

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF POLITICAL SCIENCE

The Effectiveness of Gender Equality Quotas and their Impact on Women's Representation and
Participation in Politics in Francophone Nations

ALLISON ZAJAC
SPRING 2022

A thesis
submitted in partial fulfillment
of the requirements
for baccalaureate degrees
in International Politics and French and Francophone Studies
with honors in International Politics

Reviewed and approved* by the following:

Sona N. Golder
Professor of Political Science
Thesis Supervisor

Matthew Golder
Professor of Political Science
Honors Adviser

* Electronic approvals are on file.

ABSTRACT

Gender equality quotas exist in some form in over 130 countries as a means of increasing women's representation in their national legislatures and they seem to be effective as globally, the percentage of women in legislatures has increased over the last few decades (Hughes et al. 2019). However, many countries still fall short of the goals set by their quotas. Women count for about fifty percent of the world's population, and yet are still underrepresented in their respective legislatures. Is this because of certain barriers to entry, or simply because women are not interested as stereotypes would suggest? This empirical analysis through a cross-national study of 33 Francophone countries examines effect of quotas on women's representation and participation across state-years and found that these quotas do increase both representation and participation.

TABLE OF CONTENTS

LIST OF TABLES.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	ii
Chapter 1 Introduction	1
Chapter 2 Literature Review.....	3
Chapter 3 Theory	7
Chapter 4 Data and Methodology.....	9
Chapter 5 Results	19
Chapter 6 Conclusion.....	24
Appendix A Discussion of Regional Differences.....	27
BIBLIOGRAPHY	29

LIST OF TABLES

Table 1: Variable Means, Maximums, and Minimums by Region	18
Table 2: The Effect of Gender Equality Quotas on Women's Political Participation and Representation	23
Table 3: Earlier version of models 1-4 with only observations from Europe and North America utilized.....	27
Table 4: Earlier versions of Models 1-4 with only observations from Africa utilized.	28

ACKNOWLEDGEMENTS

I must start by thanking my thesis advisor Sona N. Golder, without whom this thesis would not have been possible. I owe Dr. Golder much gratitude for her direction and guidance on this thesis. Appreciation is also due to my honors advisor, Dr. Matthew Golder, PLSC306H Advisor Dr. Michael Berkman, and my fellow PLSC306H students for their advice. Finally, I owe special thanks to my family and friends for their support throughout the thesis process, as well as during the rest of my education which has led me to this point.

Chapter 1

Introduction

It is often postulated by some that the reason why there are fewer numbers of women in legislative positions is because women are simply not interested in politics. In the United States, women account for only 27% of all seats in the 117th Congress as of January 15th, 2021 (Blazina and Desilver). Globally, women count for about fifty percent of the population but only twenty-three percent of all seats in legislatures¹, (Mlambo and Kapingura 2019). In 2010, Fox and Lawless found that “highly qualified and politically well-connected women from both major [United States] political parties are less likely than similarly situated men to be recruited to run for public office by all types of political actors,” (311). While they did not find evidence to support “widespread discouragement of women’s candidacies,” women certainly are not being recruited in the same numbers as men, (316 Fox and Lawless). Fox and Lawless further found that men and women were equally responsive to encouragement or feedback from their recruiters, so it seems that the problem occurs before candidates reach this point in the recruitment process. This study by Fox and Lawless also found that female and male candidates performed similarly after the recruitment process. This suggests the potential cause may be gender-based socialization or a bias on the part of the recruiters, since they are more likely to be male and recruit male candidates (Fox and Lawless 2010).

To combat this problem, several countries have enacted policies known as voter equality quotas, which mandate that their political parties must send approximately the same numbers of

¹ This figure has only increased from 18% globally as cited by Krook in 2009.

men and women to their legislatures. But do they accomplish the goals they set out to? And further, as the number of women in higher offices increases and more women are able to identify with their legislators, are the quotas an indicator of women's interest in participating in politics?

Despite the popularity of quotas, many countries are still falling short of the goals set by their quotas even decades after their implementation. Under the Constitution of the Fifth Republic of France, parity in the legislature is guaranteed, and yet in some areas, there are not enough female candidates to fulfill the requirements to hold valid elections. This raises the question of whether or not women actually are interested in participating in politics in equal numbers to men, and how the quotas have changed that interest over time. Fox and Lawless's study only examined American candidates, who are not impacted by quotas. There may be something about the quota itself which reduces the perceived capability of a female candidate. Women are historically underrepresented in the professions which typically act as pipelines to political candidacy due to gender socialization, which may explain the apparent "lack of interest" which many cite as the downfall of quotas, (Fox and Lawless 2010). Additionally, Mlambo and Kapingura reported that the violence which is typical of many African states also serves as a barrier to women's representation and participation. Women are particularly vulnerable to "political intimidation," war, and other forms of violence due to their gender (Mlambo and Kapingura 2015). Additionally, African women may be more susceptible to traditional norms about gender roles, and therefore have less access to avenues of participation (Mlambo and Kapingura 2015; Tripp and Kang 2007).

Chapter 2

Literature Review

Research into the effectiveness of quotas and the factors that make women more likely to participate in politics have been studied before, but not in a way that connects the two questions (Fox and Lawless 2010). “Participation” in this paper and the work by Barnes and Burchard (2013) refers to behaviors of “political engagement” like voting. Additionally, it must be assessed whether the gender quotas make women’s participation more likely or if increasing levels of participation create the appropriate conditions for the implementation of quotas. Krook and O’Brien postulate that these gender quotas exist when “group recognition emerges via the construction of ‘relevant’ political identities,” (2010). This “relevancy” is determined by political elites who wish to enfranchise a group because they believe that group’s support will be beneficial to them, and it varies from country to country. A state which enacts some kind of quota may choose from one of three different types of quota: legislative quotas, party quotas, or reserved seats (Krook and O’Brien 2010; Krook et al. 2009; Tripp and Kang 2007). Reserved seats guarantee a certain percentage of seats for women and do not permit male candidates to run for those seats (Krook and O’Brien 2010; Krook et al. 2009; Tripp and Kang 2007). Legislative quotas and party quotas dictate that parties must nominate a certain percentage of women to seats. Party quotas only apply to one party, while legislative quotas apply to all parties (Krook and O’Brien 2010). Further, if one party adopts a party quota, other parties are more likely to, as

well, (Krook and O'Brien 2010). These parties are usually new-left parties, and they lead center-left and then center-right parties to adopt similar policies (Krook and O'Brien 2010).

Barnes and Burchard attempted to examine the relationship between women's representation in legislature and women's political participation among 31 sub-Saharan African countries and found that increased representation of women increased political engagement at lower levels (2013). They also found that such representation led to "increased attention to 'women's issues' such as education, health care, and social welfare," (Barnes and Burchard 2013). However, it is important that this representation of women consists of candidates who are competitive; otherwise the representation does not have an effect on the political engagement of women, (Barnes and Burchard 2013). They further reported that increased women's representation contributed to narrowing the gender gap between men's participation and women's participation. Clayton's findings support parts of the work by Barnes and Burchard but contradict others. Clayton found that women who lived in districts where their female representatives had reserved seats had a lower political engagement because they felt that they could not get these female representatives to listen to them (2015). Some who are represented by the representatives in these reserved seats feel that because the seat is reserved, that candidate will be re-elected in the next election, and therefore has no incentive to be responsive to their constituents. This is extremely discouraging to them and reduces their likelihood of participation. There is also concern that these representatives only have their positions because of the quota, and not because they have the appropriate merits. These concerns disproportionately affect female candidates and not male ones. Tripp and Kang further sum up well one of the main concerns which many have with regard to the widespread implementation but seeming failure of some quotas:

Political leaders may pursue quotas because they want to appear “modern” and in tandem with changing international norms, because they do not want to appear regressive while neighboring countries make gains in female political representation, or because they want to play the gender card to drive a rift between themselves and their political opponents...others may use quotas to curry favor with female parliamentarians as another patronage group and obtain political support from them.

To some, it seems, quotas are simply a tool to ensure they maintain their power, or that they look better in comparison with their peers.

Krook and O’Brien (2010) argued that the reason quotas vary from country to country is because each country’s political actors have different interests based on their history and the parties in power. To eliminate this problem from my research, I have chosen to examine only Francophone states, which are countries which either claim French as a national language or where a majority of the population speaks French. These states were all at one point under the influence of France and therefore have a common linguistic and political history. If these differences can be eliminated from the research, the findings will produce a clearer outcome. In their piece *Comparing British and French Colonial Legacies: A Discontinuity Analysis of Cameroon*, Lee and Schultz conduct an analysis of different parts of Cameroon based on which country was its colonial administrator (2012). They found those parts of the country which had been more under British influence were wealthier post-colonization, and their study suggests that many modern social and economic conditions in former colonies are heavily influenced by the

policies of their former colonial powers. I hope that by reducing the sample size for this study to include only Francophone nations, it will reduce the varying interests of political actors.

Many Francophone nations do have quotas, though some have different types, and in African Francophone states in particular, they have made a big difference in women's political participation (Bauer 2013). For many of these states, the quotas were developed to widen access for women to political office. Conversely, many believe that the women who hold these offices are "tokens" or unqualified to hold office (Bauer 2013). Whether or not this notion is true, the perception could have a major impact on the participation of constituents. The inclusion of greater numbers of women in African parliaments has also greatly contributed to different types of laws being passed, specifically laws relating to "gender-based violence, family law, and land rights," (Bauer 2013).

According to Hughes et al., the effectiveness of a gender equality quota is typically examined in two ways. The first is through "legislative outcomes," (Hughes et al. 2019). This would mean if the number of women in a legislature increases after the implementation of the quota, then the quota was effective. Additionally, a quota which resulted in a higher percent change in representation would be seen as more effective when compared to a quota that achieved only half as much. The second is to examine the goals which were set by the quota. Was the percentage of women in the legislature required by the quota achieved? If so, the quota would be deemed effective even if it resulted in a smaller increase in or smaller overall number of female legislators than another quota which did not meet its target. In this study, I will be examining the effectiveness of quotas through the legislative outcomes lens.

Chapter 3

Theory

The literature suggests that quotas are established in order to increase women's representation (Krook and O'Brien 2010). Based on the study by Fox and Lawless, in order to increase this representation, increasing participation is an integral aspect to creating the conditions for the recruitment of candidates (2010). Therefore, quotas exist to increase women's participation. If women's participation is important to the maintenance of parties which are in power, like Krook and O'Brien suggest, then levels of women's participation should be higher in periods after quotas were established than before quotas were established. My research will either establish or fail to establish a link between women's participation and the existence of gender equality quotas. This may seem like an obvious connection, but it is rendered more complicated by the work of Clayton and Bauer. Clayton and Bauer, in separate pieces, demonstrated that there are social forces working against female candidates or representatives which male candidates do not deal with, and which could possibly decrease women's participation. Clayton showed that in areas where female representatives had reserved seats, this decreased political participation because participants felt that the representative was not answerable to them, while Bauer showed that some believe these women are unqualified and are simply "tokens" and therefore do not garner much respect. These factors may actually decrease women's participation when quotas exist.

Hypothesis1 (H1): Women's representation in politics will be higher in state-years with a gender equality quota than in state years without a gender equality quota.

Hypothesis2 (H2): Women's participation in politics will be higher in state-years in with a gender equality quota than in state years without a gender equality quota.

Hypothesis1 seeks to answer the question of whether or not gender equality quotas increase or decrease women's representation in politics. Hypothesis2 will establish or fail to establish a link between the quotas and women's participation. The dependent variable in each hypothesis will be measured in multiple ways, with five different models in total, two which will measure representation and three which will measure participation. I expect to find positive relationships between the dependent and independent variables.

Chapter 4

Data and Methodology

Data on which states did or did not have quotas in a given state-year was gathered from the International Institute for Democracy and Electoral Assistance², or International IDEA³. This database includes gender quotas which are voluntary quotas by parties, quotas at the level of the lower legislature, and quotas at the level of the higher legislature. It was entered into the dataset as a dichotomous variable, with 1 indicating that there was a quota of some kind during that state-year, and a 0 indicating that a quota was absent. In 2019, Hughes et al. created an entirely new dataset to conceptualize more complicated aspects of gender equality quotas. In this dataset, the authors did not differentiate between types of quotas when referring to implementation. The implementation of a quota counted as soon as it was implemented, regardless of which type of quota was used. In my research design, I also used this philosophy to code my quota variable. The unit of analysis is state-year, with the sample being comprised of approximately 800 observations from thirty-three Francophone countries over a sixty year period from 1960 to 2020.

As mentioned in the previous chapter, the independent variables, representation and participation, will each be measured in different ways. Representation will be measured by the

² This database was additionally supplemented with information on implementation from The Constitute Project, the French government, the United Nations, and the *Atlas of Electoral Gender Quotas* by Dahlerup et al.

³ The International IDEA database was additionally cited by Krook in 2009 in her qualitative comparative analysis.

percentage of women in the legislature⁴. Participation, arguably the more interesting of the two independent variables, is defined as behaviors that individuals perform in order to take part, or participate, in their political system. The most glaringly obvious measurement of participation is voter turnout, but unfortunately, most countries do not release voter turnout by gender.

Therefore, as Krook and O'Brien have done, I will measure participation in three different ways. The first measurement of participation is the Female Labor Force Participation Rate⁵. This is the percentage of the female population which actively participates in the labor force. According to Krook and O'Brien, this is a useful measure of political participation because labor force participation allows women more financial freedom than they would have if they were dependent on someone else for financial support. This financial freedom often translates into political freedom, as women who have access to their own money are more likely to perform participation behaviors like voting. This money can allow women to leave their homes freely, find transportation, make their own purchases, obtain more education or skills, or even donate to political causes they support. Women who stay at home or work from their homes in family businesses often have to rely on others to permit them to perform participation behaviors rather than having the capacity to choose to do them on their own.

The second and third measures of participation are different measurements of tertiary education, which has also been used to measure participation by Krook and O'Brien. The first,

⁴ "Download Data: GDP Growth, Inflation, and Other Indicators." *TheGlobalEconomy.Com*, <https://www.theglobaleconomy.com/download-data.php>. Accessed 17 Jan. 2022.

⁵ "Download Data: GDP Growth, Inflation, and Other Indicators." *TheGlobalEconomy.Com*, <https://www.theglobaleconomy.com/download-data.php>. Accessed 4 Apr. 2022.

the ratio of female to male students enrolled in tertiary education⁶, compares the genders of students as a ratio, with values over 1 indicating more female than male students and values under 1 indicating more male than female students. A ratio of 1 would indicate that male and female students have equal access to tertiary education in their respective state years, and values higher than 1 could also indicate higher levels of female political participation for several reasons. In western industrialized advanced democracies in particular, women have been outpacing men in tertiary education for decades, and the ratio values for these state-years are over 1. However, it is unclear if there is currently a relationship between the presence of a quota and an increased ratio, as women's tertiary education has been steadily increasing in the developed west and the percentage of women in legislatures has not grown at the same rate. Measures of female tertiary education are an appropriate measure of political participation overall for several reasons. Firstly, women with tertiary education are seen as more capable and better suited for political office. This begins to solve the issue of tokenism discussed by Bauer (2013). There is an extremely strong correlation between college or university education and political office as higher education is highly associated with merit and respect. Women who have obtained tertiary education are also known to be more likely to vote and even donate to political causes. Graduates of tertiary education programs also earn more money over their lifetimes, and as discussed previously, with financial freedom comes increased capacity to participate in political processes. The second measure of education is simply the percentage of women who are

⁶ "Download Data: GDP Growth, Inflation, and Other Indicators." *TheGlobalEconomy.Com*, <https://www.theglobaleconomy.com/download-data.php>. Accessed 4 Apr. 2022.

enrolled in tertiary education in a given state-year⁷. This is a much simpler measure than the ratio of female to male students and reflects only the participation of women in tertiary education rather than comparing their enrollment to their male counterparts. There are some values which are over 100% as this is a gross percentage, meaning it is calculated from the population of the state which is between the ages of 18 to 23, but counts all tertiary enrollment regardless of age and not only those students who are 18 to 23 years of age. These values over 100% indicate that likely most of the population between the ages of 18 to 23 are enrolled, plus at least some other students.

As for control variables, I have chosen to include the Gross Domestic Product⁸, measured in 2010 United States Dollars and then logged to reduce skew, in order to account for economic factors which could affect rates of representation and participation. Historically, developed, industrialized democracies have had higher rates of women's representation and participation, so controlling for the GDP will hopefully eliminate any economic advantages which these states may have. I expect Gross Domestic Product to have a positive relationship the dependent variables. I will also control for the population⁹, which was also logged, since states with higher populations may have larger candidate pools and which I expect to also have a positive

⁷ "Download Data: GDP Growth, Inflation, and Other Indicators." *TheGlobalEconomy.Com*, <https://www.theglobaleconomy.com/download-data.php>. Accessed 4 Apr. 2022.

⁸ "Download Data: GDP Growth, Inflation, and Other Indicators." *TheGlobalEconomy.Com*, <https://www.theglobaleconomy.com/download-data.php>. Accessed 17 Jan. 2022.

⁹ "Download Data: GDP Growth, Inflation, and Other Indicators." *TheGlobalEconomy.Com*, <https://www.theglobaleconomy.com/download-data.php>. Accessed 17 Jan. 2022.

relationship with the dependent variables, the year, the Polity V score¹⁰ (Polity), and a dichotomous variable, where a 1 indicates that the observation occurred in Africa and a 0 indicates it occurred elsewhere¹¹. The Polity V dataset was released in 2018 but was recently updated to include observations for some countries up to 2020. It is a measurement of regime type, with a -10 representing a total autocracy and a +10 representing a perfect democracy. I have controlled for this variable since, again, developed, industrialized democracies typically have had higher rates of women's representation and participation. The Polity V score controls for regime type and would eliminate any differences due to this aspect of the observation, and should have a positive relationship with the dependent variables. I also chose to control for the year in which the observation occurred to attempt to control for other, more-difficult-to-measure social changes over time. Women's rights have improved globally over the last century, regardless of the presence of quotas, and I needed some way to try to control for these circumstances and only examine the affect of the quotas. Therefore, there should be a positive relationship between the year and the dependent variables. Each observation has a corresponding year in which it occurred, and this value is inserted into the model. For example, an observation occurring in the year 1986 will have 1986 as the value for its year variable.

The functional form of each of the five models is as follows:

¹⁰ *PolityProject*. <https://www.systemicpeace.org/polityproject.html>. Accessed 17 Jan. 2022.

¹¹ This variable was hand-coded by the author based on the location of the country where the observation occurred.

$$\begin{aligned} \text{PARTICIPATION/REPRESENTATION VARIABLE} = & \alpha + \beta_1 \text{Quota} + \beta_2 \text{Gross Domestic} \\ & \text{Product (under logistic operation)} + \beta_3 \text{Polity} + \beta_4 \text{Population (under logistic operation)} + \beta_5 \text{Year} \\ & + \beta_6 \text{Observation occurred in Africa} + \varepsilon \end{aligned}$$

This linear model, which assumes that each observation is independent, will allow me to differentiate between the affect which quotas have on representation and participation and the affects which other factors may have. Some of these variables have well-documented relationships between women's representation and participation, like the GDP which is expected to have a positive relationship, but others are variables which at this time appear to need more research, such as the year or the factor of being an African state. These summary statistics can be found in Table 1. These differences suggested to me that perhaps there were enough social or economic differences between African and other observations which warranted controlling for this continent specifically. On average, African observations of each variable had lower means, but higher interquartile ranges. European and North American observations were much more alike on an individual level, while there seemed to be more variation between those in Africa. Observations in Africa also included countries like Rwanda and Senegal, which have surpassed the west in certain instances. For example, in 2019, 61.25% of Rwanda's legislators were women, while in Switzerland only 41.5% of legislators were women in that same year.

In an earlier iteration of my models¹², including only observations which occurred in Europe and North America caused the direction of the relationship between Polity and a few of the dependent variables to be negative, which seems to be counterintuitive to the existing knowledge on how regime type impacts women's rights. Democracies tend to have higher

¹² See Appendix A

ratings in areas of gender equality, but these models seemed to indicate the opposite. I believe this begins to reveal the conclusions on quotas reached by Clayton and Bauer, which stated that quotas could decrease participation. According to Clayton, participation would decrease if voters felt that candidates or representatives were not answerable to their constituencies (2013).

However, this concept of representatives as civil servants who must be responsive to the people is an idea which is required by democracy as defined by Oppenheim (1971). To maintain power, actors within a democracy must establish and maintain a winning coalition, and by nature of the democracy, this coalition is usually larger than one required to maintain power within less democratic forms of government (Marrow et al. 2008). Therefore, political actors within democracies have to be responsive to the demands of larger numbers of individuals. If large numbers of constituents are unhappy, they are unlikely to continue on as part of the winning coalition and the representative would lose their position (Marrow et al. 2008). In the Polity data set, values of 6 and higher are defined as democracies (Center for Systemic Peace). The mean value for Polity in the Europe and North America subset is 7.81, while for Africa it is -1.95. Based on these values, Europe and North American observations can usually be classified as existing within democracies, while African ones cannot. This might suggest that culturally, this concept of response and accountability which is so integral in democracy is not so popular in Africa. If Africans are not accustomed to having their representatives listen to them in the same way that Europeans and North Americans are, then quotas should have a positive relationship between at least the representation variables within African observations. According to data provided by AfroBarometer and gathered between 2016 and 2018, among 13¹³ of the 33

¹³ This survey by AfroBarometer included responses from Benin, Burkina Faso, Cameroon, Ivory Coast, Guinea, Madagascar, Mali, Mauritius, Morocco, Niger, Senegal, Togo, and Tunisia.

countries included in my sample, about a third of respondents as surveyed by AfroBarometer felt that they were “not free at all” or “not very free” to “say what they think.” When the question was asked with the phrasing, “how often do people in this country have to be careful of what they say about politics?” about two thirds of respondents felt that they people needed to be careful either always or often. This may indicate that these respondents do not feel they can share their grievances with their representatives, so if a constituent feels that their representative is never going to listen to them or that they would face terrible consequences for voicing a complaint, does it really matter to the constituent who technically represents them? An argument which could be made against the establishment of gender quotas, which is quite similar to what may be argued by opponents of Affirmative Action policies, is that by dictating that a certain number of women must run for or hold seats in a legislature, one potentially eliminates those who would be better suited for the position from the candidate pool and instead inserts someone who may not be as qualified. However, *if* African and European or North American countries truly differ in their beliefs about a representative’s response and accountability, it renders this potential argument moot in African observations. The idea that a candidate might not be the best for the position simply because they were encouraged to run by a gender quota would not matter because the position of the representative would not function the same way between the two regions. This all is not to say that Africans on average have misogynistic opinions about women in leadership positions or are entirely apathetic about who holds leadership positions, because they do not and they are not. In the same survey by AfroBarometer, almost two-thirds of respondents felt that “women should have the same chance of being elected to political office as men.” This statement may also suggest that there is simply just more support for gender quotas in Africa than previously assumed and explain the popularity of quotas among African countries.

Additionally, citizens of democracies are usually encouraged to question their governments (Oppenheim 1971), which could also explain some of this negative relationship between polity and the dependent variables in the European and North American subset as well as other trends seen in women's representation in Africa. When quotas are enacted, some citizens of democracy may question whether or not the candidates produced by these quotas are actually qualified to hold office, which was the conclusion reached by Bauer (2013). They may feel that the government is placing limits on who can and cannot run for office simply to appeal to parity in the legislature, and so they may not participate in the political process or vote for these candidates even if they are just as qualified as their opponents, ultimately resulting in reduced representation for women. With more time and a different research design, perhaps a definitive conclusion could be made on this matter; this data merely suggests a potential direction for further research.

Variable	Europe and North America	Africa
Female Labor Force Participation Rate	Mean: 52.8% Minimum: 34.1% Maximum: 63.7%	Mean: 55.0% Minimum: 11.6% Maximum: 90.8%
Tertiary Education Ratio	Mean: .9 Minimum: .3 Maximum: 1.3	Mean: .5 Minimum: 0.0 Maximum: 1.7
Percentage of Women in Tertiary Education	Mean: 42.8% Minimum: .3% Maximum: 108.2%	Mean: 6.1% Minimum: 0.0% Maximum: 66.4%
Percentage of Women in the Legislature	Mean: 17.8% Minimum: 0.0% Maximum: 42.0%	Mean: 10.78% Minimum: 0.0% Maximum: 63.8%
Polity V	Mean: 7.9 Minimum: -9.0 Maximum: 10.0	Mean: -2.0 Minimum: -9.0

		Maximum: 10.0
Logged Gross Domestic Product per capita	Mean: 10.2 Minimum: 7.0 Maximum: 12.1	Mean: 7.0 Minimum: 5.4 Maximum: 9.7
Gross Domestic Product per capita (in 2010 United States Dollars)	Mean: \$47,816 Minimum: \$1,134 Maximum: \$183,245	Mean: \$2021.2 Minimum: \$215.8 Maximum: \$16,438.6
Logged Population	Mean: 1.3 Minimum: -3.9 Maximum: 4.2	Mean: 1.4 Minimum: -3.2 Maximum: 4.5
Population (in millions)	Mean: 15.8 Minimum: .02 Maximum: 67.4	Mean: 8.9 Minimum: .04 Maximum: 89.6

Table 1: Variable Means, Maximums, and Minimums by Region¹⁴

¹⁴ These descriptive statistics include observations from Francophone nations between 1960 and 2020, split into two separate regions: Europe/North America and Africa. The European/North American column includes observations from Belgium, Canada, France, Haiti, Luxembourg, Monaco, and Switzerland, while the African column includes observations from Algeria, Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo (Kinshasa), Djibouti, Equatorial Guinea, Gabon, Guinea, Ivory Coast, Madagascar, Mali, Mauritius, Morocco, Niger, Republic of the Congo (Brazzaville), Rwanda, Senegal, Togo, and Tunisia.

Chapter 5

Results

The results of the five models are presented below in Table 2. In Models 2, 3, and 4, gender quotas had a statistically significant, positive relationship with the dependent variable. Model 1, which measures the effect of gender quotas on the ratio of female to male students in tertiary education indicates that having a quota is not a statistically significant indicator of the participation when measured in this way. All other variables were statistically significant, with Gross Domestic Product and the dummy variable indicating that the observation occurred in Africa (the Africa variable) having the largest coefficients. While Model 1 does not find a statistically significant effect of quotas on the dependent variable, it does explain about 70% of the variance in observations. The direction and size of the coefficient on GDP supports existing knowledge on the relationship between a county's wealth and its citizens access to education. Typically, citizens of developed, industrialized democracies have better access to education than others (Mlambo and Kapingura 2019). What is not supported by existing literature is the direction of the coefficient on the Africa variable. Mlambo and Kapingura found that a major barrier for political participation and representation among African women was their lack of access to spaces which might spur them on avenues towards participation, like education, due to a slew of reasons like war and other types of violence, or lack of funding. These challenges are not ones that women of developed, industrialized democracies typically worry about (Mlambo and Kapingura 2019; Marrow et al. 2008). Conversely, since violence is so commonplace for African women, it may explain why there are more women than men in school. Men, or more

likely boys, are the typical combatants in these instances of violence, meaning they are also more likely to die at younger ages, leaving behind larger populations of women (Berry 2017). Berry further found that in the aftermath of violence, it was easier for women to politically mobilize, though these effects were not felt equally by all women (2017). It was *after* the Rwandan genocide, after a majority of the male population had died, when Rwanda established the first iteration of its gender quotas (Berry 2017). In 2009, Krook found that a combination of quotas, low status among women, low levels of development, and post-conflict situations would result in higher levels of female representation in Sub-Saharan Africa, which is consistent with more recent observations of those countries.

In Model 2, which corresponds to the percentage of female tertiary enrollment, there is a statistically significant positive relationship between state-years with quotas and the percentage of women enrolled in tertiary education in that same state-year. Having a quota would indicate an increase in the percentage of women enrolled in tertiary education of a little over 4%. In examining Model 2 more closely, this increase indicated by the presence of a quota in a given state-year would be lowered if the observation occurs in Africa, which would decrease the dependent variable by 4.8%. This agrees with evidence provided by Mlambo and Kapingura (2019), and I would argue that it does not completely disagree with findings by Berry (2017). Yes, Berry found that it was easier for women to mobilize after violent events, but she also found that it was not easier for *all* women to mobilize. Many women were still held back by demographic factors like socio-economic status or ethnicity. Further, infrastructure, like schools, may be destroyed during violent incidents. Without a school to attend, or a myriad of other factors which could prevent school attendance, children regardless of gender cannot get an education. So, it is possible that there are more girls than boys in school, and yet still very few

girls in school on the African continent as a whole. Krook (2009) also had similar findings to Berry (2017), but conflict was not a main focus of this work by Krook. Additionally, the percentage of female tertiary enrollment is also positively impacted by the GDP, which makes sense since individuals who live in wealthier countries usually have better access to education, and slightly positively impacted by the year, which follows historical trends.

The final model which examines participation, Model 3, uses the female labor force participation rate as the indicator of participation. Again, there is a statistically significant positive relationship between the presence of a quota and the dependent variable. The quota itself increases the female labor force participation rate by over 7%. The only other two values in this model which are statistically significant are the GDP, and the Africa variable, which both have a negative impact on the dependent variable. Further, this model accounts for about 70% of the variance in observations of the female labor force participation rate. I had expected the Gross Domestic Product to have a positive relationship with the dependent variable, but this was misguided. Bayanpourtehani and Sylwester not only found that having democracy as the regime type slightly lowered a state's female labor force participation rate, but that changes in the female labor force participation rate mirrored those of the male labor force participation rate (2013). Perhaps this correlation is what Model 3 is picking up on in regard to the statistical significance and direction of the coefficient of GDP.

Turning now to the representation model, Model 4 examines the percentage of women in the legislature. Here, the quota variable is also statistically significant and increases the percentage of women in the legislature by 7.6%, indicating that it is indeed successful in achieving its initial goal of increasing the number of women in legislative positions. The only variable in this model which is not statistically significant is the population, and all other

variables have a positive relationship with the percentage of women in the legislature. Overall, it seems that quotas do increase women's representation and participation.

Variable	Model 1: Ratio of Female to Male Students in Tertiary Education	Model 2: Gross Percentage of Female Students Enrolled in Tertiary Education	Model 3: Female Labor Force Participation Rate	Model 4: Percentage of Women in Legislature
Quota	-0.04 (.02)	4.0*** (1.2)	7.3*** (1.4)	7.6*** (.8)
Gross Domestic Product in 2010 USD	.2*** (.0)	7.8*** (.5)	-9.4*** (.5)	2.1*** (.3)
Polity V Score	.01*** (.0)	-.1 (.1)	.2 (.1)	.1** (.1)
Population in Millions	.05*** (.0)	4.8*** (.4)	-.6 (.4)	-.1 (.2)
Year	.02*** (.0)	.3*** (.0)	-.1 (.1)	.3*** (.0)
Observation occurred in Africa	.3*** (.0)	-4.8*** (2.1)	-22.0*** (1.8)	4.8*** (1.2)
Constant	-23.3*** (1.7)	-631.7*** (84.6)	241.7 (147.3)	-524.9*** (49.3)
Adjusted R2	.7	.3	.7	.4

Table 2: The Effect of Gender Equality Quotas on Women's Political Participation and

Representation¹⁵

¹⁵ Values in parentheses indicate standard errors of coefficients. *p<.1, **p<.05, ***p<.01. This table shows that only for Model 1, which uses the ratio of female to male students enrolled in tertiary education to measure political participation, is the presence of a gender quota not statistically significant.

Chapter 6

Conclusion

In this honors thesis, I examine the relationship between gender equality quotas for national legislatures and women's political representation and participation. Women make up over 50% of the world's population, and yet they are extremely underrepresented in the world's legislatures. Many states have turned to quotas to try to amend this problem. The goal of a quota is to increase women's representation, and on the surface level, it would seem that they should, but the literature on this topic is not so cut and dry. Both Clayton (2015) and Bauer (2013) had found that quotas could actually decrease women's representation and participation in certain circumstances. Additionally, many states which have quotas fall short of reaching the goals set by these quotas. The question becomes whether or not quotas are actually effective or just a formality which states can employ to claim they have attempted at least some kind of effort at achieving parity in their legislature. Additionally, in some states, there often doesn't seem to be enough women who are interested in running in an election and thus would make it almost impossible for a state to achieve its quota, calling into question the rates at which women want to participate in politics.

My analysis of this topic has revealed some interesting conclusions which I believe would warrant more investigation. Overall, yes, quotas do increase women's representation and participation in politics, but there are still questions that remain. Perhaps more investigation into why I needed to include an Africa variable at all is warranted. Why are African state so willing to employ and enforce quotas when they typically do not fair as well as European or North American states in the area of women's rights? The two biggest success stories of quotas in Africa, Senegal and Rwanda, have greatly surpassed some more developed western states with

the number of women in their legislatures (Tripp and Kang 2007). Across the board, African states also have much harsher implementations of their quotas, and it seems to work (Okedele 2019; Hughes et al. 2019). After the crumbling of the Soviet Bloc, women's representation fell to as low as 11% by 2000 in some former soviet countries from its previous 50% in 1985 (Tripp and Kang 2007). In 2021, Algeria amended their election laws regarding quotas to be a bit laxer in their enforcement, and after those amendments the number of women in the legislature greatly dropped ("Women and Politics in Algeria: One Step Forward, Two Steps Back" 2021).

Likewise, Switzerland does not even have legislated quotas (International IDEA). Instead, political parties choose to employ their own quotas. Regardless, Switzerland has had the most female heads of state in the data set and has the highest percentage of women in the legislature among the European and North American states. Perhaps if they were a bit harsher in their implementation, they could very quickly reach parity (Okedele 2019). France additionally does have legislated quotas, but does not always enforce them, resulting in plenty of invalid elections being accepted as valid, and anecdotal tales of parties going door to door seeking women to place their names on the ballot so that the election can be considered valid abroad, while in other locales there seem to be too many female candidates (Lambert 2001). Additionally in France, many parties chose to simply pay fines for not complying with parity laws instead of adhering to them (Hughes et al. 2019). Conversely, quotas which require reserved seats in a legislature are much more popular in Africa, and at the time Krook et al. published in 2009, there were no reserved seat quotas in North America or Europe (Krook et al. 2009). These reserved seat quotas are much harsher in their implementation and seem easier to enforce, as well. Further, Schwint-Bayer reports that placement mandates also play a large role in translating female candidates from the ballot into seats (2009). According to Schwint-Bayer, "A placement mandate is a

requirement that political parties put women in positions as candidates where they have a real chance of getting elected,” (11). These placement mandates were not something which I encountered during my preliminary research of implementation and could also explain why some gender quotas are more effective than others. I could not find information on implementation on many, many countries in my sample, in either English or French, and had to rely on sources which were available to me. These typically came from countries in Europe or North America, which have been much laxer in their implementation and enforcement of their gender quotas.

Finally, the year that the observation occurred is also a statistically significant predictor of both representation and participation. More research should be conducted in locating those variables which are pushing women’s rights overall forward, with the inclusion of quotas. However, the most obvious methods of trying to examine this connection would be variables which too closely resemble the methods of measurement for representation and participation used in this thesis. In a way, the relationship between quotas and representation and participation becomes a bit of a chicken-or-the-egg problem. Which comes first, the quota, or other social conditions? Research in all of these areas is important and would be extremely beneficial to the promotion of women’s rights globally.

Appendix A

Discussion of Regional Differences

Tables featured in this section were referenced on pages 14 through 16. The versions of Models 1 through 4 featured in this table do not have logistic operations applied to the variables of Gross Domestic Product or Population.

Variable	Model 1: Ratio of Female to Male Students in Tertiary Education	Model 2: Gross Percentage of Female Tertiary Enrollment	Model 3: Female Labor Force Participation Rate	Model 4: Percentage of Women in the Legislature
Quota	.02 (.04)	1.7 (2.7)	7.8*** (1.8)	.7 (1.5)
Gross Domestic Product in 2010 USD	-0.0*** (0.0)	-.0*** (.0)	.0*** (.0)	-.0*** (.0)
Polity V Score	-.01 (.0)	-2.9*** (1.4)	-.2 (1.2)	-2.9** (1)
Population in millions	.0** (.0)	-.1** (.0)	.1*** (.0)	-.173*** (.0)
Year	.01*** (.0)	1.8*** (.1)	-.1 (.1)	.9*** (.1)
Constant	-27.9*** (4.1)	-3,589.7*** (244.9)	231.9 (244.9)	-1,649.3*** (193.9)
Adjusted R2	.7	.9	.4	.7

Table 3: Earlier version of models 1-4 with only observations from Europe and North America utilized.¹⁶

¹⁶ Values in parentheses indicate standard errors of coefficients. *p<.1, **p<.05, ***p<.01.

Variable	Model 1: Ratio of Female to Male Students in Tertiary Education	Model 2: Gross Percentage of Female Tertiary Enrollment	Model 3: Female Labor Force Participation Rate	Model 4: Percentage of Women in the Legislature
Quota	-.0 (.0)	2.7*** (1)	1.3 (1.9)	7.1*** (1)
Gross Domestic Product in 2010 USD	.0*** (.0)	-.0*** (.0)	-.0*** (.0)	.0*** (.0)
Polity V Score	.01*** (.0)	.0 (.1)	0 (.1)	0 .1
Population in millions	.01*** (.0)	.3*** (.0)	-.1*** (.0)	-.1*** (.0)
Year	.01*** (.0)	.2*** (.0)	.2*** (.1)	.3*** (.0)
Constant	-18.7*** (2.0)	-349.3*** (72.3)	-376.9* (209.4)	-630.7*** (57.2)
Adjusted R2	.7	.5	.2	.4

Table 4: Earlier versions of Models 1-4 with only observations from Africa utilized. ¹⁷

¹⁷ Values in parentheses indicate standard errors of coefficients. *p<.1, **p<.05, ***p<.01.

BIBLIOGRAPHY

| *International IDEA*. <https://www.idea.int/data-tools/data/gender-quotas/country-overview>. Accessed 4 Feb. 2022.

Barnes, Tiffany D., and Stephanie M. Burchard. “‘Engendering’ Politics: The Impact of Descriptive Representation on Women’s Political Engagement in Sub-Saharan Africa.” *Comparative Political Studies*, vol. 46, no. 7, 7, July 2013, pp. 767–90. *SAGE Journals*, <https://doi.org/10.1177/0010414012463884>.

Bauer, Gretchen. *Gender Quotas and Women’s Representation in African Parliaments* | *Democracy in Africa*. 13 Dec. 2013, <http://democracyinafrica.org/gender-quotas-womens-representation-african-parliaments/>.

Bayanpourtehrani, Ghazal, and Kevin Sylwester. “Democracy and Female Labor Force Participation: An Empirical Examination.” *Social Indicators Research*, vol. 112, no. 3, 2013, pp. 749–62.

BERRY, MARIE E. “BARRIERS TO WOMEN’S PROGRESS AFTER ATROCITY: Evidence from Rwanda and Bosnia-Herzegovina.” *Gender and Society*, vol. 31, no. 6, 2017, pp. 830–53.

Blazina, Carrie, and Drew Desilver. “A Record Number of Women Are Serving in the 117th Congress.” *Pew Research Center*, 19 Oct. 2021, <https://www.pewresearch.org/fact-tank/2021/01/15/a-record-number-of-women-are-serving-in-the-117th-congress/>.

- Clayton, Amanda. "Women's Political Engagement Under Quota-Mandated Female Representation: Evidence From a Randomized Policy Experiment." *Comparative Political Studies*, vol. 48, no. 3, 3, Mar. 2015, pp. 333–69. *SAGE Journals*, <https://doi.org/10.1177/0010414014548104>.
- Dahlerup, Drude, et al., editors. *Atlas of Electoral Gender Quotas*. International IDEA, 2013.
- Djibouti, Reporting for First Time to Women's Anti-Discrimination Committee, Boasts Progress in Health, Education, Women's Participation in Politics | Meetings Coverage and Press Releases. <https://www.un.org/press/en/2011/wom1874.doc.htm>. Accessed 4 Feb. 2022.
- "Download Data: GDP Growth, Inflation, and Other Indicators." *TheGlobalEconomy.Com*, <https://www.theglobaleconomy.com/download-data.php>. Accessed 17 Jan. 2022.
- Fox, Richard L., and Jennifer L. Lawless. "If Only They'd Ask: Gender, Recruitment, and Political Ambition." *The Journal of Politics*, vol. 72, no. 2, 2010, pp. 310–26. *JSTOR*, <https://doi.org/10.1017/s0022381609990752>.
- "Guinea Adopts Law on Parity, Securing Equal Representation of Women on Electoral Lists." *UN Women*, <https://www.unwomen.org/en/news/stories/2019/5/news-guinea-adopts-law-on-parity>. Accessed 4 Feb. 2022.
- Hughes, Melanie M., et al. "Global Gender Quota Adoption, Implementation, and Reform." *Comparative Politics*, vol. 51, no. 2, 2019, pp. 219–38.
- Krook, Mona Lena, et al. "Gender Quotas and Models of Political Citizenship." *British Journal of Political Science*, vol. 39, no. 4, 2009, pp. 781–803.
- . "Women's Representation in Parliament: A Qualitative Comparative Analysis." *Political Studies*, vol. 58, no. 5, Dec. 2010, pp. 886–908. *SAGE Journals*, <https://doi.org/10.1111/j.1467-9248.2010.00833.x>.

- Krook, Mona Lena, and Diana Z. O'Brien. "The Politics of Group Representation: Quotas for Women and Minorities Worldwide." *Comparative Politics*, vol. 42, no. 3, 3, 2010, pp. 253–72.
- Lambert, Caroline. "French Women in Politics: The Long Road to Parity." *Brookings*, 30 Nov. 1AD, <https://www.brookings.edu/articles/french-women-in-politics-the-long-road-to-parity/>.
- Lee, Alexander. "Comparing British and French Colonial Legacies: A Discontinuity Analysis of Cameroon." *Quarterly Journal of Political Science*, vol. 7, no. 4, 4, Oct. 2012, pp. 365–410. DOI.org (Crossref), <https://doi.org/10.1561/100.00011022>.
- Mlambo, Courage, and Forget Kapingura. "Factors Influencing Women Political Participation: The Case of the SADC Region." *Cogent Social Sciences*, edited by Richard Meissner, vol. 5, no. 1, 1, Jan. 2019, p. 1681048. *Taylor and Francis+NEJM*, <https://doi.org/10.1080/23311886.2019.1681048>.
- Morrow, James D., et al. "Retesting Selectorate Theory: Separating the Effects of W from Other Elements of Democracy." *The American Political Science Review*, vol. 102, no. 3, 2008, pp. 393–400.
- Okedele, Adebisola. "Women, Quotas, and Affirmative Action Policies in Africa." *The Palgrave Handbook of African Women's Studies*, edited by Olajumoke Yacob-Haliso and Toyin Falola, Springer International Publishing, 2019, pp. 1–15. *Springer Link*, https://doi.org/10.1007/978-3-319-77030-7_80-1.
- The Online Data Analysis Tool | Afrobarometer*. <https://afrobarometer.org/online-data-analysis/analyse-online>. Accessed 4 Apr. 2022.
- Oppenheim, Felix E. "DEMOCRACY — CHARACTERISTICS INCLUDED AND EXCLUDED." *The Monist*, vol. 55, no. 1, 1971, pp. 29–50.
- PolityProject*. <https://www.systemicpeace.org/polityproject.html>. Accessed 4 Apr. 2022.

SCHWINDT-BAYER, LESLIE A. "Making Quotas Work: The Effect of Gender Quota Laws On the Election of Women." *Legislative Studies Quarterly*, vol. 34, no. 1, 2009, pp. 5–28.

Tripp, Aili Mari, and Alice Kang. "The Global Impact of Quotas: On the Fast Track to Increased Female Legislative Representation." *Comparative Political Studies*, vol. 41, no. 3, Mar. 2008, pp. 338–61. *SAGE Journals*, <https://doi.org/10.1177/0010414006297342>.

"Women and Politics in Algeria: One Step Forward, Two Steps Back." *The Washington Institute*, <https://www.washingtoninstitute.org/policy-analysis/women-and-politics-algeria-one-step-forward-two-steps-back>. Accessed 3 Apr. 2022.

ACADEMIC VITA

Allison N. Zajac

Education

Fall 2018 to Spring 2022 – the Pennsylvania State University

- B.A. International Politics
- B.A. French and Francophone Studies
- Minor in History

Professional Appointments

Summer 2021 - Centre County Library and Historical Museum Undergraduate Research Intern

- Conducted research using local historical newspapers and other documents to assemble a presentation on the women's rights movement in Centre County.

Additional Activities

Fall 2018 to Spring 2022 – Gamma Sigma Sigma National Service Sorority

- Held multiple positions, including several on the executive board, demonstrating the ability to resolve conflict between others.
- Collaborated with community leaders to perform vital community service functions as Service Vice President for the 2021 calendar year.
- Guided new members through their education process, aiding them in developing their own leadership skills and accustoming themselves to the campus environment as Membership Vice President in Spring 2022.
- Developed social media campaigns to recruit new members and make a bigger impact on the community.

Fall 2018 to Spring 2022 – Penn State Blue Band Silks

- Worked closely with teammates to develop a different 10-minute memorized performance each week and demonstrated grace under pressure as well as a dedicated work ethic.
- Chosen by staff to hold a prestigious leadership position for the Fall 2021 season based on the recommendations of my peers.