politics and the greater framework of society.

### **Conclusion**

The past century of political history has been marked by tremendous political gains and extraordinary achievement of women. During this relatively short period of modern history, women have assumed prominent political roles within the operation of governments and in the development of public policies through their involvement with the creation of legislation. Despite these significant gains, women still are often underrepresented in legislatures relative to their proportional share of society (Childs and Hughes 2018; Kerevel 2019; O'Brien and Ricke, 2016). Electoral quotas based upon the gender of a candidate are one mechanism that has been implemented in systems across the world to rectify the political underrepresentation of women within these states.

This research has highlighted that the political tool of gender quotas, which are employed to in an attempt to achieve greater parity in the legislative representation of women, can have an unintended influence based upon the compositional features and structure of the quota policy. Legislative gender quotas cannot be considered as a monolithic political mechanism, but rather it is essential to understand the dynamics which comprise these greater concepts and how these processes exert distinct influence upon policy outcomes.

Empirical inquiry directed toward the purpose of discerning the trends and patterns which are associated with legislative gender quotas has proliferated tremendously within a relatively short period of time. Despite the volume of research which has been conducted in the previous decades many seminal questions which pertain to gender quotas persist and remain unanswered within the body of scholarship on the topic. Infant mortality the only policy outcome that has been considered within this research, but it is likely one of a multitude of variables which are marginally influenced through the presence of gender quota rules operating within an electoral system.

It is likely that the prevalence of quotas will continue to grow with the passing of time. Many states have identified the pursuit of equity as an overarching political goal, and many systems are orienting their political structures to facilitate this outcome. Quotas, while imperfect and somewhat controversial in nature, have been viewed by political leaders and scholars as an integral component in the effort to promote equity between men and women within government and public policy. Concentrated efforts to promote greater political representation could be increasingly reliant upon the usage of legally punitive quotas with greater thresholds for the minimum proportion of seats for women. With respect to certain political outcomes that are aligned with the interests of women, specifically infant mortality, greater thresholds of legislative seats reserved by quota can influence the level of infant mortality in a direction that is contrary to the political ideal. Quotas should be implemented and maintained with the purpose of facilitating greater descriptive and substantive representation for women. If both of these ends are not achieved, then the representational justification for these policies is incomplete at best, and at worst it is suspect.

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## APPENDIX

MODEL 1 VARIABLES	TABLE 1-A Quota Threshold Power and Descriptive Representation
Quota Threshold	0.00164** (0.000635)
GDPPC	-2.05e-06** (9.06e-07)
Women's Empowerment	1.193*** (0.0636)
Divided Government	0.0136** (0.00612)
War	-0.0531** (0.0217)
Average Education	-0.0238*** (0.00378)
Former British Colony	-0.0166 (0.0173)
GINI	-0.000275 (0.000263)
Logged Population	0.00140 (0.00377)
Catholicism	-6.17e-05 (0.000267)
Peace Years	-0.000295 (0.000503)
Number of Parties	0.0110 (0.0105)
Constant	0.0521 (0.0709)
Observations	241
R-squared	0.783

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 1 VARIABLES	TABLE 1-B Ordinal Quota Power and Descriptive Representation
Quota Ordinal	0.0212*** (0.00571)
GDPPC	-1.97e-06** (8.90e-07)
Women's Empowerment	1.332*** (0.0548)
Divided Government	0.0164*** (0.00597)
War	-0.0514** (0.0213)
Average Education	-0.0240*** (0.00372)
Former British Colony	-0.0371** (0.0172)
GINI	-1.89e-05 (0.000256)
Logged Population	-0.00333 (0.00357)
Catholicism	5.44e-05 (0.000266)
Peace Years	-0.000157 (0.000494)
Number of Parties	0.0201* (0.0106)
Constant	-0.0230 (0.0739)
Observations	241
R-squared	0.789

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 1 VARIABLES	TABLE 1-C Interacted Quota Power and Descriptive Representation
Quota Strength	0.0505*** (0.0133)
GDPPC	-1.85e-06** (8.93e-07)
Women's Empowerment	1.320*** (0.0540)
Divided Government	0.0161*** (0.00596)
War	-0.0544** (0.0213)
Average Education	-0.0264*** (0.00379)
Former British Colony	-0.0309* (0.0169)
GINI	-1.87e-05 (0.000256)
Logged Population	-0.00255 (0.00354)
Catholicism	7.57e-05 (0.000266)
Peace Years	-0.000285 (0.000494)
Number of Parties	0.0198* (0.0106)
Constant	0.00945 (0.0712)
Observations	241
R-squared	0.790

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 2 VARIABLES	TABLE 2-A Infant Mortality-V-DEM
Quota Threshold	-0.381*** (0.0719)
GDPPC	0.000217* (0.000122)
Women's Empowerment	-8.086 (7.779)
Divided Government	0.843 (0.762)
War	-2.193 (2.893)
Average Education Level	-0.0957 (0.629)
Former British Colony	2.327 (2.201)
GINI	-0.00829 (0.0361)
Logged Population	0.890 (0.560)
Catholicism	0.101*** (0.0331)
Peace Years	0.101 (0.0708)
Fertility Rate	14.89*** (1.064)
Constant	-24.42* (14.46)
Observations	465
R-squared	0.778

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 2 VARIABLES	TABLE 2-B Infant Mortality-V-DEM
Quota Ordinal	1.952** (0.786)
GDPPC	0.000362*** (0.000124)
Women's Empowerment	-22.47*** (7.535)
Divided Government	0.337 (0.778)
War	-3.486 (2.948)
Average Education Level	-0.0293 (0.651)
Former British Colony	2.438 (2.263)
GINI	-0.0218 (0.0368)
Logged Population	1.405** (0.563)
Catholicism	0.115*** (0.0337)
Peace Years	0.0610 (0.0720)
Fertility Rate	15.17*** (1.121)
Constant	-40.27*** (14.39)
Observations	465
R-squared	0.767

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 2 VARIABLES	TABLE 2-C Infant Mortality-IMR
Quota Threshold	1.344*** (0.290)
GDPPC	0.000425 (0.000453)
Women's Empowerment	-8.967 (32.10)
Divided Government	-3.074 (3.166)
War	7.734 (10.46)
Average Education Level	-10.34*** (2.657)
Former British Colony	-48.32*** (8.005)
GINI	0.365*** (0.139)
Logged Population	-12.64*** (2.507)
Catholicism	-0.0165 (0.149)
Peace Years	-0.612** (0.275)
Fertility Rate	3.433 (5.760)
Constant	304.5*** (66.60)
Observations	334
R-squared	0.370

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 2 VARIABLES	TABLE 2-D Infant Mortality-IMR
Quota Ordinal	-15.13*** (3.382)
GDPPC	-0.000303 (0.000446)
Women's Empowerment	17.03 (31.42)
Divided government	-7.397** (3.262)
War	12.20 (10.37)
Average Education	-8.871*** (2.675)
Former British Colony	-44.52*** (8.083)
GINI	0.355** (0.140)
Logged Population	-14.34*** (2.450)
Catholicism	-0.126 (0.148)
Peace Years	-0.406 (0.268)
Fertility Rate	2.739 (5.755)
Constant	395.5*** (64.89)
Observations	334
R-squared	0.368

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 2 VARIABLES	TABLE 2-E Infant Mortality-WDI
Quota Threshold	1.320*** (0.169)
GDPPC	0.00215*** (0.000297)
Women's Empowerment	83.97*** (20.09)
Divided Government	14.86*** (2.154)
War	4.425 (6.616)
Average Education Level	-9.349*** (1.486)
Former British Colony	-9.744** (4.221)
GINI	0.136 (0.0908)
Logged Population	-9.273*** (1.717)
Catholicism	0.0443 (0.0858)
Peace Years	-0.989*** (0.200)
Fertility Rate	10.57*** (3.714)
Constant	103.2** (42.33)
Observations	220
R-squared	0.723

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 2 VARIABLES	TABLE 2-F Infant Mortality-WDI
Quota Ordinal	-11.89*** (1.934)
GDPPC	0.00146*** (0.000295)
Women's Empowerment	95.41*** (20.96)
Divided Government	10.85*** (2.317)
War	11.14 (6.794)
Average Education	-7.915*** (1.575)
Former British Colony	-4.448 (4.489)
GINI	0.0534 (0.0942)
Logged Population	-10.06*** (1.792)
Catholicism	-0.0454 (0.0886)
Peace Years	-0.531*** (0.192)
Fertility Rate	8.421** (3.855)
Constant	179.9*** (43.22)
Observations	220
R-squared	0.697

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 3 VARIABLES	TABLE 3-A Infant Mortality-V-DEM-One Year Lag
Quota Threshold	-0.285*** (0.0923)
GDPPC	0.000125 (0.000158)
Women's Empowerment	-3.985 (9.984)
Divided Government	1.051 (0.981)
War	3.000 (3.703)
Average Education	-0.505 (0.811)
Former British Colony	8.964*** (2.847)
GINI	-0.0209 (0.0465)
Logged Population	1.886*** (0.726)
Catholicism	0.0498 (0.0425)
Peace Years	0.121 (0.0912)
Fertility Rate	12.71*** (1.375)
Constant	-34.92* (18.60)
Observations	457
R-squared	0.649

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 3 VARIABLES	TABLE 3-B Infant Mortality-V-DEM-One Year Lag
Quota Ordinal	2.574** (0.996)
GDPPC	0.000257 (0.000157)
Women's Empowerment	-15.37 (9.481)
Divided Government	0.628 (0.981)
War	2.255 (3.698)
Average Education	-0.655 (0.824)
Former British Colony	8.850*** (2.863)
GINI	-0.0303 (0.0465)
Logged Population	2.165*** (0.713)
Catholicism	0.0592 (0.0425)
Peace Years	0.104 (0.0910)
Fertility Rate	12.36*** (1.427)
Constant	-44.68** (18.12)
Observations	457
R-squared	0.647

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 3 VARIABLES	TABLE 3-C Infant Mortality-IMR-One Year Lag
Quota Threshold	1.381*** (0.295)
GDPPC	0.000261 (0.000464)
Women's Empowerment	-12.56 (33.03)
Divided Government	-3.496 (3.222)
War	8.948 (10.60)
Average Education	-10.96*** (2.694)
Former British Colony	-49.88*** (8.209)
GINI	0.376*** (0.143)
Logged Population	-13.10*** (2.607)
Catholicism	-0.0699 (0.151)
Peace Years	-0.591** (0.282)
Fertility Rate	2.438 (5.900)
Constant	326.4*** (67.42)
Observations	325
R-squared	0.382

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 3 VARIABLES	TABLE 3-D Infant Mortality-IMR-One Year Lag
Quota Ordinal	-16.28*** (3.506)
GDPPC	-0.000493 (0.000458)
Women's Empowerment	17.25 (32.21)
Divided Government	-8.110** (3.321)
War	14.34 (10.48)
Average Education	-9.440*** (2.707)
Former British Colony	-46.73*** (8.260)
GINI	0.390*** (0.143)
Logged Population	-15.38*** (2.532)
Catholicism	-0.181 (0.150)
Peace Years	-0.411 (0.276)
Fertility Rate	2.475 (5.905)
Constant	425.8*** (65.72)
Observations	325
R-squared	0.382

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 3 VARIABLES	TABLE 3-E Infant Mortality-WDI-One Year Lag
Quota Threshold	1.318*** (0.170)
GDPPC	0.00226*** (0.000301)
Women's Empowerment	89.85*** (20.29)
Divided Government	15.13*** (2.202)
War	3.000 (6.674)
Average Education Level	-8.819*** (1.519)
Former British Colony	-9.638** (4.223)
GINI	0.117 (0.0924)
Logged Population	-8.889*** (1.738)
Catholicism	0.0930 (0.0890)
Peace Years	-1.053*** (0.205)
Fertility Rate	12.67*** (3.798)
Constant	79.67* (43.70)
Observations	216
R-squared	0.723

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 3 VARIABLES	TABLE 3-F Infant Mortality-WDI-One Year Lag
Quota Ordinal	-12.04*** (1.947)
GDPPC	0.00158*** (0.000298)
Women's Empowerment	99.32*** (21.13)
Divided Government	11.16*** (2.357)
War	10.03 (6.828)
Average Education	-7.089*** (1.606)
Former British Colony	-3.915 (4.484)
GINI	0.0338 (0.0956)
Logged Population	-9.576*** (1.810)
Catholicism	-0.000962 (0.0917)
Peace Years	-0.593*** (0.197)
Fertility Rate	10.86*** (3.943)
Constant	153.1*** (44.67)
Observations	216
R-squared	0.698

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 4 VARIABLES	TABLE 4-A Infant Mortality-V-DEM-Two Year Lag
Quota Threshold	-0.266** (0.112)
GDPPC	0.000118 (0.000193)
Women's Empowerment	9.703 (12.07)
Divided Government	1.033 (1.191)
War	0.121 (4.469)
Average Education	-0.439 (0.988)
Former British Colony	10.41*** (3.471)
GINI	-0.0424 (0.0565)
Logged Population	2.548*** (0.882)
Catholicism	0.0675 (0.0516)
Peace Years	0.0222 (0.111)
Fertility Rate	12.00*** (1.677)
Constant	-55.33** (22.51)
Observations	451
R-squared	0.507

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 4 VARIABLES	TABLE 4-B Infant Mortality-V-DEM-Two Year Lag
Quota Ordinal	3.215*** (1.208)
GDPPC	0.000265 (0.000191)
Women's Empowerment	-1.524 (11.41)
Divided Government	0.605 (1.186)
War	-0.372 (4.441)
Average Education	-0.746 (1.002)
Former British Colony	10.21*** (3.469)
GINI	-0.0507 (0.0562)
Logged Population	2.739*** (0.860)
Catholicism	0.0759 (0.0512)
Peace Years	0.0164 (0.110)
Fertility Rate	11.23*** (1.742)
Constant	-62.70*** (21.84)
Observations	451
R-squared	0.509

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 4 VARIABLES	TABLE 4-C Infant Mortality-IMR-Two Year Lag
Quota Threshold	1.459*** (0.303)
GDPPC	7.33e-05 (0.000482)
Women's Empowerment	-24.91 (33.90)
Divided Government	-4.108 (3.293)
War	10.86 (10.88)
Average Education	-12.06*** (2.758)
Former British Colony	-50.09*** (8.475)
GINI	0.402*** (0.149)
Logged Population	-13.69*** (2.665)
Catholicism	-0.156 (0.155)
Peace Years	-0.602** (0.294)
Fertility Rate	-0.668 (6.040)
Constant	368.9*** (67.82)
Observations	320
R-squared	0.385

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 4 VARIABLES	TABLE 4-D Infant Mortality-IMR-Two Year Lag
Quota Ordinal	-17.02*** (3.617)
GDPPC	-0.000705 (0.000475)
Women's Empowerment	10.87 (33.07)
Divided Government	-8.756** (3.384)
War	15.92 (10.78)
Average Education	-10.30*** (2.781)
Former British Colony	-48.08*** (8.514)
GINI	0.423*** (0.149)
Logged Population	-16.14*** (2.587)
Catholicism	-0.260* (0.153)
Peace Years	-0.436 (0.288)
Fertility Rate	0.443 (6.089)
Constant	465.4*** (65.82)
Observations	320
R-squared	0.383

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 4 VARIABLES	TABLE 4-E Infant Mortality-WDI-Two Year Lag
Quota Threshold	1.332*** (0.176)
GDPPC	0.00230*** (0.000310)
Women's Empowerment	91.62*** (20.83)
Divided Government	15.59*** (2.274)
War	3.119 (6.897)
Average Education Level	-8.811*** (1.589)
Former British Colony	-9.369** (4.348)
GINI	0.129 (0.0964)
Logged Population	-8.997*** (1.787)
Catholicism	0.0907 (0.0932)
Peace Years	-1.063*** (0.215)
Fertility Rate	13.29*** (3.970)
Constant	77.57* (45.53)
Observations	213
R-squared	0.723

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 4 VARIABLES	TABLE 4-F Infant Mortality-WDI-Two Year Lag
Quota Ordinal	-12.83*** (1.986)
GDPPC	0.00165*** (0.000304)
Women's Empowerment	101.5*** (21.44)
Divided Government	11.76*** (2.400)
War	9.847 (6.971)
Average Education	-6.595*** (1.665)
Former British Colony	-2.955 (4.564)
GINI	0.0408 (0.0985)
Logged Population	-9.424*** (1.841)
Catholicism	0.00624 (0.0950)
Peace Years	-0.627*** (0.205)
Fertility Rate	12.50*** (4.097)
Constant	141.2*** (46.12)
Observations	213
R-squared	0.705

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 5 VARIABLES	TABLE 5-A Infant Mortality-V-DEM-Three Year Lag
Quota Threshold	-0.227* (0.126)
GDPPC	8.09e-05 (0.000219)
Women's Empowerment	10.69 (13.55)
Divided Government	0.0470 (1.341)
War	0.743 (4.996)
Average Education	-0.0177 (1.110)
Former British Colony	12.82*** (3.889)
GINI	-0.0494 (0.0639)
Logged Population	3.013*** (0.991)
Catholicism	0.0341 (0.0580)
Peace Years	-0.0572 (0.125)
Fertility Rate	10.56*** (1.889)
Constant	-61.53** (25.19)
Observations	445
R-squared	0.407

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 5 VARIABLES	TABLE 5-B Infant Mortality-V-DEM-Three Year Lag
Quota Ordinal	3.737*** (1.357)
GDPPC	0.000234 (0.000217)
Women's Empowerment	0.451 (12.74)
Divided Government	-0.387 (1.331)
War	0.594 (4.951)
Average Education	-0.442 (1.122)
Former British Colony	12.33*** (3.876)
GINI	-0.0560 (0.0633)
Logged Population	3.059*** (0.963)
Catholicism	0.0386 (0.0574)
Peace Years	-0.0503 (0.123)
Fertility Rate	9.406*** (1.957)
Constant	-65.55*** (24.39)
Observations	445
R-squared	0.412

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 5 VARIABLES	TABLE 5-C Infant Mortality-IMR-Three Year Lag
Quota Threshold	1.494*** (0.300)
GDPPC	7.10e-05 (0.000486)
Women's Empowerment	-29.22 (34.20)
Divided Government	-1.329 (3.323)
War	13.02 (10.93)
Average Education	-12.65*** (2.767)
Former British Colony	-48.56*** (8.417)
GINI	0.423*** (0.149)
Logged Population	-12.47*** (2.684)
Catholicism	-0.159 (0.158)
Peace Years	-0.567* (0.294)
Fertility Rate	-1.793 (6.224)
Constant	357.4*** (69.91)
Observations	312
R-squared	0.389

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 5 VARIABLES	TABLE 5-D Infant Mortality-IMR-Three Year Lag
Quota Ordinal	-16.84*** (3.659)
GDPPC	-0.000680 (0.000484)
Women's Empowerment	14.15 (33.35)
Divided Government	-5.771* (3.436)
War	16.67 (10.91)
Average Education	-10.72*** (2.803)
Former British Colony	-46.75*** (8.490)
GINI	0.477*** (0.149)
Logged Population	-15.36*** (2.619)
Catholicism	-0.239 (0.158)
Peace Years	-0.439 (0.292)
Fertility Rate	0.750 (6.349)
Constant	448.1*** (68.79)
Observations	312
R-squared	0.382

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 5 VARIABLES	TABLE 5-E Infant Mortality-WDI-Three Year Lag
Quota Threshold	1.349*** (0.182)
GDPPC	0.00232*** (0.000322)
Women's Empowerment	93.44*** (21.46)
Divided Government	15.95*** (2.372)
War	4.155 (7.260)
Average Education Level	-8.817*** (1.676)
Former British Colony	-8.828* (4.487)
GINI	0.152 (0.101)
Logged Population	-9.249*** (1.847)
Catholicism	0.0793 (0.0989)
Peace Years	-1.069*** (0.227)
Fertility Rate	13.81*** (4.196)
Constant	78.39 (48.05)
Observations	209
R-squared	0.724

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 5 VARIABLES	TABLE 5-F Infant Mortality-WDI-Three Year Lag
Quota Ordinal	-13.73*** (2.030)
GDPPC	0.00171*** (0.000312)
Women's Empowerment	104.4*** (21.81)
Divided Government	12.39*** (2.463)
War	9.875 (7.268)
Average Education	-5.925*** (1.742)
Former British Colony	-1.741 (4.652)
GINI	0.0583 (0.102)
Logged Population	-9.322*** (1.882)
Catholicism	0.0135 (0.0998)
Peace Years	-0.675*** (0.215)
Fertility Rate	14.54*** (4.313)
Constant	127.1*** (48.29)
Observations	209
R-squared	0.713

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 6 VARIABLES	TABLE 6-A Infant Mortality-V-DEM-Five Year Lag
Quota Threshold	-0.269** (0.130)
GDPPC	0.000109 (0.000229)
Women's Empowerment	4.084 (13.98)
Divided Government	-0.820 (1.378)
War	8.452* (5.085)
Average Education	-0.0817 (1.147)
Former British Colony	12.49*** (3.980)
GINI	0.0310 (0.0660)
Logged Population	1.864* (1.024)
Catholicism	-0.0362 (0.0596)
Peace Years	0.00703 (0.129)
Fertility Rate	8.030*** (1.956)
Constant	-28.94 (25.73)
Observations	434
R-squared	0.357

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 6 VARIABLES	TABLE 6-B Infant Mortality-V-DEM-Five Year Lag
Quota Ordinal	2.147 (1.416)
GDPPC	0.000239 (0.000229)
Women's Empowerment	-7.023 (13.18)
Divided Government	-1.191 (1.379)
War	7.883 (5.082)
Average Education	-0.177 (1.166)
Former British Colony	12.37*** (4.001)
GINI	0.0201 (0.0659)
Logged Population	2.162** (1.005)
Catholicism	-0.0307 (0.0596)
Peace Years	-0.00706 (0.129)
Fertility Rate	7.709*** (2.042)
Constant	-37.72 (25.16)
Observations	434
R-squared	0.354

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 6 VARIABLES	TABLE 6-C Infant Mortality-IMR-Five Year Lag
Quota Threshold	1.563*** (0.303)
GDPPC	9.79e-05 (0.000496)
Women's Empowerment	-60.56* (34.36)
Divided Government	-1.902 (3.266)
War	21.43** (10.68)
Average Education	-14.67*** (2.702)
Former British Colony	-42.75*** (8.277)
GINI	0.456*** (0.150)
Logged Population	-12.30*** (2.661)
Catholicism	-0.318** (0.150)
Peace Years	-0.522* (0.291)
Fertility Rate	-10.41* (5.860)
Constant	427.7*** (64.43)
Observations	303
R-squared	0.401

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 6 VARIABLES	TABLE 6-D Infant Mortality-IMR-Five Year Lag
Quota ordinal	-17.41*** (3.769)
GDPPC	-0.000519 (0.000496)
Women's Empowerment	2.577 (33.28)
Divided Government	-6.485* (3.391)
War	22.74** (10.75)
Average Education	-12.50*** (2.749)
Former British Colony	-41.89*** (8.359)
GINI	0.505*** (0.151)
Logged Population	-15.55*** (2.601)
Catholicism	-0.311** (0.152)
Peace Years	-0.445 (0.291)
Fertility Rate	-4.241 (6.144)
Constant	493.4*** (63.81)
Observations	303
R-squared	0.391

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 6 VARIABLES	TABLE 6-E Infant Mortality-WDI-Five Year Lag
Quota Threshold	1.350*** (0.194)
GDPPC	0.00227*** (0.000345)
Women's Empowerment	83.72*** (23.28)
Divided Government	15.50*** (2.539)
War	6.239 (7.970)
Average Education Level	-8.074*** (1.897)
Former British Colony	-7.558 (4.744)
GINI	0.183* (0.110)
Logged Population	-9.341*** (1.965)
Catholicism	0.0464 (0.111)
Peace Years	-1.022*** (0.254)
Fertility Rate	14.53*** (4.666)
Constant	80.99 (52.76)
Observations	201
R-squared	0.700

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

MODEL 6 VARIABLES	TABLE 6-F Infant Mortality-WDI-Five Year Lag
Quota Ordinal	-15.09*** (2.097)
GDPPC	0.00171*** (0.000326)
Women's Empowerment	91.46*** (23.10)
Divided Government	11.67*** (2.559)
War	10.31 (7.798)
Average Education	-3.845** (1.928)
Former British Colony	0.471 (4.788)
GINI	0.0827 (0.108)
Logged Population	-8.923*** (1.955)
Catholicism	0.00491 (0.110)
Peace Years	-0.689*** (0.236)
Fertility Rate	17.72*** (4.727)
Constant	108.5** (51.95)
Observations	201
R-squared	0.704

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1







