**Who in Korea Marries a Woman from Southeast Asia? Evolution of International Marriages from 1993-2013**

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 **ABSTRACT**

Korea witnessed a large increase in the fraction of men marrying spouses from Southeast Asia. In the 1990s, about 1% of Korean men's new marriages were to Southeast Asian women but by 2005, this increased to over 9% with even higher rates in rural areas. With the use of a logit model and Marriage Register data from 1993-2013, the determinants of international marriages are explored with a more rigorous approach and longer period of observation compared to previous studies. A Korean man having low socioeconomic status and being older were positive predictors of him choosing a wife from Southeast Asia (compared to a fellow Korean). There were differences based on the wife’s birth country: the wife having some college education made it more likely that the marriage was to a Filipino woman, but less likely to someone from China or Vietnam, compared to a marriage to a Korean woman. Finally, we observed changes over time in where the foreign wives are from, their education, and their age at marriage. The data shows fewer women migrating from China and a rising number from Vietnam. This “marriage migration” has implications for the demographics, ethnicity, and occupational composition of those living in Korea.

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1. **Introduction**

One of the most prominent phenomenon in Korea pertaining to immigration involves the extremely rapid increase in marriage migration. That is, many of those immigrating to Korea are doing so through marriages to Korean men and women. The fraction of new marriages of Korean men to immigrants increased nearly tenfold over the period from 1993 to a peak of 9% of all marriages in 2005. Many of these marriages are occurring between Korean men and women coming from low-income Southeast, East, or South Asian countries: The Philippines, Vietnam, Cambodia, Laos, Indonesia, Thailand, Myanmar, Nepal, Pakistan, India, Sri Lanka, Bangladesh, and China. Since most of these countries (and most of the migrating spouses) are in Southeast Asia, for the remainder of the paper, “Southeast Asian” refers specifically to the listed group of low-income Asian countries. The phenomenon is even more pronounced in rural areas where by 2006 almost 17% of Korean men, especially those with a lower socioeconomic status, have married women from Southeast Asia. Given the increasing prevalence of this marriage migration and the resulting shifts in the characteristics of those living in Korea, this study seeks to analyze the patterns of Korean men marrying brides from Southeast Asian countries. The foreign women marrying Korean men tend to have less education, are in lower skilled occupations, and are younger at marriage compared to Korean women. In addition, the data show that over time fewer women are migrating from China (of which about 70% are ethnically Korean), and an increasing fraction of women are migrating from Vietnam. Thus, their migration is changing the demographic characteristics, ethnicities, and socio-economic status of women living in Korea.

There are several possible explanations suggested as the underlying reasons for the large increases in international marriages among Korean men and women to spouses from Southeast Asian countries, especially in rural areas. However, these explanations are not mutually exclusive. First, there has been an exodus of young women from rural areas who are searching for better jobs and more successful husbands in large cities, which has led to unbalanced sex ratios in rural areas in Korea. Thus, less educated and less successful young Korean men in rural areas are faced with the choice of either marrying older Korean women or foreign women, including those from Southeast Asia (Sung, Lee, & Cho, 2015; Morgan & Hoffmann, 2007).

The second explanation argues that there has been an inadequate adjustment for gender equality within Korean families. Korean husbands tend to have very minimal participation in home production and this imposes a large burden on married women. Highly educated, working women may find this burden unbearable and may choose to delay marriage or not marry at all[[1]](#footnote-1) (Kawaguchi & Lee, 2012).

The third feasible explanation could be due to hypergamy, meaning that highly-educated men may marry less-educated women. According to Rose (2006), in the United States highly-educated individuals tend to marry spouses with similar levels of education, but hypergamy has increased recently as less-educated women search aggressively for successful, well-educated men. This phenomenon appears to be occurring in the Korean marriage market as well. Thus, if less-educated and less-successful young men across Korea are having a harder time finding native Koreans to marry, we may also observe those in urban areas choosing to marry Southeast Asian women.

Fourth, literature on Korean and Taiwanese international marriages has shown that young people are hesitant to marry spouses working in agricultural occupations and/or with the burden of taking care of their elderly parents. From migration theory, we know that location choice is not independent from occupational choice, and choosing to marry a spouse in rural areas may severely limit economic opportunities (Christiadi & Cushing, 2008). Given that farming is the main industry in rural areas and many young Korean men there must care for their elderly parents, we could expect that significant numbers of rural Korean men could search for non-Korean brides.[[2]](#footnote-2) This should be especially true for Korean men in agricultural occupations (Jones, 2012; Morgan & Hoffmann, 2007).

Fifth, some local or central governments in Asian countries are actively encouraging international marriages to solve the problem of declining fertility rates. International commercial matchmaking firms are also aggressively promoting marriages to Southeast Asian wives (Jones, 2012).[[3]](#footnote-3) If these factors are important reasons, then we might expect that large numbers of urban Korean men will also marry Southeast Asian brides.

Finally, the literature on international marriages including Lee (2005, 2009) and Kim (2006) emphasizes the recent increase in Korean divorce rates as one of the major determinants of international marriages to spouses from Southeast Asian countries. Lee (2005) suggests that these divorces in Korea have produced large numbers of men and women who are remarrying, and many of whom search for foreign spouses.

This study examines those Korean men who married brides from low income Southeast Asian countries through the analysis of a large and reliable data set of more than seven million observations collected from Korean Marriage Register reports from 1993-2013. Korean law requires every marriage to be registered; thus, all marriages that occurred in Korea during this period are included. These data provide information for both the husband and wife regarding the marriage and various demographic characteristics. Using a logit model, we analyze what affects the likelihood of a marriage by a Korean man to a bride from a Southeast Asian country and how these determinants have changed over time. We additionally perform separate analyses for three major groups of home countries of Southeast Asian wives: The Philippines, China, and other low-income Southeast Asian countries.

We restricted our analyses of marriages to brides from low-income countries in Southeast Asia because they tend to be very different from marriages to American, European, and Japanese brides[[4]](#footnote-4) for several reasons. First, while most of the marriages to Southeast Asian spouses require immigration for one spouse, most of the marriages to American, European, and Japanese[[5]](#footnote-5) spouses are to foreigners already living in Korea for other reasons. Second, the international marriages to Southeast Asian spouses result directly from Korea’s serious demographic problems of declining fertility, delayed marriages, expectations of caring for elderly parents, and poor marriage prospects for less-educated men with depressed economic situations in declining farm economies. Lastly, we believe that examination of the international marriages to Southeast Asian spouses provided an ideal context to test the exchange theory of marriage. For example, rural Korean men might be willing to exchange the social status of Korean citizenship for Southeast Asian women’s young ages and willingness to work in agricultural sectors and to help take care of their husbands’ elderly parents.

While other studies of this phenomenon exist in the literature, this study expands the time period studied and explores changes in the characteristics of both spouses over time. Two closely related studies in the literature were by Morgan and Hoffman (2007) and Kawaguchi and Lee (2012). Morgan and Hoffman (2007) developed hypotheses about the broader, structural factors, including regional sex-ratios that influence Japanese international marriages, many of which may be applicable to Korean marriages. However, their data consisted of prefecture-level averages, so their study did not analyze individual marriage behaviors. While Kawaguchi and Lee (2012) studied the same register data, they explored only the years 2004-2005, whereas the current analysis uses data from 1993-2013. By including these additional years of data in this study, we could more precisely analyze the phenomenon of international marriage and explore changes in the marriages over time. Some other studies of Korean international marriages used survey data for certain regions and time periods and some used the Korean Marriage Register data, however, most of these studies present descriptive statistics without controlling other factors influencing international marriages.

We restricted our analyses to marriages by Korean men who had married Southeast Asian women because marriages of Korean women who married Southeast Asian men were a much smaller group. Moreover, we intend to explore the marriages of Korean women and foreign men in a separate paper in the future.

1. **Literature Review**

In this section, we first discuss the exchange theory of marriages. Then we summarize a survey of literature on international marriages in Southeast and East Asian countries by Jones (2012). We then summarize two major studies on international marriages in Southeast and East Asian countries by Kawaguchi and Lee (2012) and Morgan and Hoffmann (2007). Finally, we review several empirical studies on international marriages in Korea.

First, we consider that the “exchange theory of marriage” may be very applicable to international marriages between Korean men and Southeast Asian women. In particular, the mechanism of mate selection might imply that foreigners provide qualities such as youth, willingness to work in the farm sector, and to help care for their spouses’ elderly parents in exchange for economic security, upward socio-economic mobility, and access to the legal right to live and work in Korea.

The original exchange theory of Davis ([1941](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0005)) and Merton ([1941](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0034)) referred to interracial marriages between African Americans and Caucasians in the United States and argued that an African American spouse's higher socioeconomic status is exchanged for a Caucasian spouse's racial status. Although criticized by some (Rosenfeld, [2005](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0039); Kalmijn, [2010](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0022)), it is currently endorsed by the majority of the literature in its application to interethnic marriages (Furtado, [2006](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0007); Kalmijn & Van Tubergen, [2006](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0023); Qian & Lichter, [2007](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0037); Furtado & Theodoropoulous, [2008](http://onlinelibrary.wiley.com/doi/10.1111/imig.12049/full#imig12049-bib-0008)).

Jones (2012) conducted a comprehensive survey of the existing literature on international marriages in Southeast and East Asian countries. He found that Korea, Taiwan, and Singapore had the highest proportions of citizens marrying foreigners from Southeast and East Asian countries. Despite this growing trend of international marriages, Korea is still one of the world’s most ethnically homogeneous societies. Over half the marriage migrants to Korea are ethnic Koreans, mostly the *Josunjok* people from China. Lee (2009) provides details about the history of *Josunjok* marriage migration to Korea. However, more recently the proportion of Vietnamese brides has grown considerably to 34% of the total number of international marriages as of 2006 (Jones, 2012).

This paper attempts to confirm many of the facts present in Jones**’** (2012) survey of the literature: Korean men in international marriages tend to be older, have wider age gaps between them and their spouses, and have been previously married (Kim, 2008; Lee, 2012; Kim, 2007). In addition, there are observed differences in educational attainment of the foreign women based on their countries of origin. Filipino wives tend to be much more educated than Chinese or Vietnamese women who marry internationally and more educated than their husbands (Kim, 2008). Jones (2012) noticed that farmers and other men in rural areas have trouble finding brides. As young women move to urban areas, the sex ratios at marriageable ages increase sharply, leaving many men in rural areas to look elsewhere for brides.

Kawaguchi and Lee (2012) provided the most rigorous analysis thus far of determinants of international marriage in Japan, Taiwan, Korea, and Singapore. Using a probit model, the authors analyzed data from the Korean Marriage Register Data for only the years of 2004 and 2005. In the current analysis, we expand on these authors’ exploration of international marriages in Korea using data from 1993-2013, so our study covers a 20-year span which we believe will lead to a wider range of findings.

One puzzling factor is that despite the rising number of international marriages, Korean men who have foreign wives often reported that they would prefer native Korean wives. However, many Korean women, particularly those who are well educated, remain single, and reportedly searching for a spouse among native Koreans, cannot find a suitable match. Korean women may be delaying marriage due to increased economic opportunities coupled with a lack of institutional support for working mothers and changing expectations of gender roles in marriages across birth cohorts. As Korean women delay or avoid marriage altogether, this effectively results in a shortage of Korean women available to marry Korean men.

Kawaguchi and Lee (2012) also added two interesting extensions to their main analysis which we replicated using the expanded set of years: a Multinomial Logit model predicting whether the spouse of the Korean man is Korean, Chinese, Filipino, or from another low-income Southeast Asian country as well as robustness checks using imputed income which was not included in the data.

In contrast to the study of individual marriages in Kawaguchi and Lee (2012) and the current paper, Morgan and Hoffmann (2007) investigated the macro-level factors that influence the prevalence of international marriages between Japanese men and women from Southeast Asian countries. They found a higher rate of international marriages in areas that have lower ratios of young women to young men and in rural areas. The authors developed hypotheses about the broader, structural factors that influence these types of unions, particularly in rural areas**:**

1. Many Japanese men in rural areas subsist on manual labor and farming and Japanese women have become increasingly selective and are willing to forego marriage if potential husbands do not meet certain socioeconomic criteria.
2. Many young Japanese women dislike certain cultural aspects of married life common to rural households, and urban areas presumably offer better marriage and career options for them. With young Japanese women choosing to live in urban areas and men often remaining in farming communities, the rural areas of Japan now suffer from increasingly imbalanced sex ratios making it difficult for men to find spouses.
3. Japan's relative affluence attracts women from poorer Asian countries and these women are more accepting of common rural household practices. Many foreign spouses send money and other resources to families in their native countries. So, foreign spouses in rural areas may more likely be from low-income countries.

While this analysis was conducted using Japanese data, many of the same hypotheses apply to the Korean marriage market.

Finally, there have been several empirical studies on international marriages in Korea. Jones (2012) summarized many of these studies and their findings in his survey of the literature. Thus, we next discuss a few additional studies which were either published in Korean or not thoroughly discussed by Jones (2012). Kim (2004, 2007) and Lee (2009) analyzed the results of a sex imbalance at birth caused by prenatal sex screening and sex-selective abortion due to a cultural preference for sons over daughters in Korea. Kim (2004) observed that the sex ratio at birth increased from 109.4 in 1985 to 115.5 in 1994 and that one survey of married women in 1990 implied that 39.6% of total pregnancies of married women were terminated by induced abortions. However, these induced abortions have declined recently due to government intervention and a declining preference for sons over daughters among the younger generation in Korea. While we cannot directly test for selective abortion as a cause of international marriages in the current data, we do see evidence that these international marriages occur in areas with higher sex ratios.

According to Lee (2005), fake marriages among Korean ethnic Chinese brides to Korean men were very prevalent in the early 2000s because these women thought that marriage was the only way to immigrate to Korea. In her survey of restaurants in Seoul in 2004 owned by Korean ethnic Chinese women, she found that well over half of the Korean ethnic Chinese restaurant owners and workers who were married to Korean men had fake marriages. Many of them were already married to men in China who had agreed to divorce on paper (with the intention of continuing their relationship) to allow the women to come to Korea to make money. In these cases, some women had never met their Korean husbands, and many of them had never even lived with their Korean husbands. In 2005, however, the Korean government implemented policies to reduce the number of fake marriages to Korean ethnic Chinese women (Lee, 2008). The effectiveness of this change in policy could be seen in the Marriage Register data where we observed a sharp decline in the fraction of international marriages of Korean men to Chinese women.

1. **Data, Methods, and Descriptive Statistics**

This study utilized Korean Marriage Register data that included all new marriages that occurred in the country between 1993 and 2013. This data is a large and reliable data set of more than 7 million observations collected from marriage register reports. Korean law requires every marriage to be registered. Therefore, the marriage register reports include all marriages occurring in Korea during this period. These data provide information for both the husband and the wife for the following: the year of actual marriage, the year of marriage registration, age, education level, occupation, residence before marriage (including nationality and country of origin for foreigners), and marriage types (first marriage or remarriage).

We explored the various factors that influenced a Korean-born man’s choice to marry a foreign woman. In particular, we focused on those marriages that occurred in 1993-2013 between Korean men and foreign women from low income Asian and Southeast Asian countries: The Philippines, Vietnam, Cambodia, Laos, Indonesia, Thailand, Myanmar, Bhutan, Nepal, Pakistan, India, Sri Lanka, Bangladesh, Mongolia, and China. Even though some of these countries are not Southeast Asian countries, they are referred to as Southeast Asian countries throughout the paper for simplicity. Any naturalized Koreans who were born in other countries were not counted as Koreans in the sample, so any discussion that follows about a “Korean” man or woman is for someone born in Korea.

 Figure 1 here

Figure 1 shows the fraction of marriages of Korean men that were married to Southeast Asian women. We see that in the mid to late 1990s, this fraction was steady around 1-2%. However, in the early 2000s, this number increased significantly up to about 9% of all marriages in 2005. The dip in international marriage rates during the period of 1997-1999 was likely due to the Korean Financial Crisis. The rate of international marriages declined after 2006 for two reasons: the Korean economy had slowed down, and the Korean government had changed its policy from encouraging to restricting international marriages to Korean ethnic Chinese citizens in 2005 (Lee, 2008).

Table 1 shows sample means for men who married Korean women compared to those who married Southeast Asian women. The sample is divided between the years of 1993-2002 and 2003-2013 to illustrate how these international marriages have changed over time.

 Table 1 here

From Table 1, we observe that some of the differences in characteristics of individuals in Korean marriages compared to those in international marriages are constant through the entire period of 1993-2013. We see that Korean men who married Southeast Asian women were predominantly those with lower education as they were much more likely to have only a high school education or less and were less likely to have completed any college coursework. These men were also on average about 8-9 years older than those who had married Korean women. It appears that younger Korean men and those with more education were better able to attract Korean women. In addition, Korean men who married Southeast Asian women were less likely to be marrying for the first time.

Looking at the characteristics of the wives, we see that Korean women also had more education and, in fact, had relatively similar levels of educational attainment compared to their husbands in the later period of 2003-2013. On the other hand, more than 80% of the Southeast Asian wives had only a high school degree or less. Interestingly, while in the early period of 1993-2002, Korean wives were about four years younger at marriage than Southeast Asian wives; after 2002, the age at marriage for both Korean and Southeast Asian women was nearly the same**,** at 29 years. This means that while Korean women’s age at marriage had increased substantially over time, foreign wives’ age at marriage had hardly changed at all. The foreign wives were also less likely to be in their first marriage, similar to the Korean men they had married.

Finally, we explored some locational variables to give us an idea about where these international couples are from. Men who entered international marriages were more likely to be from rural areas and less likely to be from larger metropolitan areas (excluding the Capital Region).[[6]](#footnote-6) The sex ratio variable tells us the ratio of the fraction of the population ages 20-40 that were male over the fraction that were female within the city the couple lived in at the time of marriage.[[7]](#footnote-7) Thus, a sex ratio greater than one means there were more men than women in the city. On average across the sample, there were slightly more females than males (sex ratios < one) since there were many more people living in urban areas which had relatively more women. But compared to Korean couples, couples in an international marriage lived in areas with slightly higher sex ratios (0.9638 vs 0.9534 for the earlier period and 0.9693 vs 0.9474 for the later period). Korean men also had a tendency of marrying foreign women in areas that had a higher fraction of foreign wives.

Table 1 can also provide insight into how the demographics of those in Korean or international marriages have changed over time. Both men and women from either type of marriage were more educated in the later period of 2003-2013, though we still see the pattern of less education among international couples. Although both Korean and Southeast Asian women were more educated in the later period, the education gap between them appears to have widened since so many more Korean women have had some college education. The age at marriage also increased for both men and women. In the earlier years of 1993-2002**,** foreign wives from China (of which about 70% are Korean ethnic group from China) comprised about 92% of the foreign wives. In the latter years of 2003-2013, they comprised only 55% of these foreign wives, whereas the fraction of Vietnamese foreign wives increased from 1.2% to 29.5% over the two periods

When we look at the changes in the sex ratios over time, we observed a decrease in the sex ratio from 0.9534 to 0.9474 for locations where Korean couples live likely due to the increase in women in urban areas. However, for couples in international marriages, the sex ratio slightly increased from 0.9638 to 0.9693, likely because the increasing rates of international marriages in rural areas which typically had relatively more men than women. This provides the evidence that over time the unbalanced sex ratios in rural areas will become a more important contributor to international marriages between Korean men and Southeast Asian women.

Finally, while there was only a small difference between the fraction of men in Korean marriages living in rural areas (10%) compared to the fraction of men in international marriages living in rural areas (13%) in the earlier years of 1993-2002, this divide grew after 2002 (6% vs. 13% respectively). This is because the fraction of Koreans living in rural areas has shrunk substantially over time.

Next, we focus on marriages of individuals living in rural areas since we see that men from these areas are more likely to have foreign wives. Again, we compare those marriages of Korean couples to couples in international marriages in Table 2.

 Table 2 here

In Table 2, we see many of the same patterns as in the previous table. Korean men in rural areas who married Southeast Asian women rather than Korean women were less educated, older, and more likely to be remarrying. In general, both men and women in rural areas, Koreans and non-Koreans, had less education compared to those in non-rural areas but they were more educated in the later period**,** and we observe a widening education gap for Korean women compared to Southeast Asian women similar to the full sample in Table 1. When restricted to only rural areas, we do not see a significant difference in the sex ratio of the area the couples lived in for those in international marriage versus Korean couples. However, again men in international marriages are more likely to live in areas with a larger fraction of Southeast Asian wives.

 A careful look at the characteristics of foreign wives in Table 1 and Table 2 reveals two interesting differences. While there was almost no difference in the average age at marriage in the later period between foreign wives and Korean wives in Table 1, foreign wives were about three years younger than Korean wives in rural areas after 2002. In the early period, foreign wives were substantially more likely to be previously married as shown in Table 1 (11.5% for Korean wives compared to 32.6% for foreign wives). This same difference in remarriage rates is much smaller in the early period in Table 2 (13.6% for Korean wives compared to 22%). This might be because Korean men in agriculture have a strong preference for wives who are young enough to help with farm work and take care of their husbands’ elderly parents. It is worth noting in Table 2 that while in the earlier years, foreign wives were almost three years older at the time of marriage compared to Korean wives; in the later years, foreign wives’ age at marriage was more than three years younger than Korean wives. Interestingly, in the more recent time period, there was almost no difference in remarriage rates between Korean wives and foreign wives living in rural areas. The two observations above might be due to the fact that Korean women’s age at marriage and divorce rates had increased rapidly even in rural areas, and there was a rising number of Vietnamese wives in rural areas who tended to be very young with no previous marriages. In addition, we can see that the fraction of foreign wives in rural areas increased substantially after 2002.

 Figure 2 here

Looking at the four regions in Figure 2, we see stark differences in the rates of international marriages across locations in Korea. Across all regions, the fraction of international marriages was quite low**,** at about 1-2% before 2000. After this point, there were increases in all areas of the country, but the largest increases occurred in rural areas with up to 17% of Korean men who had married women from Southeast Asia.

Table 3 here

Table 3 shows the number of marriages for Korean men and women by region and by the spouses’ countries of origin for the time periods of 1993-2002 and 2003-2013. In both cases, we observed the large increase in international marriages between the two time periods. For comparison, Table 3 also shows the origin countries of Southeast Asian men who have married Korean women during the years of 1993-2013. While both groups have the largest fraction of foreign spouses coming from China (especially in the early period), the foreign wives of Korean men tend to also come from the Philippines and Vietnam, whereas the foreign husbands of Korean women are arriving in large numbers from Pakistan and Taiwan in the later time period. For Korean men, the largest increases in international marriages have occurred among Vietnamese women moving to rural areas. For Korean women, the rates of international marriage are much lower, but we observe marked increases in Seoul after 2002, and see a rising number of Korean women who married men from China, Taiwan,[[8]](#footnote-8) and other low-income countries. Marriages of Korean women to Chinese men represented an increasing fraction of all marriages in each of the other three regions as well.

Figure 3 here

 Figure 3 explores where foreign brides are moving to upon their marriages to Korean men, separately by their countries of origin for the early and late time periods. Each bar represents the fraction of all brides coming from a given country of origin that live in Seoul, Metropolitan Areas, Small/Medium Cities, and Rural Areas. Seoul has the largest fraction for all home countries; however, this is mainly because of how urbanized Korea is. Only about 10% of women emigrating from China had moved to rural areas in both time periods. On the other hand, women emigrating from the Philippines, Vietnam, and other Southeast Asian countries were much more likely than Chinese women to move to small cities or rural areas in the later period. Another interesting fact to note is that over time, Filipino women have appeared to be locating increasingly to urban areas and fewer moving to rural areas: this percentage in rural areas decreased from about 1/3 in the early period to only 17% in the later period. After 2002, there was a shift in where women from Vietnam and other low-income countries who married Korean men were living upon their arrival in Korea. In the earlier years of 1993-2002, most of these women were moving to Seoul, but after 2002, they were instead much more likely to locate in the other three regions.

 Figure 4 here

We also see some Korean women who have married men from low-income Southeast Asian countries. Figure 4 is complementary to Figure 1 for Korean men, showing the fraction of Korean women in international marriages by year. For women, these rates were quite low throughout the time period; however, international marriage rates began increasing around 2002, again peaking at 2005. As of 2013, the percentages have returned to their previous lower rates. The similarities between Figure 1 and Figure 4 are striking. This suggests that similar factors might be influencing the decision to enter international marriages for Korean men and Korean women. These factors determining international marriages for Korean women will be explored in further research.

 Figure 5 here

The picture is similar across all regions of Korea with very low rates of international marriages for Korean women until 2002, as seen in Figure 5. As was shown in Table 3, the highest percentages of international marriages for Korean women occurred in the Capital Region peaking at about 5% in 2005. The fractions of marriages of Korean women to foreign men was roughly have as large as that of the Capital Region in each of the other three regions throughout 1993-2013.

1. **Logistic Regression Analysis**
	1. **Main Results**

 A logit model was used in the analysis with the dependent variable being a dummy variable equal to one if it is an international marriage between a Korean man and a Southeast Asian wife. The regressions controlled for characteristics of the couple as well as local/regional characteristics that might affect the probability of being in an international marriage. In each regression**,** the odds ratio was presented (Pr (international marriage=1)/(1-Pr (international marriage =1)). So, an estimated value greater than one indicates the probability of being in an international marriage increases with a one unit increase in the regressor; a value less than one indicates the probability of being in an international marriage decreases with an increase in the regressor. Each regression model included fixed effects for the year of registration of the marriage and robust standard errors.

 Table 4 presents the results from several specifications of logit models for Korean men. Model 1 controls only for the husband and wife’s education levels (with high school education being the base category) and if either spouse had previously been married. We see that men and women with less education are more likely to be in an international marriage. In addition, if the Korean man has already been married, he is more likely to marry a foreign wife, and it is less likely that if the wife has already been married if she is from a low-income Southeast Asian country.

Model 2 adds age categories for the husband and wife (the base category being ages 25-29) and an indicator variable for the wife being older than the husband. When the age variables are added, the direction of the effect of the husband remarrying changes and decreases in significance, likely because the variable is highly correlated with the highest age category. We see strong evidence here that older Korean men were more likely to marry foreign wives, and it is more likely that those foreign wives are under the age of 24. Women who are older than their husbands were less likely to be part of an international marriage.

 Table 4 here

Kawaguchi and Lee (2012) provided a convincing defense against possible criticism of their analysis that their finding of the negative correlation between a man’s socioeconomic status and the probability of having a foreign bride may be the result of selection. For example, it is possible that an educated Korean man may remain single rather than taking a foreign bride, while an uneducated Korean man may choose the opposite, which accounts for their finding. They argued that selection into marriage is unlikely to account for that negative correlation. In Korea, a man is more likely to remain single after the age of 30 if he has a low socioeconomic status. For example, among Korean men aged 30 to 39, the fraction of those who were married among the college educated was seven percentage points more in Korea (in 2005) than that among Korean men without tertiary education. Therefore, selection bias may mitigate the negative correlation between a Korean man’s socioeconomic status and his chance of having a foreign bride, instead of causing a negative correlation in their sample. Lee, Wohar, Klein, and Kim (2015) also showed that Korean men enjoy success benefits in their marriages in terms of higher education, whereas Korean women suffer from success gaps in their marriages in terms of higher education.

 Next, Models 3 and 4 in Table 4 add the sex ratio in the city and the percent of foreign wives in the city, respectively. The sex ratio variable being greater than one in Model 3 tells us that there are more men than women (men and women of ages 20-40) in the city. The larger the sex ratio is, the more likely it is that a Korean man would enter into an international marriage. The fraction of foreign wives also has an odds ratio greater than one, so a Korean man was more likely to have married a Southeast Asian woman if there were many other foreign wives in the city they lived in. When the fraction of foreign wives is added to Model 4, the direction of the effect of the sex ratio changes, likely because the sex ratio variable is highly correlated with the fraction of the international marriages variable.

 Model 5 adds occupation categories for men and women (with those in clerical occupations being the base category). With this model, we can see which of those with different occupations were most likely to have an international marriage between Korean men and Southeast Asian women. For Korean men, these occupations were agriculture, craftsmen, and simple physical labor. There was an increased likelihood of an international marriage to a Korean man if the wife held any occupation except for a professional position. It is worth noting that the largest odds ratio for foreign women occupation variables is for agriculture. Finally, Model 6 in Table 4 includes the region dummy variables (the Capital Region being the base category). The occupation categories are excluded from this regression since so many of the occupations are region specific and highly correlated with the region dummy variables. Although the highest international marriage rates occurred in rural areas, as shown in Table 1 and Figure 2, all of the odds ratios for regional dummy variables including rural areas are less than one. This indicates that the data should likely be weighted by population in each of the areas.

 Next, we separate the sample by Korean men’s foreign wives’ countries of origin in Table 5. Three of the largest populations of foreign women who had married Korean men had come from Vietnam (68,765 Vietnamese wives during 1993-2013), from the Philippines (18,680 Filipino wives) and from China (178,227 mostly Korean ethnic Chinese wives). We combine with Vietnam a sample of other low-income countries in Asia that had relatively few women who married Korean men. In each column of Table 5, the control group is Korean men who had married Korean women with the first column showing the results for all marriages from Model 5 in Table 4. From these results, we notice major differences in which factors predict a marriage to a woman from each of these countries.

 We see strong evidence that Korean men with low education (less than high school) were more likely to marry Filipino women, especially if the men were over 30 and had been married before. Living in a city with a higher sex ratio is a positive predictor of a Korean man marrying a woman from the Philippines. This makes sense since after 2002 the Filipino women were most likely to live in the Capital region and small- and medium- sized cities and these areas had higher sex ratios. While the youngest women are more likely to be from the Philippines, they also had a tendency of being better educated compared to the women migrating from other countries. Perhaps by marrying a Korean man, these young women would have better opportunities in Korea than in the Philippines given their higher educational attainment.

 Table 5 here

 On the other hand, in the third column of Table 5, we see that women with low education were more likely to be Chinese women who had married Korean men. As mentioned before, the younger women and older men are more likely entering an international marriage. Another major difference compared to the Philippines is that women from China, Vietnam, or other low-income countries who worked in agriculture were more likely to enter an international marriage than women working in agriculture from the Philippines. The Korean men having been previously married had a significant negative effect on the probability of international marriages to Chinese wives, though being older has a positive effect, suggesting that Korean men who had married Chinese women were perhaps those who were not successful in the Korean marriage market rather than those who had been widowed or divorced. On the other hand, the Korean men who had remarried or were older had a significant positive effect on the probability of an international marriage to Filipino or Vietnamese women, suggesting that Korean men who had married Filipino and Vietnamese women were perhaps those who were not successful in the Korean marriage market and those who had been widowed or divorced.[[9]](#footnote-9)

 We found that a Korean man would be more likely to marry a foreign woman from any of these countries if he were a simple physical laborer. But, a Korean man who were farmers would only be more likely to marry a foreign woman if she was from the Philippines and Vietnam. This was not the case for Chinese wives, however. Korean-ethnic Chinese wives are fluent in Korean, so they might have had better luck finding Korean husbands who worked in occupations other than agriculture, unlike the other two groups of foreign wives.

 It is interesting to note that unlike the case of Filipino and Vietnamese wives, the Korean men remarrying had a significant negative effect on the probability of an international marriage to Chinese wives. However, the women remarrying had a significant positive effect, and the women who were older than their husbands had a significant negative effect on the probability of a Chinese international marriage. In the case of Chinese wives, Korean husbands might have been willing to accept the thought of marrying women who had been married before, but they were less willing to accept wives who were older than them. The opposite is true for Filipino and Vietnamese wives. The reason for this strange observation might be that Korean husbands who had married Filipino or Vietnamese wives were in many cases living in rural areas and expected their wives to undertake the duties of farming and caring for their elderly parents. If these foreign wives would be willing to help with these unpopular tasks, Korean men may not mind marrying women who are older than them.[[10]](#footnote-10)

 Finally, Figure 6 shows how the birth country of the foreign spouses for both Korean men and Korean women changed during the sample period. In the early part of the sample, foreign men and women mainly came from China, but given the marriage reforms in 2004 (resulting in fewer fake marriages), this has been in steady decline. We see a large increase in the fraction of foreign wives from Vietnam as well as some increase in those from Cambodia. For Korean women, besides a bump in marriages to men from Pakistan and Bangladesh in the early 2000s, the largest growth of foreign men was in Taiwan and the “Other” category. Mainly these increases were due to men from the Philippines, India, Vietnam, and Sri Lanka, who had represented 11% of all international marriages to Korean women by 2013.

Figure 6 here

* 1. **Robustness Checks**

We perform several robustness checks on the findings from Section 4.1. First, although we know the occupation of each spouse, we do not have any income information. Therefore, we have imputed incomes for each individual using data from 1998 to 2012 from the Korean Labor and Income Panel Study (KLIPS) for married respondents. The log of monthly income was estimated using the age category, location of residence (either Seoul, one of the six mega-cities or the province), and level of education and regressions were estimated separately by gender. Year fixed effects were also included. The coefficients from these income regressions in the KLIPS data provided the means to estimate income with the Korean Marriage Register data.[[11]](#footnote-11) Since these same variables on age, city/province, and education were also available in the Marriage Register data, we can generate predicted values for income by calculating X’\*$\hat{β}$ using the estimated coefficients from the KLIPS regressions. This methodology assumes that the married individuals in the KLIPS data were sufficiently similar to those married individuals in the Marriage Register data. Including this imputed income for Korean men results in almost no change in the estimated coefficients from Table 4.

Next, similar to the analysis in Table 5 and that in the study done by Kawaguchi and Lee (2012),[[12]](#footnote-12) we perform a multinomial logit analysis by the wife’s birth country in Table 6. The outcome variable equals one if the wife was Korean, two if the wife was born in the Philippines, three if the wife was born in China, and four if the wife was born in Vietnam or another low-income Southeast Asian country.

Table 6 here

The base outcome is a marriage to a woman born in Korea. So in each case, the results show the change in the marginal effect (in percentage point units) associated with a one-unit increase in the independent variable, compared to the base outcome of marriage to a Korean woman. Thus, for example, if the husband lives in a rural area compared to someone living in the Capital Region, the probability of him marrying a Filipino woman (compared to a Korean woman) increases by 1.2 percentage points, and the probability of him marrying a woman from Vietnam or other developing country increases by 2.1 percentage points. On the other hand, the probability of him marrying a Chinese woman (compared to a Korean woman) decreases by 53.4 percentage points. There are similar findings for the probability of Korean men marrying Filipino and Vietnamese (and other) women for metropolitan areas and small/medium cities.

We see many similar results in Table 6 as we do in Table 5, with regressions performed separately by countries of origin. Again, there were larger marginal effects (greater likelihood of international marriage) for a marriage to a Filipino woman when the city had a higher sex ratio, but the same was not true for marriages to women from China or Vietnam and other low-income countries. Across all origin countries, the couple was more likely to be in an international marriage if the husband worked in agriculture, craftsmen, or simple physical labor.

1. **Conclusions**

Through empirical analysis using a large and reliable data set of more than seven million observations from Korean Marriage Register reports from 1993 to 2013, this study examined those Korean men who had married Southeast Asian brides. With the use of careful logistic regression analysis, our study confirms many of the characteristics of Korean men in international marriages to Southeast Asian brides presented by Jones (2012) who used descriptive statistics and a literature survey. We see that Korean men who enter into international marriages were predominantly those with lower education. These men were also on average about 8-9 years older than those men who had married Korean women. In addition, Korean men entering into international marriages were less likely to be marrying for the first time.

In addition to finding the Korean men in international marriages to be older, we also observe larger age gaps between the spouses in international marriages. From 1993 to 2002, there was a clear difference in the age at marriage for the two groups of wives with Korean women being about three years younger. However, after 2002, there was little difference in age between these two groups of wives since the age at marriage of Korean women has increased. In rural areas, the foreign wives have become substantially younger over time. Both Korean men and women have become more educated over the course of the sample years. While education has increased for the foreign brides as well, this has not occurred at the same rate as for Korean women**,** leading to increasing differences between the two groups of women. In addition, remarriage rates for foreign wives was substantially lower in rural areas compared to the full sample. This might be because Korean men in farming who chose to marry Southeast Asian women preferred wives who were young enough to assist with farming and providing care for their elderly parents.

 In addition, the authors have found that over time there has been a shift in where these foreign spouses come from. While in the early part of the sample, nearly all international marriages were to spouses of Chinese origin (of which about 70% are the Korean ethnic *Josunjok* people), more recently the foreign wives have been arriving increasingly from Vietnam. In a preliminary exploration of Korean women who had married Southeast Asian men, we observed a growth in foreign husbands coming from the Philippines, India, Sri Lanka, and Taiwan.

Our logit analysis shows which factors affect the probability of international marriage among Korean men and Southeast Asian brides, while controlling for other characteristics of the couple and region. Korean men in agriculture, craftsmen, and simple physical labor, all relatively low-skill/low-pay occupations, were more likely to be in an international marriage. For the women, all occupations except for those in professional positions were more likely to be a Southeast Asian woman who had married a Korean man.

Finally, we explore differences across the countries of origin of the foreign wives, supporting many of Jones’ (2012) claims concerning educational differences and residential differences between spouses in marriages to Southeast Asians. More than half of those from Vietnam (and other low income countries) and the Philippines lived outside of large cities, including Seoul and the six mega-cities. However, nearly ¾ of the women coming from China were concentrated in these large cities. This might be because most of Chinese brides are Korean ethnic Chinese and are fluent in Korean; thus, compared to other Southeast Asian brides it may be easier for them to find jobs in service industries in the larger cities.

Regardless of the wives’ countries of origin, less educated Korean men, older Korean men, and younger foreign women all were all more likely to be in an international marriage. However, for other variables**,** we see interesting differences emerge for different nationalities of the foreign wives. For the Philippines, highly-educated women were more likely to be in an international marriage, unlike those from China and other low-income countries. In cities with higher sex ratios, Korean men were more likely to enter into international marriages to Filipino women. Unlike women from China and other low-income countries, if the foreign wife worked in agriculture, the marriage was less likely to be an international marriage with a wife from the Philippines. This is perhaps because Filipino women who had married Korean men were also more educated.

Six hypotheses were presented for the rise in international marriage: (1) imbalanced sex ratios in rural areas, (2) slow gender equality adjustments in household roles, (3) hypergamy in marriage leaving less-educated men without marriage prospects, (4) Korean men and women not wishing to take on the burdens common in rural areas, (5) the encouragement of international marriage by governments in the earlier period and the role of commercial matchmaking firms in later period, and (6) the recent increase in Korean divorce rates.

Given the nature of the data, it was not possible to test Hypothesis 2. We confirmed Hypothesis 1 in Model 3 of Table 4 which shows the odds ratio to be greater than one for the sex ratio. In Models 4, 5, and 6 of Table 4, the odds ratio for the sex ratio becomes less than one, but this is likely since by sheer numbers, there were far more international marriages in Seoul where the sex ratio is less than one, even though the rates of international marriages were much higher in the male-dominated rural areas. In addition, the fraction of foreign wives and the sex ratio variables were highly correlated. Our findings support Hypothesis 3 since we observe that less educated Korean men and those with lower socioeconomic occupations were much more likely to marry a woman from Southeast Asia. There is support for Hypothesis 4, since we observe that Korean men in rural areas increasingly marry Vietnamese women, who are more likely to be younger and never married and were more likely to be willing to undertake duties of farming and caring for the husbands’ elderly parents. For Hypothesis 5, our data allows only limited evidence that these policies affect international marriage. In Table 3, we do observe growth in the rates of international marriage in urban areas, but it was still much more prevalent in rural areas. Also, many commercial matchmaking firms specialize in Vietnamese brides; Figure 6 shows a recent increase in Vietnamese brides. For Hypothesis 6, Table 4 proved that remarriage rates were much higher for Korean men who had married foreign spouses.

Given the rapid growth of these international marriages in the past decade, these findings have important implications for the demographic and socioeconomic makeup of Korea. This paper has illustrated the differences in education and age at marriage of Korean wives compared to foreign wives. Especially important is the observed changes in the characteristics of the Southeast Asian wives compared to Korean wives over time. For example, while the educational attainment of the foreign wives has not changed much since the 1990s, Korean women have become much more educated, leading to a larger education gap between the two groups. These marriages have changed the education, income, occupations, and ethnicities of the population living in different provinces. The regional differences and changes over time in the source countries of the international spouses have changed the composition of marriages in Korea. As the influx of these spouses from Southeast Asian countries continues, there are likely to be further observable changes in the populace of the country, especially in rural areas where these international marriages are much more common. Thus, by examining who these Korean men and their spouses are, this paper attempted to provide insight into how the landscape of marriage in Korea will be affected.

In addition, international marriages between Korean men and their brides from Southeast Asian countries could play an important role in resolving social and demographic problems for Korean men who are older and unmarried because they failed to meet desirable mates, have failed in their first marriages to native Koreans, have low education, live in rural areas, or whose older parents require care.[[13]](#footnote-13) Therefore, from a policy perspective, the Korean government should provide assistance to foreign spouses adjusting to married life in Korea. For example, the government could assist those in international marriages in searching for jobs, language education, their children’s education, and income subsidization. Therefore, the results of this paper can provide insight into the characteristics of these international marriages and thus may help the Korean government better understand these new immigrants and the group of Koreans who are marrying these foreigners.

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Table 1: Marriages of Korean Men: Korean vs. Southeast Asian Wives

|  |  |  |
| --- | --- | --- |
|   | **1993-2002** | **2003-2013** |
|  | **Men with** | **Men with Southeast** | **Men with** | **Men with Southeast** |
| **Variable** | **Korean Wives** |  **Asian Wives** | **Korean Wives** |  **Asian Wives** |
| *Husband:* |   |   |  |   |
| Less than High School | 0.0844 | 0.3985 | 0.0444 | 0.2067 |
| High School | 0.4713 | 0.5038 | 0.3140 | 0.5901 |
| Some College or More | 0.4443 | 0.0977 | 0.6416 | 0.2032 |
| Age at Marriage | 29.00 | 38.03 | 31.91 | 40.98 |
| Higher Order Marriage | 0.1076 | 0.3240 | 0.1427 | 0.3952 |
| *Wife:* |   |  |   |   |
| Less than High School  | 0.0868 | 0.4821 | 0.0482 | 0.3622 |
| High School | 0.5640 | 0.4082 | 0.3284 | 0.4942 |
| Some College or More | 0.3492 | 0.1097 | 0.6234 | 0.1436 |
| Age at Marriage | 26.13 | 29.92 | 29.60 | 29.42 |
| Higher Order Marriage | 0.1152 | 0.3262 | 0.1647 | 0.3428 |
| Origin: The Philippines |  | 0.0434 |  | 0.0703 |
| Origin: China |  | 0.9187 |  | 0.5459 |
| Origin: Vietnam |  | 0.0116 |  | 0.2953 |
| Origin: Cambodia |  | 0.0001 |  | 0.0306 |
| *Location Variables:* |   |  |   |   |
| Rural Area | 0.1038 | 0.1336 | 0.0613 | 0.1279 |
| Capital Region | 0.4944 | 0.5175 | 0.5263 | 0.4850 |
| Metropolitan Area | 0.1924 | 0.1655 | 0.1922 | 0.1587 |
| Small to Medium Cities | 0.2094 | 0.1834 | 0.2202 | 0.2284 |
| Sex Ratio in City | 0.9534 | 0.9638 | 0.9474 | 0.9693 |
| Fraction of Foreign Wives | 0.0203 | 0.0298 | 0.0752 | 0.0928 |
| *N* |  3,563,532  |  56,959  |  3,127,731  |  230,608  |

 Source: 1993-2013 Korean Marriage Register Data.

Table 2: Marriages of Korean Men in Rural Areas

|  |  |  |
| --- | --- | --- |
|   | **1993-2002** | **2003-2013** |
|  | **Men with** | **Men with Southeast** | **Men with** | **Men with Southeast** |
| **Variable** | **Korean Wives** |  **Asian Wives** | **Korean Wives** |  **Asian Wives** |
| *Husband:* |   |   |  |   |
| Less than High School | 0.1498 | 0.4738 | 0.0744 | 0.2382 |
| High School | 0.5410 | 0.4637 | 0.3859 | 0.6138 |
| Some College or More | 0.3093 | 0.0625 | 0.5397 | 0.1480 |
| Age at Marriage | 28.61 | 36.12 | 32.35 | 40.20 |
| Higher Order Marriage | 0.1207 | 0.2310 | 0.1767 | 0.3321 |
| *Wife:* |   |  |   |   |
| Less than High School | 0.1498 | 0.4901 | 0.0782 | 0.4056 |
| High School | 0.6235 | 0.3889 | 0.4010 | 0.4840 |
| Some College or More | 0.2267 | 0.1210 | 0.5209 | 0.1105 |
| Age at Marriage | 25.49 | 28.24 | 29.81 | 26.64 |
| Higher Order Marriage | 0.1356 | 0.2207 | 0.2108 | 0.2173 |
| Origin: The Philippines |  | 0.1083 |  | 0.0945 |
| Origin: China |  | 0.8414 |  | 0.3446 |
| Origin: Vietnam |  | 0.0141 |  | 0.4481 |
| Origin: Cambodia |  | 0.0003 |  | 0.0573 |
| *Location Variables:* |   |  |   |   |
| Sex Ratio in City | 1.1479 | 1.1538 | 1.1511 | 1.1516 |
| Fraction of Foreign Wives | 0.0304 | 0.0501 | 0.1373 | 0.1616 |
| *N* | 381,900 | 7,953 | 179,794 | 29,162 |

 Source: 1993-2013 Korean Marriage Register Data.

Table 3: Number of Marriages of Koreans by Sex, Region, and Spouses’ Countries of Origin

*Korean Men*

|  |  |  |
| --- | --- | --- |
|   | **1993-2002** | **2003-2013** |
| **Country of Origin** | **Seoul** | **Metro Areas** | **Small/Med Cities** | **Rural Areas** | **Seoul** | **Metro Areas** | **Small/Med Cities** | **Rural Areas** |
| The Philippines | 710 | 299 | 651 | 814 |  5,747  |  2,766  |  4,891  |  2,802  |
| *% of Wives in Region* | 0.04% | 0.04% | 0.09% | 0.22% | 0.33% | 0.43% | 0.66% | 1.27% |
| China |  27,599  |  8,880  |  9,398  |  6,453  |  74,301  |  18,051  |  23,256  |  10,289  |
| *% of Wives in Region* | 1.54% | 1.28% | 1.24% | 1.71% | 4.23% | 2.83% | 3.14% | 4.65% |
| Vietnam & Low Inc. |  1,087  |  223  |  376  |  333  |  30,465  |  15,471  |  24,230  |  16,335  |
| *% of Wives in Region* | 0.06% | 0.03% | 0.05% | 0.09% | 1.73% | 2.43% | 3.27% | 7.39% |
| Korea |  1,761,767  |  685,455  |  746,252  |  370,058  |  1,646,131  |  601,191  |  688,773  |  191,636  |
| *% of Wives in Region* | 98.35% | 98.64% | 98.62% | 97.99% | 93.64% | 94.26% | 92.90% | 86.66% |

*Korean Women*

|  |  |  |
| --- | --- | --- |
|   | **1993-2002** | **2003-2013** |
| **Country of Origin**  | **Seoul** | **Metro Areas** | **Small/Med Cities** | **Rural Areas** | **Seoul** | **Metro Areas** | **Small/Med Cities** | **Rural Areas** |
| Pakistan | 32 | 2 | 2 | 4 |  796  |  202  |  207  |  49  |
| *% of Husb. in Region* | 0.0019% | 0.0003% | 0.0003% | 0.0009% | 0.05% | 0.03% | 0.03% | 0.03% |
| China |  1,467  |  330  |  245  |  97  |  16,119  |  2,389  |  2,874  |  573  |
| *% of Husb. in Region* | 0.088% | 0.046% | 0.033% | 0.021% | 0.99% | 0.37% | 0.42% | 0.31% |
| Taiwan & Low Inc. |  259  |  32  |  39  |  19  |  2,681  |  492  |  564  |  145  |
| *% of Husb. in Region* | 0.016% | 0.005% | 0.005% | 0.004% | 0.16% | 0.08% | 0.08% | 0.08% |
| Korea |  1,656,372  |  709,716  |  747,012  |  452,462  |  1,611,457  |  643,346  |  686,680  |  186,995  |
| *% of Husb. in Region* | 99.88% | 99.94% | 99.96% | 99.97% | 98.76% | 99.51% | 99.46% | 99.58% |

Source: 1993-2013 Korean Marriage Register Data.

Table 4: Logit Models on International Marriage for Korean Men

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Variable | OddsRatio | T-stat | OddsRatio | T-stat | OddsRatio | T-stat | OddsRatio | T-stat | OddsRatio | T-stat | OddsRatio | T-stat |
| Husb. Low Education | 1.257 | 30.4 | 1.116 | 13.7 | 1.113 | 13.3 | 1.103 | 12.1 | 1.072 | 8.3 | 1.110 | 12.9 |
| Husb. Some Coll or More | 0.387 | -146 | 0.426 | -125 | 0.426 | -125 | 0.437 | -121 | 0.484 | -101 | 0.435 | -121 |
| Husb. Remarried | 2.211 | 111 | 0.855 | -21.7 | 0.854 | -21.8 | 0.854 | -21.8 | 0.848 | -22.3 | 0.859 | -20.9 |
| Wife Low Education | 5.293 | 252 | 3.915 | 180 | 3.901 | 178 | 3.877 | 177 | 3.627 | 165 | 3.904 | 178 |
| Wife Some Coll or More | 0.275 | -175 | 0.422 | -112 | 0.424 | -111 | 0.432 | -109 | 0.518 | -82.2 | 0.431 | -108 |
| Wife Remarried | 0.484 | -95.4 | 0.848 | -20.8 | 0.852 | -20.0 | 0.846 | -20.7 | 0.813 | -25.3 | 0.850 | -20.2 |
| Husb. Ages 15-24 |  |   | 0.309 | -60.2 | 0.309 | -59.8 | 0.306 | -60.2 | 0.318 | -56.5 | 0.306 | -60.2 |
| Husb. Ages 30-34 |  |   | 6.217 | 196 | 6.198 | 194 | 6.169 | 193 | 5.830 | 184 | 6.179 | 193 |
| Husb. Ages 35-39 |  |   | 44.2 | 371 | 44.04 | 368 | 43.34 | 366 | 37.76 | 343 | 43.62 | 366 |
| Husb. Ages 40+ |  |   | 205 | 441 | 204.2 | 438 | 199.6 | 435 | 170.2 | 410 | 201.2 | 435 |
| Wife Older than Husband |  |   | 0.845 | -14.7 | 0.845 | -14.6 | 0.841 | -15.0 | 0.828 | -15.9 | 0.842 | -14.9 |
| Wife Ages 15-24 |  |   | 5.507 | 241 | 5.487 | 238.0 | 5.400 | 235 | 4.981 | 218 | 5.470 | 236 |
| Wife Ages 30-34 |  |   | 0.340 | -128 | 0.341 | -127 | 0.343 | -125 | 0.351 | -119 | 0.341 | -126 |
| Wife Ages 35-39 |  |   | 0.179 | -168 | 0.180 | -166 | 0.182 | -165 | 0.190 | -156 | 0.180 | -166 |
| Wife Ages 40+ |  |   | 0.068 | -228 | 0.069 | -226 | 0.070 | -224 | 0.075 | -212 | 0.069 | -225 |
| Sex Ratio in City |  |   |  |   | 1.207 | 8.5 | 0.496 | -27.3 | 0.372 | -36.5 | 0.839 | -5.7 |
| % Foreign Wives in City |  |   |  |   |  |   | 1246 | 92.3 | 781 | 82.6 | 1121 | 82.8 |
| Husb: Manager |  |   |  |   |  |   |  |   | 0.853 | -9.3 |  |  |
| Husb: Professional |  |   |  |   |  |   |  |   | 0.773 | -28.2 |  |  |
| Husb: Service |  |   |  |   |  |   |  |   | 0.970 | -4.2 |  |  |
| Husb: Agriculture |  |   |  |   |  |   |  |   | 1.326 | 21.9 |  |  |
| Husb: Craft/Trade |  |   |  |   |  |   |  |   | 1.043 | 4.9 |  |  |
| Husb: Equipment |  |   |  |   |  |   |  |   | 0.922 | -7.6 |  |  |
| Husb: Simple Physical Labor |  |   |  |   |  |   |  |   | 1.115 | 8.9 |  |  |
| Husb: Unemp/Study/Home |  |   |  |   |  |   |  |   | 0.550 | -44.8 |  |  |
| Wife: Manager |  |   |  |   |  |   |  |   | 1.267 | 4.7 |  |  |
| Wife: Professional |  |   |  |   |  |   |  |   | 0.949 | -3.2 |  |  |
| Wife: Service |  |   |  |   |  |   |  |   | 1.310 | 19.8 |  |  |
| Wife: Agriculture |  |   |  |   |  |   |  |   | 2.963 | 49.2 |  |  |
| Wife: Craft/Trade |  |   |  |   |  |   |  |   | 1.351 | 12.0 |  |  |
| Wife: Equipment |  |   |  |   |  |   |  |   | 1.429 | 8.5 |  |  |
| Wife: Simple Physical Labor |  |   |  |   |  |   |  |   | 2.354 | 33.7 |  |  |
| Wife: Unemp/Study/Home |  |   |  |   |  |   |  |   | 2.455 | 92.4 |  |  |
| Rural Area |  |   |  |   |  |   |  |   |  |   | 0.773 | -22.2 |
| Metropolitan Area |  |   |  |   |  |   |  |   |  |   | 0.828 | -28.2 |
| Small/Medium Cities |   |   |   |   |   |   |   |   |   |   | 0.775 | -38.1 |
| Year Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| N | 6,849,541 | 6,849,541 | 6,743,876 | 6,743,876 | 6,515,686 | 6,743,876 |
| Pseudo R-squared | 0.2512 | 0.4364 | 0.4359 | 0.4393 | 0.4473 | 0.4401 |
| Log-Likelihood | -881408 | -663420 | -654636 | -650676 | -614667 | -649756 |

Source: 1993-2013 Korean Marriage Register Data.

Table 5: Logit Models for Korean Men by Wives’ Countries of Origin

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **All Marriages** | **The Philippines** | **China** | **Vietnam and Other Low Inc. Countries** |
| **Variable** | **Odds Ratio** | **T-stat** | **Odds Ratio** | **T-stat** | **Odds Ratio** | **T-stat** | **Odds Ratio** | **T-stat** |
| Husb. Low Education | 1.072 | 8.3 | 3.277 | 35.2 | 1.000 | 0.1 | 1.067 | 3.0 |
| Husb. Some College or More | 0.484 | -101 | 0.366 | -41.9 | 0.516 | -74.5 | 0.450 | -55.4 |
| Husb. Remarried | 0.848 | -22.3 | 1.269 | 9.3 | 0.720 | -39.3 | 1.273 | 15.1 |
| Wife Low Education | 3.627 | 165 | 0.373 | -17.4 | 3.684 | 147 | 4.894 | 94.2 |
| Wife Some College or More | 0.518 | -82.2 | 1.863 | 26.5 | 0.438 | -80.0 | 0.371 | -58.6 |
| Wife Remarried | 0.813 | -25.3 | 0.037 | -48.3 | 1.175 | 18.4 | 0.193 | -67.8 |
| Husb. Ages 15-24 | 0.318 | -56.5 | 0.345 | -14.0 | 0.382 | -41.1 | 0.193 | -32.7 |
| Husb. Ages 30-34 | 5.830 | 184 | 7.309 | 55.3 | 4.954 | 141 | 8.674 | 102 |
| Husb. Ages 35-39 | 37.76 | 343 | 77.02 | 120 | 24.16 | 248 | 80.23 | 201 |
| Husb. Ages 40+ | 170.2 | 410 | 474.8 | 150 | 88.8 | 297 | 638.7 | 243 |
| Wife Older than Husband | 0.828 | -15.9 | 1.676 | 8.4 | 0.685 | -31.0 | 1.540 | 10.8 |
| Wife Ages 15-24 | 4.981 | 218 | 8.945 | 98.5 | 3.019 | 118 | 14.31 | 183 |
| Wife Ages 30-34 | 0.351 | -119 | 0.228 | -49.1 | 0.444 | -81.0 | 0.224 | -77.6 |
| Wife Ages 35-39 | 0.190 | -156 | 0.084 | -53.9 | 0.290 | -105 | 0.063 | -99.9 |
| Wife Ages 40+ | 0.075 | -212 | 0.025 | -50.4 | 0.143 | -145 | 0.006 | -116 |
| Sex Ratio in City | 0.372 | -36.5 | 2.343 | 10.6 | 0.265 | -40.1 | 0.634 | -8.3 |
| % Foreign Wives in City | 781.4 | 82.6 | 468.8 | 23.1 | 309.1 | 60.3 | 939.3 | 43.3 |
| Husb: Manager | 0.853 | -9.3 | 0.796 | -4.2 | 0.885 | -5.8 | 0.680 | -11.1 |
| Husb: Professional | 0.773 | -28.2 | 0.885 | -3.8 | 0.758 | -25.8 | 0.718 | -16.3 |
| Husb: Service | 0.970 | -4.2 | 0.922 | -2.9 | 0.972 | -3.5 | 0.803 | -13.6 |
| Husb: Agriculture | 1.326 | 21.9 | 5.437 | 41.3 | 0.995 | -0.3 | 2.215 | 31.0 |
| Husb: Craft/Trade | 1.043 | 4.9 | 1.729 | 16.9 | 0.958 | -4.4 | 1.158 | 7.7 |
| Husb: Equipment | 0.922 | -7.6 | 1.511 | 10.6 | 0.828 | -14.9 | 1.042 | 1.8 |
| Husb: Simple Physical Labor | 1.115 | 8.9 | 1.777 | 11.6 | 1.028 | 2.0 | 1.069 | 2.4 |
| Husb: Unemp/Student/Home | 0.550 | -44.8 | 0.824 | -4.0 | 0.539 | -41.5 | 0.342 | -31.5 |
| Wife: Manager | 1.267 | 4.7 | 1.165 | 0.9 | 1.206 | 3.0 | 1.741 | 4.7 |
| Wife: Professional | 0.949 | -3.2 | 1.034 | 0.7 | 0.916 | -4.4 | 0.962 | -0.9 |
| Wife: Service | 1.310 | 19.8 | 1.579 | 9.6 | 1.231 | 13.3 | 1.338 | 8.4 |
| Wife: Agriculture | 2.963 | 49.2 | 0.878 | -1.0 | 2.004 | 23.9 | 10.38 | 57.7 |
| Wife: Craft/Trade | 1.351 | 12.0 | 1.296 | 2.5 | 1.154 | 4.9 | 2.348 | 15.8 |
| Wife: Equipment | 1.429 | 8.5 | 1.737 | 3.8 | 1.272 | 4.6 | 1.882 | 7.8 |
| Wife: Simple Physical Labor | 2.354 | 33.7 | 3.101 | 10.4 | 2.073 | 25.6 | 4.181 | 24.9 |
| Wife: Unemp/Student/Home | 2.455 | 92.4 | 2.974 | 32.9 | 2.105 | 66.0 | 3.501 | 53.6 |
| Year Fixed Effects | Yes | Yes | Yes | Yes |
| N | 6,515,686 | 6,266,818 | 6,413,182 | 6,332,521 |
| Pseudo R-squared | 0.4473 | 0.5027 | 0.3421 | 0.7097 |
| Log-Likelihood | -614677 | -59590 | -501509 | -128500 |

 Source: 1993-2013 Korean Marriage Register Data.

Table 6: Multinomial Logit Model on International Marriage for Korean Men

(Base Outcome: Marriage to Korean Woman)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Korea** | **The Philippines** | **China** | **Vietnam & Other Low Inc. Country** |
| **Variable** | **Marg. Effect** | **T-stat** | **Marg. Effect** | **T-stat** | **Marg. Effect** | **T-stat** | **Marg. Effect** | **T-stat** |
| Husb. Low Education | -0.498 | -54.7 | 0.006 | 6.0 | 0.486 | 56.4 | -0.002 | -2.1 |
| Husb. Some College or More | 1.575 | 146.7 | -0.022 | -6.9 | -1.417 | -189 | -0.095 | -16.7 |
| Husb. Remarried | 0.724 | 58.0 | -0.022 | -6.9 | -0.587 | -58.1 | -0.076 | -16.5 |
| Husb. Ages at Marriage | -0.145 | -164 | 0.002 | 7.0 | 0.132 | 219.2 | 0.007 | 16.7 |
| Husb: Manager | 0.035 | 1.6 | 0.004 | 3.5 | -0.036 | -1.7 | -0.007 | -4.9 |
| Husb: Professional | 0.342 | 31.2 | -0.001 | -1.5 | -0.315 | -29.4 | -0.022 | -14.1 |
| Husb: Service | -0.129 | -15.1 | 0.004 | 5.3 | 0.117 | 14.0 | 0.002 | 3.0 |
| Husb: Agriculture | -0.498 | -27.4 | 0.030 | 6.9 | 0.341 | 21.6 | 0.079 | 16.4 |
| Husb: Craft/Trade | -0.243 | -23.1 | 0.011 | 6.6 | 0.197 | 19.9 | 0.018 | 13.4 |
| Husb: Equipment | -0.147 | -11.0 | 0.009 | 6.1 | 0.115 | 8.9 | 0.011 | 9.6 |
| Husb: Simple Physical Labor | -0.340 | -22.8 | 0.011 | 6.2 | 0.297 | 20.9 | 0.017 | 11.3 |
| Husb: Unemp/Student/Home | 0.905 | 52.2 | -0.007 | -5.2 | -0.810 | -50.0 | -0.070 | -15.9 |
| Rural Area | 0.483 | 31.7 | 0.012 | 6.5 | -0.534 | -36.6 | 0.021 | 13.2 |
| Metropolitan Area | 0.231 | 26.6 | 0.006 | 6.2 | -0.272 | -33.0 | 0.024 | 15.4 |
| Small/Medium Cities | 0.323 | 35.5 | 0.010 | 6.7 | -0.371 | -43.8 | 0.022 | 15.3 |
| Sex Ratio in City | 0.167 | 4.3 | 0.007 | 3.8 | -0.159 | -4.2 | -0.021 | -7.4 |
| % Foreign Wives in City | -9.53 | -81.3 | 0.151 | 6.8 | 8.53 | 82.4 | 0.58 | 16.3 |
| Year Fixed Effects |  |  |  | Yes |  |  |  |   |
| N |  |  |  | 6,578,433 |
| Pseudo R-squared |  |  |  | 0.2600 |  |  |  |   |
| Log-Likelihood |  | -1007335 |   |

Source: 1993-2013 Korean Marriage Register Data.

Figure 1: Fraction of Korean Men Marrying Southeast Asian Women

Figure 2: Fraction of Korean Men Marrying Southeast Asian Women by Region

Figure 3: Distribution of Where Foreign Wives of Korean Men Live by Wives’ Country of Origin

*1993-2002 2002-2013*

Figure 4: Fraction of Korean Women Marrying Southeast Asian Men

Figure 5: Fraction of Korean Women Marrying Southeast Asian Men by Region

Figure 6: Changes in Foreign Spouses’ Countries of Origin Over Time

*Korean Men Korean Women*

1. Lee (2009) states that in 2005 about 80% of female high school graduates in Korea pursued some college education. [↑](#footnote-ref-1)
2. Lee (2009) shows that 44% of Filipino wives and 52% of Vietnamese wives live with their parents-in-law in Korea. Some of these wives also take the burden of taking care of their step-children as well as their parents-in-law. [↑](#footnote-ref-2)
3. Lee (2009) states that the international marriages between farmers and working-class Korean men, whom Korean women are reluctant to marry, and Korean ethnic Chinese women were initially organized by some local governments in order to marry-off their bachelor farmers. Lee (2009) also mentions that the recent rapid increase in international marriages between Korean men and Vietnamese women were mainly arranged by private- marriage agencies. Lee (2005) states that in 1999, the Korean government changed the requirement of starting commercial matchmaking businesses from a permit system to a report system. [↑](#footnote-ref-3)
4. Morgan and Hoffmann (2007) call these types of international marriages as “love international marriage,” whereas the type of our paper’s international marriage is “arranged international marriage.” [↑](#footnote-ref-4)
5. This may not always be true for Japanese spouses belonging to the Unification Church through which marriages are arranged. Chung (2008) reports that 86.8% of the marriages of Japanese women who married Korean men in Kyunggi Province in 2000 were arranged by the Unification Church. [↑](#footnote-ref-5)
6. Seoul is the capital city with 11 million in population. Metropolitan areas are defined to include six large cities with more than one million residents, excluding Seoul. Small and medium size cities are defined as urban areas with 50,000-1,000,000 residents. The remaining areas are defined as rural areas. However, the *Capital Region* category is Seoul and the surrounding areas of Incheon Metro City and Kyunggi Province which contains both small- and medium-size cities and rural areas. Therefore, in this paper *Metropolitan Area* category is only five large cities including Busan, Daegu, Gwangju, Daejeon, and Ulsan. *Small to Medium Cities* category and *Rural Areas* category are small and medium size cities and rural areas, respectively, excluding those areas belonging to Kyunggi Province. Ulsan was promoted to Metropolitan Area status in 1995. [↑](#footnote-ref-6)
7. The sex ratio is computed for each of about 170 mega-cities, cities, and counties based on each census year’s population data. Over time, the definitions of administrative units of some areas have changed. However, since we used the relevant census year’s data for the area at the time of marriage, these administrative changes of areas do not affect the calculation of the sex ratio. In Korea a “city” includes an area with more than 50,000 in population, and “county” includes only rural areas. [↑](#footnote-ref-7)
8. Taiwan is not a low-income country. However, we included Taiwanese husbands in our data for international marriages of Korean women excluding husbands from Japan and western high-income countries. [↑](#footnote-ref-8)
9. Chung (2008) surveyed 810 foreign wives who live in Kyunggi Province in 2006 to analyze the international marriage processes and their adjustment of life in Korea by countries of origin. She found that 60% of foreign wives in her sample were from China including both Korean ethnic Chinese and non-Korean ethnic (Han) Chinese, and more than 70% of foreign wives live in urban areas. Japanese wives have almost identical marriage patterns as Korean wives. Korean ethnic Chinese wives are oldest, and their remarriage rate is high. On the other hand, compared to other countries’ wives, Vietnamese wives have very large age differences compared to their Korean husbands; their remarriage rate is lowest, and their Korean husbands’ remarriage rate is highest. [↑](#footnote-ref-9)
10. Sung, Lee, and Cho (2015) show that many rural young Korean men recently marry Korean women older than them because they are not successful in marrying young Korean women in rural areas. [↑](#footnote-ref-10)
11. Since the KLIPS data only covers 1998-2012, we use the coefficient for 1998 for years 1993-1997 and the coefficient for 2012 for the year 2013 in the marriage register data to generate the predicted income of each spouse (the actual year’s coefficients were used for 1998-2012). These regression tables can be provided upon request. [↑](#footnote-ref-11)
12. The estimated marginal effects are somewhat smaller than in Kawaguchi and Lee (2012), simply because their data was from two years that had the highest recorded rates of international marriage. Tables with the same years are available on request. [↑](#footnote-ref-12)
13. Lee (2009) argues that low fertility and rapid population aging caused a “care drain” for its aging population due to the lack of a social welfare system. While affluent old people want to live independently or live in expensive silver towns, lower-class families struggle to take care of their aged parents. She believes this is another reason why lower-class Korean men search for wives from low-income Southeast Asian countries. [↑](#footnote-ref-13)