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A Tale of Two Birth Sex Ratios: Patrilineality, Son Preference, and Sex Selection in South Korea and Vietnam

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To be published in *Population and Development Review*

Abstract

In the mid 2000s, South Korea's sex ratio at birth returned to normal levels after nearly two decades of significant abnormality; at the same time, the sex ratios at birth in Vietnam began a swift and dramatic rise. What accounts for these contrasting trajectories? We first discuss in general terms the drivers of gender inequality and offspring sex selection in Asia, then turn to a more in-depth examination of the evolution of SRBs in South Korea and Vietnam. Using historical process tracing to analyze censuses, fertility, health and social surveys, as well as state laws and policies, we identify catalyzing pressures leading to sex ratio alteration, as well as countervailing social forces, through historical process-tracing. We then reflect on what can be learned from the experiences of these two nations moving in apparently opposite directions over a fairly short period of time. We find that while both countries have made strides to improve gender equality and raise the status of daughters, only the South Korean government, prodded by civil society actors, has directly and effectively undermined the legal framework buttressing patrilineality, which we find is a key explanatory factor in the decline in son preference in South Korea.

Introduction

Recent advances in promoting the rights of women and girls globally have been partially offset by increasing enactment of son preference through offspring sex selection, manifested through rising sex ratios at birthⁱ (SRB) and child sex ratios throughout Asia, Eastern Europe, and even parts of Africa in the new century. The past two decades have seen the number of countries with high child sex ratios increase from five to nineteen (Hudson and Den Boer, 2015). In recent history, only one country has managed to reduce its sex ratios at birth from extremely high levels to biologically normal levels: South Korea. South Korea's sex ratios at birth have declined from a peak of 116.5 in 1990 to 106.2 in 2007. While South Korea's sex ratios at birth were declining throughout the early-mid 2000s, the sex ratios at birth of another Asian state, Vietnam, began an erratic rise, reaching 113.8 in 2013 (see Figure 1). How can we explain this recent rise in Vietnam's sex ratios, and are there lessons for Vietnam, or for any country facing abnormal sex ratios at birth, from the experience of South Korea?

FIGURE 1 HERE

To investigate these questions, we first discuss in general terms the drivers of gender inequality and offspring sex selection. We then turn to a more in-depth

examination of the evolution of SRBs in South Korea and Vietnam using historical process-tracing. We then reflect on what can be learned from the experiences of these two nations, which have been moving in apparently opposite directions over a fairly short span of time.

General Drivers of Offspring Sex Selection

Existing research into the causes of high sex ratios at birth points to the key roles played by three factors: son preference, the availability of sex selective technology, and declining fertility. Park and Cho (1995), for example, examined patterns between sex ratios at birth and fertility rates in the East Asian context, noting that the sex ratios at birth were rising in countries with strong son preference and declining fertility throughout the 1980s. The authors explained that the widespread availability of sex selective technologies by the late 1980s, coupled with a desire for sons and a small family norm, had led to the high sex ratios at birth observed for even first born children by 1990 in South Korea. Historically, families in areas of strong son preference could achieve a desired number of sons by having large families—in the presence of economic, environmental, or other population pressures, families could resort to female infanticide or other postnatal forms of discrimination to reduce the number and sex of offspring (Hudson and den Boer 2004), but given the availability of low cost sex selective technology, postnatal discrimination is typically replaced by prenatal sex selection (Goodkind 1996). As Das Gupta et al. suggest, “the availability of sex-selective technology may actually *increase* net proportion of girls ‘missing’, rather than simply substitute for lower-technology methods, by making it easier to discriminate against girls” (2003: 157). Das Gupta et al. further explain that societies in areas of declining fertility experience a “heightened pressure to remove daughters”—the ideal number of sons does not drop in proportion to the drop in fertility, resulting in a squeeze for daughters (2003).

However, it is clear that these three factors are not of equal weight. Low fertility and available means of sex selection will not result in high sex ratios at birth unless there is a strong preference for sons. In addition to being able to access affordable means of sex selection (which includes a legal environment that permits or overlooks its use), Guilmoto argues, parents must also be willing to act on their desire for sons, taking into account religious and ethical considerations that either permit or prohibit sex selection (2009).

Drawing on this explanation of the determinants of the high sex ratios at birth, we further argue that son preference is likely to lead to sex selection only in the presence of additional pressures. There are many nations in the world where the prevalent culture places greater value on sons than daughters, yet not all of these nations exhibit the high birth and early child sex ratios that would indicate that preference has moved to enactment, even in the presence of declining fertility. Rather, preference moves to enactment when certain catalytic pressures are applied in the absence of countervailing forces. In the past, such pressures were often of natural origin, such as famine, but in the twenty-first century, these catalytic pressures are more likely to be man-made; that is, they derive from policies and

incentive structures imposed upon society by national governments in the form of family planning and fertility control.

While the reasons given for son preference across cultures differ—from economic to religious justifications (Das Gupta et al. 2003)—we assert that son preference is rooted in the organization of society along patrilineal lines, and enactment of that preference depends in part on the strength and rigidity of patrilineal practices, in addition to the various factors adumbrated previously. The vast majority of lineage-based groups or clans throughout the world trace descent through the male line, practice patrilocal marriage, and inherit land and property through the male line (Barfield 2010; Eickelman 2002), and this is true of kinship lines in South Korea and Vietnam (Das Gupta et al. 2003; Guilmoto 2012a, 2012b).ⁱⁱ As explained in Hudson et al., (2015), patrilineality permits groups of male relatives to become politically powerful: when conflict arises, a natural alliance is readily at hand, neatly solving the social cooperation problem. But this ready-made allegiance owes much to blood ties; hence scholars have noted the deep importance attached by the clan to biological replication (Barfield 2010). Charrad observes, “The socially meaningful ties unifying the network thus bind men together and bypass women” (2001: 53). Family relations founded on agnatic lineage allow both property and labor, including the reproductive labor of women, to remain within the clan under male control. In societies privileging sons, daughters may be viewed as a drain on the household economy, which is why sex selection historically increased in periods of economic hardship or limited resources such as war or famine (Das Gupta 2010; Hudson and den Boer 2004). Sons are also valued for their role in symbolic or ritual practices to which women are excluded, such as performing necessary religious rites on behalf of ancestors—for the ancestors to be so honored are all male agnatic kin.

Patrilineality’s mechanisms to ensure agnatic control of resources and assets are, we argue, a primary and foundational driver of son preference, and are effected in a number of ways, three of which are particularly effective: 1) patrilocal marriage, 2) inequitable family law, and 3) discriminatory practices regarding property and inheritance. The practice of married couples residing with the husband’s parents in patrilocal marriage ensures that land and property belong exclusively to men, which creates a situation of subordinate status and economic dependence for women. Inequitable family laws that privilege male rights (affecting laws regarding adultery, treatment in marriage, unequal division of assets upon divorce, granting child custody to fathers, etc.) entrench women’s subordinate status within the family and reinforce son preference. Male privilege is further reinforced by laws and practices concerning property and inheritance that keep resources within the patriline. Patrilocal marriage reinforces male inheritance of land and other resources even in states in which women have legal rights to inherit—customary practice in states with strong patrilineal groups often trumps formal law, dictating that resources will be passed on to sons rather than daughters despite the presence of equitable laws (Hudson et al. 2011).

The greater the importance assigned to patrilineal groups in a society, even in the presence of a strong state and gender equitable laws “on the books,” the higher the intensity of son preference. However, as noted previously, preference

need not result in enactment; generally speaking, catalytic pressures are necessary for this to occur. One prime example of a man-made catalytic pressure in a patrilineally-organized society is the enforcement of governmental limits on fertility. When fertility is coercively lowered by the state, son preference will tend towards enactment. This is so because in a patrilineal society the typical family-level solution when no son has yet been born, is to continue to bear children until a son is forthcoming. If that solution is no longer an option, some parents will actively select for a child of male sex, especially at higher birth orders—and access to sex selective technologies significantly lowers the barriers to such selection.

But even though laws, policies, and practices can support patrilineality and serve to subordinate women, these are not immutable. Countervailing social forces, if strong enough, can create an environment in which laws and policies can change, and in which son preference can diminish. As governments and societal groups invest in opportunities for women's education, employment, participation within civil society and decision making within the community and state, the forces buttressing son preference can weaken. Such changes are more likely to arise as states democratize and adopt gender equality norms, or through the pressure applied by women's rights activists or other state or global civil society actors. Unless the patrilineal complex is directly addressed, however, we argue that investment in gender equality will often fall short in reducing son preference.

In summary, sex selection is likely to occur when son preference, rooted in patrilineal laws and practices, turns to enactment in the presence of catalysts that affect the value of sons relative to daughters in an environment that permits sex selection (availability of sex selective technology, moral/legal permissibility, and willingness to act). Conversely, the presence of countervailing forces that alter the environment in which sex selection occurs, and further alter the laws, policies and practices supporting patrilineality—and not simply overall gender equality in society—can help to reduce or eliminate sex selection.

Data and Methods

Our examination into the different trajectories of the sex ratios at birth for South Korea and Vietnam uses the method of process tracing in each of the country cases. Process tracing is a method designed to identify causal inferences and explanations within a historical case—its application involves drawing on theories to explain observed outcomes. First conceived as a method within cognitive psychology, this method is increasingly used to test and develop theories in the social sciences within case studies (see Bennett and Checkel 2015; Beach and Pedersen 2013). For both South Korea and Vietnam we examined state laws, norms, policies, and practices affecting son preference and sex selection over time, drawing on government documents and reports to, and dialogues with, the United Nations Convention on the Elimination of all forms of Discrimination against Women (CEDAW). We further examined census and population data from national statistical offices and surveys for both South Korea (including the National Fertility and Family Health and Welfare Surveys, and Social Surveys) and Vietnam (including Population Change, Labour Force and Family Planning Surveys, and Household Living Standards Surveys). Process tracing enables us to draw inferences about the

effects of different countervailing forces and changes in catalysts to attitudes and practices affecting son preference and sex selection. By comparing the two cases, we are able to draw insights regarding the impact of the different drivers of sex selection on the sex ratio at birth and suggest lessons to be learned for Vietnam or other countries with strong son preference.

South Korea and Vietnam: Background Overview

The two nations examined here, South Korea and Vietnam, both have a strongly patrilineal heritage. Even so, the South Korean government has been more successful in effecting changes to patrilineal practices; the details of that divergence will be presented in the case studies in subsequent sections.

A macro-level comparison of statistical indicators will be helpful background to the process tracing used in the case studies. Despite similarities along such dimensions as ethnic homogeneity (both countries are fairly homogeneous), there are some points of general contrast: South Korea is about a third of the size of Vietnam, and has about 55% of Vietnam's population. While both countries have capitalist economies, Vietnam is a communist country, and South Korea has a parliamentary democracy.ⁱⁱⁱ South Korea is a far richer and more urbanized nation than Vietnam, which is important to note because altering practices regarding gender equality is more challenging in rural areas where male kinship networks may have a strong hold on property and other assets. Table 1 includes indicators that reflect state capacity and development as well as the level of gender equality in the state, including indicators of patrilineality. Government capacity in South Korea is higher, with a significantly higher pension rate and lower maternal mortality rate. The situation of women is similar in both countries in terms of the low fertility rate and high female life expectancy (the life expectancy for women in Vietnam is very high given its low level of development). Both countries have low levels of women's political representation, but only Vietnam's reaches the global average of 23% (IPU 2016), suggesting that the communist government in Vietnam has had greater success in promoting women's political power. Vietnam also has higher female employment than South Korea, but lags behind in female secondary education, age of marriage, and rate of adolescent births.

Table 1 here

The situation of women in Vietnam appears somewhat worse than for women in South Korea in terms of the syndrome of patrilineal system-based effects. The higher level of violence against women, inequity in family law, greater incidence of early marriage, and prevalence of patrilocal marriage for Vietnam suggest that patrilineal practices are more prevalent than in South Korea. Thus, even though some indicators point to a situation of gender equality in Vietnam, the foundational elements of patrilineality remain more intact in Vietnam than in South Korea. This brief analysis demonstrates the importance of looking beyond typical indicators of gender equality in order to see gender discrimination and gain a better understanding of the roots and effects of son preference.

We turn now to a more focused and in-depth process-tracing of change over time in the SRBs of the two nations, looking for both drivers and countervailing forces in enactment of son preference over time.

Son Preference and Sex Selection in South Korea

“One son is worth 10 daughters.” (traditional saying)

“One daughter raised well is worth 10 sons.” (Korean government media campaign, 1978)

By 1990, South Korea’s sex ratio at birth had climbed from a normal ratio just ten years earlier to 116.5 (KOSIS). By 2007, the SRB was back down to 106.2, well within the normal range. Recent fertility surveys demonstrate that the desired sex ratio for offspring has also shifted from a consistently masculine sex ratio (above 100 males per 100 females) prior to 2003 to a feminine sex ratio of 86 in 2012 (Kim et al 2012). One South Korean woman with three sons summed up the *volte-face* in this manner: “When I tell people I have three sons and no daughter, they say they are sorry for my misfortune . . . Within a generation, I have turned from the luckiest woman possible to a pitiful mother” (Choe 2007). And indeed, the change arguably came within *less* than a generation, despite conventional wisdom suggesting such swift social change would be unlikely. How did this come about?

Since South Korea enjoys the distinction of being the only nation in the contemporary era that has successfully normalized extremely skewed sex ratios at birth, policymakers and scholars look to South Korea for clues concerning how to cope with abnormal sex ratios in other countries. Chung Woo-Jin, a professor at Yonsei University in Seoul, is quoted as saying, “China and India are closely studying South Korea as a trendsetter in Asia. They are curious whether the same social and economic changes can occur in their countries as fast as they did in South Korea’s relatively small and densely populated society” (Choe 2007). A close examination of the actors, policies, and processes leading to the reduction in birth sex ratios will enable us to observe the extent to which countervailing forces—particularly those addressing the actual mechanisms of patrilineality—facilitated the observed changes in practices of sex selection.

Many observers attribute the lowering of the sex ratio at birth in South Korea to economic development. But South Korea was getting rich while its SRB was getting worse: from 1970 to 2000, GDP per capita increased exponentially from USD 299 to USD 22,588 (United Nations Statistics Division 1970-2000). In 1981, the SRB was 107, rising to 109.4 in 1985, peaking at 116.5 in 1990, dropping to 110.2 in 2000, and then declining to a normal ratio (106.2) by 2007 (KOSIS). The overall sex ratio at birth is now 105.3 (2014), and national sex ratios at birth have been within the expected 104-107 range since 2007. The case of South Korea shows that son preference clearly does not necessarily decline with a rise in per capita income—even a sustained and significant rise over three decades as seen in South Korea (or in China, or in India). To understand South Korea’s reversion, we must move beyond wealth as an explanatory variable.

The Road to Abnormal SRBs

Son preference and sex selection in South Korea have a long history. In his 1936 study of sex ratios at birth throughout different parts of the globe, Russell found that the sex ratio of the 5.3 million registered births in Korea between 1921 and 1929 was 113.1 (Russell 1936). This abnormally high sex ratio was likely due to under-registration of female births, but it may also reflect neglect of daughters in a culture that highly favored sons. A desire for at least two sons meant that most Koreans had large families, but the introduction of a nation-wide but non-coercive fertility policy meant that son preference would become more obvious as family sizes dwindled.

In 1961, concerned that the high fertility rate would impede development, the South Korean government adopted a National Family Planning Program that promoted small families (ideally three children), offering economic incentives to women to use contraceptives to prevent unwanted pregnancies. In the 1970s, the South Korea Institute of Health and Social Affairs, along with the Planned Parenthood Federation of Korea, promoted a two-child norm and by 1983 the fertility rate had dropped from 4.5 in 1970 to the below replacement level of 2.06 (KOSIS 1970-2014). In promoting two children as the ideal family size in 1970, the state attempted to reinforce the idea that sons and daughters were both desirable, as reflected in the slogan “Daughter or son, stop at two, and raise well” (Yang 1977: 68). Despite government attempts to equate the value of sons with daughters, having a son was seen as so vital during this time period that 50% of women (68% of rural women) surveyed in 1971 indicated that failure to have a son was a sufficient reason for a husband to have a child with another woman (Yang 1977).

At first, the promotion of the two-child norm in South Korea did not seem to affect the overall birth sex ratio. The 1974 National Fertility Survey, which included data on over 18,000 live births, recorded an SRB of 106.5, but when disaggregated by family size, this normal sex ratio reveals a more complicated picture: the sex ratio for families with three or fewer children was 126.4 compared to a sex ratio of 99.3 for families with four or more children (Park 1983). As Park demonstrates in his analysis of the survey, the sex distribution and number of offspring depended greatly on the sex of the first and second born children—if the first two children were girls, families would continue to have more children, whereas if the first two children were boys, families were more likely to stop having children, thus smaller sized families were skewed in favor of male births overall (Park 1983). Fertility surveys suggested that in the 1970s, the ideal composition of offspring was two sons and one daughter (Park 1983). There is also evidence of discrimination against daughters resulting in higher than expected female infant and child mortality rates in the 1960s and 1970s: mortality statistics from 1960-1979 demonstrate that female children died at a higher rate than males, with almost twice as many females dying as male children aged 1-4 in the period from 1978-1979 (Goodkind 1996).^{iv}

The first slightly-above-normal national birth sex ratio recorded in South Korean censuses occurred in 1975, when a birth sex ratio of 108.1 was reported, which was significantly higher than the 106.5 reported in the 1970 census (Park, 1983).^v Annual birth statistics revealed near normal birth sex ratios until 1984, when the sex ratio reached 108.7 and continued to climb each year thereafter.

Family planning programs throughout the 1980s and early 1990s promoted even smaller families claiming that “even two [children] is too many”; during this period the sex ratio rose to its peak of 116.5. Since the ratio of male to female infant and child deaths had returned to normal or near-normal levels by 1990, the SRB of 116.5 suggests that parents were substituting prenatal sex determination for previous practices of post-natal discrimination against daughters that had resulted in higher female and child mortality rates (Goodkind 1996). The peak in 1990 also demonstrates that culture and traditional beliefs affect practices of sex selection—because the year of the Horse (1990), and to a lesser extent the years of the Tiger and Dragon (1986 and 1988), are considered to be inauspicious for women, fertility decreased and sex ratios rose in these years compared to the year prior to, or after, these zodiac years (Lee and Paik 269). In this period of declining fertility, however, parents expressed strong son preference in national surveys. The 1991 fertility and family health and welfare survey asked wives how necessary it was to have a son: the results point to strong son preference among the population with 40.5% of those surveyed indicated that they “must have a son,” 30.7 % said that it was “good to have a son”, and 28% said that the sex “did not matter” (Kim et al. 2004: Table 8-6). There is a significant difference between son preference and sex selection, however, as only a portion of the population attempted to manipulate the sex of their offspring.

South Korea’s national sex ratio at birth during this time period hid variation according to birth order. As Figure 2 demonstrates, parents manipulated the sex of higher parity births in order to achieve their desired family composition.

FIGURE 2 HERE

The sex ratio for first births was usually within or near the normal range (with the exception of 1990, when the sex ratio at birth was 108.5), suggesting that parents did not attempt to control the sex of offspring for first births. Second and higher order births, however, are skewed towards sons. Since 2006, first and second births have had normal sex ratios, but the sex ratio of third and higher order births was still skewed as late as 2012. The smaller number of higher order births, however, means that the overall sex ratio at birth is not affected.

These national sex ratios at birth also hide geographic variations. In 1990, for example, the sex ratio at birth ranged from 111.3 in the northwest province of Gyeonggi to 124.7 and 130.8 in the Southeastern provinces of Gyeongsangnam and Gyeongsangbuk (KOSIS). This region in the Southeast is known for its conservative and patriarchal attitudes and has long exhibited stronger son preference than other parts of South Korea (Chun and Das Gupta 2009; Kim 2004). The higher sex ratios cannot be explained by a difference in access to ultrasound machines and prenatal sex determination because, as Chun and Das Gupta point out “compared to other provinces, there are not more gynecologists or ultrasound machines in Gyeongsang province to affect sex selective reproductive behavior” (2009: 91; see also Kim 2004); rather, according to Chun and Das Gupta, the explanation seems to lie in the strength of traditional values associated with Confucianism, a deeply patrilineal worldview. Gyeongsangnam and Gyeongsangbuk, along with Daejeon and Busan

(also found in the South), are the only four provincial areas to have slightly high sex ratios at birth in 2014 (KOSIS).^{vi}

Although few South Koreans would refer to themselves as Confucian (only 0.22% of the population identified themselves as followers of Confucianism in the 2005 Census (KOSIS 1970-2014)), Confucian beliefs are strongest in areas dominated by Buddhists, rather than strongholds of the Protestant and Catholic Churches. According to the 2005 Population Census, 53% of South Koreans define themselves as having a religion, and of these 55% are Christian (Protestant and Catholic) and 43% are Buddhist (KOSIS 1970-2014). There are some regional variations for the three dominant religions, and given the closer association between Buddhism and Confucianism (with its emphasis on patrilineal emphasis on filial piety and ancestor worship), it is not surprising to observe that Buddhism is most dominant in the southeastern provinces of North and South Gyeongsang (an area that includes the cities of Daegu and Busan) where the birth and juvenile sex ratios were the highest in the nation.

In their analysis of the effect of religion and socioeconomic factors on the sex ratio at birth in South Korea in 1994 and 2000, Kim and Song found that at a regional level, religion, and not socioeconomic conditions, had a significant effect on the sex ratio at birth (Kim and Song 2007). The presence of religion, measured as the number of Protestant churches and Buddhist temples, had an effect on the sex ratio for second and higher order births: the presence of Protestant churches had a dampening effect on the sex ratio for second and higher order births, whereas the presence of Buddhist temples had the opposite effect. Kim and Song suggest that whereas Protestantism is strongly opposed to abortion and ancestor worship, Buddhism has a more ambiguous outlook on abortion and strongly supports ancestor worship, thus making it more likely that Buddhist families would exhibit strong son preference and perhaps be willing to use technology to obtain male offspring.

Are there other factors which might also explain the 1990 regional differences observed in these south eastern provinces? An examination of regional levels of women's economic participation and education yields mixed results: areas with lower levels of women's education (such as in Jeollabuk and Gyeongsangbuk) have both low and high juvenile sex ratios. Similarly, no pattern emerges in terms of women's labor force participation, thus the South Korean case makes plain that women's employment by itself does not seem to have a significant effect on the sex ratio (KNSO 2010).^{vii}

Fertility surveys are useful in uncovering other covariates of son preference: the 2003 national survey compares levels of education, employment, and stated levels of son preference for mothers of 0-4 or more children (Kim et al. 2004, Table 8-7). As one would expect, the highest levels of stated son preference were found among those with three or more sons, and the lowest level of son preference was found among the mothers with no sons (72% of those surveyed had at least one son). Surprisingly, there was little variation in son preference according to the age of the mother, although there were slight variations between the oldest group and the youngest group. Son preference also showed no variation according to employment: women who "stayed home" and those who were employed had similar levels of son

preference. Differences according to the mother's level of education were more significant, however: women with high school education or above expressed lower levels of son preference (only 13.9 of those with High School education and 10.9 percent of those with tertiary level education expressed strong son preference) than women with Primary or Middle-School education (29.5 and 20.8 percent, respectively). In their study of the determinants of son preference, Chung and Das Gupta also found that women's education had the most significant impact in their study of 1991 and 2003 surveys (2007).

The Policy Context of Sex Selection

As mentioned earlier, the enactment of son preference is more easily catalyzed within certain societal contexts. The rise in sex ratios at birth cannot be understood without reference to the South Korean government policy context concerning abortion and fetal sex identification technology. The widespread availability of abortion in South Korea played a key role in both reducing fertility and providing a mechanism for prenatal sex selection. Although abortion in South Korea was criminalized in 1953, the Maternal and Child Health Law of 1973 established a number of exemptions that made abortion more permissible (UNESA n.d.). Despite its illegality, abortions are a common practice, and South Korea has one of the highest abortion rates in the world (rates were reported to be as high as 66 abortions per 100 births in 1990 (Kim, 2004) and estimated at 29.8 per 1000 women aged 15-44 in 2005 (Ahn et al. 2012)). Until very recently, enforcement of abortion laws in South Korea was lax, with only 2-7 cases prosecuted annually.^{viii} In February 2010, South Korea introduced a 'Comprehensive Plan for the Prevention of Illegal Abortion' to crack down on illegal abortions in order to raise the very low birth rate (KWAU 2011). Targeting doctors, a few harsh prosecutions have made examples out of offenders, and in response many obstetricians no longer offer abortions (KWAU 2011). However, two things are of interest. First, although South Korea has stepped up enforcement as of 2010, there is no substantively new legislation on the books that changes the regulation of abortion. Second, the birth-sex ratio in South Korea had already normalized *before* the enforcement was enhanced.

Because prenatal sex selection is only achieved with knowledge of the fetal sex combined with the availability of abortions, rather than tackle abortion, the government attempted to prevent sex selection by prohibiting prenatal sex identification. The government legislated a ban in 1987 (which may have been precipitated by the fact that the sex ratio at birth had reached 112.3 in 1986), which ban took effect in 1988 (Nam 2013).^{ix} While relatively lax on enforcing its laws on abortion, the government did attempt to enforce the 1988 ban on fetal sex identification: in 1990, the licenses of eight physicians were suspended for performing such tests, although some question the efficacy of the ban (Park and Cho 1995). The government strengthened the law in 1994, in an attempt to apply further pressure on the medical community, banning the use of ultrasound machines or other technologies to determine the sex of a fetus. Medical professionals risked fines, imprisonment, and even loss of their medical license for performing prenatal sex determination (Ganatra 2008). Kim explains that prenatal screening

technologies became widely available in urban and rural areas in South Korea, so that physician assistance was not necessary to identify fetal sex. Despite the penalties for violating the law against sex determination and sex selective abortions, South Koreans continued to select for sons (Kim 2004).^x The 1991 National Fertility and Family Health Survey found that women had a very permissive attitude towards sex-selective abortion and reported that 32% of women approved of aborting a fetus because of its sex (Choe and Park 2006). Given that the sex ratio at birth remained at high levels until 2006-2007, it would seem that the fetal sex identification ban did not have a significant effect on the behavior of expectant mothers, though we cannot say if it had an effect on the willingness of physicians to identify fetal sex because fetal sex identification was widely available outside of physician's formal offices.^{xi}

The Policy Context Surrounding Patrilineality

But something even more momentous happened after the ban on physician fetal sex identification was put in place. Throughout the late 1980s, women's rights NGOs were receiving training and support through sessions sponsored by the International Women's Rights Action Watch and UNIFEM, which enabled them to more effectively challenge issues of gender inequality in the state. The women's rights movement focused their attention on the patrilineal institution of the family register and family law (Cho 2000). South Korea's family law revolved around its traditional patrilineal clans and their interests. Women were not considered full members with equal rights in their birth clan, and upon marriage they were removed from their birth family's clan register yet were not considered members of their husband's clan. Furthermore, the husband could determine unilaterally where the married couple would live, ensuring patrilocality could be practiced. In a sense, then, women were "homeless." As is typical in patrilineal societies, resources were kept fairly strictly within the male line. The early attempts of activists to pressure the government to change family laws were met with extreme opposition—the patriarchal practices of the "head of family" register system called the *hoju* were designed to strengthen family bonds as well as link families to state rule, thus attempts to revise the law were viewed as an attack on state order and state nationalism (Cho 2013).

Although women had been granted their first rights of inheritance in 1977, the laws were still fairly unequal in nature. Daughters only received 25% of the inheritance that their brothers received, fathers had complete child custody rights in divorce, and division of assets after divorce was highly unequal favoring men. Following state ratification of CEDAW in 1984, local NGOs and women's activists were supported by global actors in applying pressure to the government to revise family law (Nam 2010). Concluding observations from CEDAW, the UN Commission on Human Rights and the Committee overseeing the Economic, Social and Cultural Rights Convention (CESCR) all expressed concerns regarding South Korea's Family Law, urging the state to bring its family law in line with principles of gender equality (Nam 2010). In 1989 (and effected beginning in 1991), the first wave of revision to family law began, stemming from lawsuits invoking the Korean Constitution's provision in Article 36(1) that "Marriage and family life shall be entered into and

sustained on the basis of individual dignity and equality of the sexes, and the State shall do everything in its power to achieve that goal” (see also Cho n.d.).

The 1991 revisions brought significant changes: the new law asserted that a married couple’s domicile had to be decided jointly; it provided that the wife’s name would be entered into her husband’s family register and his could be entered into her family’s register if he so chose; there would no longer be an automatic paternal right to child custody; and the inheritance shares of daughters and sons would be equal. While the 1991 revisions struck at the taproot of patrilineality, it is also true that it took several years for people, especially in rural areas, to become aware that the law had changed (Kim 1994). Nevertheless, the government continued to revise family law. In 1998, courts for the first time ruled that a child could acquire South Korean nationality through its maternal line. Previously, only the paternal line could bestow citizenship rights (Chang and Kim 2005).

The most significant changes to the laws upholding patrilineality, however, came at the turn of the century. The Citizens for the Abolition of the Head-of-family System, an alliance of over 130 civic groups organized by feminist activist Kwang-soon Ko-Eun in 2000, campaigned throughout the state to garner support for their demands for revising family law (Nam 2010). In 2003, the government revised laws permitting women to head households, and the number of female-headed households began to slowly increase (CEDAW 2007a). Interestingly, the majority of married women in a 2003 study, when asked why sons were necessary, replied that sons were needed for psychological satisfaction and family happiness, and only a minority indicated that sons were necessary for maintaining the family line or for retirement/economic reasons (Kim et al 2003: Table 8-8). These responses suggest that the patrilineal and material benefits previously associated with sons had declined greatly by 2003—a year that corresponded with a drop in the sex ratio at birth (108.7), which, for the first time, was not followed by a subsequent rise (the sex ratio had been slightly erratic during the previous five years), but rather, was followed by a continuous decline until the sex ratio reached normal ratios in 2007.

The civic alliance then brought a law suit against the state which claimed that the revised family law was still unconstitutional and in 2005, the unfavorable headship system was eliminated, meaning that women are no longer legally subordinate to the male family head (Nam 2010). The Constitutional Court in South Korea declared that the hoju system was unconstitutional because it violated the constitutional right to gender equality. In its place would be a new system of family registration, in which every family member would now have his or her own individual record book. In addition, children could use the mother’s surname if both parents agreed, and take the surname of a stepfather even without agreement of the biological father. Children of unmarried mothers would be permitted to have their mother’s surname. Stepchildren and adopted children would now have full legal and inheritance rights. The right to unilaterally dispose of property within marriage was eliminated, and the equal right of both spouses to the marital home asserted. Also in 2005, the government enacted a Framework Act on Healthy Families, which stipulated that the government would promote an equitable family culture (CEDAW 2007a).

These changes marked the beginning of other legal gains for women that marked a married woman as a distinct, equal and autonomous individual. Law enforcement related to domestic violence has been enhanced, for example, followed by a decrease in domestic violence-related arrests (CEDAW 2007a). In 2009, a court ruling found marital rape unconstitutional, establishing a precedent in the absence of explicit criminalization by prosecuting cases (*Korea Times* 2009). A law specifically criminalizing marital rape was later passed in 2013. Although there is still room for additional progress, South Korea has continued to march toward the legal protection of women within marriage, undercutting patrilineality.

Patrilocality and Eldercare

As patrilineality was significantly undermined, so, too, was patrilocal marriage, along with the expectation that one's son(s) will provide old-age support. Attitudes towards the responsibilities of sons to provide financial and emotional care for elderly parents have been changing rapidly, as the role traditionally held by sons is replaced by the state and by the elderly themselves. This change has been accompanied by a shift from the multi-generation household to the nuclear household. In 1980, 80% of the elderly lived with one of their children, but this has decreased significantly over the years (Kim and Cook 2011). In 1990, 49.6% of those aged 65 and over were living in households with more than three generations, dropping to 30.8% in 2000 (KOSTAT 2005). In rural areas, where multi-generational households were once common, a 2012 survey recorded that only 20.9% of the elderly population lived with their offspring (KOSTAT 2012).^{xii} Of particular importance to our discussion of patrilocality is the fact that the number of parents living with the eldest son has declined dramatically. According to a 2014 nationwide Social Survey, 50.2% of elderly parents are now supporting themselves and only 10.1% are supported by the eldest son (in comparison with 46.3% self-support and 22.7% eldest son support in 2002 (KOSTAT 2014, 2002)).

Although the government is working towards meeting the care needs of the elderly, through the provision of subsidized healthcare, pensions, and cash allowances, the system still cannot be considered comprehensive (CEDAW 2007a and 2007b). In 2013, only 37.6% of the elderly population received a state pension (KOSTAT 2014). Some South Koreans are too old to have paid into the pension, or are among the 47% of the population not covered by the National Pension Service, and the South Korean government still “denies welfare to people whose children are deemed capable of supporting them” (Choe 2013).

The decline in the multigenerational household has necessitated other changes as well, such as greater government investment in child care centers, making it possible for women to work after childbirth, even in the absence of grandparents to look after the grandchildren. In 1991, the government promulgated the Child Care Act, aimed at increasing the provision of early childhood education and care, making it easier for women to continue working after childbirth. As a result of increased financial support for early childhood education, the number of childcare centers increased from 1919 in 1990 to 29,823 in 2007 (Peng 2011).

Urbanisation has also contributed to rapidly changing attitudes towards caring for elderly parents, both from the perspective of the children and from the

parents. As Chung and Das Gupta note, the fact that South Korea is now predominantly urban (80%) has undermined traditional patrilineal and patrilocal practices. Daughters no longer move to a patrilocal residence after marriage, and are just as likely as sons to live near their parents and contribute to their economic support, thus weakening the pattern of eldest sons caring for their parents and reducing the gap between the value of daughters and sons (2007). Urban assets are also transferred more easily to both sons and daughters than rural land, which further affects the valuation of daughters. Urban life also makes it possible for the elderly to work longer and save for their retirement through pensions.^{xiii} A further change concerns the growth of care facilities for the elderly as a new economic initiative within the public and private sector. The government has been investing in long-term care facilities for the elderly since 2003. At that time, there were only 230 nursing homes (16,455 beds), but by 2008 the number of nursing homes had quadrupled (Kim and Choi 2013). Within a generation, the mode of family life drastically changed within South Korea.

This undermining of parental expectation that sons would support them could not have taken place without the concomitant decision of the South Korean government to provide old-age insurance. Whether the government has done so meaningfully is a separate question, however, as we previously noted, and is a source of continuing tensions within South Korean society (Kim 2013).

Another interesting factor in the South Korean case is what has *not* changed in terms of gendered expectations. More specifically, Sung Yong Lee (2013) notes that the marriage cost for a groom's family is still three times that incurred by the bride's family, since the groom's family is supposed to procure housing for the new couple. This is clearly a legacy of patrilocal marriage, but the custom is no longer supported by the rest of the patrilineal social structure that made such a large investment rational. Indeed, Lee argues that the normalization of South Korea's sex ratios did not come about because the value of daughters has increased in that nation. Rather, he argues that it is explicitly the value of *sons* that has *decreased* so dramatically in the course of a very few years. Not only is it the case that one can no longer expect a son to provide for a parent in their old age, but at the same time, parents are currently still required by custom to expend much more money to assure a son's place in life (Lee 2013).

Summary

Son preference has significantly declined now in South Korea. In 1976, 61 percent of married women indicated that a son was essential, in 1991, that figure dropped to 40.5 percent, then plummeted to 16.2 percent by 2000, and dropped even further to 8.2 percent in 2012.^{xiv} The sex ratio at birth has also fallen, albeit less dramatically: in 1981 the sex ratio at birth was 107.4 but rose to 116.5 in 1990, and thereafter fell to 106.2 by 2007. During the 1980s, when the sex ratio at birth was rising towards its peak, South Korea's economy tripled from a GDP of US\$2004 (1981) to US\$6626 (1990), and continued to rise to its current level of US\$26482 (2013) (United Nations Statistics Division 1970-2000).

In sum, we see several critical factors at work in the South Korean case:

- An effective legal attack on patrilineality, dismantling its core structures, including those buttressing patrilocality, conducted by an active civil society able to apply sufficient, effective pressure.
- Urbanization and the decline of rural land as inheritance changed the relative value of sons and daughters, with parents now able to transfer goods to and receive goods from both sexes on an equal basis. Without a greater male right to inheritance, parents no longer expect sons and not daughters to support them in old age.
- The provision of some form of old-age insurance to a significant percentage of the population, providing a substitute for the need to have a son to provide elder support.
- The absence of formal, punitive fertility control policies; the fertility rate dropped significantly through shifting norms of preferred family size.
- A ban on physician-provided prenatal sex identification, enforced through the relatively harsh punishment of several physicians, despite abortion being easily available and fetal sex identification being accessible outside of doctors' offices. Thus parents could choose to identify the sex of their fetus, but would do so in a context where physicians would not necessarily facilitate that choice because of the legal norm against it.

The case of South Korea is an important one, for as Goodkind stated in 1999, "South Korea is well noted for having the strongest son preference in the world" (1999: 212). If it is possible for South Korea to revert to normal SRBs after having extremely abnormal masculinized ratios, it may be possible for other countries, as well. We will take up that discussion in the concluding section of the paper.

Son Preference and Sex Selection in Vietnam

*"With one son you have a descendant, with 10 daughters you have nothing."
(Traditional Vietnamese saying (Thanh Nien 2010))*

Vietnam's experience of son preference and sex selection is quite different from that of South Korea. Given that it shares the same foundation of strong son preference (particularly in the north) with South Korea, the first half of the Vietnamese puzzle is why it took so long for son preference to turn into enactment. As Guilmoto *et al* note, Vietnam had a patriarchal system, staunch son preference, trends of demographic and economic modernization, strong family planning regulations and easy access to abortion, all in the context of a fairly homogeneous society (2009). And yet it was not until 2002 that the SRBs of Vietnam began to become abnormal—precisely the time period when South Korea's SRBs were strongly reverting towards normal. The second puzzle of Vietnam is that the velocity with which the SRBs of Vietnam have become abnormal is arguably greater than any other country has yet experienced.

The Vietnamese government has analyzed the patterns and trends associated with the high sex ratios at birth recorded in the 2009 census (GSO 2011), and additional studies have also contributed to our understanding of son preference and sex selection in the state (Guilmoto et al. 2009; Guilmoto 2012b; Pham et al. 2008 and 2010; UNFPA 2009b). Historical process-tracing will be helpful in understanding Vietnam's unusual trajectory, its patrilineal legacy, the role of catalysts, and the effects of any countervailing forces on son preference in the state.

When the socialist state of Vietnam was established in 1954, the government introduced laws to transform gender relations through a new legal, economic, and political system (Bélanger 2002). Indeed, some suggest, "Vietnam is something of a regional leader when it comes to gender equality" (Clark 2009). Despite positive changes to marriage practices (e.g., banning polygamy and encouraging later marriages)^{xv}, improved health, education, and employment opportunities for women, nevertheless gender disparities remained and the desire for sons continued strong in this predominantly rural state.^{xvi} The Vietnamese government's policies of renovation (Đổi Mới) in the mid-1980s to transform the state planned economy into a market economy had detrimental effects on women through job losses and the reinforcement of the relationship between land and kinship resulting from the transfer of land to families following de-collectivization (Bélanger 2002). It is worth remembering from Table 1 that 68.3% of Vietnam's population is currently classified as rural.

Vietnam became a party to the UN women's rights convention (CEDAW) in 1982, since which it has demonstrated some commitment to women's rights through (irregular) submission of reports to the CEDAW Committee and has made some progress towards reducing discrimination against women. The 1992 Constitution prohibits "all acts of discrimination against women," and efforts to improve women's access to education, employment, and political representation has resulted in achievements in all of these areas in the past two decades (CEDAW 2014). Despite these examples of reductions in the gender gap, and despite efforts to create laws to improve gender equality (including the 2006 Gender Equality Law), the state acknowledges that despite increased efforts to create new laws and policies to improve gender equality, discrimination against women still exists (CEDAW 2014).

Son Preference and Patrilineality in Vietnam

Despite efforts to improve gender equality in the state, son preference remains strong throughout most of the country, especially in the north where the original Kinh migrants first settled.^{xvii} The need to have a son is linked to the patrilineal kinship system that is prevalent in Vietnam, as in other parts of Asia. Eldest sons typically inherit the family land and the family home, and are responsible for performing rites on behalf of their dead ancestors, a practice denied to women. One commentator notes, "In nearly every Vietnamese house there is a shrine dedicated to the family line, but it is the job of sons, not daughters, to worship there. When a woman marries it is assumed she will worship her husband's family because according to custom the spirits of her own ancestors cannot enter the house

at the same time as those of her husband” (Brown 2012). Sons are also assigned greater economic value due to patrilocal practices of the eldest son continuing to live in the natal home and caring for parents in old age. As Nguyen Dan Anh of the Vietnam Academy of Social Sciences expressed it, “If you don’t have a son, you are considered finished. You don’t have happiness or luck in your life” (Clark 2009).

In her work in rural north Vietnam, Danièle Bélanger found that one of the primary reasons for valuing sons more than daughters concerned the effect that having a son had on the family’s status and legitimacy within the community (Bélanger 2002). Women who marry a first son are under the greatest pressure to have male offspring to continue the family line, but all women experience at least some pressure to have a son from their extended family as well as from others within the community. In the villages where Bélanger conducted her research, bearing a son was viewed as insurance against polygyny, divorce, and even domestic violence. Because all homes have ancestral altars at which rituals on behalf of dead ancestors are regularly performed, sons are seen as essential. In the absence of a son, the responsibility of performing these rituals (and with it the family home and land) will usually be transferred to a nephew or similar male member of the family, but not to a daughter. Bélanger concludes that a “son’s religious value is unquestionable, and daughters cannot compete with their brothers on this front. Girls hold no intrinsic honor or symbolic value” (2002: 329) In a survey of Vietnamese men in 2012, 70.7% of respondents expressed that a reason to have a boy was for “lineage;” another 51% said old age support; and 49% said “ancestor worship.” At the same time, 75% of respondents correctly predicted there would be a dearth of marriageable girls due to sex-selective abortion in their country (UNFPA, 2012).

The Vietnamese government has attempted to address the privileges given to husbands and sons in terms of property and inheritance by revising family laws. The Law on Marriage and Family (2000) stipulated that both husbands and wives could enter their names on land rights certificates and the 2003 Land Law further stated that share property *must* include both names (CEDAW 2005). In practice, however, records from 2008 indicate that only 10.9% of agricultural land titles included both names, and the rates of joint titling for residential land in rural and urban areas were 18.2% and 29.8% respectively (CEDAW 2014: ¶ 232). Furthermore, in the 2012 UNFPA survey referenced above, only 37% of men surveyed professed knowledge of women’s legal right to equal inheritance (UNFPA 2012). Other aspects of family and property law remain inequitable. Although the law requires that property is distributed equally among kin following the death of a family member without a will, in practice, custom dictates that the eldest son inherits the largest portion, followed by younger sons, and lastly daughters—this is particularly evident in rural and ethnic areas (CEDAW 2005). Indeed, anthropologist Tine Gammeltoft has opined, “it is a huge problem that only sons inherit their parents’ property and daughters get very little – if this was changed, the gender landscape in Vietnam would change dramatically” (Vi and Dien 2014).

Recent updates to the Marriage and Family Law (2014) retain gender inequitable features: women are required “to properly fulfil lofty motherhood functions” and are encouraged to accept customary marriage practices particular to

regions or communities that women's rights groups claim are discriminatory (GENCOMNET et al 2015). One of these discriminatory customary practices concerns child marriage: although the Marriage and Family Law prohibits child marriage (violations carry penalties of two years' imprisonment) (CEDAW 2014), 11 percent of women aged 20-24 were married before the age of 18 (UNICEF 2015). Women are entitled to equal rights to land and property upon the dissolution of marriage, but in practice, customary law can prevent women from receiving an equitable share (CEDAW 2014). Marriage practices that support male kinship ties such as levirate marriage (in which a widow is required to marry a younger brother of her deceased husband) are still common among some ethnic minorities within the state (CEDAW 2005, CEDAW 2014). These examples reinforce the need for states to ensure that laws designed to promote gender equality are enforced, with particular emphasis on groups or regions where patrilineal practices are more rigid.

The government has made strides to support women's rights in the areas of employment and education, which has helped to raise the status of women. Women comprise a significant proportion of the labor force in Vietnam, particularly in areas of agriculture and manufacturing (52% of those employed in both of these areas are women) as well as in health and education (61% and 70% respectively), their income does not usually benefit their natal family (GSO 2008). In her study, Bélanger found that daughters often made significant financial contributions to their parents or siblings, but these were not openly acknowledged and often had to be made through brothers or in secret (2002). Education enrolment rates for both boys and girls have improved in the past two decades, with girls achieving higher rates of enrolment in primary, lower secondary, and upper secondary schools by 2012 (GSO 2012).^{xviii} Investment in daughters' education is a positive sign that the government's gender equality initiatives outside of the family planning context are working, but the persistence of son preference suggests that changes beyond education and employment are necessary to alter attitudes towards the value of sons and daughters. While the state focuses on achieving goals for achieving education for the youth, they have yet to tackle the problem of illiteracy of 2.7 million women and 1.2 million men (GENCOMNET 2015).

There is little government capacity to offer old age insurance that might substitute for patrilineality's emphasis on sons for eldercare. Vietnam's pension policy is relatively new, having been instituted in 1995 for those in the formal economy. Yet despite the fact that contributions are meant to be compulsory, not all employees and employers comply, with the result that only 63% of those expected to be making contributions were doing so in 2006 (Tran 2009). Much of the population is, of course, completely excluded from the social insurance system—those in rural areas, agricultural production, or in the informal sector are not covered (Nguyen and Zhang 2014). A further Social Insurance Law enacted in 2006 attempted to increase coverage through further voluntary contributions and the provision of an old age benefit, but in order to receive the old age benefit, the retiree must have worked for a minimum of 20 years (15 years if hazardous) and contributed social insurance premiums for at least 20 years. In 2010, only 10% of the elderly (above age 60) in Vietnam received a pension, and only 20% of the labor force is currently registered in a state pension program (Castel and Tong 2012). The

World Bank has concluded that Vietnam's current policies are not sustainable in the long run, particularly due to a relatively early retirement age (55 for women, 60 for men) in the context of rising life expectancies (Castel and Tong, 2012). As Vietnam's population ages (currently the elderly comprise 10% of the population), the shortfall will only intensify.

The Policy Context for Vietnam's SRB Trajectory

Vietnam lacks a Civil Registration System to record births, thus sex ratios at birth must be derived from census data or other population surveys. According to the 2014 Inter-Censal Population and Housing Survey, Vietnam has a population of 90.5 million, 33% of which live in urban areas, a total fertility rate of 2.09 and the SRB was 112.2 (113.2 for rural areas and 109.9 for urban areas) (GSO 2015).

Concerned with a high fertility rate (6.3), a large rural population (85% of the 30.2 million), and low levels of development, population control measures were introduced in the northern regions of Vietnam in 1961 through the Ministry of Health (MOH 2011). Couples were encouraged to limit the number of births to 2-3, and family planning clinics providing IUDs were established throughout the River Delta region, with the result that the birth rate dropped to 5.25 by 1975 (MOH 2011). Abortion has also played a role in lowering the fertility rate: abortion has been legal and available on request throughout Vietnam since 1975, pursuant to the Maternal and Child Health Law of 1973.^{xix}

Efforts to reduce population growth were renewed following the end of the war and unification of North and South Vietnam. From 1976-1988, the Communist Party's Congresses produced targets for reduced population growth that were unsuccessful, resulting in a decision in October 1988 by the Council of Ministers to introduce a two-child norm throughout most of the country. A two-child limit was to be imposed on all party members, civil servants and those serving in the military, and covered all those living in urban areas as well as the specific geographic regions of the Red River Delta, the Mekong Delta, the lowlands of the central coastal provinces and the midlands (Vietnam 1988).^{xx} Families of ethnic minorities were permitted to have three children, but there were costs for other families who exceeded the two-child norm in the form of higher rents, the imposition of social support funds, and a prohibition on migrating to urban areas and industrial zones.

In 1993, the government introduced a resolution on family planning that condemned party officials for failing to reduce population growth and introduced further measures to reduce fertility to 1-2 children per family, indicating that there would be repercussions in the form of 'administrative measures' for party members and state employees who failed to implement the new policy (Vietnam, 1993). There was no recognition of the effect of the enforcement of this new policy on the gender balance within families, nor were measures put in place to prevent sex selection at that time. Fines and job penalties were not evenly applied throughout the country, although researchers suggest that they were more likely to be imposed on violators of the policy who were party members, cadres, teachers, or those who lived in the population-dense region of the Red River Delta (Goodkind 1995; Bélanger 2002, 2006).

A decade later, the National Assembly issued Population Ordinance in January 2003 which indicated that families could “actively and voluntarily decide on the number of children, the time to have babies and the duration between child births” (VSCNA 2003). This was the first population policy instituted by the National Assembly, which, along with the Communist Party and the Government of Ministers, shapes and adopts policies within the state, and this defense of reproductive rights was in sharp contrast with the 1988 one-to-two child policy (Pham et al. 2012).

In response to this move, the Communist Party adopted Resolution 47 in 2005, which reinforced the need for the state to control population growth and called for a return to the two-child norm—and the National Assembly revised the Population Ordinance accordingly in 2008 (in effect from January 2009) (Pham et al. 2012:47). The revised Ordinance stated that couples and individuals were obligated to participate in the family planning campaigns of the state in terms of the timing and spacing of births, with a limit of “one or two children, except in special cases prescribed by the Government” (VSCNA 2008). As noted by the press, “A degree of coercion is used to enforce the two-child policy. Communist Party members who have more than two face automatic expulsion and parents are often asked to pay the health and education costs of a third child. More serious sanctions include having land confiscated” (Bennett-Jones 2000).

The 2003 Ordinance also declared that sex selection was illegal, and the consequences of determining the sex of a fetus or aborting fetuses on the basis of their sex were later outlined in the 2006 Decree No. 114 (VCPFC 2006). In 2006, penalties were increased to include fines and license revocations for physicians (Pham et al. 2008). However, it is clear that enforcement is lax. The Vietnamese press has reported that, “Deputy Minister Tien said that the measures to reduce the gender ratio imbalance have been ineffective. Those measures include a ban of medical workers from disclosing the sex of the fetus, and a ban on sex-selective abortion. So far, the authorities have penalized only two private clinics in Hung Yen and Kien Giang provinces for providing sex diagnostic ultrasound services. The nationwide campaign consists of a series of workshops, policy dialogues and parades in Hanoi, Hai Duong and Bac Ninh provinces. There will also be a social media campaign calling on the government and all stakeholders to join hands to end gender-biased sex selection” (Le 2014). Some news sources also report that the government may offer economic incentives to families of girls, offering health insurance and favored status in school admissions and hiring, but these have not yet materialized (Hoang 2013).

The widespread availability and use of abortion services contributes to the masculinization of births. Vietnam’s total abortion rate is estimated to be 83 per 1000 women (or 59.1 abortions per 100 pregnancies), putting it in the top five countries in the world and the top in Asia (Tuoitre 2014). Following the introduction of compulsory family planning, the number of abortions increased dramatically, from 70,000 in 1971 (representing 4.1% of pregnancies) to over 800,000 in 1987 (30.3% of pregnancies), two years after the introduction of the two-child policy, and peaking at 1.37 million abortions in 1993 (43.4%) before declining to current levels of 300,000 abortions in 2012 (17.6%) (Johnston 2014).

Vietnam is currently drafting a new population law to submit to the National Assembly in 2016, which will replace the Population Ordinance. Although the government had originally signaled to the United Nations CEDAW Committee that the new Population Law would allow couples to decide on the number and spacing of children, the current draft proposes to retain the two-child birth policy, but place a ban on abortion after 12 weeks (CEDAW 2015; Economist 2016). However, members of Vietnam's Health Ministry are calling for the state to remove the two child limit, as are Vietnamese demographers: as Bang Nguyen Pham argues, the existing population policy "has now dramatically impacted on Vietnam's population profile, with distortions in the SRB extending into early childhood, and progressive population ageing. This policy no longer serves the needs of contemporary Vietnam. Relaxing Vietnam's policy on birth control is one direct adjustment that the new Law can take to slow down the rapid pace of TFR decline, and thereby, slow down the ageing of the population" (Pham 2014: 238). In its 2014 report to CEDAW, the government noted that its National Strategy on Gender Equality for the 2011-2020 period aims to ensure that the "birth ratio does not exceed 113 boys/100 girls in 2015 and 115/100 in 2020" (CEDAW 2014: ¶201). This official acceptance of a rising SRB as high as 115 in 2020 clearly raises doubts about whether the government is serious about tackling Vietnam's growing gender imbalance.

Effecting change in gender equality in Vietnam is made more difficult by the absence of a strong civil society in the state, particularly in the area of women's rights. Although the country's primary women's organization, the Vietnam Women's Union (VWU), has over 13 million members (many of whom are compulsory members), it is not independent from the government and is unable to effectively challenge state policies. As a result, the VWU tends to reinforce gender stereotypes that support male privilege within the family and wider society (Waibel 2013). The fact that Vietnam is a communist state can mean that policies will be uniformly adopted and enforced throughout the single-party state, but the absence of opposition groups can also mean that the state can move slowly to adopt policies—as of 2015, the government had not yet implemented measures to promote gender equality stipulated in the 2006 Law on Gender Equality (GENCOMNET et al. 2015).

Analyzing SRB Change in Vietnam

Danièle Bélanger *et al* first raised the question as to whether the sex ratio at birth was rising in Vietnam in a 2003 publication: her team analyzed censuses, hospital records, and smaller surveys to examine sex ratios at birth, finding that while there was evidence of son preference and sex selection for higher birth orders, amongst some groups (farmers, for example) and in some regions (higher sex ratios for some hospital births in the north), there was no evidence that the sex ratio at birth was increasing throughout the nation as a whole (Bélanger et al. 2003). Other scholars argue that population surveys did not provide confirmation of an overall rising sex ratio at birth until 2006 with the publication of the findings from the Population Change Survey, which recorded a nationwide sex ratio at birth of 110 (Pham et al. 2008). Guilimoto, Hoàng, and Van, for example, state that the 1999 census and other demographic surveys, such as the Demographic and Health

Surveys of 1997 and 2002 did not “provide any further strong evidence of active sex selection” (Guilmoto et al. 2009: 1).

However, although the sex ratio at birth recorded in the 1999 census was 107 for the country as a whole, ratios recorded in the sample census survey in 1999 were as high as 123 in Tra Vinh and An Giang (provinces in the southern Mekong Delta region) and 119 in Quang Ninh (in the northeast), or as low as 89 in Bac Ninh (in the Red River Delta region) and were above 108 in 25 provinces (GSO 1999). The small birth sizes in these surveys—these are typically 2 percent surveys—means that any recorded sex ratios are subject to wide error, but the large imbalances in the birth populations should have raised red flags within the government that sex selection may have been occurring at that time.^{xxi} Similarly, the 2002 Demographic and Health Survey recorded sex ratios at birth of 109.4 in 2002 and 111.2 in 2000 (with a low rate of 102.8 for 2001) (GSO 2003: 144), and annual population surveys in 2002 and 2004 indicated very high sex ratios for the 0-4 subpopulation of 111.9 and 114.6 respectively. While these figures were also subject to error given the small samples used, the high ratios, especially given the previous figures for 1999, should have caused real concern among the country’s demographers prior to the 2006 acknowledgement of serious sex ratio alteration (GSO 2007: Table 1.3). (Please see Figure 3.)

FIGURE 3 HERE

Further disaggregation of the sex ratios at birth reveals that even in years when the overall sex ratio appeared to be within the expected range of 105-106 males per 100 female births, some regions within the state were experiencing abnormally high sex ratios at birth. As Table 2 demonstrates, even in 2005, when the overall sex ratio at birth was 105.6, the Red River Delta and Central Highlands areas had ratios of 109.3 and 108.5 respectively.

TABLE 2 HERE

The 2009 census shows further variation even within regions: whereas the Red River Delta region had an overall sex ratio at birth of 115, SRBs ranged from 125.4 in Hưng Yên to a low of 108.7 in Ninh Binh (GSO 2010b). Other regions had similar variations in their sex ratios at birth, as seen in Figure 6.

FIGURE 4 HERE

The 2014 Intercensal Population and Housing Survey recorded the first drop in the sex ratio at birth since 2009—the SRB dropped from 113.8 in 2013 to 112.2 in 2014 (GSO 2015). Even so, the sex ratio at birth has risen greatly in the Northern Midlands and Mountains region (from 108.5 in 2009 to 116.1 in 2014) and in the Mekong River Delta region (from 109.9 to 114.1). At the same time, it has risen only slightly in the Central Highlands (from 105.6 to 108.0) and has dropped in the North and South Central Coast (from 109.7 to 105.5) (GSO 2015: 72). The Red River Delta

region still has higher sex ratios at birth than all other regions at 118.0 (GSO 2015: 72). Noting the high SRB in the Red River Delta region, the 2010 Population Change and Family Planning Survey stated the following: “access to medical services and modern equipment is relatively easy, and the people in this region also have higher levels of education and higher living standards, so they are able and willing to pay for early foetal sex determination services” (GSO 2010a: 52).

It is important to note that unlike South Korea, strong son preference in Vietnam has not resulted in postnatal discrimination manifested in higher female infant mortality rates or gender discrimination in nutrition or healthcare for children (Bélanger 2002; Haughton and Haughton 1997); the infant mortality rate in 2013 was 17.4 for males and 13.2 for females, yielding the expected ratio of a higher proportion of male infant deaths (GSO 2013). Figures for child mortality are also significantly higher for males than females, with a male under-five mortality rate of 29.9 and a female rate of 15.8 (GSO 2013).^{xxiii} Thus while sex ratios at birth reflect sex selection arising from son preference, that preference does not result in differential care to male and female children’s health.

Asian sex ratio at birth data is often fraught with over- or under-counting errors, particularly if revealing births can lead to the imposition of fines or other penalties. In their analysis of different sources of sex ratio at birth data (the annual population surveys, birth records from public health facilities, and births recorded in the vital registration system), Pham *et al* found varying degrees of bias and inconsistency among all three sets of data (Pham et al. 2010). Even so, taken as a whole, the evidence does support the presence of a skewed sex ratio at the national level, as well as in the Red River Delta region.

Surveys seeking information about prenatal sex determination demonstrate the ease with which women can access ultrasound and other reproductive health technologies—as discussed earlier, availability of sex selective technology is one of the three key conditions necessary for sex selection. According to the 2013 Population Change and Family Planning Survey, 83% of women who gave birth between 2007 and 2013 knew the sex of the fetus prior to birth (GSO 2013: Table 5.9). The percent of rural women having knowledge of the sex of their fetus had increased from 66.5% in 2007 to 82% in 2013, whereas the percentage of urban women dropped slightly from 88.1% to 85.1% during this period. The figures are lower for women who have no formal education (36.8%) compared with those who have completed upper secondary school or above (86.8%). 99.2% of those having knowledge of the sex of the fetus obtained that information through ultrasound technology (GSO 2013: Table 5.11). Ultrasound technology is widely available throughout urban and rural areas, and the costs of having a scan are sufficiently low (equivalent to US\$2.50-3.50) that most women can afford to have several scans throughout their pregnancies (Pham et al. 2008). Indeed, there appears to have been a ten-fold increase in ultrasound availability between 1998 and 2007 (New Scientist 2009).

Furthermore, survey data suggests that son preference, expressed in terms of the desired number of sons, has significant regional variance: survey responses across regions reflect the variation found in the observed sex ratios. The 2013 Population Survey asked women who had given birth in the previous two years

about the desired sex of their fetus, 57.3% had no preference, 31.2% desired a son, and 11.5% desired a daughter; women in the Red River Delta region expressed the highest degree of son preference with 40.5% desiring a son, and the Southeast region had the lowest figure of 20.9% (GSO 2013, Table 5.12). This preference for sons, particularly in the northern region, correlates well with the prevalence of patrilineal practices in the state. According to the sample survey in the 2009 census, 80 percent of extended households (with a married son or daughter living with parents) are comprised of married sons, but there are strong regional patterns with the highest proportion of patrilineal households (87 percent of extended families or higher) in the northern provinces, and the lowest proportion (43 to 72 percent) generally found in the central highlands and southern provinces (GSO 2011).

Whereas in South Korea, sex ratios at birth are generally close to normal levels for first births and rise significantly with second and higher order births, in Vietnam sex ratios at birth are higher for first births than second births. Analysis of the 15% sample survey conducted during the 2009 census reveals that the sex ratios at birth between 2008 and 2009 was 110.2 for first births, 109.0 for second, and 115.5 for third or higher order births (which comprise just 16% of all births) (GSO 2011a). The sex ratio for third births is significantly higher (131.9) in the absence of a son than for those families who have at least one son (107.0), suggesting that families seeking to have at least one son do resort to sex selective technologies to ensure a male offspring (GSO 2011a). The 2011 Population Change and Family Planning Survey further disaggregated national ratios by urban and rural areas, the results of which are found in Table 3.

TABLE 3 HERE

According to the 2011 survey, sex selection in rural areas was more likely occurring for second and higher order births, whereas sex selection was likely occurring for births of all orders in urban areas, with particular emphasis on first and third births. Population surveys since 2006 have placed great emphasis on learning the characteristics of women who give birth to more than two children, analyzing their level of education, rural/urban residence, socio-economic region, and the sex of previous children, with the expected results that women who give birth to three or more children are typically rural (17% of rural women aged 15-49 in 2010 had three or more births compared with 9.5% of urban women), and are less educated (for example, 45% of those having three or more births in 2010 had no formal education) (GSO 2010a). There is no strong regional pattern to third order births (five of the six regions have percentages between 11 and 18), with the exception of the Central Highlands region, where 29% of women aged 15-49 had a third or higher order birth in 2010 (GSO 2010a: Table 5.7). This could be due to the higher numbers of ethnic groups in the Central Highlands—the 2010 survey states “The Central Highlands is also a region with a high concentration of ethnic minority people, approach of contraceptives and communication means on family planning is a bit limited” (GSO 2010a).

Even so, information on sex selection is widely available, despite the Government's attempts to control access to that information by destroying books on sex selection and shutting down internet sites advertising sex selection services (Chatterjee 2009). Indeed, some account for Vietnam's late rise in SRB as resulting not from a lack of will to enact son preference, but rather from the country's delayed access to ultrasound machines, with Guilмото noting, "The widespread use of ultrasound began in the early 2000s with the import of new equipment such as 3-D scans" (Guilмото 2012b). The proposed lifting of the two-child policy, advocated by the Health Ministry, would likely be more effective than limiting the now-small number of higher order births.

Summary

The sex ratio at birth in Vietnam has risen from 107.3 in 2000 to 112.2 in 2014. There is no indication that son preference is declining in the state, and every indication that parents are continuing to turn to sex selection technology to choose the sex of their offspring (particularly in the Red River Delta and Northern Midlands and Mountains regions). As in the South Korean case, an increasingly abnormal SRB trend occurred in a context of steady economic development. Per capita GDP has risen fast in Vietnam: it was less than US\$94 in 1989, and moved above US\$1302 in 2010 (United Nations Statistics Division n.d.). Now considered a middle income country, Vietnam's agriculture accounted for only 20% of GDP in 2010 (World Bank 2010).

Utilizing the same list of factors we identified in the South Korean summary, we see a marked divergence between the two cases. In Vietnam, we find:

- no effective legal attack on patrilineality, no real attempt to dismantle its core structures, including those buttressing patrilocality; continued importance of sons to inherit land and perform ancestor worship, indicating weak civil society influence, making it difficult to apply pressure on the state to revise laws and policies that reinforce traditional gender roles and create inequality
- no provision of some form of old-age insurance to the bulk of the population, which might provide a substitute for the need to have a son to provide elder support
- the presence of fertility control policies enforced by semi-coercive means.
- the role of land in economic life remains very important in a country where the population is still predominantly rural, with 68% classified as rural, and the value of women remains tied to their role as mothers of sons in rural communities
- no apparent effort to enforce the ban on prenatal sex identification by physicians, in a context where abortion and fetal sex identification is easily available

Implications of the Experiences of South Korea and Vietnam

"I think that we can learn lessons from South Korea." (Ho Xuan, head of Bac Ninh Province's Population and Family Planning Department, Vietnam, Vie Nam News, 2012)

It is our contention that both demographers and policymakers can learn from this process-tracing exercise concerning the sex ratios at birth of South Korea and Vietnam.

First, as many have begun to note, increasing wealth and increasing levels of education may be simply orthogonal to the enactment of son preference. As Nicholas Eberstadt avers, "As we have seen, sudden steep increases in SRBs are by no means inconsistent with continuing improvements in levels of per capita income and female education—or, for that matter, with legal strictures against sex-selective abortion" (Eberstadt 2011). South Korea's greatest rise in SRBs coincided with its greatest rise in GNP per capita and level of education. In similar fashion, though not experiencing quite the same economic ascent on the world stage, Vietnam has also seen its SRBs turn highly abnormal in a time of significantly increasing wealth and education. The same can also be said of China and India: as *The Economist* notes, "Though son preference is often seen as "backwards"—a product of poverty and insularity—sex-selective abortion is actually independent of wealth and income. It is highest, for example, in some of the richest, most open parts of China and India, such as Guangdong province in southern China and Haryana state in north India" (*The Economist* 2011).

This finding is noteworthy from a policy perspective. The assumption that sex ratios will normalize over time as a country progresses in its economic development may be unwarranted. The case studies of South Korea and Vietnam show that specific attention must be paid to the roots of son preference as well as to enactment catalysts in order for a rise in sex ratios in son-preferring societies to be deterred. The fact that so many nations of the world are, in fact, son-preferring cultures suggests that identifying the most important keys to this puzzle is a task that is not limited to Asia in its utility and urgency. As noted earlier, the list of countries in which SRBs are abnormal is not decreasing in length; rather, that list is growing, and its members are not confined to Asia (see also Bongaarts and Guilmo 2015). As Eberstadt puts it, "Two of the key factors associated with unnatural upsurges in nationwide SRBs—low or sub-replacement fertility levels and easy access to inexpensive prenatal gender-determination technology—will likely be present in an increasing number of low-income societies in the years and decades immediately ahead" (2011).

This is thus not a puzzle of the past, or even of the present. This is a puzzle of the past, present, *and* future. What do South Korea and Vietnam teach us? As Ho Xuan expressed in this section's epigraph, can South Korea teach Vietnam—and by extension, China and other nations—how to normalize abnormal SRBs, or prevent abnormalities from occurring in the first place?

Our first observation is intuitive: catalyzing son preference enactment is not wise. Countries worried about SRB abnormality should not coerce fertility limitation. There is ample evidence from across geographic regions that fertility will fall naturally even without birth limitation policies. Allowing it to fall without

intervention may help to prevent the steep rise in SRBs that we saw in South Korea's past and that we currently see in Vietnam.

Our second observation is also fairly intuitive: making fetal sex identification and sex-selective abortion illegal *for physicians*, and actually punishing doctors for infractions—while at first glance seemingly ineffective in a context where such identification methods are freely available outside doctors' offices—are nevertheless important legal steps for two reasons. First, they make clear to the entire society that the state will not condone son preference. This is a legal norm with great societal import. Second, by putting the onus on doctors and holding only doctors accountable, the medical community becomes a dampening force on the persistence of son preference enactment within the society. Over time, that dampening force can be crucial in the velocity of progress. Nations such as the United Kingdom, which had not had a son preference enactment problem since the Middle Ages, have in the early 21st century felt the need to create such legal penalties for medical personnel for these very reasons.

A third conclusion emerges from our examination of the two cases is one that is perhaps less intuitive than the previous two. With others cited in this paper, we conclude it is insufficient to raise the status of daughters by addressing only typical indicators of gender inequality (i.e. education, employment, political representation) in order to normalize SRBs. A focus on raising the status of daughters further admits and highlights that daughters are in truth not as valuable as sons, and implies that extraordinary means must be employed to artificially lift their value. It is an acquiescence, not a resistance, to son preference. Rather, we feel that what the South Korean case teaches us is that to effectively attenuate son preference entails striking at the foundations of patrilineality to eliminate the roots of male privilege by *lowering the value of sons*. And here the government, civil society groups, families, and individuals, all have a part to play in altering the laws, policies and practices that stem from that privilege.

The effect of the government on patrilineal practices is one that needs closer analysis. To understand its role in supporting or undermining patrilineality, it is useful to first step back and consider the problem of individual security more broadly. Ultimately, there are currently *only two alternative answers* to the problem of individual security—state government and patrilineality. Where state government is weak or oppressive, the only structure capable of providing effective individual security is the kin group, almost always defined agnatically. Rather than leave the individual defenseless against the power of the state, patrilineal clans were “authority structures capable of countering other authority structures,” available to many, even most, within the society simply by fact of birth (Beck 1990: 192).

It is critical to understand that patrilineal clans *cannot exist* without the subordination of female interests to the goals of the male members of the clan (Fukuyama, 2011). The fierceness and the sensitivity with which the subordinate status of women in patrilineal societies is guarded by the men of these societies testifies to this proposition. Charrad observes, “Women represent a potential source of rupture in the web uniting the men of the patrilineage” (2001:55). Under the logic of patrilineality, men—and not women—must therefore control assets, whether these be children or land or cattle, else the power of the clan will dissipate.

These observations set the stage for understanding how South Korea was so effective in normalizing its sex ratio, despite the fact that scholars opine South Korea had one of the highest levels of son preference of any human society. The South Korean government, especially its courts, attacked patrilineality at its roots, stripping males of privilege in inheritance, control of assets and children, and even in ability to create lineage. Indeed, the South Korean government might be viewed as following in the footsteps of the Catholic Church during Middle Ages. Many scholars attribute the drastic decline of agnatic kin group power in Western Europe during this time period in part to the Catholic Church's insistence on inheritance rights for widows and the denial of such rights to other agnatic kin (Fukuyama 2011; Goody 1983; Hartman 2004). Likewise, the South Korean case suggests that interference in the reproduction of agnatic kin exclusivity by improving the legal situation of women in marriage has great potential to subvert patrilineality. Those with the least power under the system of agnatic kin groups—women—may ironically possess the key to the system's entire dismantlement.

What the South Korean government accomplished, then, was not only the elevation of the status of daughters, but a lowering of the value and privilege assigned to sons. By eliminating all male privilege in inheritance, in lineage formation, and in control of assets—and enforcing this elimination in a nation increasingly urban and therefore not as dependent on land—the value of sons has decreased. Furthermore, one of the sole remaining legacies of patrilocality—the patrilineal custom that the groom's family is responsible for finding housing for a new couple—has diminished the value of sons relative to daughters. Now it became sons and not daughters that were the children upon whom parents lose their money. Furthermore, because daughters and sons inherit equally, sons are no longer expected to provide for parents in old age to a greater degree than daughters. The South Korean government's provision of old age insurance, even though still somewhat unreliable, has lessened reliance on patrilineal groups for individual security.

We want to stress that these changes in patrilineal laws and practices could not have been accomplished without the pressures applied by civil society actors in South Korea—women's groups, for example, were instrumental in bringing about changes in discriminatory family laws and practices in the state. Their efforts were supported by pressures applied from the international women's rights regime, particularly CEDAW. Urbanization has its role to play as well—the reduced focus on rural land assets and the shift from multi-generational to nuclear households facilitated by urban living have further diminished the importance of patrilineal practices. The country of South Korea is also smaller, both in territory and population, than Vietnam, perhaps making policy change easier to disseminate and enforce.

Can either Vietnam or other countries such as China emulate what South Korea has done? Even if fertility controls were lifted in both countries, there are at least three contextual variables that are relevant in addressing that question. In China and Vietnam, a key contextual variable—the degree of dependence on land as an asset, related to degree of urbanization—may work against both countries. Land is the asset most stubbornly held in the patriline, no matter what laws on the books

might say. And if land matters, as it still does in Vietnam and China, then the patriline continues to matter, to the detriment of daughters. A second consideration is that where the patrilineal system is strong, civil society tends to be a weaker force, and states that have not yet internalized norms of gender equality may find it more difficult to alter the practices supporting son preference. Even so, the South Korean case suggests that tenacity can overcome some of these obstacles. A third contextual variable concerns the state's capacity to provide security for its citizens. As we have discussed, if the state is perceived as weak and incapable, or alternatively as corrupt and indifferent, then male kinship networks will seek to provide their own security. In such societies, even in the absence of fertility pressures, families may respond to this insecure environment by practicing sex selection as they seek to strengthen the male kinship alliance responsible for security provision.

Pending change in these contextual factors, which will surely come eventually, what might Vietnam and other countries do to help revert their abnormal SRBs? The South Korean case suggests some answers: Coercive fertility limitation policies should be removed. Old age insurance must be broadly provided, and it should provide a meaningful level of reliable support. Laws punishing the collusion of physicians with fetal sex identification and sex-selective laws must be publicly enforced. Finally, the laws that Vietnam and other nations already have on the books instituting equality in marriage and asset control in marriage/inheritance must be aggressively enforced, rather than the lax enforcement we see today. Vietnam and other nations might well consider an additional step taken by South Korea—equalizing women's rights in lineage formation by allowing women and men the right to choose their surname upon marriage and the right to equally choose the surname of their children. (And of course one last consideration for Vietnam is its hemorrhaging of the female sex not only at birth, but in the young adult cohort due to the export of young women as brides and prostitutes to China, Taiwan, and South Korea. It is not just the sex ratio at birth that should concern policymakers in Ho Chi Minh City.)

In sum, this “tale of two SRBs” has been instructive in helping to clarify some of the most proximate causes of the enactment of son preference, with the core mechanism being patrilineality. Any attempts to revert birth sex ratios must at a minimum be mindful of and attempt to undermine the components of patrilineal control codified in official or customary law. As the list of nations enacting son preference lamentably grows longer in the twenty-first century, these insights may be of increasing import over time.

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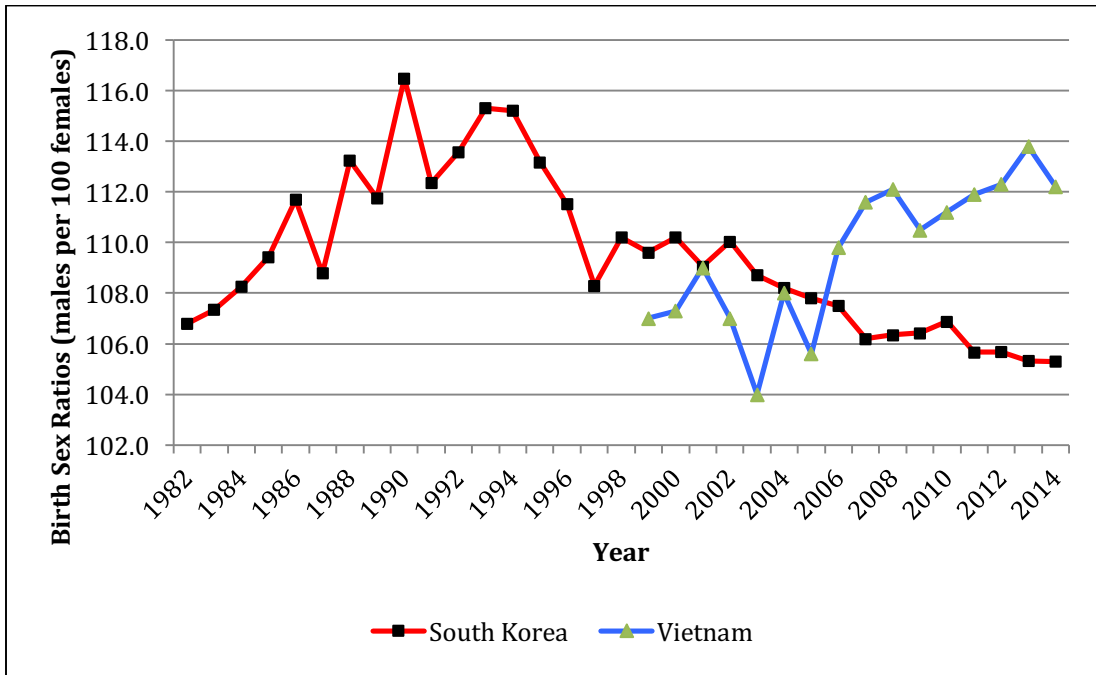
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TABLES AND FIGURES

Figure 1: Sex Ratios at Birth, South Korea and Vietnam, 1981-2014



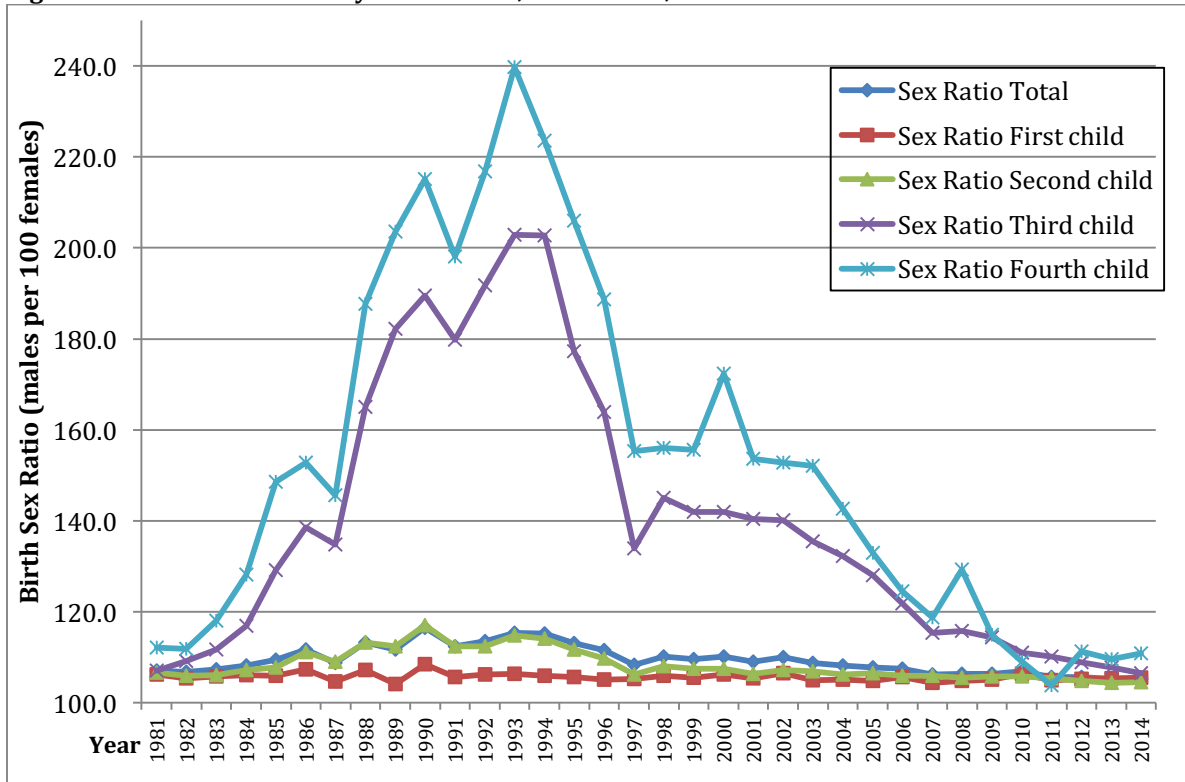
Sources: Korea: KOSIS, Korea Statistical Information Service: Statistical Database kosis.kr.
Vietnam: 1999-2013 data from GSO 2013 and GSO 2014.

Table 1: Comparing Socio-Economic and Gender Indicators for Vietnam and South Korea

Indicator	Vietnam	South Korea
GNI per capita (male, 2011 PPP\$)	5,655	38,990
GNI per capita (female, 2011 PPP\$)	4,147	21,795
Female Labor force participation rate (% aged 15+)	73	50
% Old age pension recipient	35	78
% Share parliament seats held by women	24	16
% Females with some secondary education	59	77
Rural population (% of total population)	68	18
Maternal mortality rate (deaths per 100,000 live births)	59	16
Mean age at marriage	23	29
Total fertility rate (births per woman)	1.8	1.3
Adolescent birth rate (births per 1,000 women aged 15-19)	29	2.2
Female life expectancy	85	81
Physical Violence Against Women (lower score indicates better)	3	2
Degree of Inequity in Family Law (")	3	2
Age of First Marriage for Women in Practice (")	1	0
Property Rights for Women in Practice (")	2	2
Prevalence of Patrilocal Marriage (lower score indicates less)	2	1

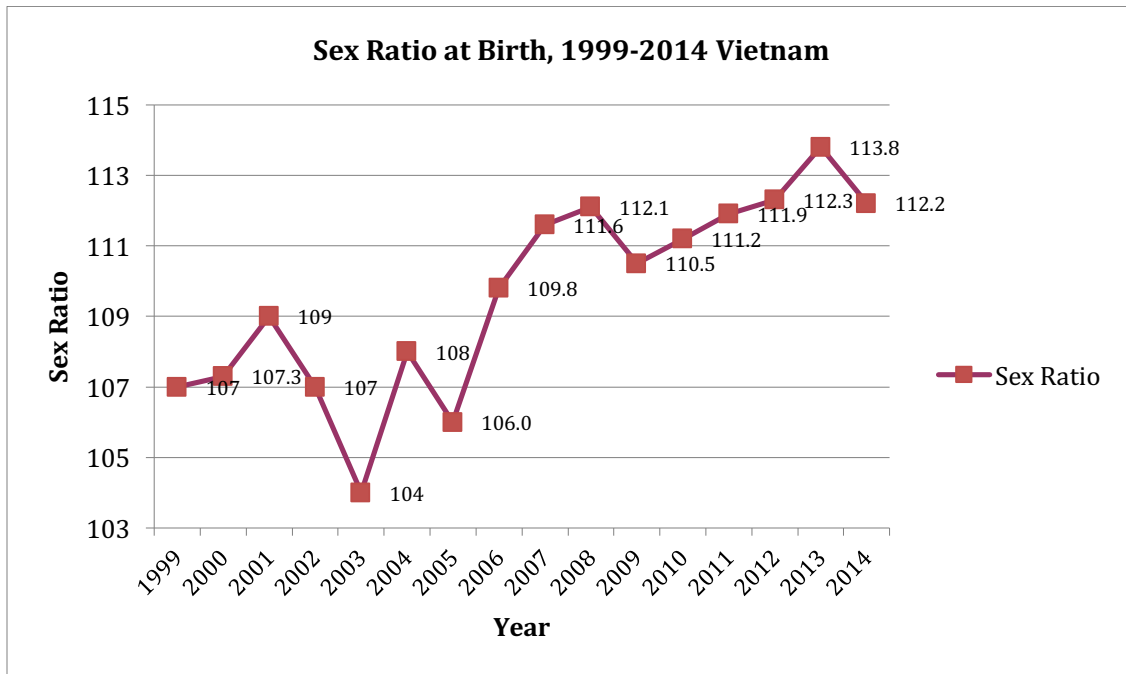
Sources: Data from Human Development Report 2014, at <http://hdr.undp.org/en/data>, with the exception of the figures for rural population (see World Development Indicators, last updated 12/19/2014), and the statistics for mean age of marriage (KNSO 2011, and GSO 2010a). Ordinal scales from The WomanStats Database, <http://womanstats.org> (the WomanStats figures for physical violence and inequity in family law are from five point scales [0-4], and age of marriage, property rights for women, and prevalence of patrilocal marriage are three point scales [0-2]—lower numbers in all scales indicate a better situation for women).

Figure 2: Sex Ratio at Birth by Birth Order, 1981-2014, South Korea



Source: KOSIS, Korea Statistical Database.

Figure 3: Sex Ratio at Birth in Vietnam, 1999-2014



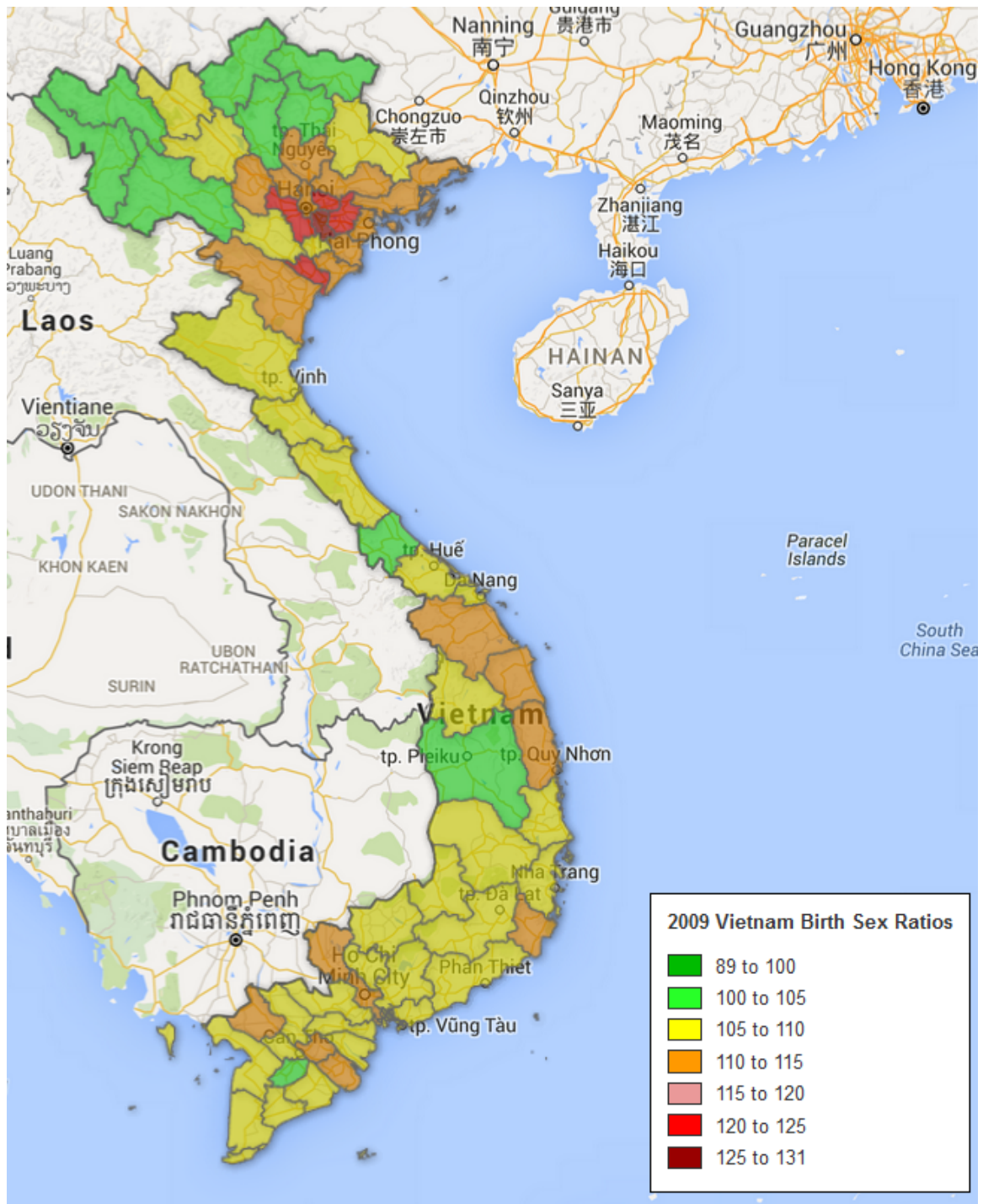
Sources: GSO 2013; GSO 2014.

Table 2: Sex Ratios at Birth by Region, Vietnam, 2005-2013

Region/Year	2005	2007	2008	2009	2010	2011	2012	2013
Vietnam (Total)	105.6	111.6	112.1	110.5	111.2	111.9	112.3	113.8
Red River Delta	109.3	110.8	119.0	115.3	116.2	122.4	120.9	124.6
Northern Midlands and Mountain Areas	101.8	109.1	114.2	108.5	109.9	110.4	108.2	112.4
North Central and Central Coastal Areas	104.7	112.4	108.2	109.7	114.3	103.3	112.1	112.3
Central Highlands	108.5	117.3	116.7	105.6	108.2	104.3	98.4	114.1
South East	106.8	117.5	116.8	109.9	105.9	108.8	111.9	114.2
Mekong River Delta	103.8	107.9	102.8	109.9	108.3	114.9	111.5	103.8

Source: General Statistics Office, Vietnam, Statistical Data: Population and Employment: Sex Ratio at Birth by Region, at www.gso.gov.vn. (The GSO has not provided sex ratios at birth for 2006 by region.)

Figure 4: Sex ratios at Birth by province/major city, Vietnam, 2009



Source: GSO 2010b.

Table 3: Vietnam Sex ratio at birth by urban/rural residence and birth order, 2011

	Total	First birth order	Second birth order	Third and higher birth order
National total	111.9	109.7	111.9	119.7
Urban	114.2	115.6	110.2	120.8
Rural	111.1	107.4	112.6	119.4

Source: GSO 2011a.

NOTES

- ⁱ Sex ratios at birth, recorded as the number of male births per 100 female births, is expected to be approximately 105-106. For a discussion of the factors affecting the sex ratio at birth, see Waldren (1998).
- ⁱⁱ Even in the rare matrilineal societies, power, land, and resources are still held by male kin, in the form of brothers from a particular mother.
- ⁱⁱⁱ There is no obvious link between regime type and sex ratios—China and India have divergent styles of governance but both have strong son preference and high sex ratios. Civil society is much weaker in Vietnam, because the government does not allow the establishment of independent human rights groups, which can limit the pressure that women’s groups can apply. That said, examining CEDAW reports suggests that the state is fairly open to external human rights pressures regarding gender equality (CEDAW 2000, CEDAW 2005, CEDAW 2014).
- ^{iv} The ratio of male/female deaths was 0.53 during that period according to Goodkind, 1996.
- ^v The age 0 sex ratio in 1966 was slightly high at 107.5, but the sex ratios at birth for 1955 and 1960 were below 106. See Park, 1983: 350.
- ^{vi} The sex ratios at birth for total births in Busan, Daejeon, Gyeongbuk and Gyeongnam are 107.2, 108.2, 107.6 and 108.0 (KOSIS). Gyeongbuk and Gyeongnam also have unusually high sex ratios at birth for first order births at 111.1 and 109.0 respectively (KOSIS).
- ^{vii} The type of women’s employment could have an effect (i.e. manual labor vs. professional employment), but this information was not available by region from the Korean National Statistics Office.
- ^{viii} For example, in 2006, 37 cases were reported, but only five were prosecuted. See KWAU 2011.
- ^{ix} It should be noted that in 2009, the ban was eased so that after 32 weeks, prenatal sex identification is permitted.
- ^x In 1990, for example, there were an estimated 422,000 abortions, which means that 40% of all pregnancies that year were terminated by abortion. See Kim, 2004.
- ^{xi} The UNFPA claims that the laws banning prenatal sex determination were effective and helped to reduce sex selection. See UNFPA 2011.
- ^{xii} Evidence of shifting attitudes toward elder care can be found in the recent phenomenon of a ballooning elderly suicide rate. Newspapers carry harrowing tales of elderly South Koreans who drained savings to facilitate children’s success, expecting that the children would in turn care for their parents – only for the parents to find themselves abandoned. See Choe 2007.
- ^{xiii} In 2006, 67% of those aged 65 and over believed that it was the responsibility of family members to take care of the elderly, but that figure had dropped to 38% in 2010—the majority of elderly parents are now working to higher ages and have plans in place to ensure their economic well being after retirement. Statistics Korea, *2011 Statistics on the Aged*, 29 September 2011, at www.kostat.go.kr.
- ^{xiv} 1976 and 1991 figures are reported in Cho and Hong, 1996; 2000 and 2012 figures are from the 2012 National Survey on Fertility, Family Health & Welfare in Korea (Kim et al 2012: Table 5-13). Interestingly, of the women surveyed in 2012, those most likely to say that a son was necessary were women from the youngest age groups—21.7 % of married women aged 15-24 indicated that a son was necessary compared with 7% of women aged 40-44. (See Table 5-15).
- ^{xv} In cases of divorce, their housework is regarded as income generating, and marital property is to be divided into two halves (an improvement over South Korea, where women are entitled to portions of the marital estate varying from one-fifth to one-half). (CEDAW 2000).
- ^{xvi} Interestingly, during the late 1980s and early 1990s, there was actually a dearth of young men of marriageable age due to the legacy of the Vietnam War and outmigration, with 86 marriage-age men per 100 marriage-age women recorded in 1989, and 93:100 in 1999. See Mizoguchi 2010.
- ^{xvii} The Kinh comprise about 89% of the nation’s population (See UNFPA, 2009a). Of them, Guilmoto notes, “The Kinh originated from the northern plains and delta regions, and they progressively expanded southward from the eleventh to the eighteenth century, absorbing local populations of

Chamic and Khmer origins. Uxorilocal residence (in which a married couple lives with or near the wife's parents), on the other hand, is a common feature in the south and constitutes one of the typical traits of its bilateral system. The Mekong River Delta has the largest proportions of families with coresiding married children. But of greater interest here is the share of daughters among coresiding married children: their proportion varies across regions from 12 percent to 41 percent and is twice as large in the south as in the north . . . we do not know whether the relatively woman-friendly attitudes and policies found in parts of Vietnam will be able to withstand the gradual socioeconomic homogenization of Vietnam's population. The fact that prenatal sex selection can also be detected in the largest metropolitan areas such as Hanoi and Ho Chi Minh City suggests that rapid social transformations and the growing employment opportunities for women have not yet substantially eroded traditional gender arrangements" (Guilmoto 2012b: 42). In a related publication, Guilmoto attempts to operationalize degree of patrilineality across the regions of Vietnam by examining % of those heads of households aged 40 and above living with married children and also more specifically with married daughters. This exercise, which the author admits may have reliability problems, yielded mixed results. (Guilmoto 2012a)

^{xviii} According to the 2012 Household Living Standards Survey, net enrolment rates for boys and girls are as follows: 92.2 and 92.7 in primary, 79.8 and 83.0 for lower secondary, and 55.2 and 63.9 for upper secondary. See Table 2.4 in GSO 2012.

^{xix} Abortion was available in North Vietnam from 1971 onwards, but it was illegal in most circumstances in South Vietnam until reunification in 1975.

^{xx} The Decision further outlined the minimum age for childbearing (22 for women, 24 for men for party members, otherwise 19 and 21 for other women and men respectively), and provided details regarding the spacing of children according to the age of the mother. See Vietnam Council of Ministers Decision 162, 1988.

^{xxi} As demographer Christophe Guilmoto points out in his recent examination of sex ratios at birth, a birth population of less than 1000 births is subject to variation in the sex ratios and can range from 93 to 119 and still be considered normal (within a 5% confidence interval). In the case of the 1999 population in Vietnam, the 3% sample used to calculate provincial sex ratios at birth is based on too small a sample to be reliable (birth populations were on average, around 600 births). See Guilmoto 2015.

^{xxii} Figures for 2013 are representative of those throughout the 2000s, with male infants and children under 5 dying at higher rates than females (GSO 2013).