Gender Equality and Nonmarital Fertility: A Global Examination

Amanda J. Brockman
Vanderbilt University
amanda.j.brockman@vanderbilt.edu

ABSTRACT

While some researchers have examined the correlates of nonmarital fertility and others have analyzed the relationship between gender equality and fertility, empirical research examining the relationship between nonmarital fertility and gender equality is lacking. Thus, this relationship is not well understood, especially with regard to an international context. Furthermore, research on nonmarital fertility has largely been encapsulated within a single country. This research fills these gaps in the literature by giving attention to and empirically testing the way in which gender equality affects nonmarital births with data from 35 countries. Thus, this paper takes a global perspective to unpack the relationship between gender equality and nonmarital fertility. Preliminary results show a relationship between gender equality and nonmarital fertility. As gender equality increases, nonmarital fertility also increases. This study is important because it contributes to the fertility literature by providing a better understanding of the relationship between gender equality and nonmarital fertility.

While scholarly attention has been paid to correlates of nonmarital fertility (e.g. Bute and Jensen 2010; Edin and Kefalas 2005; England, Wu, and Shafer 2012; Gray and Stone 2013; Lichter 2012; Perelli Harris and Gerber 201; and Shafer 2012) and empirically examined the relationship between gender equality and fertility (e.g. Mason 1987; McDonald 2000; McDonald and te Velde. 2011; Merz and Liefbroer 2012; Mills, Rindfuss, Anderson and Kohler 2015), there is a dearth of empirical research examining the relationship between nonmarital fertility and gender equality. Thus, there is much to be understood with regard to this relationship. This is especially true within an international context because research on nonmarital fertility has largely been encapsulated within a single country.

This research fills these gaps in the literature by giving attention to and empirically testing the way in which gender equality affects nonmarital births with data from 35 countries. It provides a novel viewpoint of the way in which gender equality generally affects nonmarital fertility, outside of the confines of a particular country. Additionally, by using contemporary data (2000-2015), we are able to understand the current context of gender equality.

This paper takes a global perspective to unpack the relationship between gender equality and nonmarital fertility. I hypothesize that as gender equality increases, nonmarital fertility also increases (compared with marital fertility) across a multitude of contexts (e.g. location, socioeconomic status). Stated simply, I expect for increases in gender equality to have a positive impact on nonmarital fertility. This hypothesis centers on the theories of gender role conflict (Beaglaoich, Sarma and Morrison 2014), economic independence (Becker 1981), and valuing children more highly than marriage (Edin and Kefalas 2005).

The study presented here leads to a better understanding of the relationship between gender equality and nonmarital fertility and the main goal of this paper is to unpack this relationship. Its focus is to show how an increase in gender equality affects nonmarital births.

First, however, it will provide a brief review of the relevant literature from which the relationship between nonmarital fertility and gender equality can be theorized in order to provide context for this focus.

GENDER EQUALITY AND FERTILITY

The relationship between gender equality and fertility is multifaceted making it difficult to be comprehensive in addressing the complexities of the gendered social structure (Risman 2004) along with the vast variation in fertility contexts (Mills 2010). While it is clear that gender is a key underlying factor in fertility patterns (McDonald 2000) and scholars have considered gender an important determinant in fertility behaviors, gender issues are generally not explicitly mentioned in discussions of nonmarital fertility. However, literature that considers gender equality and fertility, generally, is important to understand in order to theorize the relationship between gender equality and nonmarital fertility. This section will consider such literature.

Barbara Risman espouses that in order to understand gender as a social structure in society, it must be considered at three levels, individual, interactional, and institutional (2004). Many fertility scholars have aligned with this sentiment arguing the importance of studying gender equality at multiple levels in order to understand its relationship to fertility. Mills, Rindfuss, McDonald, and te Velde (2011), for example, argue that gender equality should be analyzed at three levels: societal, household, and individual (2011). McDonald (2000) argues that gender systems can be assessed through consideration of social, political, and reproductive rights. Others have considered gender equality at two levels: household and institutional (Anderson and Kohler 2015; McDonald 2000). Regardless of the specific context within which

gender is considered, it is important to remember that fertility implications often result from increased or decreased equality at multiple levels.

When gender equality is low at both household and institutional levels, fertility rates are expected to be close to desired levels (McDonald 2000; Anderson and Kohler 2015). Countries with the highest fertility rates in the world fall into this category. An increase in gender equality in these countries with low gender equality at multiple levels is believed to lower fertility rates (McDonald 2000).

This is visible in many countries in Sub-Saharan Africa which have the highest total fertility rates (TFR) in the world. The unequal gendered social structure in many Sub-Saharan African countries is apparent in the numbers of women who believe that they must serve their husbands. Sixty percent of women in Niger (the country with the world's highest TFR), for example, report that their husband is justified in beating them if they burn the food, go out without his permission, neglect the children, or refuse to have sex with him (2012 DHS). At the institutional level, gender inequality is evident in the large gaps which persist between men and women in education and employment (Klasen and Lamanna 2009).

On the other hand, however, greater gender equality in countries with lower TFRs can stabilize or actually increase fertility (Anderson and Kohler 2015; Myrskylä, Kohler, and Billari 2009). However, for this to occur, institutional and household gender equality must both be high. This is still rare, but visible in Scandinavian countries which have policies and organizational arrangements which not only increase gender equality at all levels (Rindfuss, Choe, and Brauner-Otto 2016), but also make it easier to combine work and family life (Morgan and King 2001). Policies that facilitate the combination of work and family life also contribute to long-term positive implications on both institutional and household gender equality. National paid family leave policies, for example give women freedom to work in the fields that they

choose and more autonomy in the workplace. These policies also allow women to have children without having to lose income or exit the workforce, which can decrease the gender wage gap over time. When paid paternal leave is taken, men are more involved in unpaid care work even after the leave time ends (Arnalds, Eydal, Gíslason 2013; Harrington, Van Deusen, Fraone, Eddy, Haas 2014), increasing gender equality in the household.

Countries in this context have fertility rates close to replacement level, but it was not always like this. Take Sweden, for example. Its fertility rate was 1.5 in 1998 and 1999. However, since then, the government has been active in implementing policies with the conscious goal of increasing gender equality. Some of these policies include government-provided childcare services, paid maternal leave, and, as mentioned previously, obligatory paternity leave (Andersson, Knudsen, Neyer, Teschner, Rønsen, Lappegård, Skrede, and Vikat 2014). Now Sweden's fertility rate is 1.9. Sweden, and other Nordic countries serve as examples of how active government initiatives to increase gender equality truly can work.

Countries with very low fertility generally have low levels of household gender equality coupled with high levels of gender equality at the institutional level (Anderson and Kohler 2015; McDonald 2000). High levels of gender equality at the institutional levels does not mean that an equal society or labor force exists, but simply that women have more access to higher education and the workforce now than in the past. Low household gender equality at the household level typically manifests itself as the unequal division of labor.

Furthermore, marriage and parenthood often crystallize gender roles and intensify the gendered division of labor (Mills, Rindfuss, McDonald, and te Velde 2011). Thus, although women may have gained more prominence in the labor market (Kohler, Billari and Ortega 2002), neither workplaces nor men have changed much to accommodate this shift (Coltrane 2000). Arle Hochschild deems this phenomenon "the stalled revolution" (Hochschild and Machung

(1987/2012). The division of labor within the home, including chores and childcare, is still highly gendered, not only in these particular countries, but also in most of the world (Merz and Liefbroer 2012). Worldwide, women spend approximately two-to-ten more time on unpaid household care work than men (Ferrant, Pascando, and Nowacka 2014). This system makes it very difficult to balance work and family, leading some women opt out of motherhood altogether (Merz and Liefbroer 2012) or, potentially, have children outside of heterosexual marriage. The latter will be considered in the following section.

NONMARITAL FERTILITY

While the connection between gender equality and nonmarital fertility is not well understood, it is important to consider the contexts of nonmarital fertility to theorize about the ways in which having children outside of marriage connects to gendered social structures (Risman 2004) both at the household and institutional level. In this section of review, I will consider the breakdown of marriage, the increasing autonomy of women, and gender-role conflict theory. This consideration will lead into a discussion of how key concepts will be operationalized in order to empirically test the relationship between gender equality and nonmarital fertility.

The increase in nonmarital births is often attributed to the breakdown and delay of marriage. Therefore, there are less married women and fewer births occurring within marriage (Gray, Stockhard, and Stone 2006). The strength of this relationship, however, has been debated with some arguing that the breakdown and delay of marriage only plays a small role in the increases in nonmarital birth rates (Ermisch 2009).

The delay of marriage (or choosing to never marry) is often accompanied by increasing rates of cohabitation (Hummer and Hamilton 2010; Kiernan 2002). While cohabitation rates have grown most rapidly in the United States (where approximately sixty percent of nonmarital

births occur within a cohabitating relationship—Lichter 2012) and in Western Europe, cohabitation is becoming increasingly popular in East Asia as well (Kojima 2010), where it often serves as a precursor to marriage. Cohabitating with a significant other is sometimes considered a risk factor for pregnancy (Raley 2001), and, thus, one can expect that as cohabitation rates increase, nonmarital births to heterosexual parents who live together will also increase. Cohabitating couples account for many partnerships that have children outside of marriage, but it is important to note that cohabitation is not the same as marriage. Although cohabitation in the United States is considered "fragile" (Lichter 2012) due to the high rates of breaking apart, some countries have more stable cohabitating relationships, which are sometimes strengthened by the birth of a child (Wu 1995).

The decline in marriage rates and increase in cohabitation can become an injunctive norm (Bute and Jenson 2010). Injunctive norms become internalized through witnessing of the outcomes of peer behaviors and play a large role in the decisions that women make. Thus, if women see their peers have nonmarital births, cohabitate, and delay or bypass marriage, this will seem normal to them and salient to their behavior and the behavior of future generations.

One norm with a pervasive impact on nonmarital childbearing is the permissiveness of premarital sex. Data from the International Social Survey Data Program reveals that respondents in most of the countries of focus in this study do not believe that nonmarital sex is wrong (Widmer, Treas, and Newcomb 2010). Acceptance of nonmarital sex leads to a general expectation of the possibility of births outside of marriage. This corresponds to England, Wu and Shafer's findings that premarital first births first increased primarily due to a rise in premarital sexual behaviors (2013). After this initial increase, changes in the way in which individuals responded to nonmarital conceptions, such as by not marrying, further increased the

rate of births outside of marriage in the United States (England et al. 2013). Additionally, preconception early marriages have become less common (England et al. 2013).

Many of the social and economic gains from marriage for women have diminished (Willis 1999). Further, since women often bear the responsibility for the vast majority of household labor, including the costs and labor of caring for children, and men have traditional been able to remove themselves from many of these obligations (in addition to financial obligations) quite easily, women often find themselves bearing the task of parental work, regardless of relationship status. Seeing peers find themselves in aforementioned situations can make marriage seem less attractive. However, although many women are willing to postpone or eschew marriage altogether, many still place strong value on having children. Edin and Kefalas argue that in low SES communities, especially, there is an extremely high worth placed on having children (as is also the case in certain religious groups, for example Orthodox Jews—Ringel 2007), with many believing that the primary way a woman can be fulfilled is through being a mother (2005:204). They further argue that the lack of opportunity and the daily stressors of poverty often place childbearing and being a good mother as some of the most positive meaning-making activities in life and tangible opportunities to be successful (2005:207). Often marriage does not bring the same level of fulfillment.

Since women with low socioeconomic status frequently see their peers finding fulfillment from childbearing outside of marriage, this becomes an injunctive norm (Bute and Jensen 2010) in these communities. Peer-oriented norms are extremely powerful in influencing behavior; thus, many women choose to follow the same path of those in their community. While the norm of getting married and having kids (in that order) prevails as an overarching norm in many communities worldwide, this is a descriptive norm or what individuals think that most people do and/or what the general population does and thinks most people do (Bute and Jensen 2010).

Research has shown that peer-injunctive norms are much more powerful in influencing behavior than descriptive norms. Therefore, it is not surprising that communities make their own norms based on specific circumstances.

Additionally, in the United States especially, incarceration disproportionately affects young and working-class men (Pettit and Western 2004). This removes numerous men of marriageable age from many communities. Since it is unreasonable to expect women to abstain from sexual activity and fulfilling desires to become mothers if they are not married and fewer men are present, there is a risk of nonmarital births.

Some argue that unequal gender ratios affect the marriage market for college-education women too. According to Birger's research there are 5.5 million college-educated women aged 22 through 29 compared with 4.1 million college educated men within that same demographic in the United States (2015). On the opposite end of the spectrum, China (and many other East Asian countries to a lesser extent) suffer from a surplus of men. Any imbalance in the gender ratio will create difficulties for those who want to marry in particular communities.

Three factors in particular are said to influence the marriage market: 1) the sex ratio, 2) the potential returns of marriage, and 3) the cost of divorce (Freiden 1974). I have already somewhat considered the sex ratio and returns of marriage. In the next section, I will turn to divorce with a special emphasis on its relationship to gender equality.

GENDER EQUALITY AND DIVORCE

Household gender inequality can lead to divorce. Women in heterosexual dual-earner marriages who feel as though they complete more than their fair share of housework possess lower levels of happiness in their marriage and are more likely to initiate divorce than those who believe that they do a fair share. However, the relationship between divorce and household

inequality is not significant for men (Frisco and Williams 2003). This exemplifies that an increase in individual-level autonomy and higher institutional equality (which provide the option for divorce due to financial and legal ability) allows women to remove themselves from household gender inequality. Therefore, women are able to divorce and marry a new (hopefully more gender equitable) partner or remain single (and still have the option to have a child).

If women leave men who do not do their fair share of housework, men will have to either change, stay single, or find traditional women. One would expect the long-term implications of dissatisfaction in household responsibilities to create a change in household gender inequality. However, it appears as though this is the slowest form of gender equality to change. Nevertheless, as Nordic countries have made it apparent, active policy shifts can help speed this change along.

In the time being, however, household gender inequality is something that women do sometimes opt out of though divorce (Frisco and Williams 2003). Therefore, if this is an option, household inequality may not be as salient in women's lives as institutional gender inequality or deeply-held gendered beliefs. This further strengthens the argument that gender equality increases nonmarital births, because the equality that women feel at other levels outweighs the inequality in the home, allowing them to remove themselves from this inequality (assuming that the labor market allows them to support themselves). It makes sense if gender equality at all other levels is high, but household equality is low, that women would remove themselves from, or not involve themselves in to begin with, the gender inequality at the household level and have children outside of marriage.

GENDER EQUALITY AND NONMARITAL FERTILITY

Marital decision-making processes, gender inequality, and nonmarital fertility can be

partially explained through gender role conflict theory. This is often defined as the socialized male gender role resulting in negative consequences for both men and women (Beaglaoich, Sarma and Morrison 2014). However, it is important to note that this concept only *partially* theorizes the relationship between gender equality and nonmarital fertility because it does not account for those lesbian, queer, or asexual women with no interest in the prospect of a male sexual partner.

Women are continually gaining access to the workforce and increasing economic opportunities. This is accompanied with additional time in educational institutions. These factors take women out of the traditional role of homemaker and full-time caregiver. Since most men are not willing to take on these roles (Coltrane 2000; Hochschild and Machung 1987 /2012; Merz and Liefbroer 2012; Ferrant et al. 2014), this can lead to eschewing marriage or divorcing (Frisco and Williams 2003).

While women with higher socioeconomic status can more easily find economic and work fulfillment than their counterparts with lower levels of SES, many still feel compelled to become mothers. However, this does not necessarily mean that they want to be wives. Women in this demographic who choose to have children alone at older ages in life are often considered "solo mothers" (Murray and Golombok 2005). This is contrasted with "single mothers" who become pregnant young (i.e. Edin and Kefalas 2005). The increase in middle and upper-class women going it alone can be seen in the surge of in-vitro fertilization to single women. In the United Kingdom, for example, in-vitro fertilization for single women increased by 2.5 times between 2001 and 2006 (Human and Fertilisation & Embryology Authority) with numbers continuing to skyrocket in recent years (Jadva, Badger, Morrissette, & Golombok 2009).

"Solo mothers" are not only a phenomenon in the U.S. and U.K, however. In Israel, for example, researchers (Weissenberg, Landau, Madgar 2007) focused on a particular sperm bank

and found that 60% of women who received sperm declared themselves as single. While the researchers suspect that some of these women are in lesbian partnerships, they conducted in-depth interviews with 60% of these formally single mothers and found that most were parenting alone by choice. Most of the women in their sample were highly educated (over three-quarters with college degrees and one-third of this group with graduate degrees). Almost all of the women held full-time employment, had never been married, and lived in large urban areas.

While this situation and gender role conflict theory appears to be primarily relevant to middle and upper classes, implications of this phenomenon also affect women with lower levels of socioeconomic status. One popular explanation for the rise of single motherhood across all socio-demographic groups, for example, has been that women are less willing to put up with the way that men treat them and abide by the expectations of the role a woman should play. This change is often attributed to the breakdown of consensus about gender roles (Ellwood and Jencks 2004). However, due to the aforementioned value placed on children, some women are less willing to give up the role of being a mother. As mentioned previously, raising children can give women with low socioeconomic status a path for achievement and feelings of accomplishment that neither the labor market nor marriage can provide. While this study cannot disaggregate social class differences, it is important to note the theoretically-derived ways in which gender equality increases nonmarital childbirth for both lower and higher SES women.

CURRENT STUDY

While the issues above allow theorization of the connection between nonmarital fertility and gender equality, extant research does not clearly make this connection. Furthermore, while research has been conducted on fertility and gender equality, these studies do not give attention to the way in which nonmarital fertility is affected by gender equality. Additionally, most extant

research has been encapsulated within a single country or region such as the United States, the United Kingdom, or Israel, thus, is unable to provide a global perspective.

This research fills these gaps in the literature by giving attention and empirically testing whether gender equality affects nonmarital births with data from 35 countries. It provides an understanding of the way in which gender equality generally affects nonmarital fertility, outside of the confines of a particular country. Additionally, by using contemporary data (2000-2014), we are able to understand how recent changes in gender equality have had an impact on contemporary nonmarital fertility in a broad sense (across the contexts of many countries).

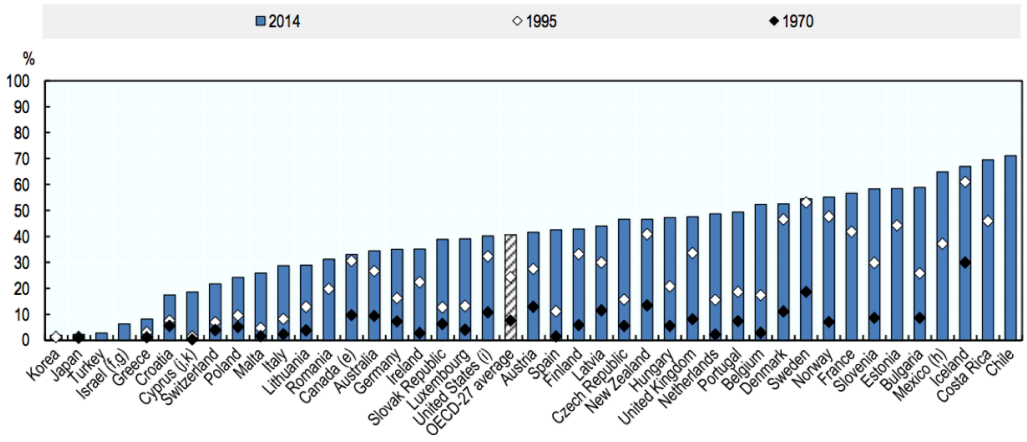
The main goal of this paper is to show how variation in gender equality affects the number of births outside of marriage. Here, I investigate how country-wide levels of gender equality affect the number of births outside of marriage. I hypothesize that gender equality will have a direct impact on nonmarital births. Specifically, I anticipate that gender equality will have a positive effect on nonmarital births (the higher the gender equality recorded in a country, the higher its nonmarital fertility will be).

DATA

I use data from the Organization for Economic Co-operation and Development (OECD), covering 35 countries—OECD member countries and partners—from each continent except Africa. My dependent variable is derived from a dataset entitled *Share of Births Outside of Marriage* which reports on the percentage of live births occurring to women whose marital status at the time of birth is something other than "married." The average percentage of births outside of marriage in all OECD countries is approximately 40%, ranging from close to 2% in Korea and 71% in Chile (2013). While I only use data from 2000-2014, it is important to note that the percentage of births outside of marriage has grown steadily over time in almost all OECD

countries. See the chart below for the range of births outside of marriage and the change from 1970 and 1990.

Figure 1: Share of Births Outside of Marriage, 1970, 1990, and 2014 (or latest available year)



a) Data for Australia refer to 1971
b) Data for France refer to 1998
c) See note a) in Chart SF2.4.A
d) Data for Australia, Canada (1970 only), Japan, Korea and New Zealand refer to ex-nuptial/out-of-wedlock births, that is, where the child's parents are not registered as married to each other (or, for New Zealand only, in a civil union with each other) at the time of the birth. For all other countries, data refer to births to mothers where the mother's marital status at the time of birth was other than married.
e) For Canada (1995 and 2012), births to mothers whose marital status is other than married as a proportion of births where the mother's marital status is recorded. In 2012, the mother's marital status was not recorded on 10% of births.
f) See note d) in Chart SF2.4.A
g) See note e) in Chart SF2.4.A
h) See note f) in Chart SF2.4.A
i) For the United States, data for 1970 are based on estimates
j) See note g) in Chart SF2.4.A

Chart from OECD - Social Policy Division - Directorate of Employment, Labour and Social Affairs

Chile's extremely high proportion of births outside of marriage is potentially due to the fact that Chile is one of few countries where abortion is completely illegal without exception. However, a study from the World Health Organization and the Guttmacher Institute found that abortion rates are not affected by legality and that there is no statistically significant difference in abortion rates between countries with extremely restrictive laws and countries which legally allow abortion upon request, so it is unclear if this is the case (2012). Further research needs to

be done to determine the relationship between abortion rates and births outside of marriage.

My key independent variable is from OECD's *Gender Wage Gap* database, which is defined as the percentage difference between the median earnings of men and women. It is calculated by taking the difference between the median man and woman wage divided by men's median wage for full time employees. It is unadjusted for measures such as education level and age. The gender wage gap ranges from 36.7 in Korea to 3.3 in Belgium (2014). See the chart below (Figure 2) for the most recent values for the countries included in this study.

Figure 2: Gender Wage Gap for 2014

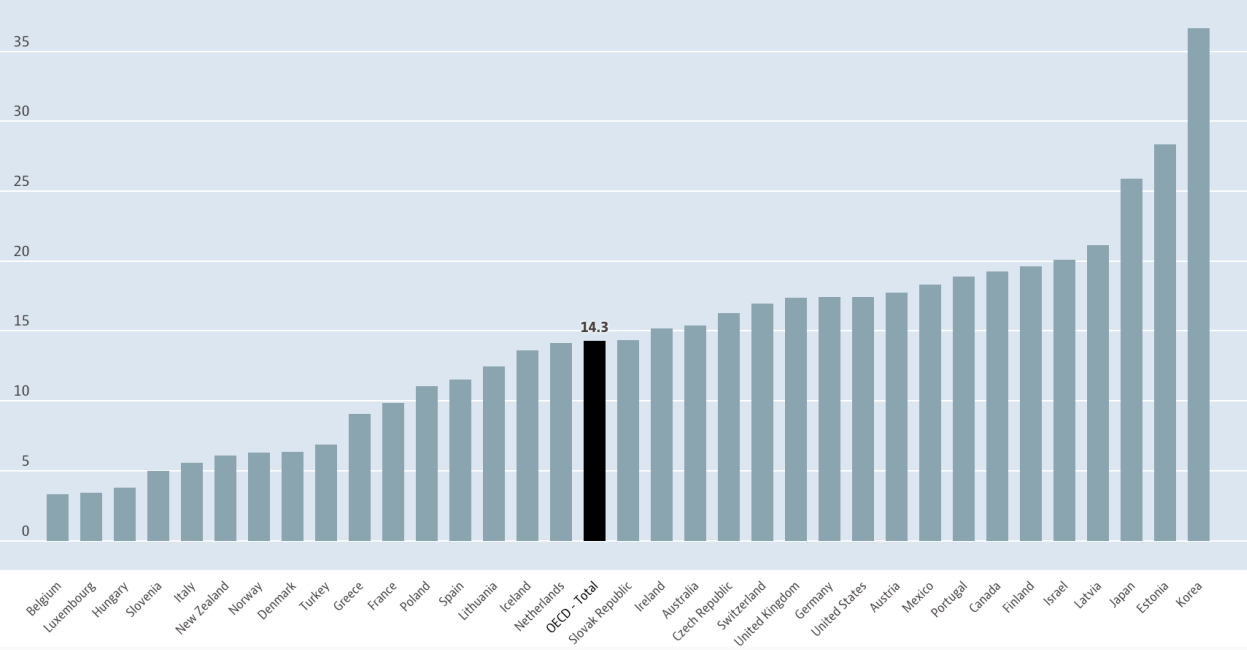


Chart from OECD Key Charts on Employment (https://www.oecd.org/gender/data/employment/)

Utilizing the gender wage gap shows how increasing the economic and social autonomy of women impacts nonmarital fertility. While the gender wage gap does trickle down into household contexts, giving women more power in relationships and allowing them to no longer act as dependents, it is not a perfect measure of gender equality. However, it provides a good start to understanding this phenomenon and, more broadly, the ways in which women are valued

in society. Simply, if women are valued, they will be paid more.

The variable of the gender wage gap impacts gender equality at multiple levels. Perhaps most obviously, it impacts gender equality at the institutional level because women and men are being paid in workplace organizations. It affects household gender equality because women contribute financially to the household and variation in pay between men and women affect relationships and relationship formation (as well as power and potential for dissolution—Schwartz and Gonalons-Pons 2016). At the individual level, decreasing gender wage gaps can impact individual self-worth by giving women the confidence in knowing that they are valued equally to their masculine counterparts and more autonomy.

I also include data on marriage rates in order to understand how declining rates of marriage may or may not be associated with nonmarital births. Since many scholars believe that the increases in nonmarital births are driven by changes in marital behavior (Gray et al 2006; Hummer and Hamilton 2010), this is an important variable to consider. These data come from the OECD dataset *Marriage and Divorce Rates*. I use the crude marriage rates data to determine changes in marital behavior. These data measure the number of marriages per 1000 individuals each year from OECD member countries and partners.

Marriage rates also vary greatly from country to country. For example, the average for all OECD countries is around 4.6, but in the United States and Turkey recent rates are twice that. Italy, Chile, Luxembourg, Portugal, Slovenia, and Spain all have very low marriage rates falling below 3.5 (Figure 3). It is important to note, however, that in almost all OECD countries marriage rates are falling (OECD 2015).

Figure 3: Crude Marriage Rates from 1970, 1995, and 2014 (or latest available year)

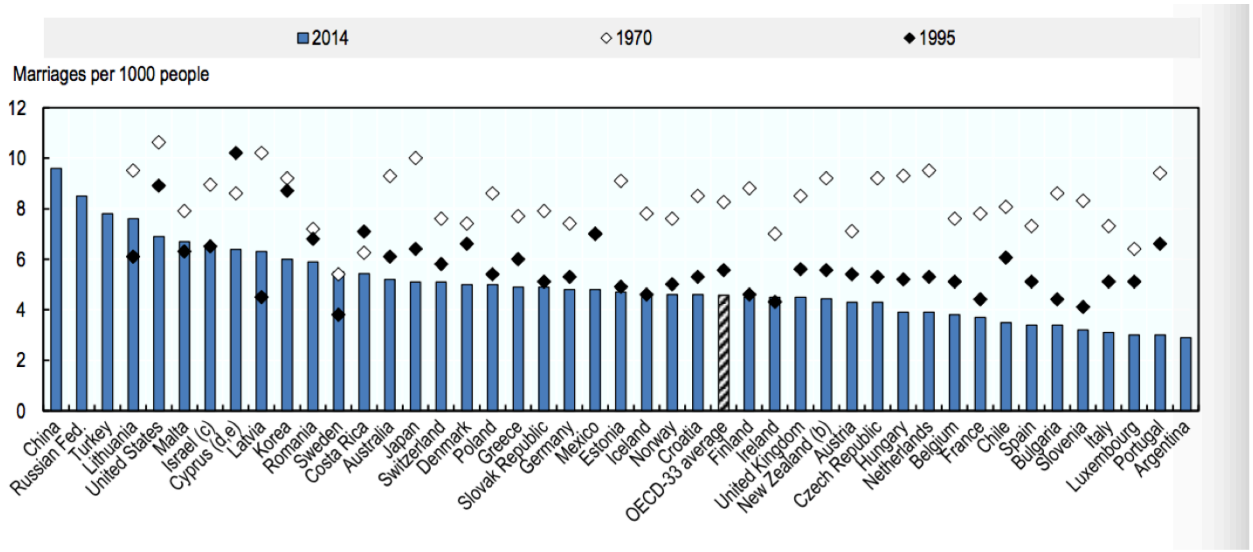


Chart from OECD Social Policy Division (Directorate of Employment, Labor and Social Affairs 2015)

OECD data on divorce rates from the same dataset is also included to test for the relationship between divorce rates and nonmarital fertility, as well as provide an important control. This variable represents the crude divorce rate which is defined as the number of divorces during the year per 1000 people. Divorce rates also vary greatly for the countries included in this study (Figure 4). Chile, for example, has a divorce rate of only 0.1 per 1000 people, but Denmark's rate of divorce is 3.4 (2014).

METHODS

I use Ordinary Least Squares regression in Stata, clustering by country and controlling for years and infant mortality ratio (incorporated as a control for general health) to determine the relationship between the gender wage gap and births outside of marriage. My dependent variable is nonmarital childbearing (share of births outside of marriage) and my independent variables are gender equality (as operationalized as the gender wage gap), crude marriage rates,

and crude divorce rates.

Figure 4: Crude Divorce Rates from 1970, 1995 and 2014 (or latest available year)

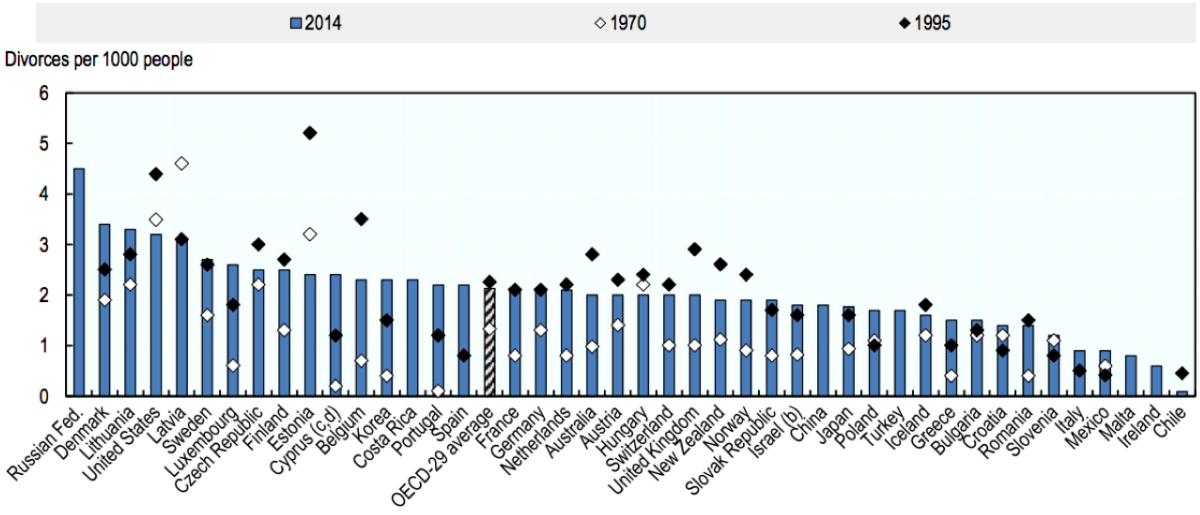


Chart from OECD Social Policy Division (Directorate of Employment, Labor and Social Affairs 2015)

RESULTS

Results of the model examining the relationship between gender equality and nonmarital fertility indicate that the gender wage gap is, indeed, associated with nonmarital fertility. The gender wage gap was found to have a statistically significant negative effect on the share of births outside of marriage. Therefore, as hypothesized, gender equality has a positive effect on nonmarital births, since as the gender gap declines, nonmarital fertility increases (Table 1). Thus, controlling for time and marriage and divorce rates, with every one-unit increase in the gender wage gap, we would expect for the share of births outside of marriage to fall by 0.9%. Therefore, as the gender wage gap closes, we can expect an increase in births outside of marriage.

Table 1: Effects of Gender Equality on Nonmarital Fertility

Predictor Variables	Coefficient	Standard Error	95% Confidence Interval	
Gender Wage Gap	-.90**	.29	-1.49	-.32
Marriage Rate	-4.77	2.41	-9.67	.135
Divorce Rate	5.31	4.18	-3.18	13.81
Year	.33	.24	-.15	.81
Constant	-606.23	474.85	-1571.3	358.75

R-squared = 0.35

*p < = .05, **p < = .01

DISCUSSION

Results make it clear that gender equality must be considered as a factor when examining nonmarital fertility. As shown in the analysis above, the gender wage gap has a significant direct effect on nonmarital fertility. A smaller gender gap obviously gives women more economic power, but also shows an inherent valuing of women (and the work that they do) in society. Gender equality gives women increasing autonomy both within and outside of marriage. Gender equality gives women the power, and societal acceptance, to have children outside of marriage, especially when women are valued as humans, not only as counterparts to men.

While this paper breaks new ground by showing a direct connection between gender equality and nonmarital fertility, it has several limitations. First, it does not incorporate specific measures to understand the specifics of variation among levels of gender as a social structure nor of other important components such as socioeconomic status, sexuality, age, race, nationality, immigrant status, etc. More research should be done in order to adequately understand how gender equality at different levels affects nonmarital fertility for various individual demographics.

This study also does not examine country differences, but, rather, takes a broad approach.

While this improves upon the commonly-conducted isolated country studies for a more comprehensive understanding, it is important to understand how these phenomena differ country by country. Additionally, it is essential to note that while 35 countries were addressed in this study, 162 are not. It is clear that a more widespread study needs to be done to encompass regions not addressed in this study.

Finally, it is apparent that more studies need to be done with a global perspective with regard to nonmarital fertility. In attempting to put together a comprehensive literature review, it was extremely difficult to find work not confined to a particular country conducted on the subject of interest. Thus, more research that takes a global approach is needed.

NEXT STEPS AND FUTURE PROJECT GOALS

I see this paper as a helpful first step in understanding the relationship between gender equality and nonmarital fertility. However, this project will be further developed to provide a more comprehensive understanding. The first step will be to use a more comprehensive measure of gender equality for each country beyond the wage gap. I plan to use the World Economic Forum's global gender gap measure, both the broad measure and the specific components which make up the measure, economic participation and opportunity, educational attainment, health and survival, and political empowerment for each year of focus. While we already know that the gender wage gap matters, this analysis should help in understanding which other components of gender equality are most salient. Additional components of this next step will be expanding the years considered and incorporating additional controls such as infant mortality ratio as a control for health, cohabitation rates, premarital sex acceptance, and family-leave policies.

Next, I plan to attempt to understand the variation in women who give birth outside of marriage. I specifically hope to understand the ages at which women are most at risk to have a

birth outside of marriage and variation in the socioeconomic status of women who give birth outside of marriage. This is theoretically motivated by the aforementioned "single" and "solo" mothers phenomena and anticipates an inverted U-shaped curve of the distribution of births outside of marriage with higher levels of nonmarital fertility occurring for those at the younger and older ends of the spectrum of reproductive ages.

Finally, I will attempt to understand reasons for giving birth outside of marriage. This section expands on the previous section by providing a deeper understanding of the women that choose to give birth outside of marriage. Like the previous goal, it is also motivated by research on "single mothers" and "solo mothers." However, it is specifically inspired by the aforementioned findings/assumptions made by Edin and Kefalas (2005). Particularly, it questions the validity of their assumptions and seeks to update and clarify the reasons that women choose to give birth outside of marriage investigating whether there is actually a true distinction between the reasons given by women with different levels of socioeconomic status.

CONCLUSION

This study makes an important contribution to the fertility literature by showing the influence of gender equality on nonmarital fertility. It specifically shows that as gender equality increases, nonmarital fertility is expected to also increase. This potentially points to a new demographic transition that moves away from the traditional model of nuclear families producing children to one where children are produced by independent women are empowered to become mothers, regardless of marital status, due to increasing levels of societal gender equality.

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