

University of South Dakota

USD RED

Honors Thesis

Theses, Dissertations, and Student Projects

Spring 2022

Women's Representation and Its Impact on Global Female Physical Security

Sydnee D. Pottebaum
University of South Dakota

Follow this and additional works at: <https://red.library.usd.edu/honors-thesis>



Part of the [Other Political Science Commons](#)

Recommended Citation

Pottebaum, Sydnee D., "Women's Representation and Its Impact on Global Female Physical Security" (2022). *Honors Thesis*. 250.

<https://red.library.usd.edu/honors-thesis/250>

This Honors Thesis is brought to you for free and open access by the Theses, Dissertations, and Student Projects at USD RED. It has been accepted for inclusion in Honors Thesis by an authorized administrator of USD RED. For more information, please contact dloftus@usd.edu.

WOMEN'S REPRESENTATION AND ITS IMPACT ON GLOBAL FEMALE
PHYSICAL SECURITY

by

Sydnee Pottebaum

Thesis Submitted in Partial Fulfillment

Of the Requirements for the

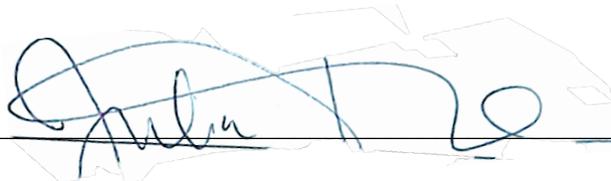
University Honors Program

Department of Political Science

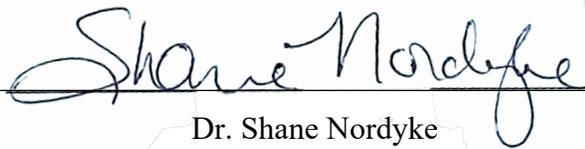
The University of South Dakota

May 2022

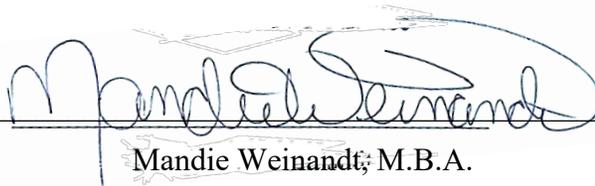
The members of the Honors Thesis Committee appointed
to examine the thesis of Sydnee Pottebaum
find it satisfactory and recommend that it be accepted.



Dr. Julia Marin Hellwege
Professor of Political Science
Director of the Committee



Dr. Shane Nordyke
Professor of Political Science



Mandie Weinandt, M.B.A.
Professor of Economics and Decision Sciences

ABSTRACT

Women's Representation and Its Impact on Global Female Physical Security

Sydnee Pottebaum

Director: Julia Marin Hellwege, Ph.D.

The historic marginalization of women has left gaps in women's representation and has damaged the level of protection afforded to women around the world. By examining the origins of female marginalization inside and outside of politics and female legislative behavior and style, I argue that the percentage of seats held by women in government conditionally impacts global female physical security. This study examines the impact of the percentage of seats held by women in the lower house (or single house) of government in 2010 on physical security. Physical security is operationalized into six dependent variables: the homicide rate among females, the percentage of women who experience intimate partner violence, the levels on the prevalence of rape, sex trafficking, and abortion law scales, and the percentage of women utilizing any type of contraception. The findings of this research demonstrate that higher percentages of seats held by women significantly impact some aspects of female physical security. Some control variables, such as the education scale and the Polity democracy score, also significantly impact some aspects of female physical security.

KEYWORDS: Women's representation, marginalization, physical security

Table of Contents

Acknowledgements.....	v
Legislative Style.....	5
Legislative Behavior.....	5
Benefits of Female Legislators	7
Women’s Representative Impact on Physical Security	8
Data and Method.....	12
Table 1	14
Table 2	15
Table 3	17
Results.....	17
Table 4	18
References.....	28
Appendix.....	30

ACKNOWLEDGEMENTS

First, thank you to Dr. Hellwege for her continued support and guidance throughout this process. Her encouragement led me to build confidence in my abilities as a writer and researcher. Thank you to Dr. Nordyke and Mandie Weinandt for their support and direction in the thesis process.

Finally, thank you to my family, friends, and mentors. Your unfailing support was my foundation throughout this whole process.

Women’s Representation and Its Effect on Global Female Physical Security

Women have been historically excluded from participation in politics. However, female legislators have the potential to improve the lives of all their constituents.¹ Women’s physical security is regularly threatened throughout the world, and the presence of female legislators is one way to combat this threat. Women represent at least half of potential voters and are found in all groups of society, they should be treated as politically important because of their size and geographic representation (Escobar-Lemmon & Taylor-Robinson, 2014). Because of the size and strength of women’s population around the globe, when they are threatened, the integrity of the society they are in is threatened. When women are assaulted, human rights are violated, democratic transitions are undermined, children are harmed, and costs to society rise (Htun & Weldon, 2018). When women are elected to office, they propose unique legislation and advocate for women in ways that men do not. The more women holding positions of power opens doors for more policies that affect women. The purpose of this study is to evaluate the relationship between women’s representation and women’s physical security around the globe.

This study begins with an examination of the origins of women’s marginalization and exclusion from politics. Then, I examine how women are marginalized within political institutions and how women build their unique legislative style and behavior while benefitting all members of society. After building this foundation, I provide an explanation of the methods and data used to fuel this research. Table 4 provides a

¹ For the purposes of this research, I use the terms “women” and “female” interchangeably as most female parliamentarians are cisgender. Currently, not enough data is available to distinguish between cisgender and transgender female parliamentarians.

summary of results from the six regression models and ordered logit models used to determine the impact of the independent variable and controls variables on the six dependent variables that make up physical security. The results of this study demonstrate that the percentage of seats held by women in the lower house (or single house) of government significantly impacts some aspects of female physical security. Behaviors that may require broader cultural change or better law enforcement procedures such as homicide, intimate partner violence, and rape are more likely to be significantly impacted by changes in the social atmosphere of a country. This study provides a strong foundation in demonstrating how higher percentages of seats held by women may improve the lives of women by heightening their physical security.

Origins of Women's Marginalization

The marginalization of women continues to exist in every sphere of public and private life, especially politics. Most societies in the world began as patriarchies, laying the foundation for women's marginalization. Paxton and Hughes (2017) described patriarchy as "...a term used to describe the social system of men's domination over women, where men's domination is built into the social, political, and economic institutions of society." The existence of the patriarchy led to gender differences between men and women that persist to present day. Both outside of politics and within formal politics, the gender hierarchy makes women work harder than their in-all-ways-equal-except-gender male counterparts. Women must work harder than their male counterparts because the gender hierarchy ranks women beneath men and creates unequal power relationships (2017). Countries with strong religious governance place even more restrictions on their female population. Htun and Weldon (2018) found that countries

with linked political and ecclesiastical power discriminated against women through family law more than other nations where the separation of church and state led to more egalitarian family law. Whether it be through the patriarchy, religion, or other cultural factors, women are often kept out of politics because they are expected to be in their “proper place.”

Historically, society considered women’s place to be inside the home. This continuous societal view often keeps women out of the halls of government. Paxton and Hughes (2017) state that women face political exclusion because people have negative views about women’s inherent nature or capabilities and have beliefs about women’s proper place which is inside the home. These beliefs and views kept women out of politics beginning with the world’s first democracy. In Ancient Greece and continuing to the mid-1800s, women were excluded from having full citizenship and were thought to lack the qualities and capabilities necessary for partaking in politics, especially democracies (2017). The Ancient Greeks were not the only group to ban women from the political sphere. The men of the French and American Revolutions also viewed women as incapable of participating in their new democracies. Instead, these men who preached liberty and equality wanted to domesticate women, language that, Mary Hawkesworth (2012) notes, was very like that of contemporary Islamic fundamentalists. When early revolutionists declared “freedom and liberty for all,” they meant freedom and liberty for all white men. Even with the extraordinary resistance women faced upon trying to enter politics, they eventually achieved enfranchisement and access to political office.

Women's Marginalization within Formal Politics

Women finally were able to enter politics in the late 1800s. In 1893, New Zealand became the first country to grant women the right to vote (suffrage) and to allow their entrance into politics (Paxton & Hughes, 2017). However, women's marginalization did not end when women were able to hold public office and vote for their representatives. Politics were founded as a male-centered activity, and women entering its atmosphere did not change its foundation. After women began breaking down political barriers, they recognized that politics operate not only by written rules but also by norms that have been in place for centuries (2017). The male-dominated political sphere places certain obstacles in front of female politicians. These obstacles often hinder women's abilities to get things done while in office. Some of these challenges that exclude women from effective policymaking include informal norms, social conventions, and rules of operation all centered around male political behavior (Hawkesworth, 2012). In addition to unwritten challenges, women also face challenges based on the rules of the system they are participating in. In Leslie Schwindt-Bayer's book *Political Power and Women's Representation in Latin America*, she notes how party-centered electoral rules add obstacles to women's representation because "...women face discrimination from the male majority in the legislature and the male-dominated party leadership that controls most legislative resources" (2010). The challenges women face while participating in politics make them work even harder than men and gives them the opportunity to develop their own style of legislating which differs from male legislators. Female legislative style and behavior bring may benefit all of society, especially female-dominated spheres, and influence new policies.

Legislative Style

Women's legislative style differs from that of men. Because of their unique experiences and beliefs, women can employ a legislative style that brings new ideas to the political arena. Women often are more willing than men to interact with their constituents. For example, Schwindt-Bayer (2010) found that women legislators travel more often back to their home districts to converse with their constituents, and Franceschet and Piscopo (2014) found that an Argentinian woman legislator holds weekly office hours to meet with female community leaders to discuss sanitation, health care, and child nutrition in shantytowns. Women are also more collaborative in their legislative style. When women legislators were surveyed about leadership style, they answered more positively than men when they were asked if they "try hard to find a fair combination of gains and losses for all sides," "pull people together," and "share power with others" (Rosenthal, 1998). Not only are women more collaborative and participatory than male legislators, but they also view problems and solutions differently than men. Lyn Kathlene (1995) discovered that female legislators in Colorado viewed crime as stemming from pre-existing social problems and recommended crime prevention policies while men saw crime as an individual responsibility and recommended reactive policies. The differences between men's and women's legislative styles also result in differences between legislative behavior and the bills they sponsor.

Legislative Behavior

Women's legislative behavior is often centered around family- and policy on so-called "women's issues." First though, one must consider women's main motivations in producing policy. Like their male counterparts, political party affiliation often dictates

women's policy preferences. Women are still players in the larger political system and must adhere to the rules and norms of the system. For example, British elected parliamentarians usually do not vote against their party because they can face severe penalties from party whips, including the end of their career (Paxton & Hughes, 2017). In addition to political party rules, personal experiences and ties to women's groups outside of the legislature also influence how female legislators define women's needs and interests and the policies needed to encourage those needs and interests (Hawkesworth, 2012). With these influencing factors, female legislators often prioritize different issues than men. For example, researchers have found that female U.S. state representatives are more likely to prioritize bills on children, family, women, health care, and social services (Paxton & Hughes, 2017). This policy preference is even more evident in female legislators who happen to be mothers. Bryant and Marin Hellwege (2018) discovered that working mothers in American Congress are more likely to propose legislation about parents' and children's health and welfare than those who do not have children. Women may also be more likely to focus on women's issues and policies because it allows them to work with other women. Schwindt-Bayer (2010), in her work on the Argentine Congress, concludes that women are more likely to cosponsor women's issue legislation and finds that deputies will intentionally court other women to support a gender equality bill. Because of the marginalization women face, they often must work harder to get their objectives passed which results in higher success rates. Hawkesworth (2012) realized that women are more successful in passing their legislation because women believe they need to work harder to achieve equal results, and they do so. The legislative style and behavior

of females often result in representation and policy that benefits all members of society (Paxton & Hughes, 2017; Schwindt-Bayer, 2010).

Benefits of Female Legislators

The continued presence of the patriarchy and the marginalization of women leaves room for the lives of women to be improved. Female legislators have the power to make some of these improvements. Without female legislators, the male power dynamic in politics silences women and makes the identification of women's interests difficult, if not impossible, to identify (Beckwith, 2014). With female legislators, however, women have a presence within the state and can make claims within government about women's policy issues and can implement them (2014). The mere presence of female legislators has the potential for positive outcomes. For example, in a study done by Halim et al. (2016), they found that the presence of women representatives in India who are from a scheduled caste and scheduled tribe were correlated with higher grade completion and progression of primary school-aged children, especially girls from a schedule tribe and caste. In addition to improving the lives of young girls, women's representation can impact the lives of grown women. Han and Heldman (2018) discovered when women are more visible in politics, their women constituents are more engaged and interested in politics, give more money to parties and candidates, and young girls' educational and career aspirations improved. Men can also benefit from women's representation. Women may encourage positive feelings toward government from men by acting as symbols of increased representativeness and inclusiveness of the political system (Schwindt-Bayer, 2010). That said, women's representation and policymaking can only go so far; broader cultural changes may be required to improve the overall well-being of women.

Women's Representative Impact on Physical Security

Certain behaviors that impact women's physical security require broader cultural changes and better enforcement procedures, and policy is necessary but not sufficient to make these changes. The prevalence of inter-personal violent behaviors such as murder, rape, and domestic violence are notoriously difficult social and cultural challenges that have appeared more challenging to combat. Policies are not always enforceable in these areas. Peace A. Medie (2013) found that policy adoption does not always translate into policy implementation as their examination of gender-based violence in Liberia reveals that gaps in law enforcement make the laws nearly impossible to enforce. In addition to the lack of policy enforcement, many of the systems currently in place to protect women have not impacted the rates of violence against women. Initiatives developed to address violence against women appear to focus on victim support, such as shelters that can provide housing for women and their children fleeing violence at home, rape crisis centers, counseling services, telephone hotlines, legal clinics, victim advocates and court-proceeding monitors, public awareness campaigns, training programs for judges, police and other law enforcement personnel, creation of police stations and courts that specialize in intimate violence, and mandatory arrest policies have not diminished the incidence of violence against women (Hawkesworth, 2012, p. 229). If policies and laws made by women cannot be enforced in a country and current initiatives designed to help women focus on supporting women, rather than preventing the assault then higher percentages of seats held by women will not have an impact on the rates of violence against women. Violence against women in the forms of homicide, rape, and intimate partner violence

may not be influenced by women's representation because of the difficulties of enforcing laws that protect women from personal violence and the cultural changes necessary to reduce occurrences of violence.

However, homicide, intimate partner violence, and rape are only three aspects of female physical security, and other factors can improve female well-being. Aspects of female physical security like abortion access, contraception use, and sex trafficking prevention/anti-sex trafficking policies are more readily impacted by policy as they deal with access and prevention and therefore could be impacted by higher numbers of female representatives. Sex trafficking and abortion, in this study, are measured using policy-based scales. The literature demonstrates that having more women in office results in more policy affecting women, so these behaviors have the potential to be influenced by having more women in office. Contraception use also may be influenced by having more women in government. Dixon et al. (2014) discovered that Australian women commonly did not use contraceptives because of the lack of information available on contraceptive use and the lack of services available to meet their contraceptive needs. These policy-based behaviors may be improved by having more women in government.

Theories and Hypotheses

The historic marginalization of women has prevented them from entering the realm of politics. When women have entered the halls of government, they are forced to adapt to a system built by men for men. Because women must work harder than their male counterparts to be seen as equals, they can bring about more significant changes to policy and women's lives. Women's legislative style and behavior allow all members of society to benefit in various arenas. One of these arenas is female physical security. For

this research, female physical security is operationalized into six dependent variables: murder, rape, intimate partner violence, sex trafficking, abortion access, and contraception use. By having higher percentages of female parliamentarians, women's physical security around the world could improve. However, behaviors that are a detriment to female physical security, such as rape, murder, and intimate partner violence, may require broader cultural changes that women's representation cannot provide while actions such as sex trafficking, abortion access, and contraception use are more pliable to policy changes affect by women's representation.

The first set of hypotheses for this research deal with behaviors that are more culturally founded, deal with inter-personal violence, and whose remedies have focused on victim support rather than reducing instances and therefore are less likely to be impacted by having higher percentages of women's representation. Homicide, intimate partner violence, and rape are all inter-personal acts of violence that are committed against women. Laws and social services that may impact these behaviors also can be difficult to enforce, focus on support for victims, and may not lessen instances of violence against women. Instead, these behaviors require cultural change and better enforcement of laws and policies preventing these behaviors to lessen their instances. Cultural changes would impact these behaviors because it would change the mindset of the perpetrators who commit these acts of violence against women. Because of these reasons, the first three hypotheses of this research are presented as null hypotheses and they are:

Hypothesis 1: Higher percentages of seats held by women will not have an impact on the murder rate of women.

Hypothesis 2: Higher percentages of seats held by women will not have an impact on the percentage of women who experience intimate partner violence.

Hypothesis 3: Higher percentages of seats held by women will not have an impact on the rape scale level of a country.

The second set of hypotheses for this research deals with behaviors are more likely to be impacted by higher percentages of women in office because they deal with access and prevention and therefore may be more likely to be influenced by more policy, which in turn is more likely to be proposed by women. Sex trafficking prevention, abortion access, and contraception use are more likely to be impacted by policies and regulations. How a government chooses to respond to or even to define sex trafficking can impact the occurrence of sex trafficking and the consequences of it. Governments also have the power to restrict abortion access and to deny information and services about contraception use. The influence of governments and policies on these actions leads me to the conclusion that higher percentages of female legislators may impact the levels on the sex trafficking and abortion scales and the rates of contraception use. Therefore, the second set of hypotheses of this research are:

Hypothesis 4: Higher percentages of seats held by women will have a positive impact on the sex trafficking scale level of a country.

Hypothesis 5: Higher percentages of seats held by women will have a positive impact on the abortion scale level of a country.

Hypothesis 6: Higher percentages of seats held by women will have a positive impact on the number of women who use contraception.

Data and Method

To test the six hypotheses, I collected data on each of the six dependent variables, the key independent variable, and the four control variables to look for correlations among the variables. This is a quantitative study where the unit of analysis was countries, and the sample size was $n = 123$ for the independent variable and most of the dependent variables, except for contraception use where the sample size was $n = 85$. When regression was run with the control variables, the total number of observations was 106 for Model 1-5 and 74 for Model 6. The sample statistics for these dependent variables is displayed in Table 1. Model 1 examines the homicide rate among women using the World Health Organization's (2019) estimates of the rates of homicide per 100,000 population for females. Model 2 also uses the World Health Organization (2018) to measure the occurrence of intimate partner violence. I use their indicator of intimate partner violence prevalence among ever partnered women in their lifetime. The variable is measured by the percentage of women in a country who have experienced intimate partner violence in their lifetime. Model 3 measures the occurrence of rape among women in the world using the Womenstats.org (2018) rape scale (LRW-SCALE-4). I cleaned and recoded LRW-SCALE-4 to following scale (see original scale in Appendix):

- 1 = more than 60 reported rapes per 100,000 of the total population
- 2 = 31-60 reported rapes per 100,000 of the total population
- 3 = 11-30 reported rapes per 100,000 of the total population
- 4 = 1-10 reported rapes per 100,000 of the total population
- 5 = fewer than 1 reported rapes per 100,000 of the total population

Next, Model 4 measures the sex trafficking policy and enforcement of sex trafficking laws in a country; I use the Womenstats.org (2019) sex trafficking scale (TRAFF-

SCALE-1). I cleaned and recoded TRAFF-SCALE-1 to the following scale (see original scale in Appendix):

- 1 = No laws against trafficking, not in compliance with the TPA, victims not supported, government may benefit from trafficking
- 2 = Limited laws against trafficking, not in compliance with the TPA, limited/marginal being made to comply
- 3 = Laws against trafficking but not always enforced, not in compliance with the TPA, efforts being made to comply
- 4 = Laws against trafficking are enforced, enforcement is becoming more lax or significant trafficking is undetected by authorities, full compliance with the TPA
- 5 = Laws against trafficking are enforced, in full compliance with the TPA, trafficking is rare

To measure abortion access and legality in Model 5, I use the Womenstats.org (2020) abortion law scale (ABO-SCALE-1) which I have cleaned and recoded to the following scale (see original scale in Appendix):

- 1 = Abortion illegal
- 2 = Abortion severely restricted to cases where the mother's life is at risk, possibly rape and incest
- 3 = Abortion restricted, many reasons given permitting abortion, spousal or physician's committee permission may be required, possible gestational age restriction before the completion of the first trimester
- 4 = Abortion legal, may not be available on demand, possible gestational age restrictions past the first trimester, may require parental permission or waiting period
- 5 = Abortion safe and legal

Finally, I measure contraception use in Model 6 using the United Nations Development Programme 2020 Human Development Report. The variable is measured by using the percentage of married or in-union women aged 15-49 years old who utilized any sort of contraception method between 2009-2019.

Table 1. Summary Statistics for Dependent Variables

	<i>N</i>	<i>M</i>	Minimum	Maximum	SD
Homicide	123	3.679	.18	53.78	6.388
IPV	123	25.187	10	51	9.431
Contraception	85	57.42	12.6	85.5	18.77
		Frequency	Percent	Weighted Average	
Rape Scale	1	19	15.45		
	2	11	8.94		
	3	25	20.33		
	4	55	44.72		
	5	13	10.57		3.26
Trafficking Scale	1	4	3.25		
	2	36	29.27		
	3	58	47.15		
	4	23	18.70		
	5	2	1.63		2.862
Abortion Scale	1	12	9.76		
	2	52	42.28		
	3	15	12.20		
	4	43	34.96		
	5	1	0.81		2.748

The key independent variable of this research is the percentage of the total number of seats held by women in the lower house or single house of government around the world from 2010. Only the lower house/single house data is used because some countries also have a unicameral legislature, meaning that collecting data on an upper legislative house would be impossible. Also, the lower house of government tends to be more representative of the people, so women in the lower house of government may have more of an impact on their constituents than those in the upper house may. The Inter-Parliamentary Union (IPU) reports that of the 193 countries in the world, 113 have a unicameral parliamentary system while 79 are bicameral. The IPU's database on women in national parliaments separates the data into two categories: the percentage of seats held

by women in the upper house of parliament and the percentage of seats held by women in the lower house or single house of parliament. The data on the percentage of seats held by women in the lower house (or single house) of governments around the world is collected from the Inter-Parliamentary Union database on women in national parliaments. Because the data for the dependent variables ranges mainly from 2018 to 2020, 2010 data provides the best opportunity for women to have completed an entire term in office. If a woman held office in 2010, they should have had the opportunity to complete a term by 2018.

Table 2. Summary Statistics for Seats Held by Women

<i>N</i>	<i>M</i>	Minimum	Maximum	SD
123	.196	0	.563	0.109

Also included are a series of control variables to attempt to minimize the effects of a country’s social environment on the measures of physical security. The first control variable is female labor force participation using the Womenstats.org (2018) employment scale (ERBG-SCALE-1) which I have cleaned and recoded to the following scale (see original scale in Appendix):

- 1 = Female labor force participation is less than 40%
- 2 = Female labor force participation is 40-65%
- 3 = Female labor force participation is greater than 65%

The next control variable is the discrepancy in educational attainment between males and females using the Womenstats.org (2020) education scale (AFE-SCALE-1). I have cleaned and recoded AFE-SCALE-1 to the following scale (see original scale in Appendix):

- 1 = Greater than 20% educational discrepancy, extreme legal or practical area of study restrictions for girls
- 2 = 16-20% educational discrepancy, either legal or practical area of study restrictions for girls
- 3 = 11-15% educational discrepancy, some legal or commonly practiced area of study restrictions for girls
- 4 = 5-10% educational discrepancy, some practical area of study restrictions for girls
- 5 = Less than 5% educational discrepancy, no area of study restrictions (in law or in practice) for girls

The third control variable is a country's 2018 Polity democracy score from the Center for Systemic Peace's Polity Project. Each country receives a score between -10 and 10, where low scores indicate a low level of democracy and high scores are associated with higher levels of democracy as measured by a composite score primarily considering institutional features, such as vote access. The final control variable is the gross domestic product (GDP) per capita of a country which is collected using the World Bank's measure of GDP per capita. Most of the GDP per capita data comes from 2020.

After the initial data collection and cleaning, I clean and recode the ordinal variables in STATA to the scales mentioned above. After the cleaning and encoding of data within STATA, the dependent variables of murder, intimate partner violence, and contraception use are analyzed as linear regression models with all the control variables. Models 1, 2, and 6 have a continuous dependent variable and linear regressions allows me to determine the relationship between the percentage of seats held by women and these three dependent variables. The scaled dependent variables of rape, sex trafficking, and abortion are analyzed using ordinal logistic regression. Models 3, 4, and 5 consist of ordinal, scaled variable and ordinal logistic regression models the relationship between the percentage of seats held by women and the three scaled dependent variables. After each regression is completed, the six models are combined to form the overall dependent

variable of physical security. The regression models are analyzed using the following equations:

Table 3. Regression Equations

$$y(\text{Homicide}) = \beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5$$

$$y(\text{IPV}) = \beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5$$

$$P(\text{Rape Scale}) = \frac{\exp(\beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5)}{1 + \exp(\beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5)}$$

$$P(\text{Sex Trafficking Scale}) = \frac{\exp(\beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5)}{1 + \exp(\beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5)}$$

$$P(\text{Abortion Scale}) = \frac{\exp(\beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5)}{1 + \exp(\beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5)}$$

$$y(\text{Contraception}) = \beta_0 + \beta_1 \text{Seats}_1 + \beta_2 \text{Employment}_2 + \beta_3 \text{Education}_3 + \beta_4 \text{Polity}_4 + \beta_5 \text{GDP}_5$$

Results

The results of the six models are presented in Table 4. Model 1 demonstrates that there are no significant effects on homicide by the percentage of women holding seats in government or by any of the control variables. Model 2 displays how the percentage of women holding seats in the lower house (or single house) of government, the employment scale, nor a country's GDP per capita has any significant effect on the percentage of women who experience intimate partner violence. However, in Model 2, an increase in the education scale is associated with significantly lower percentages of women experiencing intimate partner violence ($p < 0.001$), and a higher Polity democracy score is also associated with significantly lower percentages of women experiencing intimate partner violence ($p < 0.05$). When examining Model 3, the percentage of women holding seats in government, the employment scale, and the Polity score have no significant impacts on the level of the rape scale. Still in Model 3, a higher level on the education scale, though, is associated with significantly higher levels on the rape scale

($p < 0.01$), and a higher GDP per capita is associated with a significantly higher level on the rape scale ($p < 0.05$).

Table 4. Physical Security Regression Results

	Homicide	Intimate Partner Violence	Rape Scale	Sex Trafficking Scale	Abortion Scale	Contraception
% of Women Holding Seats	-5.231 (6.804)	8.190 (8.306)	0.435 (1.859)	4.349* (1.961)	3.815* (1.911)	48.96* (19.59)
Employment Scale	0.558 (1.461)	-0.609 (1.784)	-0.139 (0.439)	-0.263 (0.404)	-0.042 (0.387)	2.127 (4.229)
Education Scale	-0.011 (0.613)	-2.972*** (0.748)	0.603** (0.189)	0.092 (0.178)	0.326* (0.165)	7.831*** (2.048)
Polity Score	0.072 (0.132)	-0.359* (0.161)	-0.041 (0.036)	0.232*** (0.044)	0.08* (0.037)	0.500 (0.353)
GDP per capita	-0.011 (0.019)	0.016 (0.024)	0.012* (0.005)	0.007 (0.01)	0.004 (0.005)	0.036 (0.057)
Constant	2.498 (4.468)	38.63*** (5.455)	_____	_____	_____	3.724 (14.20)
Adjusted/Pseudo R ²	-0.039	0.183	0.059	0.168	0.072	0.263
Observations (n)	106	106	106	106	106	74

Note. Standard errors in parentheses.

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The sex trafficking scale is impacted by the percentage of women holding seats in governments. In Model 4, a higher percentage of women holding seats in government is associated with significantly higher levels on the sex trafficking scale ($p < 0.05$). A higher Polity democracy score is also associated with significantly higher levels on the sex trafficking scale ($p < 0.001$) in Model 4. The results of Model 4 also display that the

employment scale, the education scale, and GDP per capita have no significant impacts on the sex trafficking scale level. Model 5 exhibits that the percentage of women holding seats is associated with significantly higher levels on the abortion scale ($p < 0.05$). Also in Model 5, the education scale is associated with significantly higher levels on the abortion scale ($p < 0.05$), plus the Polity democracy score is associated with significantly higher levels on the abortion scale ($p < 0.05$). The employment scale and GDP per capita do not significantly impact the level of the abortion scale in Model 5. Contraception is also impacted by higher numbers of females in government. The results of Model 6 display how a higher percentage of women holding seats is associated with significantly higher percentages of women using contraception ($p < 0.05$). In Model 6, higher levels on the education scale are also associated with higher percentages of contraception use among women ($p < 0.001$). The employment scale, the Polity democracy score, and GDP per capita have no significant impacts on contraception use, as displayed by the results of Model 6.

The lack of significant impact of the percentage of women holding seats on Models 1, 2, and 3 support Hypothesis 1, Hypothesis 2, and Hypothesis 3. Higher percentages of female parliamentarians do not impact the female homicide rate, intimate partner violence occurrence, or the rape scale, supporting the first three hypotheses. Higher percentages of women holding seats are associated with significantly higher levels and changes in the sex trafficking scale, abortion scale, and contraception use. The impact of higher percentages of female parliamentarians on Models 4, 5, and 6 supports Hypothesis 4, Hypothesis 5, and Hypothesis 6. The findings of this research provide

insight into the impacts of women in government and the influence they may have on global female physical security.

Discussions and Conclusion

Women in positions of power can bring awareness to the challenges women experience because of their gender. However, the path to power for women is much more difficult than the one men experience. Women must break through the barriers of gender inequality to achieve the same positions of power as men, especially positions in government. Once women are elected to office, they utilize a certain legislative style and behavior that is more likely to affect their female constituents. Female legislators are more likely to benefit other women, but their abilities are limited by the culture in each of their respective countries. The benefits of female legislators only stretch as far as the realm where policy can impact behavior. I find that having more women in office affects behaviors such as sex trafficking policy, abortion access, and contraception use, but does not affect homicide, intimate partner violence, or rape.

I collected data on women's physical security from around the world operationalized into six dependent variables. I then examined how the percentage of seats held by women in the lower house (or single house) of government from 2010 impacted each of the dependent variables by creating six different models. I examined the impacts on physical security while also controlling for employment, education, GDP per capita, and the Polity democracy score. The results from each of the six models show that higher numbers of women in government can have a significant impact on the physical security of women worldwide. However, the presence of women in the halls of government is not enough in some situations, given the assumptions and limitations of my model.

Based on the results, higher numbers of women in government do not have a significant association with homicide, intimate partner violence, or rape. Many of these behaviors may require significant cultural changes in addition to more women holding office. Homicide, intimate partner violence, and rape are usually very personal actions and require the cooperation of law enforcement to prevent their occurrences in many situations. More women holding office do not appear to affect the occurrences of these behaviors but could affect the resources available to victims and prevention programs. In Model 1, neither the percentage of seats held by women nor any of the control variables were significantly associated with lower rates of homicide. This suggests that female homicide is not affected by many measurable social factors in a country, and more research should be conducted to study how female homicide operates differently, perhaps including a longer-range study. Possible factors may include how boys are raised in a country or how women are viewed in a country.

The results of Model 2 displayed how intimate partner violence, however, was significantly impacted by a country's education scale and Polity democracy score, even though it was not impacted by the percentage of women holding seats in government. The results suggest that a higher level on the education scale is significantly associated with lower rates of intimate partner violence. This means that when girls have the same access to secondary education as boys, they experience less intimate partner violence. Perhaps fewer discrepancies in secondary education led to more equality between men and women when they grow up and teach women to not accept intimate partner violence as the norm. A higher Polity democracy score was also significantly associated with intimate partner violence. Because most authoritarian regimes are run by men, women

experience more intimate partner violence in these authoritarian countries because they do not have as much political power as other women do in democratic countries. Fewer discrepancies in education and a higher Polity score may also be pathways for more women to enter the halls of government.

Like intimate partner violence, Model 3 was not affected by the percentage of seats held by women. However, the education scale and a country's GDP per capita were significantly associated with higher levels on the rape scale. With fewer discrepancies in education between boys and girls, more social awareness and equality are available to men and women, as discussed with intimate partner violence. A country's GDP per capita, however, has an interesting relation to the rape scale. When a country's GDP per capita experiences growth, it is typically a sign that the economy is doing well. With more money circulating throughout the economy, more money and employment opportunities may be available to a country's citizens. Because many rapes are fueled by anger, higher levels of employment and financial security may lead to lower occurrences of rape against women because citizens are more satisfied with the state of their lives.

Model 4 demonstrated that the sex trafficking scale was significantly impacted by higher percentages of women holding seats in government. This suggests that having more women in government translates to more laws against trafficking, and interestingly that those laws have been better enforced, and trafficking occurrences being rare, based on level 5 of the sex trafficking scale. Because women are the most common victims of sex trafficking, sex trafficking may be considered a women's issue. Based on the research done on women's legislative behavior, women tend to pass more legislation centering around women's issues, so more women in government may lead to better laws

combatting sex trafficking. A higher Polity democracy score also was significantly associated with a higher level on the sex trafficking scale. Level 1 of the sex trafficking scale states that the government may benefit from sex trafficking, so a higher Polity score is reflective of a less corrupt, authoritarian government. Countries that obtain a higher Polity score may be more concerned for the well-being of their citizens, and therefore, would combat sex trafficking instead of benefitting from it.

Like the impacts on the sex trafficking scale, Models 5 and 6 were also significantly impacted by higher percentages of women holding seats in government. Similar explanations can be made for this association. Reproductive rights, especially abortion rights and contraception access, are considered women's issues in almost every country in the world. Because more women holding office is likely to result in more legislation supporting women's issues, it makes sense that higher percentages of women holding office would result in higher levels on the abortion scale and more contraception use among women. A higher level on the education scale was also significantly associated with a higher level on the abortion scale and higher percentages of contraception use. Fewer discrepancies of secondary education between girls and boys may translate into better knowledge on sex and the reproductive process for members of society. The better education of both sexes can allow women better access to reproductive healthcare, such as abortion and contraceptives. A higher Polity democracy score was also significantly associated with a higher level on the abortion scale. Abortion tends to be a controversial issue, so a government where issues are better discussed and where women are better represented would allow for better abortion access.

The results of this research establish that higher percentages of seats held by women in government may result in better physical security for women around the world. Higher percentages of seats held by women significantly impacted the sex trafficking and abortion scales and contraception use. In contrast, higher percentages of seats held by women did not have a significant impact on directly violent behaviors like homicide, intimate partner violence, and rape. These results suggest that more interventions in addition to higher percentages of seats held by women are necessary to improve women's overall physical security. By examining the control variables, education seems to be a significant predictor in improving women's physical security. A country's Polity democracy score also had some significant impacts on physical security. However, the employment scale and GDP per capita had less significant impacts, if any impacts, on overall female physical security. Future research should be done to examine what other control variables have a more significant impact on women's physical security. Although the goal of this research is to examine the impacts of women's representation on female physical security, it is more important to make a conscious effort to improve women's physical security in any way possible. Higher percentages of seats held by women may be one way to improve physical security for women, but education access, levels of democracy, and other social factors yet to be explored may be necessary to protect women worldwide.

Although this research offers some significant results, it is important to consider the limitations of this study. First, no yearly comparison is available in this research. In the future, the hypotheses could be expanded to include a yearly comparison to see how changes in the percentages of seats held by women impact female physical security

overtime. A time series comparison may provide insight into the potential problem of reverse causality, meaning that a country's societal expectations could be an explanation for the percentage of seats held by women. This study cannot speak to the causality of the impact of more women holding seats on female physical security due to the lack of time series comparison, but the results do allow me to draw correlations between the percentage of women holding seats and physical security. Also, none of the regression models or ordered models explained more than 30% of the variation in any of the dependent variables. This suggests that more control variables are needed to explain the rates of homicide and intimate partner violence; the variation in the rape, sex trafficking, and abortion scales; and the percentage of women using contraception. More cultural factors need to be included in future research. Using ordered logistic regression also provided some difficulty on the interpretation of the results of this research. Ordered logistic regression allowed me to determine what the odds of a country's scale number would be based on the percentage of seats held women but did not allow me to determine how much of an effect the percentage of seats held by women has on these behaviors.

For future research, I would like to collect primary data for each variable, so linear regression could be used for each model. By having each model contain only continuous data, I could use linear regression to determine how significant of a predictor the percentage of seats held by women is on female physical security. I would also employ different control variables in future research. Explanations for a country's social culture are needed to determine how a country's culture can influence violence behaviors such as homicide, intimate partner violence, and rape since the percentage of seats held by women did not have a statistically significant impact on these behaviors. Control

variables such as religion, women's voting rights, maternal mortality rates, urban and rural population distribution, and legal barriers to women holding office could be considered.

Even with these limitations and many pathways for future research, this research holds many implications for the importance of women holding seats in government. This research displays the conditional effects of women in government, and this is important for a variety of reasons. First, the expectations of female legislators are often set too high. While having more women in government has undeniable benefit, the benefits are only reaped to a certain extent. The results of this research show that having more women in government does not necessarily impact violent behaviors such as homicide, intimate partner violence, and rape, so the mere presence female legislators cannot be expected to decrease the occurrences of these behaviors, though we do not know how they impact victim support in these areas. Instead, a country should focus on the things that do have an impact on these behaviors, including enforcement procedures and policy implementation that could be spearheaded by female parliamentarians. Based on some of the results of this research, better educational and employment opportunities may be able to alleviate some of the negative influences on female physical security, which notably have been recognized as so-called "women's issues," suggesting a more indirect effect, and thus likely much delayed effect, of women on these issues. This research combats the opinion of some that having women in government has no meaningful impact on society. Having more women in government leads to higher levels on the sex trafficking scale, higher levels on the abortion scale, and more women using contraception. These are areas that can be impacted by policy, specifically policy more likely to be proposed by women.

For society to realize the full benefits of female legislators, more research should be done on how the presence of female legislators can be combined with enforcement procedures and policy adoption to improve physical security.

Women make up over half of the world's population, and it only makes sense they are the best candidates to represent other women. Only women can adequately represent the interests of other women. When more women hold office, they are more likely to band together to pass legislation that has a direct impact on the lives of their female constituents and can also improve the lives of all other members of society.

Women holding office are not a threat to men; women's representation instead provides society with examples of gender equality and equal opportunities for marginalized groups. Threats to female physical security are threats to all society and any steps to improving female physical security are steps that may allow the world to move forward.

While numbers of women in government continue to grow, efforts should still be focused on helping women succeed in office and helping other women aspire to successful careers in positions of power.

References

- Beckwith, K. (2014). Plotting the path from one to the other: Women's interests and political representation. In *Representation: The case of women* (pp. 19-40). Oxford University Press.
- Bryant, L. A., & Hellwege, J. M. (2018). Working mothers represent: how children affect the legislative agenda of women in Congress. *American Politics Research*, 00(0). <https://doi.org/10.1177/1532673>
- Center for System Peace. (2018). *Polity5 Annual Time-Series, 1946-2018*. <https://www.systemicpeace.org/inscrdata.html>
- Dixon, S. C., Herbert, D. L., Loxton, D., & Lucke, J. C. (2014). 'As many options as there are, there are just not enough for me': Contraceptive use and barriers to access among Australian women. *The European Journal of Contraception and Reproductive Health Care*, 19, 340-351. <https://doi.org/10.3109/13625187.2014.919380>
- Franceschet, S. & Piscopo, J. M. (2014) Sustaining gendered practices? Power, parties, and elite political networks in Argentina. *Comparative Political Studies*, 47(1), 86-111. <https://doi.org/10.1177/0010414013489379>
- Halim, N., Yount, K. M., & Cunningham, S. (2016). Do scheduled caste and scheduled tribe women legislators mean lower gender-caste gaps in primary schooling in India? *Social Science Research*, 58. <http://dx.doi.org/10.1016/j.ssresearch.2016.01.002>
- Han, L. C., & Heldman, C. (2018). *Women, power, and politics: The fight for gender equality in the United States*. Oxford University Press.
- Hawkesworth, M. (2012). *Political worlds of women: Activism, advocacy, and governance in the twenty-first century*. Westview Press.
- Htun, M. & Weldon, S. L. (2018). *The logics of gendered justice: State action on women's rights around the world*. Cambridge University Press.
- Interparliamentary Union. (2010). *Women in national parliaments*. <http://archive.ipu.org/wmn-e/arc/classif311210.htm>
- Kathlene, L. (1995). Alternative views of crime: Legislative policymaking in gendered terms. *Journal of Politics*, 57(3), 696-723. <https://doi.org/10.2307/2960189>
- Medie, P. A. (2013). Fighting gender-based violence: The women's movement and the enforcement of rape law in Liberia. *African Affairs*, 112(448), 377-397. <https://doi.org/10.1093/afraf/adt040>

- Paxton, P. & Hughes, M. M. (2017). *Women, politics, and power: A global perspective* (3rd ed.). CQ Press.
- Rosenthal, C. S. (1998). Determinants of collective leadership: Civic engagement, gender or organizational norms? *Political Research Quarterly*, 51(4), 847-868.
<https://doi.org/10.1177/106591299805100401>
- Schwindt-Bayer, L. A. (2010). *Political power and women's representation in Latin America*. Oxford University Press.
- Tripp, A. M., & Kang, A. (2008). The global impact of quotas: On the fast track to increased female legislative representation. *Comparative Political Studies*, 41, 338-361. <https://doi.org/10.1177/0010414006297342>
- Womenstats.org. (2020). ABO-SCALE-1. <https://www.womanstats.org/new/codebook/>
- Womenstats.org. (2020). AFE-SCALE-1. <https://www.womanstats.org/new/codebook/>
- Womenstats.org. (2018). ERBG-SCALE-1. <https://www.womanstats.org/new/codebook/>
- Womenstats.org. (2018). LRW-SCALE-4. <https://www.womanstats.org/new/codebook/>
- Womenstats.org. (2019). TRAFF-SCALE-1.
<https://www.womanstats.org/new/codebook/>
- World Bank. (2020). *GDP per capita (current US\$)*.
<https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>
- World Health Organization. (2018). *Intimate partner violence prevalence among ever partnered women in their lifetime (%)*.
<https://www.who.int/data/gho/data/indicators/indicator-details/GHO/intimate-partner-violence-lifetime>
- World Health Organization. (2019). *Estimates of rate of homicides (per 100 000 population)*. <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/estimates-of-rates-of-homicides-per-100-000-population>
- United Nations Development Programme. (2020). *Human Development Report 2020*.
<https://hdr.undp.org/sites/default/files/hdr2020.pdf>

Appendix

Womenstats.org LRW-SCALE-4

0 – fewer than 1 reported rapes/100,000 total population

1 – 1-10 reported rapes/100,000 total population

2 – 11-30 reported rapes/100,000 total population

3 – 31-60 reported rapes/100,000 total population

4 – more than 60 reported rapes/100,000 total population

Womenstats.org TRAFF-SCALE-1

0 – There are laws against trafficking in the country and into or from other countries.

These laws are enforced. The country is in full compliance (ranking of 1) with the Trafficking Persons act of 2000. Trafficking appears to be rare. You cannot move from a Tier 2 ranking to a Tier 1 ranking over consecutive State Department reports and be scored as a 0 immediately after the assignment of the Tier 1 ranking. Some time must elapse to see how the situation evolves, and so the country should be coded as a 1.

1 – There are laws against trafficking in the country and into or from other countries.

These laws are enforced, but either enforcement is becoming more lax over time or reports of significant trafficking undetected by authorities is increasing. In other words, though a Tier 1 country, there appear to be growing problems. The country is in full compliance (ranking of 1) with the Trafficking Persons act of 2000. For countries in which prostitution is legal, the country can still be scored as a 1 if they have taken strong measures to insure that the prostitution is not entangled with trafficking.

2 – There are laws against trafficking in the country. (If the country only has laws about prostitution, slavery, etc., but no laws against trafficking per se, they cannot be coded as a

2.) These laws are not always enforced. The country is in non compliance (ranking of 2) with the Trafficking Persons act of 2000 but efforts are being made to comply.

3 – There are limited laws against trafficking in the country. The country is in non compliance (ranking of 2) with the Trafficking Persons act of 2000 and only limited/marginal efforts are not being made to comply.

4 – There are no laws against trafficking in the country, or from or into the country. The country is not in compliance (ranking of 3) with the Trafficking Persons act of 2000. Victims are not supported in any way. The government may even benefit from and therefore facilitate trafficking.

Womenstats.org ABO-SCALE-1

0 – Abortion is safe and legal and not imposed by the state on women (i.e. forced abortions are not an issue).

1 – Abortion is legal (although may not be available on demand (for the asking), or there may be gestational age restrictions past the first trimester. The law may require parental permission or a waiting period.

2 – Abortions may be restricted, but there are many reasons for permission to be given, including financial reasons. Spousal permission may also be required, or the permission of a physician's committee, or gestational age restrictions may prohibit abortion in the weeks before the first trimester has been completed (that is, prior to 12-13 weeks).

3 – Abortions are severely restricted to cases where the life of the mother is at risk, possibly also rape and incest.

4 – Abortions are illegal (you may also take cases where states impose abortions on women, i.e., forced/coerced abortions).

Womenstats.org ERBG-SCALE-1

0 – Female laborforce participation as % of female population aged 15+ is greater than 65%.

1 – Female laborforce participation as % of female population aged 15+ is 40-65%.

2 – Female laborforce participation as % of female population aged 15+ is less than 40%

Womenstats.org AFE-SCALE-1

0 – There is less than 5% discrepancy in secondary educational attainment for girls and boys, and there are no area of study restrictions (in law or in practice) for girls.

1 – There is either a 5-10% discrepancy in secondary educational attainment for girls and boys OR while there are no legal area of study restrictions for girls, there are some area of study restrictions in practice for girls.

2 – There is either a 11-15% discrepancy in secondary educational attainment for girls and boys OR there are some legal area of study restrictions for girls and/or commonly practiced area of study restrictions for girls.

3 – There is a 16-20% discrepancy in secondary educational attainment for girls and boys AND there are either legal area of study restrictions for girls or significant area of study restrictions in practice for girls.

4 – There is a greater than 20% discrepancy in secondary educational attainment for girls and boys OR there are extreme legal or practical area of study restrictions for girls.