Women of Now:

Evaluating the Role of Autonomy and Empowerment in Women's Rising Outmigration

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Table of	Contents
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Figures	4
Chapter 1: Introduction	5
1.1: Significance	6
1.2: Current Literature	8
1.3: Research	9
1.4: Findings	10
Chapter 2: Literature Review	12
2.1: Migration	12
2.2: Women's Autonomy and Contraceptive Use	14
2.3: Women's Empowerment and Gender Quotas	16
Chapter 3: Theories and Hypothesis	19
Chapter 4: Research Design	22
Chapter 4: Research Design 4.1: Dependent Variable	
	23
4.1: Dependent Variable	23 24
4.1: Dependent Variable4.2: Independent Variable	23 24 25
 4.1: Dependent Variable 4.2: Independent Variable 4.3: Mediating Variable 	23 24 25
 4.1: Dependent Variable 4.2: Independent Variable 4.3: Mediating Variable 4.4: Control Variables 	 23 24 25 26 29
 4.1: Dependent Variable	 23 24 25 26 29
 4.1: Dependent Variable	 23 24 25 26 29 35
 4.1: Dependent Variable	 23 24 25 26 29 35 39

7.1: Implications		43
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Figures

Figure 1: Time-Series Distribution of Out-Migration Rates for All Countries	30
Figure 2: Time Series Distribution of Contraceptive Use for All Countries	32
Figure 3: Interaction between Contraceptive Use and Fertility	33
Figure 4: Gender Quota Distribution	34
Figure 5: Time Series analysis of Contraceptive Use and Gender Quotas	35
Figure 6: Regression Results	37

Chapter 1 Introduction

Between the years of 2000 and 2017, women's migration rates experienced abnormal rises in many regions. Countries within the Oceania region experienced a growth from 50.1% female migrants to 51% out of all the country's migrants. Similarly, countries within the North American region saw the largest growth from 50.5% of female migrants to 51.5% of the migrant total. Despite men's migration growing as well, women's rates surpassed that of men's rates in most regions, excluding only Asia (UN, 2017). The growing rate of female outmigration has already dominated a lot of the focus within migration literature. However, seldom does research associate increases in women's autonomy and empowerment to their increasing rates of outmigration. Research articulating a person's choice to emigrate focuses on the necessity or ability to do so; this thesis follows the fact that women's ability to migrate is linked to their empowerment and level of autonomy. Therefore, a women's transition from the migration choice to the act of migration may be reliant more so on ability than the need. I aim to explore the impact that increasing women's empowerment and their autonomy has on outmigration, by looking at the adoption of gender quotas and increases in contraceptive use. In particular, I ask whether female autonomy – measured through increased use of contraceptives resulting from the empowerment or, quantifiably the adoption of gender quotas – helps explain the rise in women's outmigration.

While looking at the rising rates of female migration I aim to address the lingering puzzle within the rise of women's independent outmigration. Additionally, the potential statistical relationship between women's political empowerment and what it transcends to women as a group may further explain what that means for other choices women make. In order to quantify

my analysis of empowerment leading to autonomy, I will analyze the role that gender quotas has played in promoting women's reproductive rights within the countries that adopt them. Furthermore, by assessing argued theories and analyzing current and past literature, I aim to contribute the importance of women's autonomy and empowerment. I also aspire to enhance the discussions addressing the importance of acting to promote overall women's rights in all regions of the world.

1.1 Significance

As of 2017, women made up 49.5% of the population (World Bank, 2018) and their growing presence has led to their recognition in areas where they were previously neglected. Between 1960 and 2000, the overall global rate of women living in areas outside their place of birth, grew from 46.6 to 48.8, respectively (Zlotnik, 2003). Women migrants vary by region; their participation percentage ranging between 44% to 52% of total migrants (United Nations Populations Division, 2017). However, scholars argue that they were not appropriately recognized as independent migrants until the late 1960's. The gendered theories that arose from this recognition have associated much of women's independent migration to employment search or an aspiration to further their education ("Gender and Migration," 2019). Other factors, such as the disproportionality between men's and women's rights has led to added interest in creating gendered theories. Previous to the acknowledgment the necessity for gendered theories, women's migration was heavily overlooked due to the belief that women were acting as dependent actors, accompanying spouses of family members.

The new acknowledgement of women does not end with migration theories. In 1979, the UN introduced the Convention on the Elimination of All Forms of Discrimination Against

Women (CEDAW), that was fully enforced in 1981. The convention was created to "bring females ... into the focus of human rights concern" (United Nations, CEDAW, 2009). Furthermore, in 1994, 179 countries met at the International Conference on Population and Development in Cairo. The primarily goal of the conference was to discuss components related to the rising population rates, including many women's rights concerns, one of which was the access to reproductive health (Glasier et al., 2006; Germain et al., 2015). A more recent global initiative introduced in 2012, was the Family planning 2020, whose main goal is to increase contraceptive use in 69 of the poorest countries by year 2020 (Ashford, et al., 2016). Additional reporting suggests that over 200 million women live with an unmet need for contraceptive use (Nelson, 2017). That means that they do not wish to become pregnant but have not been using methods of contraceptives. Contraceptive use and demands vary by regions and groups, but the projected growth in demand, stresses the need for increasing funding to provide contraceptives to women that seek them (Alkema, et al., 2013).

Likewise, in 1995 the UN conference, Beijing Platform for actions, not only called for the increases in reproductive health for women, but for a global "alternation of male dominance in politics" (Dahlerup, 2006; Chen, 2008). Prior to the conference, gender quotas were implemented by few political parties, the likes of which were in Germany and Norway (Jones, 1998). However, the growing phenomenon of women's presence in politics has further encouraged more than 70 countries to introduce gender quotas and also more than 60 countries to voluntarily adopt quotas. Gender quotas are meant to be a way of incorporating women into political positions, and for ensuring that women "are not just a few tokens of political life," but are included to "level the playing field" (International IDEA). Data shows that between 1995 and 2015, women's involvement in parliament doubled, rising from 11.3 to 22.6, respectively

(Clayton & Zetterberg, 2018). Moreover, Pamela Paxton's (2015) research revealed that in 2010, countries that implemented candidate quotas "resulted in 8.5% more women representatives" than countries that lacked quotas, and reserved seat quotas "produced 9% more women representatives" than countries that lacked quotas altogether. Gender quotas have been deemed as the necessary push for dealing with women's rights and issues (Dahlerup & Freidenvall, 2005; Chantiles & Westfall, 2016).

1.2 Current Literature

Most research associating a relationship between reproductive rights and migration reflects on the impact that emigration has on reproductive health and fertility. Livia Ortensi (2015) argues that women's migration effects women's fertility rates in various ways but suggests gendered exploration – of both migration and reproductive health – can contribute to a greater understanding of the relationship. However, gendered migration literature is new, and it focuses on applying previously found migration theories to women. Critics of this method allude that this is an inappropriate method of analyzing women's migration due to the disparities in rights that exist between men and women – with women having the disadvantages (Boyd, 2003). Research pertaining to gender quotas, which target some of women's disadvantages, examine what the consequences of increasing women representation in legislature are. Scholars assert that the political empowerment of women allows them to address women's rights issues and create empowerment of women as a group (Htun & Jones, 2002; Comer & High-Pippert, 2010).

I aim to contribute a gendered approach by assessing how increasing women's empowerment and autonomy contribute to more migration opportunities. I begin by building upon research which finds a relationship between the adoption of gender quotas and greater

reproductive health (Clayton & Zetterberg, 2018; Chantiles & Westfall, 2016), and analyzing how this furthers women's autonomy. Furthermore, I associate higher autonomy – measure by contraceptive use – to higher rates of women's outmigration. No research, to my knowledge, has made this causal link at a regional level of analysis.

1.3 Research

Primarily this thesis aims to give an alternative explanation for increases in women's international migration. I argue that increases in empowerment, measured by the adoption of gender quotas will lead to increases in women's autonomy. Consequently, autonomy – measured by contraceptive use which increases due to the adoption of gender quotas – will stimulate women's outmigration. I argue that women who witness increases of female representation, through the adoption of gender quotas, will feel empowered. Furthermore, I posit that this empowerment will transcend to greater autonomy – measured through the adoption of gender quotas. Therefore, I build on past research which finds that gender quotas increase contraceptive use in many countries (Chantiles & Westfall, 2017). I theorize that increased contraceptive use will induce migration rates, because there is less dependency (children) in their home country. The main theory behind my argument is the result of lower fertility rates due to the increase use of contraceptives.

To test my hypothesis, I will be using Clayton and Zetterberg's (2017) dataset which records gender quota introductions in developing nations between the years of 2003 and 2012 and documents some of my control variables, which are GDP per capita, OECD involvement, and UN peace intervention data. In order to quantify my independent variable, increase in women's autonomy, I will use the rate of contraceptive use which is recorded by the United Nations (UN) Department of Economics and Social Affairs' (2018c). This dataset covers global

rate of contraceptive use, records for any method of contraceptive use between the years of 1961 and 2017 and distinguishes between the marital status of women. Due to the inclusion of both countries that adopted gender quotas and countries that did not, the ability to analyze the difference in contraceptive use between both groups is possible. Furthermore, in order to test the impact of contraceptives use, I will be using data provided by the UN's Department of Economics and Social Affairs to analyze the global rate of fertility, or the number of children per women.

Finally, women's international migration data is needed to assess how autonomy has become an exponential driver in the migration decision. Flows of international migration data that differentiates between gender is scarce. When realizing the scarcity of gendered migration research and its importance, Guy Abel (2017), was able to take migration stock data composed of United Nation's (UN's) data of migration and the UN's World Population Prospects (WPP), to compute gendered migration flow data. Abel's migration flow data took the UN's migrant stock data and subtracted all birth and death rates provided by the WPP. He argues that since migrant stock data can fluctuate because of three components, -(1) increases in native-born population births, (2) reduction in population size due to foreign- and native-born deaths, and (3) migrant flows - if you eliminate all birth and death rates, you will be left with just migrant flows out of a country.

1.4 Findings

I hypothesized that increases in contraceptive use, due to the adoption of gender quotas, would induce women's international migration. My preliminary analysis revealed that, as expected, there is an inverse relationship between contraceptive use and fertility rates, meaning

the more the use of contraceptives increases the less children per woman there is. Additionally, there was substantial evidence in my preliminary analysis that implied women within countries that had adopted gender quotas were using contraceptives at a higher rate than countries that had not adopted them. The results of my fixed effects multivariate linear regression model showed that the impact of contraceptive use and overall women's international migration had an inverse relationship with high significance. The same was true for fertility and migration rates. However, the significance was negated when adding my mediating variable, gender quotas. The control variables added within my analysis did not alter the significance – or lack thereof – shown in the results. In essence, I show empirically that the increases in use of contraceptive, due to the adoption of gender quotas, has no significant relationship, and thus, does not result in increases in migration.

In this thesis the following chapter will assess past migration theories, first focusing on overall outmigration theories and later incorporating women's integration in the literature. I will give context to women's autonomy and its relationship to contraceptive use. Additionally, I will assess the definitions, provided by past literature, of women's empowerment and its relationship to gender quotas. Subsequently, I will divulge my hypotheses and the theories behind it. Next, I will provide a detailed description of my research and the data that will be used in running my analysis. Subsequently, I will be relaying the results of my findings, and explaining the effects of my independent variable on my dependent variable. Finally, I will be discussing and presenting final thoughts on my findings and providing areas of exploration for further research.

Chapter 2 Literature Review

The global effect of both my independent variable, women's autonomy – measured through contraceptive use – and my dependent variable, women's outmigration rates have cultivated an abundance of literature. A large portion of literature focuses on either the importance of women's autonomy, or the changes in women's international migration rates. Due to the growing rates at which women are emigrating, scholars alert to the importance of gendering migration studies to fully understand the accuracy of current migration theories (Boyd, 2003). Furthermore, the scope of literature that covers contraceptive use is mainly comprised of case study analyses and explores the impacts it can have for personal and global development. Correspondingly, there has been a substantial amount of literature – by advocates and critics alike – assessing the effectiveness and outcomes of gender quotas. Several findings show that introduction of gender quotas result in higher advocacy for women's rights and, more often than not, in increases of governmental funding for women's rights, such as reproductive care. While some studies find that migration results in changes in social acceptance of reproductive care, none to my knowledge have quantified autonomy and empowerments role in the rise of female out migration by looking at the effects of increasing contraceptive use, because of the adoption of gender quotas.

2.1 Migration

International migration has been studied from the perspectives of economists, social scientists, psychologists, and political scientists in order to articulate reasons why people choose to migrate. Research by Gordon De Jong (2000), proposed that migration decisions were largely

dependent on "expectations about advantages and disadvantages in both home and host country." Further research argues migrants will subject themselves to these decisions in "search of a better life." The components of a better life vary by migrant, but essentially include financial stability, equality, or safety (Gündüz, 2014; O'Reilly, 2015; Castelli, 2018; Bakewell, et al., 2018).

Building upon the decisions, scholars have agreed, extended or opposed existing theories and research based on updated patterns of migration. A universally applied migration framework is known as the "push-pull theory" that stresses there are factors that push people from their home country and additional factors in destination countries that warrant consideration (Lee, 1966; Bakewell, et al., 2018). This popularized theory has been used to explain domestic and international migration, what has been termed as voluntary and involuntary migration and many more groupings of migration theories. An extension to the theory has created what scholars have termed "drivers." A study by Bakewell, et al. (2018), termed these drivers as "external forces," that promote migration decisions. Correspondingly, Francesco Castelli (2018) argues that "inadequate human and economic development, urbanization, environmental issues, wars, education, and income," are the most common "drivers" that can stimulate migration decisions and actions.

While a plethora of scholars have extended their analyses of migration strictly deriving from the push-pull theory, critics, such as Karen O'Reilly (2015), have asserted that the popular theory misses vital opportunities and factors needed prior to migration. Other scholars argue these factors create a clear division between the decision to migrate and the action to do so. In which case, the focus is on whether a migrant has what is needed to sustain – or act on – their migration decision (O'Reilly, 2015; Rahmati & Tularam, 2017).

One persistent gap in migration literature has been the neglect of gendering migration analyses. In comparison to the existence of literature on migration, the role of women as primary and autonomous actors wasn't fully integrated into theories until the 1960's. Scholars point out that historically people used the term, "migrants and their families," in which "migrant" was used to describe the man and "family" captured the women acting as wives, mothers, or sisters. However, in light of what is known as the "feminization of migration," gender disparities became more prominently addressed in migration studies (Boyd, 2003; Gündüz, 2014).

Scholars have argued that while men and women may be subjected to the same "drivers", factors that affect migrants are different between men and women. In other words, major impediments – and even reinforcements – affect women differently and sometimes exclusively. For example, a study by Brock and Maldonado (2017) found an important relationship between rights and migration. They assert that women whose economic and social rights were improved in their origin country were less likely to migrate. However, when political rights were improved women were more likely to migrate. Additionally, a study done by Ilse Ruyssen and Sara Salomone (2018), attempts to look at the impact discrimination has on female migrants. They find that discrimination and inequality can affect both men and women, but women experience it at a higher degree. Furthermore, Nicolamaria Coppola (2018) asserts that women face different social constructs that may impact their migration decisions differently than men. She concludes that certain "practices or policies in home country," that discriminate against women – such as "restricting education, political participation and reduction in overall participation" - can impede women's migration. She argues these restrictions affect women's migration decision and their autonomy.

2.2 Women's Autonomy and Contraceptive Use

Many scholars and organizations alike argue of the importance of increasing women's autonomy. The UN expresses the value of increasing women's autonomy as imperative step to increasing development. They frequently relate women's ability to plan her reproduction health to increases in their overall autonomy (2018b). The UN further supports their assertion of women's autonomy with their sustainable development goal number 5 (2018a), which states that in order to achieve gender equality and autonomy, women need the assurance of "universal access to sexual and reproductive rights …"

The UN's view is supported by a majority of scholars researching the urgencies of autonomy and its relation to reproductive health. Although there is not one single definition of autonomy, literature regarding women's autonomy commonly associates it to the power of independent decision-making (Carlson, et al., 2015; Pratley, 2016). Erin Nelson (2017) defines autonomy as having the "ability to chart personal lives and have opportunities to participate fully in civic and economic life."

Scholars often relate women's autonomy to reproductive health; stating that while men and women may face the same reproductive challenges, the costs for women are much higher. A factor supporting this argument is presented by Erin Nelson (2017), who relates the limitations of women's autonomy – compared to men's autonomy – as having much different effects on their ability to live the lives they want. This is additionally validated by Monica Das Gupta's (1995) research on women's autonomy, who argues that men and women together may face unequal autonomy relative to others – usually associated to social structures – but for women the disparity is much greater and lasts for a longer extent of time. Moreover, Grady and Osamor (2016) argue that increasing autonomy is associated to women's personal development. They argue that increasing autonomy will allow women to make independent decisions, such as seeking for health care services, that will ultimately lead to "reductions in fertility..." and other health benefits.

Similarly, many case studies have presented the same relationship between autonomy and contraceptive use. For example, Martin Bobak and Shabana Saleem (2005) found a significant relationship between contraceptive use and autonomy for women in Pakistan. Likewise, Rahman et al. (2014) found a strong association between women's autonomy to their contraceptive use in Bangladesh, asserting that increased autonomy meant increased contraceptive use. A case study by Achrya et al. (2010), found that women's autonomy in Nepal was highly related to contraceptive use. While autonomy seemed to raise contraceptive use, Achrya argued there was a need for women's empowerment in order to make autonomous choices.

2.3 Women's Empowerment and Gender Quotas

Many scholars, along with governmental and non-governmental organizations, agree that gender equality is vital for women's empowerment. However, scholars assert that measurement of women's empowerment is a persistent challenge (Pratley, 2016). The UN's Millennium Development Goal (MDG) number 3 (2018a) conveys their belief that closing the gender gaps in education, wages, and parliaments is necessary for advancement toward gender equality and female empowerment. In an evaluation of the UN's MDG number 3, Naila Kabeer (2005) defines empowerment as a "process in which those who have been denied the ability to make choices gain that ability." She also defines *choice* as having "decisions with present and realized alternatives." She emphasizes her definition of empowerment to only pertain to those who have been previously "disempowered," those previously without choice. She argues that the

involvement of women into politics "carries potential to change unjust practices and empower the disempowered."

Since the early 2000's, one of the most popularized methods of involving women in politics has been gender quotas. The main objective of gender quotas is to close the looming disparities between men and women in politics. However, contentions have arisen over the effectiveness of gender quotas and if they truly accomplish gender equality. These contentions surface because gender quotas have different outcomes in different governments and within different regions. This is mainly due to country-specific characteristics and the presence of ample cultural values (Hillman, 2018). Critics have also asserted the ineffectual enforcement of gender quotas can lead to women's presence but lack of their actual empowerment. Moreover, women's social and cultural positioning may also hinder their ability to be taken seriously in official settings (Dahlerup & Freidenvall, 2005). Other critics argue that women who are integrated into government are less effective than other representative – men and women alike – who were not introduced through gender quotas (Allen, Campbell, & Cutts, 2016).

Despite the controversy surrounding their effectiveness, gender quotas have risen the participation of women in legislature. Scholars argue that their involvement has empowered women as a group in many ways. Furthermore, many scholars relate women's involvement to higher advocacy for women's rights (Htun, 2002; Comer & High-Pippert, 2010). Research shows that the integration of women in politics shifts governmental spending toward more female focused areas, such as public health (Clayton & Zetterberg, 2017; Chantiles & Westfall, 2016). Research also finds that the mere presence of women in legislature has influenced and empowered women not in legislature. For example, a study in Jordan, found that women who

decided to pursue legislative careers were encouraged by seeing newly appointed women representatives (Nanes, 2015).

Further research shows that gender quotas have empowered women through the elimination of cultural restrictions and negative stereotypes commonly associated with women. For example, in a case study done by De Paola et al. (2010), they found that gender quotas eliminated the negative stereotypes toward women in Italian municipalities that had introduced them, this was true even after they were no longer enforced. This particular study overlooked the Italian municipalities that had adopted gender quotas and ones that had not, giving them complete treatment and control groups. They found that even after the enforcement of gender quotas was abolished, many of the municipalities still elected a large portion of female representatives. This indicated that a majority of misconceptions about female representative were eliminated.

Chapter 3 Theories and Hypothesis

I develop an argument focused on the impact of my independent variable, women's autonomy, on my dependent variable, women's international migration rates due to my mediating variable, female empowerment. In order to explain the particular relationship of my argument, I have composed a causal chain. First, I will be using empowerment, measured by gender quotas, to explain the rise in women's autonomy, measured by contraceptive use. Subsequently, I will be using women's autonomy, or contraceptive use and the decrease in fertility, to explain the increase in women's out migration. My research is further reinforced by previous findings which associate the adoption of gender quotas to shifts in governmental spending towards public health. I predict my independent variable, women's autonomy, explains my dependent variable, women's international migration rates by hypothesizing that:

H1: Increases in overall contraceptive use increases migration, because of the adoption of gender quotas.

My hypothesis predicts an increase in use of contraceptives, will decrease fertility, and increase migration. Inversely, the same should be true for women with more children being less inclined to migrate. I theorize that women who make the decision to migrate might be able to transition into the act of migrating easier without children, or simply less dependency in their home country.

This is largely supported by the literature that asserts the difficulties that women face when choosing to migrate because they have children. This was proposed by Everett Lee (1966) along with his push and pull theory and has further been subjected into other areas of migration literature. For Example, Inca Stock (2012) investigates the migration process for women who are mothers versus those that are not within the African region. She makes the argument that migration choices are different for women who are mothers than for women who have no children. She asserts this is related to powerful expectations of mothers to stay in home country, and in situations where they do choose to migrate, some are more likely to leave their children in the care of family members. She denotes that in this sense, children can be seen as an obstacle to migration decisions.

Another supporting reason behind my hypothesis pertains to the impact that gender quotas have had on women's reproductive health choices. Scholars have found that the involvement of more female representatives creates a more centered focus in advocating for women's interests (Htun, 2002). Related findings show that women's representation include shifts in governmental spending toward public health. I – and other scholars (Clayton & Zetterberg, 2017; Chantiles & Westfall, 2016) – argue that this means women have more access to choices in their reproductive health. Furthermore, Chantiles and Westfall (2016) supported their findings on gender quotas increasing reproductive health, through a case-study in Argentina, where "female representatives introduced 80% of new bills that related to reproductive health such as access to contraceptives."

My argument contains three assumptions. First, I assume most women that gain access to reproductive health, will utilize their access. This first assumption is correlated to previous studies that showed the impediment that cultural and societal norms could have on gender equality and empowerment (Chant, 2016). This could mean that women who gain access to reproductive health, still do not use it. Second, I presume that women want to employ their

autonomy toward their reproductive health. Again, the example may hold that women have strong connection to their societal and cultural norms in which case, autonomous actions are not within their beliefs. Lastly, I assume that women who are single and women who are in a relationship will act similarly. Regardless of their relationship status, I predict that women will act the same regarding reproductive choices because I additionally assume, they may strive for the same goals.

If my hypothesis holds, there should be higher contraceptive use in countries that have introduced gender quota laws. There should be an inverse relationship between contraceptive use and fertility. Additionally, there should be an increase of women's international migration in countries where women use contraception at a higher rate.

Chapter 4 Research Design

In order to accurately test my hypothesis, and capture all the constantly fluctuating variables, I collected several data sets. I began by merging all my data to my migration flow dataset. The migration flow dataset was composed by Guy Abel (2018) using the United Nations (UN) Migration Stock data and the World Population Prospects (WPP) of the United Nations Population Division. This dataset contains observations between the years 1960 – 2010 and also contains updated estimates of stock and population rates captured every two years. For my analysis I found it best to use the most recent year of estimates – UN2015 and WPP2015.

In order to merge in all my data, I had to create an alternative variable that contained the country code and each year for every data set. The United Nation's (UN) Contraceptive Use data was used to estimate my operationalized independent variable, women's use of contraceptives (United Nations, Department of Economic and Social Affairs, 2018c). The United Nation's data on fertility rate was used to complement the effectiveness of contraceptive use; an increase in contraceptive use is usually followed by a decrease in fertility rates. Clayton & Zetterberg (2017) data was used as a measure for my mediating variable. This dataset was used for their research on the adoption of gender quotas shifting governmental spending toward public health.

There are three limitations to my research. First, the dataset provided by Clayton & Zetterberg (2017) is ranged between the years of 1995 to 2012. Additionally, migration flow data that distinguishes between the gender of migrants is rare, and Guy Abel (2018) data ranges between 1960 to 2010, which limits my time frame from 1995 to 2010. Furthermore, the migration data is organized in five- to ten-year intervals. The difference between using the scope of five or ten years seemed minimal for most countries.

In order to address these limitations, I primarily chose to apply a scope of five-year intervals by transforming all my supplementary data – i.e. contraceptive use, education, GDP measures, contraceptive use – to similar intervals. In order to account for the years in between the intervals, I applied each observation five-year intervals. For example, the years 1993, 1994, 1996, and 1997 were all applied to the year 1995. Finally, in order to account for all the years now included in one year, I gathered the mean and the year became that new total. For example, if the country of Albania now had 5 sets of data for 1995, they were added together and divided by 5; that new total became the data for 1995. There were also further modifications that had to be made in order to effectively merge my datasets.

4.1 Dependent Variable

The dependent variable for this analysis is women's international migration rates. In order to merge all my data appropriately, I took the following steps to modify and isolated the necessary variables within the migration flow dataset. In order to compose migration flow data, Guy Abel (2018) collected migration stock data from the UN's population division for the years 2012, 2013 and 2015 and the "demographic data on births, deaths, and populations totals," from the World Population Prospects for the years 2011, 2013 and 2015. This dataset consisted of over ten billion observations, which captured the migration flow from each origin country to each particular destination country.

In order to get the total outmigration flow from each origin country, I aggregated the data and summed the total flow out of the origin country and relative to the migrant's gender. Additionally, I chose to subset the data by the newest information of migration flow which was categorized "UN15" and "WPP15." Finally, I created a variable that included the gender of the

migrant and the year intervals. This allowed me to run regressions isolating women's migration flows to a scope of every five years. Migration flows had maximum values within the 150,000 range, and in order to have all variables within the same range, I divided migration flows by 10,000. I found this necessary for correctness and consistency throughout the regressions.

4.2 Independent Variable

Data regarding autonomy is commonly a survey-based questionnaire and commonly conducted within a single country or region. Due to the lack of cross-regional data on categorical surveys, I used contraceptive data in order to operationalize women's autonomy. The UN contraceptive use data contained 939 surveys for women within reproductive years – defined by the UN to be between the ages of 15 to 49. Observations were gathered through surveys that sometimes lasted more than a year. The data appropriately distinguished the starting dates and ending dates through the variables *survey.start.year* and *survey.end.year*. The surveys occasionally lasted for more than one year and thus, I created a year variable that would be composed of the end year in order to capture the most updated data from the whole survey cycle (United Nations, Department of Economic and Social Affairs, 2018c).

Finally, the dataset included categorical data on women based on their marital status, age, and type of contraceptive use. Marital Status was sorted in categorical levels that included *married/in-union, unmarried/Not in-union,* and *all women*. Additionally, the data set categorized the method of contraceptive use into the following levels, *any method, traditional method*, and *modern method*. The definition for any method was the "percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used," modern method was conducive of the "percentage of women who are

currently using, or whose sexual partner is currently using, at least one method of modern contraception, regardless of the modern method used, and lastly, the traditional method contained the "percentage of women who are currently using, or whose sexual partner is currently using, at least one method of traditional contraception, and who are not using a modern method." Modern methods were said to include "female and male sterilization, intra-uterine devices (IUD), implants, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods (including the diaphragm, cervical cap and spermicidal foam, jelly, cream and sponge), the lactational amenorrhea method (LAM), emergency contraception and other modern methods not reported separately (e.g., the contraceptive patch or vaginal ring)." Furthermore, traditional methods include the practicing "rhythm (e.g., fertility awareness-based methods, periodic abstinence), withdrawal, and other traditional methods not reported separately" (UN, 2018c).

In order to correctly test all the women that were directly using the type of contraceptive that is most commonly acquired outside of the home, I filtered for *modern method*. Additionally, I filtered for women's marital status to include *all women* – since my assumption is that married women and non-married women will act similarly in the face of migration decisions. The survey data does include the use of contraceptives by women's partners, however, there is no further need for me to distinguish between male and female contraceptive use, since fertility rates will further sustain just women's use of contraceptives. Finally, I filtered for the inclusion of all women in reproductive age, i.e. between 15 and 49 years of age.

4.3 Mediating Variable

Similar to women's autonomy, empowerment measures are commonly captured through country specific questionnaires. While these surveys serve a particular purpose in defining what empowerment means to women, I wanted to approach my analysis through a different methodology. In order to conduct a cross-regional analysis, I measured empowerment through the increases in women's political empowerment and more specifically, the adoption of gender quotas. Clayton & Zetterberg (2018) argue that up-to-date information on gender quotas is seldom available and that resulted in them building a dataset composed of data gathered through the quota project (IDEA, 2018), and other sources of data. I will be building of their findings that adoption of gender quotas results in increased public health spending. Their dataset records three different quota policy dimensions, "quota adoption," "quota implementation," and "enforced quotas." Following their methodology, I will be using their variable for pre-existing quotas and dropping cases in which quotas existed prior to the year 1995. I will be using data on the countries that have adopted gender quotas, coded as "*ever adopt*," in my regression.

4.4 Control Variables

In order to accurately minimize any potential confounding variables, I included the following controls to my analysis. Within Clayton & Zetterberg's (2018), I found the most useful controls to be GDP per capita, and budget on education. The GDP per capita, in addition to added GDP growth data, served as proxies to economic reasons of migration, such as low performance in home country, high unemployment rates and low wages. For example, research shows that a migrant might be more willing to migrate if the economy in their home country is at a downturn, and thus inversely, less likely to migrate if the economy is booming (Afonso & Devitt, 2016).

In addition to the variable included in the gender quota dataset, budget on education, I included the World Bank's gross tertiary enrollment percentage data. Both variables will serve as proxies to women's higher educational attainment. This particular variable is important because of the possible relationships it could have to both my independent and dependent variables. There is a mass amount of literature that equates women's higher education attainment to their ability or desire to migrate, known as "high-skilled" migration, or "brain drain" (Docquier et al., 2014; Docquier et al., 2009; Docquier et al., 2012b, Nejad & Young, 2014). Similarly, some scholars argue that highly educated women are more likely to take care of their reproductive health and more likely to use contraceptives (Jejeebhoy, S., 1995). Furthermore, scholars have addressed that higher education means higher employment (higher income) which means that women may have more to lose and may be more inclined to delay reproduction for the sake of their employment (D'Addio & D'Ercole, 2005).

Although the controversy surrounding voluntary and involuntary migration – or forced migration – is plentiful, I wanted to diminish the likelihood that war and conflict might be perceived as an extraneous variable if not appropriately controlled for. This control is largely accounted for in many migration theories, and a large portion of research shows some migrants are "forced" out of their home country due to conflict (Piguet, 2018). Literature commonly designates civil war, conflict, and environmental disasters as the leading factors forcing people out of their home country. However, studies show that many of these factors, seldom result in international migration, but rather result in domestic displacement (Croicu & Sundberg, 2017; Melander & Sundberg, 2013). Despite this assertion, I included the control variable due to the perseverance of conflict within the years of my analysis, 1995 to 2010.

In order to control for conflict in any certain country, I used data on armed conflict produced for Uppsala Conflict Data Program (UCDP), which included a time-series analysis of armed conflict between the years of 1946 to 2017. This dataset included various conflict data all categorized by *1*, *2*, *3* and *4*, which meant extrasystemic, interstate, internal and internationalized internal, respectively. My analysis does not call for a distinction between these observations, however, I found that extrasystemic conflict – per definition, "occurs between a state and a non-state group outside its own territory" – would not a cause a large shift in migration flows for the (origin) country inciting the conflict. In order to include all conflicts, I created a dichotomous conflict variable that included *interstate, internal* and *internationalizes internal* within a country. Countries that experienced conflict within the years of 1995 and 2010 were coded as 1 and countries that had extrasystemic conflict as 0.

Chapter 5 Results

In order to statistically test my hypothesis, I began with my merged dataset, primarily consisting of 119 observations in 47 countries between the years of 1995 to 2010. It included data on my operationalized independent and mediating variable, my dependent variable, and all of the control variables. Before running analysis on my panel data, I made sure to remove any duplications that were made in the merging process. Similar to Clayton and Zetterberg's (2018) research on gender quotas and shifts in governmental spending, I dropped 4 cases that had adopted gender quotas before 1995, leaving 43 countries and 109 observations.

5.1 Variables

My analysis began by looking at each variable's distribution and their interactions. All my variables are aggregated in 5-year intervals, so my graphs will be analyzed in years in order to assess the distribution appropriately. Since my analysis contains a large number of countries, I will be clustering all countries within a year to look at the distribution of each variable. I began by looking at my dependent variable, women's migration. Preliminary exploration of the distributions does not distinguish between countries that have adopted or not adopted gender quotas. In which case, I decided to look at the distribution of migration for all 43 countries by year to examine possible patterns.



Distribution of Country's Female Migration

Figure 1: Time-Series Distribution of Out-Migration Rates for All Countries Each year boxplot is a country clustered representation of migration rate within my analysis.

Figure 1 represents the distribution of each country's migration rates throughout the years. Each boxplot displays the distribution through different quartiles not affected by "outliers". The lower and upper quartile are represented by the boxes ends, known as the first quartile and the third quartile, respectively. Inside the box, the line represents the median migration rate for that year. Furthermore, each quartile represents a percentile range. For example, the boxes first quartile represents countries within the minimum rate and the median rate of migration. The "whiskers" (lines coming from each box) indicate the maximum and minimum country "outliers." This plot shows that women's migration rates saw growth between the years 2000 and 2010. Additionally, with the mild exception of year 2005, the values within the interquartile ranges are not largely spread out, meaning not a lot of variability between the countries under analysis.

The year 2005 has a box that is larger and bigger in length out than the other years, this means that countries within that year have migration flows that are more spread out and further from the mean. All the years show that there are outlier countries with a high rate of women's migration. The years 2000 and 2005, have countries with relatively low migration rates. Within my analysis, the year 1995, has the highest rate of migration but contains the smallest percentage of countries. The countries within the years 2000, 2005, and 2010, are relatively within the same range. There might be certain countries that are skewing the mean within the year 1995. The year 2000 and 2005 contain a relatively similar mean. However, the year 2010 reveals a small increase in mean size¹.

¹ Important to note that migration rates are in 10,000's, which suggests a small increase could mean thousands.



Figure 2: Time Series Distribution of Contraceptive Use for All Countries Contraceptive use data is represented as a percentage of women who are using "modern methods" of contraception in each country.

Figure 2 and Figure 3 are examinations of my independent variable, women's contraceptive use. Figure 2 represents the use of contraceptives per year for all countries included in my dataset. Contraceptive use is measured as a percentage of women who use contraceptives within the survey. This figure combines all percentages from each country in my analysis and shows the growth in contraceptive use throughout the years. In order to assess the supporting theory behind my argument, contraceptive use will increase migration due to lower fertility, I examined the relationship between contraceptive use and fertility. As expected, Figure 3, relays the negative relationship between contraceptive use and fertility within my analysis. This means that

countries, within my analysis, who have a higher percentage of women using contraceptives also have lower fertility rates.



Figure 3: Interaction between Contraceptive Use and Fertility

Following the analysis of my independent variable, I assessed the distribution of my mediating variable, gender quotas. I further assessed its relationship to my independent variable, contraceptive use. I primarily began by looking at the distribution of gender quotas by countries within my dataset. Figure 4 is a map representing each country that has either adopted or not

adopted gender quotas². There are 22 countries within my analysis that adopted gender quotas (shown in dark blue) between the years 1995 and 2010 and 21 countries that did not (shown in light blue).

Gender Quotas



Figure 4: Gender Quota Distribution The map is a representation of which countries have and did not have gender quotas within my analysis. Category 1 represents the 22 countries with gender quotas and 2 denotes the 21 countries without gender quotas.

Lastly, I decided to look at the distribution of contraceptive use between countries that had

adopted gender quotas and countries that had not. Prior findings show that there is a present relationship

² It should be noted that because my analysis is restrained to a specific time frame (1995 to 2010), this representation may not be what is true of gender quota introduction today.

between the introduction of gender quotas and increases in governmental public health spending. Figure 5 further validates those findings, by showing that contraceptive use is higher in countries that have gender quotas compared to countries that do not. The only outlier is year 2000, where contraceptive use was relatively the same between countries that had gender quotas and countries that did not.



Figure 5: Time Series analysis of Contraceptive Use and Gender Quotas These graphs represent contraceptive use difference in countries, within my analysis, without (left) and with (right) gender quotas.

5.2 Regression Results

In using Clayton & Zetterberg's gender quota data, I found it best to run a similar analysis. Similar to their methodology, I used a "difference in difference approach," by keeping their dichotomous variable for the adoption of gender quotas, where countries that adopted gender quotas (1) serve as the treatment group and countries that have not adopted quotas (0) are the control group. This approach is further maintained by my fixed effects – for country and year – clustered regression. The result should represent how quotas are associated with contraceptive use and migration in countries with and without quotas.

I used a multivariate linear regression with country and year fixed effects, to examine any potential association between my operationalized independent variable, contraceptive use and my dependent variable, migration because of my operationalized mediating variable, gender quotas. Additionally, I clustered the standard errors to capture similarities in the observations for different countries. I added several control variables incrementally in order to show changes in the relationship. These were, measure of GDP per capita, – serving as a proxy for possible economic confounding variables – government budget on education, – serving as a proxy for women's educational attainment and a lagged conflict dichotomous variable– to eliminate possible confounds explaining women's migration rates. Figure 6 shows the results of my multivariate linear regression.
	Dependent variable:		Women's Migration Rates				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Contraceptive Use	0.142 (0.140)	1.019*** (0.000)	0.021 (0.110)	0.009 (0.113)	0.010 (0.114)	0.010 (0.116)	0.010 (0.104)
Fertility Rates	1.085 (5.282)	29.106*** (0.000)	2.419 (7.379)	1.055 (7.638)	1.224 (7.694)	1.258 (8.118)	1.258 (8.864)
Adopt Quota			-36.471*** (6.811)	-38.255*** (7.394)	-39.452*** (7.799)	-39.473*** (7.999)	-39.473*** (7.136)
Gov.Education Budget				0.204 (0.709)	0.151 (0.721)	0.148 (0.754)	0.148 (0.696)
Gross Tertiary enrollment				0.373 (0.520)	0.408 (0.527)	0.409 (0.535)	0.409 (0.518)
Conflict (lagged)					-1.069 (2.089)	-1.072 (2.118)	-1.072 (2.021)
GDP per capita (lagged)						-0.008 (0.542)	-0.008 (0.387)
Constant	3.362 (9.461)	-19.791*** (0.000)	43.765*** (10.584)	45.143*** (11.004)	46.221*** (11.272)	46.220*** (11.371)	46.220*** (11.625)
Country & Year FEs Clustered SEs by Country Observations Adjusted R2 Residual Std. Error	No No 109 -0.005 19.061 (df=106)	Yes No 109 1.000 0.000 (df=105)	Yes No 109 0.961 3.733 (df=61)	Yes No 109 0.961 3.772 (df=59)	Yes No 109 0.960 3.796 (df=58)	Yes No 109 0.959 3.829 (df=57)	Yes Yes 109

Figure 6: Regression Results

Note: *p<0.1; **p<0.05; ***p<0.01 Columns 1 through 3 are variables included in my causal chain. Columns 4 through 6 are the control variables added incrementally. Column 7 is regression results for clustered standard error. One star indicates a 90% confidence interval and significance at p<0.1. Two stars indicate a 95% confidence interval and significance at p<0.05. Three stars indicate a 99% confidence interval and significance at p<0.01. Conflict and GDP per capita variables are lagged Standard errors are in parenthesis. There are a total of 109 observations within 46 countries. SE = Standard Error. FE= Fixed Effect.

The first column (1) represents the first regression without any fixed country or year effects. There is a positive relationship, however there is no significance in the relationship. This is true for both contraceptive use and fertility rates. However, the second column (2) included country and year fixed effects and showed a highly significantly inverse relationship between my independent variable contraceptive use and migration. A significantly inverse relationship is also

present for fertility rates. However, when I added my mediating variable, adoption of gender quotas, the relationship became insignificant.

The gender quota variable turned out to have a highly significant inverse relationship with migration as well. The added controls (represented by columns 3, 4, 5, and 6) showed no significant relationship, nor did they drastically effect the relationship between my independent and dependent variable or my mediating variable and my dependent variable. Congruent with prior findings, column (5) shows that there is no significant relationship between the dummy variable for conflict and women's international migration rates. This indicates that women are not necessarily more likely to migrate internationally because of conflict in home country. Furthermore, while the regression shows that GDP has in inverse relationship to migration, there is no significance within my analysis. Finally, the last column (7), shows the regression with clustered standard errors. The standard errors seemed to decrease for all variables except fertility.

Chapter 6 Analysis and Discussion

6.1 Findings

My analysis concluded that while there was a significant relationship between contraceptive use and migration with country and year fixed effects, it was a negative one. Furthermore, fertility rates also showed a highly significant negative relationship to migration. I hypothesized that increased use of contraceptives would increase migration, however the results of my regressions prove the opposite of my prediction. The results imply that increases in contraceptive use decrease women's migration rates. In addition, the constant is a negative coefficient, proving that there is an inverse relationship between my independent and dependent variables. In other words, the regression coefficient is interpreted as y= -19.791 + 1.019x, which also further solidifies the negative relationship. Since migration flows values were previously divided by 10,000 to level the range of values, this would mean that a 10,000-unit decrease in my independent variable, contraceptive use, would result in a 1.019 increase in my dependent variable, migration.

The main theory behind my argument was driven by the notion that women who are mothers have different obstructions, and therefore lower fertility rates would increase migration. Previous research found added difficulty to be true for women who are mothers in both migration decisions and actions (Lee, 1966; Stock 2012). While there was a significant relationship between fertility to migration, it was an inverse relationship. I theorized that lower fertility rates would increase migration because women would have less dependency and less of the obstructions to that of mothers. However, the significant relationship between fertility and women's migration proved the opposite. Based on the relationship it could be concluded that women becoming mothers has no impact on their migration choice or the ultimate act of migrating.

Furthermore, the significance of the relationship between my independent variable and my dependent variable was negated by the inclusion of the gender quota variable. I hypothesized that increases in contraceptive use would increase women's outmigration rates *due* to gender quotas. I argued that increased use of contraceptives due to the adoption of gender quotas. This was based on prior research findings that related the adoption of gender quotas to increases in governmental spending toward public health (Clayton & Zetterberg, 2017) and furthermore, directly to reproductive health such as contraceptive use (Chantiles & Westfall, 2016). However, once the gender quota variable was added, the regression results showed that there was a significantly *negative* relationship between gender quotas and migration. This relationship implies that the decrease in gender quotas – or countries that have not adopted gender quotas – have increases in outmigration flows.

These finding could be a result of various alternative explanations. For one, many scholars argue that migration requires a gran accumulation of factors, such as opportunity, skill, and connections. The findings may present that women's empowerment has not been fully met to allow for opportunities to migrate. Moreover, the inclusion of women into politics could be representative of the country's increased development. This could mean that women are less likely to migrate within this time frame. Additionally, this relationship could indicate that the adoption of gender quotas has not endured long enough to corroborate my hypothesis. Such an explanation coincides with my previous alternative explanation, that migration necessitates a lot of components.

40

Continuously, each control within my analysis did not show a significant relationship to migration. Previous research that indicated the relevance of each control variable to migration, were commonly case or regional studies and seldom a cross-regional analysis. My proxies for women's higher educational attainment, governmental spending on education and enrollment in tertiary education, showed a positive correlation to migration but there was no significance. Similarly, conflict and GDP per capita – proxy for economic factors of migration – both showed an inverse relationship with migration with no significance.

My hypothesis predicted there would be a relationship between contraceptive use and migration rates due to the adoption of gender quotas. Although there is a significant relationship between my independent and dependent variables, it is inversely related. Furthermore, the significance is abolished by the gender quota variable which I hypothesized was causing the relationship between contraceptive use and migration. In addition, the results of my regression disproved my theory by finding a significant inverse relationship between fertility and migration. The concluding results led me to reject my hypothesis and my supporting theory.

Chapter 7 Conclusion

A plethora of literature links migration to decision-making, evaluations, opportunities, and the transition from decision to action. A common practice was to neglect women because of societal understandings that viewed them as dependents. With women's inclusion in literature, many scholars have associated previously found migration theories to women without considering the challenges they face singularly. Furthermore, a neglect of women autonomy and empowerment has led to an obstacle in their progress within many societies (Boyd, 2003; Ortensi, 2015). In addition, the research available pertaining to women's autonomy and empowerment did not take a cross-national approach and a large portion were case study analyses.

In this thesis, I aimed to show what revitalizing women through building their autonomy and empowerment meant for future decisions such as, decisions included within migration. The objective of this thesis was to contribute to the growing importance of acknowledging the gender disparities and aiming to reach gender equality. Furthermore, it complements past research by assessing the possible associations between autonomy, empowerment and opportunity. I used a unique cross-regional analysis to reveal a possible relationship between contraceptive use and migration. However, my findings were not congruent with my hypothesis. I hypothesized that increases of contraceptive use, because of the adoption of gender quotas, would increase migration. The opposite relationship was found in my regression results as well as no significance once the dichotomous gender quota variable was added into the formula. It is with these results that I can conclude that autonomy and empowerment has not contributed to the rise of women's migration rates.

42

7.1 Implications

Since gender quotas are a relatively new method of integrating women into politics, further research may be required in order to assess the true impact of enduring gender quotas within a country. My findings show that while the use of contraceptives is much higher in countries that implemented gender quotas, there may need to be an exploration in additional methods of increasing women's contraceptive needs for countries that do not wish to introduce gender quotas. Furthermore, my findings were based on relatively new cross-regional migration flow data, future research could assess the topic of autonomy and empowerment motivating women's outmigration, with updated migration flows. An example of this would be conducting a similar research with updated migration flow data that is not in five- or ten-year intervals or does not end in the year 2012, as it did in my analysis. Moreover, my research focused on women's outmigration rates, however, an autonomy and empowerment analysis could also be conducted for men.

I believe that my analysis added to existing literature by quantifying autonomy and empowerment of women in different ways. Most existing literature uses survey-based data to analyze levels of autonomy and empowerment but adding quantifiable measures could add to the significance of future findings. Although it is hard to apply certain implications throughout regions because of the difference amongst them, further research could analyze countries that have had similar outcomes because of the introduction of gender quotas.

43

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