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# Legal Entitlement and Bargaining Power of Marriage Immigrants in Korea

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# Legal Entitlement and Bargaining Power of Marriage Immigrants in Korea

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**Abstract**

The fraction of marriages between South Korean males and brides from other Asian countries has sharply increased since 1990 reaching around 10% of new marriages in 2005. We employ a large data set collected in 2012 to investigate the impact of citizenship acquisition of these brides on their bargaining power in the household and labor market. We employ propensity score matching using detailed information of brides, their spouses, and households required for nationality application. Our results show that legal entitlement of marriage immigrants raises the chance of being hired as a regular worker and increases decision power in a household. The findings in this paper imply that a legal framework is an important determinant of the bargaining power of immigrants in the labor market and households.

JEL Code: J12, J15, J18

Keywords: citizenship, marriage immigrants, bargaining power, propensity score matching

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# 1 Introduction

International marriage between a man from a developed country and a woman from a developing country is sharply increasing in Asia. In South Korea, around 10% of new marriages were union between South Korean male and brides from other Asian countries in 2005. According to Edlund et al (2013), one in four marriages in Taiwan was international marriage between foreign-born brides from developing countries in 2003.

In spite of rapid increase in foreign born brides, relatively little research has been done on this new trend of immigration or policy instrument targeted on them. In this paper, we aim to analyze the impact of legal entitlement on bargaining power of marriage immigrants in South Korea. We focus on bargaining power of foreign born brides because we expect that their bargaining power is a key factor affecting assimilation of those brides and their second generation.

The bargaining power within couples is not simply determined by the characteristics of two people in a family, but also by the surrounding social environment such as cultural norms and legal systems. In particular, laws related to the dissolution of marriage affect the outside option of marriage, thereby influencing the bargaining position within couples. In this paper, we investigate the relationship between legal entitlement and bargaining power of marriage immigrants in Korea using detailed information required for the nationality application.

Recently, few researches examined this new type of immigrants in Asian countries. Kawaguchi and Lee (2012) suggested that the lack of women's job opportunity in rural area of developed countries bring about the demand for foreign brides from developing countries. Wang and Chang (2002) examined the cross-border marriage market and found out growing commodification of female migrant partners as market grows matured. Edlund

et al (2013) examined the effect of foreign brides on native women and found out that inflow of marriage immigrants increase fertility among domestic brides.

In this paper, we define marriage immigrants as foreign born brides from developing countries who marry to males in developed countries for economic benefit and opportunities. To identify those marriage immigrants, we restricted our sample to foreign brides who have very short pre-marriage periods with their spouses. Foreign born brides in our sample are from developing countries and whose year of first meeting, year of marriage, and year of entry to Korea are all the same. Couples are introduced to each other through a third party in more than 70% of cases.[3] All these characteristics imply a short pre-marriage period of negotiation between couples and hence, likelihood that only the default legal framework and relevant policy will affect the marriage.

The vulnerable legal status and potential threat these immigrant women would face is well studied in legal literature. Jang (1994) studied immigrants and refugee women and reported that these women are often the victims of domestic violence. Batterers often use the legal system to abuse their partners further by claiming annulment of marriage based on alleged fraudulent marriage. Loke (1997) also documented that battered immigrant women face fears of deportation and language and cultural barriers. The Immigration Act of 1990 in the United States tried to protect victims of domestic violence; however, there still remain many problems regarding work authorization and public benefits.

The legal status of immigrants are also generally related to their labor market performance as well. Kossoudji and Cobb-Clark (2002) examined 1986 Immigration Reform and Control Act and found out that legalization of unauthorized immigrants is related to wage benefit. Ribera-Batiz (1999) also analyzed Mexican legal and illegal

[3] Around 22% couples out of all international couples are reported to meet through brokers, while 17% and 27% are reported to meet through relatives and friends, respectively.

immigrants in the United States and found out that observed characteristics can explain only half of earnings differential unexplained part of earnings gain of legal immigrant should be attributed to legal status. Bratsberg et al (2002) also examined young male immigrants in U.S. and found out that citizenship is related to acceleration of wage growth.

In this paper, we propose that nationality acquisition of marriage immigrants can strengthen their bargaining power in households and in the labor market. The Korean government enacted the two-year conditional residence and spousal support condition for increasing marriage immigrants to acquire naturalization. Without spousal support, they cannot acquire stable legal status in Korea and may face deportation upon divorce. This legal change redistributed the bargaining power from female marriage immigrants to their male counterparts by raising their dependence on their husbands. We examine whether this legal change affected the bargaining power of female marriage immigrants in the household and the labor market.

Our hypothesis is based on exit-threat bargaining model (Lundberg and Pollak 1993, Manser and Brown 1980) that household distribution can be a function of each spouse's options outside of the marriage on bargaining power. The conditional residence to get Korean nationality raised the cost of divorce for marriage immigrants. The divorced women would lose their legal status in Korea and thus might lose their children as well. Though another revision in 2004 allowed those brides to acquire stable legal status through appeal, for foreign brides who have little knowledge of the legal system in Korea, it would be difficult to protect legal status through a complicated process.

To examine our hypothesis, we employed a propensity score matching strategy to carefully measure the impact of legal entitlement on various outcomes reflecting bargaining power of these marriage immigrants. Using detailed data and the institutional requirements of Korean Immigration Authority we identify how foreign brides achieve Korean

nationality. Then we use that information to find a proper control group of foreign brides who have citizenship.

Our results show that having nationality increases the chance of being hired as a regular worker in the labor market. It also increases the bargaining power of foreign brides by increasing their involvement into asset-related decision making or expenditure decisions to invite their family members from their origin countries. Our results are consistent when we included a network variable indicating that legal entitlement has an independent impact regardless of having a connection with immigrants from the same country.

This paper is the first in the literature which examines the relationship between legal entitlement and bargaining power of marriage immigrants in a household and a labor market. We document legal status of marriage immigrants and its relationship with bargaining distribution in a household and labor market performance. Our paper fills in the gap in the literature by providing empirical evidence that legal framework not only affects labor market performance of immigrants but also household bargaining distribution in the case of marriage immigrants.

This paper also provides important policy implication for increasing cross-border marriage in Asia. The bargaining power of marriage immigrant and their labor market performance is the key factor affecting their second generation and their assimilation into society. The policy aimed for assimilation of marriage immigrants and their second generation should consider potential effect that weak legal status on their bargaining power and household decision.

In what follows, we first review historical backgrounds of marriage immigrants and changes in Korean nationality law in Chapter 2. In Chapter 3, we describe our data and show trends of citizenship acquisition among those marriage immigrants. We also show simple regression results and discuss choice of outcome variables which reflect bargaining

power of marriage immigrants in various ways. In Chapter 4, we show our empirical results using propensity score matching. We conclude in Chapter 5.

# 2 Legal Institution Regarding Marriage Immigrants

## 2.1 History of Foreign-born Brides in Korea

<Figure 1 to be Inserted Here>

Since the 1990s, marriage immigrants from other Asian countries account for a significant portion of immigration. <Figure 1> shows that the share of foreign brides sharply increased from 1% in 1993 to 8% in 2009 relative to that of foreign grooms. <Figure 2> also shows that there has been sharp change in the composition of foreign-born brides as well. In early 1990s, significant portion of foreign-brides are Japanese and Chinese. In 1992, South Korea established international relations and thereby Chinese immigrants started to move into South Korea in order to find better economic opportunities. Most of union between Korean and Japanese are known to be through Unification Church[4]. (Lee 2005)

<Figure 2 to be Inserted Here>

In late 1990s, the share of foreign-born brides from Vietnam and Philippines started to increase as well. The three factors should be considered to understand the rapid increase in foreign-born brides from developing countries: sending country, receiving country, and brokerage agencies between them.

[4] Unification Church is founded in South Korea in 1954 by Sun Myung Moon and has expanded throughout the world with most members living in Korea, Japan, and the Philippines.

The trend of increasing marriage immigrants can be observed in other Asian countries such as Taiwan and Japan. Kawaguchi and Lee (2012) suggest that the rapid improvement of women's labor market opportunities is the main driving force behind the demand for marriage immigrants from developing countries to developed countries. As women's labor market option of receiving country increases, the relative gain from marriage deteriorated. Therefore, women with considerable labor market options may remain single, resulting in much imbalance in the sex ratio in the marriage market.

Kim (2012) claims that gendered structure of society by class and region (urban-rural) is the source of demand for foreign-born brides. Many educated women in urban area postpone their marriage for their career and thereby remain unmarried. On the other hand, many rural men such as farmers and fishermen have a hard time finding marriage partners since they are relatively less educated and thereby considered being unattractive in the marriage market. Imbalance in sex ratio caused by son preference (Kim 2009) is also suggested as a main factor affecting demand for foreign-born brides. The sex ratio in 1989 was 116.5 and slightly decreased to 110.2 in 2000. (National Statistical Office 2007)

On the other hand, women in developing countries with poor economic conditions seek better socioeconomic status through marriage migration. Kim (2012) examined Vietnamese brides who received visas from Korean embassy and found out that 82 percent of brides are from rural areas in South Vietnam especially the Mekong River Delta region which contains some of the poorest communities in Vietnam. For these women, international marriage to the USA, Japan, Korea or Taiwan is often considered to be moving up to a higher social rank. Also, for these unskilled and relatively uneducated women in developing countries, marrying abroad is a relatively easy option for those women compared with finding a job opportunity in Korea as migrant workers. (Seol 2006)

Brokerage agencies for international marriage started to increase in 2000 as regulation on these companies changed from license system to self-reporting system in

1999. (Lee 2005) According to Lee's survey in 2005, there were 180 brokerage agencies for international marriage on the Internet in 2004. Seol (2006) conducted survey of female marriage migrants in 2005. Their survey shows that 27.7% of those marriage immigrants met their husbands through brokerage agencies. However, more than one fifth of total marriage immigrants and 44% of marriage immigrants who used brokerage agencies reported that they received the untrue information regarding their husbands before their marriage.

There are two issues to be address in marriage migration in Korea: prevention of sham marriage and protection of marriage immigrants. It is reported that many of these female migrants experience much difficulty in Korea. According to Seol (2006)'s survey, 31% of female marriage migrants reported being verbally abused by their husband and 14% reported physical abuse and only 10% of those women experienced abuses have reported to the police. Lee (2005) claims that economic disparities between two countries aggravate the unequal relationship between female marriage migrants and their spouses.

At the same time, increase in shame marriage also remains as a major policy issue. The frequency of sham marriage is difficult to identify, but some small scale research or media reports raised worrisome voices about this issue.[5] To prevent this kind of marriage fraud, Korean government changed requirements and qualification of marriage immigrants who apply for Korean nationality.

### 2.2 Korean Nationality Act Regarding Foreign Spouse

[5] Lee (2005) conducted small scale survey on female migrant workers at 20 restaurants and more than 50% of marriage migrants working in the restaurant reported that their marriage with Korean is indeed sham marriage to acquire nationality.

When the Korean Nationality Act was enacted in 1948, there were two kinds of naturalization; one for people married to Koreans and one for all the other people who wish to acquire Korean nationality. Affected by the paternalistic society at that time, there were two different rules for foreign brides and foreign grooms. Foreign brides could automatically acquire Korean nationality along with marriage while foreign grooms had to stay in Korea for at least three years and pass a nationality eligibility exam to get Korean nationality. The nationality of children was also decided by the nationality of their father.

<Table 1 to be Inserted Here>

<Table 1> shows different kinds of visa status and legal eligibility in Korea. Since Korea does not allow dual nationality of its people[6] , marriage immigrants have to choose the nationality of their origin country or Korean nationality in order to stay for a long time without extending their status every three years. Permanent residency was only adopted in 2002 and mainly aimed for Chinese Koreans who had lived in Korea since they were born. As acquiring permanent residency is difficult for marriage immigrants, they usually make a choice between naturalization and other limited status keeping their origin country nationality.

<Table 2 to be Inserted Here>

<Table 2> shows that the law was revised in 1997 so that all foreign spouses have to reside in Korea for two years in order to apply for citizenship. They also now had to take an exam and acquire a certain level of score in Korean language and Korean history until it became exempted again in 2003. The purpose of conditional residence was to protect Korean men from marrying foreign brides who only want to acquire Korean nationality easily. Also it is required for marriage immigrants to get consensus and affidavit of

[6] In 2010, the Korean government allowed dual nationality under the condition that people do not exercise their foreign nationality while in Korea.

financial support from their Korean spouses when applying for Korean nationality. This revision created a situation in which marriage immigrants' ability to remain in Korea depends exclusively on their husband's good will and stable marriage.

The revision with new requirements raised worried voices about the bargaining position of foreign brides whose empowerment is already low. When faced with domestic violence or neglect at home, they now have to choose between uncertain public protection and deportation. Therefore, many women would choose to remain in unhappy marriage even with abusive husbands since termination of marriage can lead to deportation. Faced by critique, the government added some exceptions in 2004 that foreign spouses can acquire Korean nationality in case of death or disappearing of the Korean spouse even though they have not fulfilled all requirements. However, these new exceptions could hardly help foreign brides since the language and cultural barriers often preclude them from getting legal support or seeking help.

# 3 Data and Descriptive Statistics

## 3.1 Multicultural Family Data

We employ the "Multicultural Family Data" collected by the Ministry of Gender Equality and Family in 2012 to examine the impact of nationality acquisition on bargaining power of marriage immigrants. The survey employed a two-stage clustering sampling and includes households with immigrants and Koreans. The survey was conducted in ten different languages in order to acquire accurate information of foreign brides with low Korean proficiency. All our estimates are calculated based on survey design and given weights.

The survey has foreign-born brides, foreign-born grooms, and single immigrants who naturalized eventually. The sample contains 15,000 of marriage immigrants, their spouse, their children, and any other family member living together. The survey aimed to contain comprehensive information of each household and also surveyed their Korean spouses, parents-in-law living together, and also their children. It not only contains demographic characteristics and a labor-market survey, but also has comprehensive variables about their subjective well-being, experience of discrimination, and conflicts with other family members. The richness of our data allows us to perform propensity score matching based on all those characteristics acquired before nationality acquisition.

The survey does not keep track of marriage immigrants whose marriage is dissoluted and thereby went back to their countries of origin. Also, as survey employed interview to collect information, it does not have sample of marriage immigrants whose marriage is indeed fake and do not maintain marriage. The bias stemming from the attrition is ambiguous and we do not discuss its effect in this paper. However, restricting our analyses to those who remain in marriage and who can be tracked would not limit the policy implication of this paper as they who remain in marriage are indeed the target of future policy.

### 3.2 Legal Status of Foreign Brides

<Figure 3 to be Inserted Here>

<Figure 4 to be Inserted Here>

<Figure 3> shows the difference in preference on legal status across foreign-born brides from different origin countries. Brides from developing countries such as Vietnam, China, and Philippines are more likely to prefer acquisition of Korean nationality for the better job opportunities and welfare benefits. On the contrary, most of Japanese brides want

to keep their Japanese passport and remain as foreigners. <Figure 4> shows that this legal preference is reflected in their actual status. Fewer than 5% percent of Japanese brides and Western brides are naturalized as Korean while more than 50% of typical marriage immigrants acquired Korean nationality. All these figures indicate that there exists significant difference in legal status according to origin country of foreign-born brides.

<Figure 5 to be Inserted Here>

<Figure 5> shows trends of nationality acquisition around the revision of nationality law in 1997. The revision was enacted in late 1997, but was effective since 1998. In spite of the introduction of restrictive nationality law, the proportion of brides who currently hold Korean nationality remained level for the cohort of brides who married after 1998. <Figure 6> shows that the difference in the nationality acquisition mainly comes from the two-year conditional residence and administrative process. For foreign-born brides who married after 1998, the share of brides with nationality sharply increases after two years and quickly reaches more than 50% for most cohorts within five years.

<Figure 6 to be Inserted Here>

### 3.3 Measuring Bargaining Power of Marriage Immigrants

In this section, we discuss the choice of our various outcome variables and the compare simple difference between groups with nationality and without nationality. With the language barrier and lack of social protection they are likely to have a low bargaining position at the work place and thereby receive relatively lower wages and non-regular positions compared with workers with nationality. Therefore we chose working as a regular status as the main variable reflecting bargaining power of foreign brides in the labor market.

<Table 3 to be Inserted Here>

Table 3 shows that there is no statistically significant difference between marriage immigrants with nationality and without nationality in terms of working status. However, direction of difference indicates that brides with nationality have a slightly higher chance of being hired as a regular worker conditional on that they are currently working in a labor market.

To examine bargaining power of marriage immigrants, we chose three variables showing their decision power in expenditure and asset allocation in households. The first variable we used to measure bargaining power is active involvement in expenditure decision. Women's decision making has been used in the literature to as a measure of bargaining power. Allendorf (2007) used question on who has the final say on household expenditure as a measure of women's empowerment. Connelly et al (2010) also employed questions about who usually makes decisions on large purchases as variable reflecting women's position in a household.

The multicultural survey has question asking respondents about degree of equality in decision regarding daily expenditure. The questions have a five-point scale where middle point indicates equal involvement in decision making. We created indicator variables of active involvement in decision making for respondents who answered that their involvement in those decisions are more than equal.

It is challenging to make sure that variable about everyday expenditure decision making captures women's bargaining power in a household. Women who do not make their own income may be given a budget from their husband for food and household expenses. In this case, decision making in everyday expenditure is their responsibility rather than higher position of women in a household.

Therefore, we also employ question regarding degree of equality in asset allocation decision. The ownership of or control over assets is found to be related to women's

bargaining power from previous studies. Beegle, Frankenberg and Thomas (2001) used the wife's control of assets owned by family affects use of prenatal care in Indonesia. Panda and Agarwal (2005) also found out that land ownership decreases domestic violence against women in India. Therefore, we employ women's active involvement in asset allocation decision as our variable reflecting women's bargaining power in a household.

Consumption is in general is a measure of people's well-being. Most case, data does not provide individual consumption. However, in case where there are goods that can be clearly identified as private individual goods, expenditure on these goods can be used as an outcome measure of that individual's bargaining power. Golan and Lay (2008) categorize alcohol and tobacco as male items, and examined how the share of income affects expenditure on those male items.

We employ the experience of inviting family living in the origin country as an important bargaining power indicator of marriage immigrants. Inviting family from the origin country is a type of consumption that is considerably costly and more desirable to marriage immigrants. The measure should be considered as indirect measure of bargaining power as consumption is an outcome of bargaining power in a household.

<Table 3> demonstrates that there is a significant difference in these bargaining power indicators between marriage immigrants with nationality and without nationality. Foreign brides in general show a low level of participation in asset allocation decision. However, marriage immigrants with nationality are more likely to show involvement in asset allocation decision by 8% points. For expenditure and invitation decisions, having nationality is also related to significantly more bargaining power by 10% points and 20% points. These summary statistics suggest possibility that having legal entitlement reinforce the bargaining power of marriage immigrants.

### 3.4 Possible Endogeneity Issues

Can the observed association between nationality and bargaining power be causal? The association between observed bargaining power of brides and nationality can be biased if these groups with nationality and without nationality have systematic differences. Brides with nationality may have stayed in Korea for a longer time period and have more experience and better communication. Then they are more likely to be hired as a regular worker than brides without nationality and experience. Experience and communication skill can allow them to exercise more decision power in households as well.

Difference in preference of nationality acquisition can also affect results. Marriage immigrants from difficult economic situations are more likely to acquire nationality. If they are also a relatively unskilled worker, then the impact of nationality acquisition on their bargaining power in the labor market and households would be underestimated. Therefore, in chapter 4 we use a propensity score matching to find a proper comparison group for foreign brides with citizenship.

## 4 Propensity Score Matching Estimation

### 4.1 Empirical Strategy

In this chapter, we employ non-parametric propensity score matching approach in order to identify the causal effect of legal entitlement on bargaining power of marriage immigrants. The difficulty of this estimation comes from selection bias, which we shall carefully address throughout our implementation of matching.

Following the notation in the evaluation literature, let $D = 1$ if a foreign bride achieved Korean nationality and $D = 0$ otherwise. We then define the outcome for naturalized brides ($D = 1$) as $Y(1)$ and the outcome for foreign brides ($D = 0$) as $Y(0)$. Then we can define two parameters which are most frequently estimated in the literature. The first one is

the average treatment effect (ATE), which is simply the difference of the expected outcomes before and after the nationality acquisition.

$$\tau ATE = E(\tau) = E[Y(1) - Y(0)] \qquad (1)$$

The parameter measures the expected effect of nationality acquisition on the bargaining power of foreign brides if Korean nationality is randomly assigned to all foreign-born brides. As Heckman (1997) already noted, this estimate is not very interesting to policy makers because it includes the effect on brides who do not have the intention to achieve Korean nationality. Therefore the parameter we are interested in is the average treatment effect on the treated (ATT), which focuses on the effects on those who want to acquire Korean nationality. It is given by the following equation.

$$\tau ATT = E(\tau|D = 1) = E[Y(1)|D = 1] - E[Y(0)|D = 1] \qquad (2)$$

The expected value of ATT is the difference of the expected outcomes with and without nationality for those who actually acquired nationality. The parameter directly measures the actual effect of nationality acquisition, and it can be compared with its costs. The estimation issue is that the counter- factual mean for those getting citizenship $-E[Y(0)|D = 1]$- is not observed, so researchers have to choose a proper substitute for it in order to estimate ATT. Using untreated brides who have not acquired nationality can bias the results if factors affecting citizenship acquisition also affects outcome variables of our interest. The bias can be noted as the difference between a true average treatment effect and "selection bias" in the following equation.

$$E[Y(1)|D = 1] - E[Y(0)|D = 0]$$

$$= \tau ATT + E[Y(0)|D = 1] - E[Y(0)|D = 0] \quad (3)$$

The unbiased average treatment effect can be identified only if the selection bias is zero by random treatment. To address this issue, we will take advantage of a rich micro data set and the rather simple requirement of nationality application in Korea. We aim to discover a proper control group using propensity score matching and identify the average treatment effect of having Korean nationality on bargaining position of these foreign brides.

### 4.2 Requirement of Nationality Application and First Stage Estimation

#### A. Choice of Covariates in First Stage

To tackle the endogeneity issue mentioned in the previous section, our estimation should satisfy the conditional independence assumption. The assumption requires that systematic differences between the two groups to be attributed to acquisition of nationality given a set of observable variables that affect acquisition of nationality. However, these variables should be unaffected by actual acquisition of nationality or anticipation of it.

To ensure the conditional independence assumption, we rely on previous literature in the migration study of Yang (1994) and requirements of nationality application imposed by the Korean government. Yang (1994) showed that the origin of immigrants is an important determinant of their naturalization. As origin country is determined when these foreign brides are born and not affected by nationality acquisition, it satisfies the conditional independence assumption to perform propensity score matching.

Requirements for nationality acquisition are also required when marriage immigrants initially entered Korea and acquire visa status as a spouse of a Korean. <Table 4> summarizes the requirements for each legal status showing that requirements for F2 visas and nationality are indeed very similar except for the conditional residence requirement. There are mainly three things: marriage, reference, and financial support from Korean spouse. Marriage status and financial characteristics of spouses are already determined at the time of

marriage and not likely to be affected by acquisition of nationality by foreign brides and thereby could be proper covariates in the first stage.

### B. Sample Selection for First Stage Estimation

We carefully restricted our sample to satisfy a good matching condition. We only included marriage immigrants from developing countries in Asia including China, Vietnam, and Philippines. To identify marriage immigrants, we selected only people whose elapsed time between year of marriage and year of first entry to Korea is the same. Also among marriage immigrants without Korean nationality, we restricted our sample to foreign brides whose current visa status is spouse of Korean. We also excluded those whose preference for naturalization is ambiguous or negative.

Our targets were in marriage at the time of survey and between 20 and 50 years old. We excluded marriage immigrants who had stayed in Korea less than two years since they are not eligible to acquire citizenship. We also excluded foreign brides who stayed more than seven years or married more than 10 year to focus our analysis on brides who married after the 1997 revision in Korean nationality law. Couples who married before the regime could be different from couples who married after the revision and that kind of sample selection can bias our results. Studying the behavior of relatively newlyweds allows us to isolate the effect of nationality acquisition while minimizing the potential bias from selection into marriage.

### C. First Stage Estimation

We adopt the method of propensity score matching by Rosenbaum and Rubin (1983) which suggests the use of the probability of acquiring nationality conditional on those pre-application characteristics in order to reduce the dimensionality problem. <Table 5> shows the list of variables we employed in the first stage estimation. We estimate propensity score

using marital status, spousal characteristics, and also origin-fixed effects and income quantile of spouses to control for pre-application characteristics of immigrants. Indicators of using a marriage broker company are included because this information may reflect the pre-application bargaining power relationship between brides and their spouses.

<Table 5> confirms that marriage immigrants have several notable characteristics. The 47.1% of respondents reported that they met through brokerage agencies. The 23.5% is all marriage is a remarriage for Korean male and 14.9% to marriage immigrants. Also, Korean spouse is on average much older (44.5) than that of marriage immigrants (30.6). The years of schooling of Korean male spouse is 11.3 which is slightly lower than that of similar age group[7]. The average years of schooling of marriage immigrants are 9.7 which is much lower than average years of schooling of similar age group among Korean female[8].

<Table 5> also demonstrates that there are substantial differences between marriage immigrants with and without nationality. The years of being in Korea and the age of marriage immigrants are statistically higher for foreign born brides with nationality indicating possibility that these factors can confound our estimates. Also, house ownership which eases the process of nationality acquisition also turned out to be significantly different between two groups of marriage immigrants. Finally, the brides who met their Korean spouse through brokerage agencies are more likely to remain as F2 visa holder implying possibility that those foreign brides through brokerage agencies may have less favorable characteristics to acquire nationality.

<Table 6> shows our first stage estimation showing that years of residence, education of couples, indicator of remarriage, and home ownership turned out to be important factors affecting acquisition of nationality. As proof of financial support from spouse is as important

[7] According to Barro-Lee Data, average years of schooling by Korean male between age 40 and 44 is 13.78 years in 2010.

[8] According to Barro-Lee Data, average years of schooling by Korean female between age 30 and 34 is 14.55 years in 2010.

as proof of marital relationship, we also included indicators of income quantile of Korean spouses. Origin country matters because some countries allow dual citizenship while the others do not. Also, economic and political conditions of origin country affect willingness to apply of foreign brides. All these results imply that difference between two groups of marriage immigrants should be carefully considered to acquire unbiased estimates.

### 4.3 Reliability of Matching

#### A. Common Support

Propensity score matching requires the common support condition to be satisfied. Mathematically it simply says that perfect predictability of program participation (citizenship acquisition) should be ruled out.

$$0 < P(Citizenship = 1|X) < 1 \quad (4)$$

This condition ensures that people with the same covariates have a positive probability of being both citizen and non-citizen. (Heckman, LaLonde, and Smith, 1999) Therefore for each observation in the treatment group, we should be able to find out an observation in the control group with the same combination of characteristics.

Detection of common support can be easily done by visual inspection of the propensity score distribution. <Figure 7> shows the distribution of propensity score in the treated group (with nationality) and untreated group (without nationality). Though the untreated group has a significant size of population who has very low propensity to acquire citizenship, we can find matchable observations from the treated group. However, some treated group observations have very high propensity to achieve citizenship and cannot be matched with the untreated group as no such observations are found. Those off-support observations are dropped from the sample for analysis.

**B. Assessment of Matching Quality**

We employed nearest-neighbor matching with replacement. We also allowed oversampling (2-NN) for efficient use of data. Since the matching process depends on propensity score and not on all covariates in the first stage, it has to be checked if the matching process well balances the distribution of all the covariates in both the treatment and control group.

In <Table A> in appendix, we show the balance test results of covariates included in the first stage estimation using standardized bias as an indicator. All origin indicators and income quantile indicators are well matched and post-matching bias is below 6%. Most demographic variables are also well matched except age of foreign brides and their spouses. However, magnitude of difference is less than one year. Overall our matching quality satisfies criterion suggested in the literature.

### 4.4 Empirical Results and Interpretation

**A. Labor Market Outcomes and Bargaining Power in Households**

<Table 7> demonstrates that nationality acquisition does not affect the probability of working in the labor market but increases the chance of being employed as a regular worker at a 10% significance level. Being a regular worker implies that workers can get protection from the Labor Standard Act and unions. Regular workers are less likely to be laid off or replaced and more likely to get employer-sponsored health insurance. Our results suggest that having a Korean nationality raises the probability to getting hired as a regular worker by 8.7 percentage points and, hence, increases the outside option of marriage by raising the chance that they can get a secure job in formal sector.

We also estimated the effect of nationality acquisition on bargaining power of marriage immigrants in households. Before the matching, all measures show significantly

higher bargaining power for marriage immigrants with nationality. After matching, bargaining power in asset allocation decisions and invitation of family members remain statistically significant. Estimates show that having nationality increases the probability of being involved in asset allocation decisions of foreign brides by 5.7 percentage points. Also, legal entitlement increases the probability to invite their family members from origin country by 14 percentage points. Measure of bargaining power in expenditure decisions is not significant implying that involvement in expenditure decision may not be a proper measure of bargaining power as we discussed in Chapter 3.3. On the whole, our results imply that having stable legal status increases bargaining power of marriage immigrants in important decisions such as asset and large consumption.

### B. The Effect of Network

Previous literature suggests that having a network within one's own ethnic group improves employment and welfare benefit usage of immigrants. (Bertrand, Luttmer, and Mullainathan, 2000) Hatton and Leigh (2011) also found out that the longer the immigrant community has been established, the better immigrants tend to assimilate using long-run data in US.

Multicultural surveys directly asked marriage immigrants whether they have their own ethnic network to share information. In our sample, around 50% of marriage immigrants responded that they have their own ethnic network while the other 50% responded they do not have such network group. We re-estimated our results across these two groups in <Table 8> to see whether our previous results are related with having their own network group.

Results summarized in <Table 8> suggest the possibility that network and legal entitlement interactively affect the bargaining power of marriage immigrants in a labor

market and a household. In a labor market, legal entitlement both affects the probability of being employed and being employed as a regular worker only when marriage immigrants have their network groups. On the other hand, for groups of marriage immigrants without any network, legal entitlement poses no impact on both outcomes. These results suggest that proper labor market information is pre-requisite for the effect of stable legal status.

For bargaining power in a household, our results show that legal entitlement has its own effect on female marriage immigrants' decision power in a household. Though some results lost statistical significance because of reduced sample size, results show that having citizenship contributes to more involvement in decision making in asset allocation and invitation of female's family member from origin countries.

It should be noted that our results are found for samples of marriage immigrants who maintain their marriage with their Korean spouse. Our results implies that policy targeted for people who do not sustain marital relationship actually have effects on people who maintain marital relationship as well. Having stable legal status increases outside option of marriage by increasing probability to be hired as a regular worker and providing protection from deportation. These outside option empowers bargaining power of marriage immigrants who is in marital union even in a family.

## 5 Conclusions

Our paper aims to contribute to the literature by showing that legal framework could be an important determinant of bargaining power of female marriage immigrants. Using detailed survey of multicultural families and requirement of nationality application, we examined propensity score matching estimates which compare female marriage immigrants with and without nationality. Our results demonstrate that legal entitlement matters for having a regular job in a labor market and more decision power in households. We also

show that the network is necessary for someone with nationality to get a favorable job in a labor market.

The bargaining power of female marriage immigrants is not only a policy target by itself, but also has potential to provide better assimilation outcomes. Women with independent legal status and empowerment could get access to more resource, public protection and acceptance from the society. Empowering female marriage immigrants is also important from the perspective of motherhood. The empowerment of these marriage immigrants would be vital to the development outcome of the second generation such as health and education. The future research should focus more on the linkage between marriage immigrants and development outcomes of the second generation and their assimilation.

This study has important policy implications for Asian countries with increasing numbers of marriage immigrants. Our paper suggests that supplementary legal support should be provided for those immigrants with vulnerable legal status. A careful policy focusing on language education and labor market training will be also necessary for their assimilation into the society.

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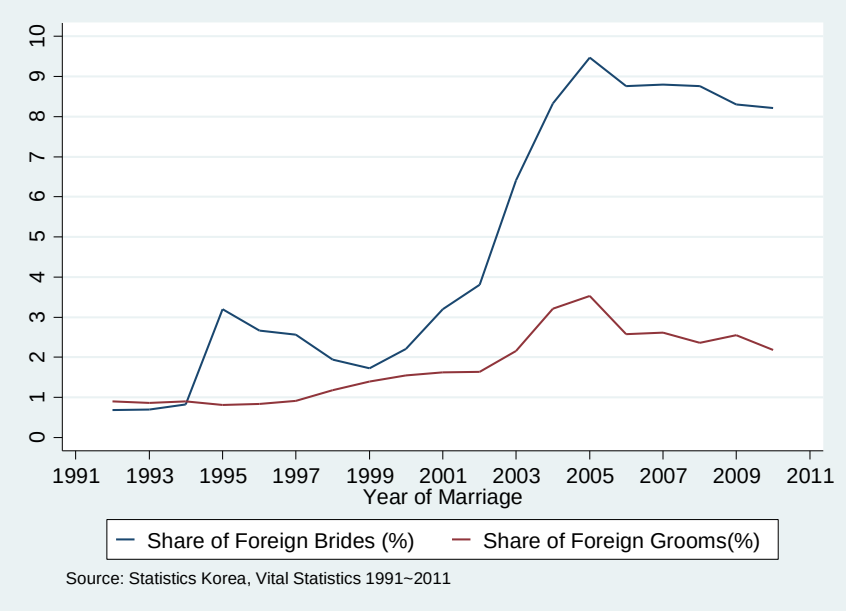
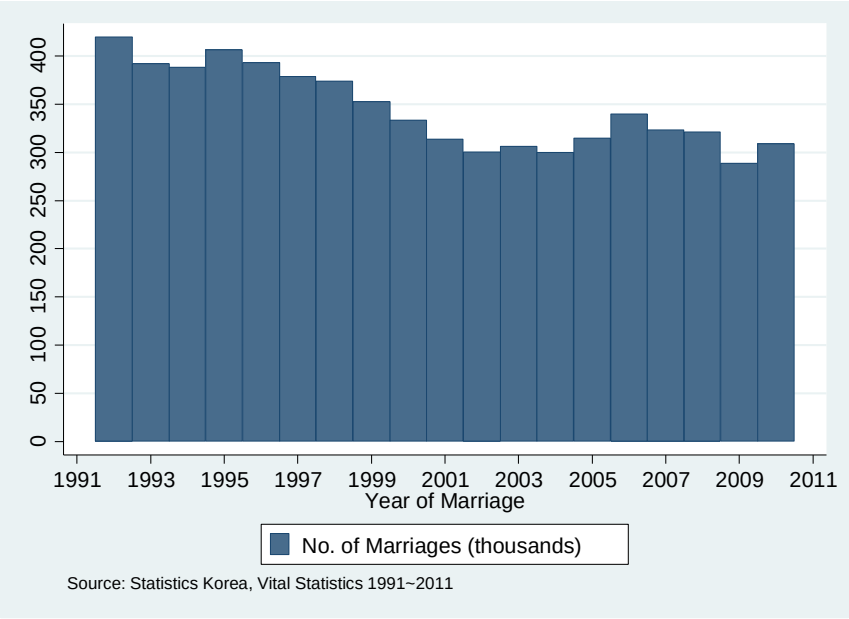
Figure 1: Share of Marriages with Foreign Spouses






Source: Statistics Korea, Vital Statistics 1991~2011

Figure 2: Origin of Foreign Brides

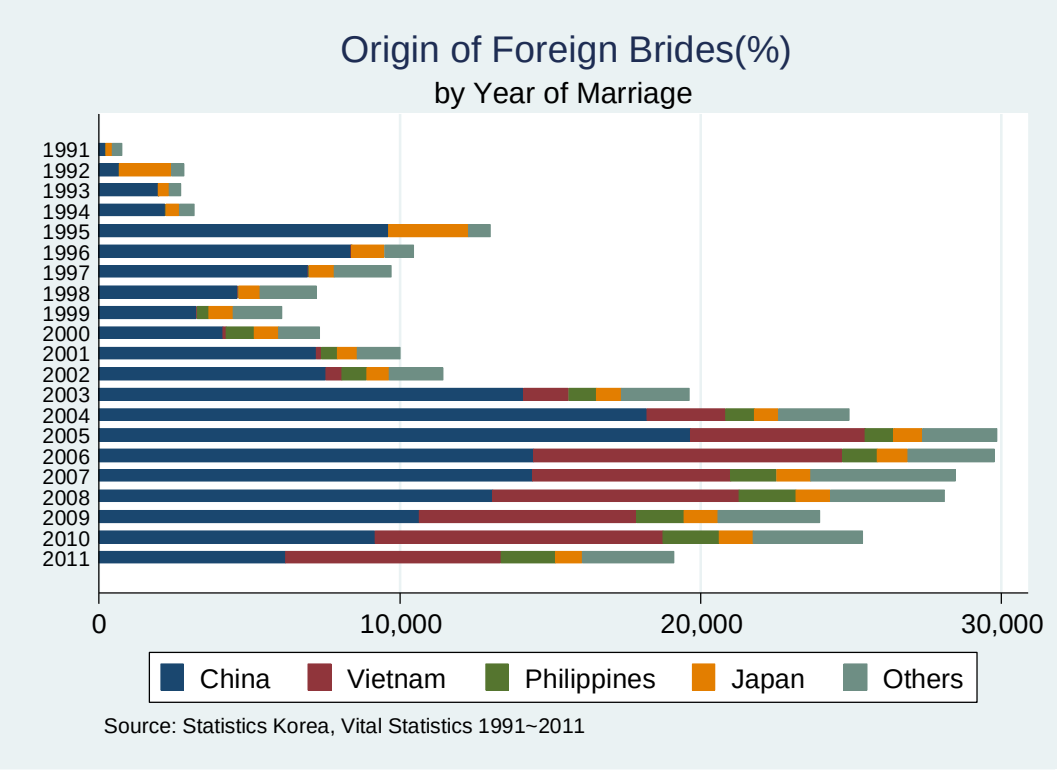


Table 1: Visa Status and Legal Eligibility

| | Suffrage | Working | The Length of Stay | Extension |
|---|---|---|---|---|
| Nationality | Yes | Allowed | No restriction | N/A |
| Permanent Resident | No | Allowed | No restriction | N/A |
| Spouse of Korean (F2) | No | Allowed | 3 Years | Yes |
| Employment Visa (E) | No | Allowed | Varies by Occupation | Varies by Occupation |
| Student Visa (D2) | No | Allowed | 2 Years | Yes |
| Occupational Trainee Visa (D3,E8) | No | Allowed | 2 Years | Yes |
| Business Visitors (H) | No | Allowed | 3 Years | Varies by Origin Country |
| Visitors Visa (C) | No | No | 90 Days | No |

Table 2: The Timeline of the Change of Korean Nationality Act

| | |
|---|---|
| 1948 | The Korean Nationality Act was enacted. Foreign brides could acquire Korean citizenship along with marriage. |
| 1963 | Foreigners who acquired Korean citizenship should repudiate original nationality within six months. |
| 1997 | Revised to add two year-residential requirement to foreign spouses. Foreign spouses also have to pass nationality eligibility exam to acquire Korean citizenship. |
| 2003 | Nationality eligibility exam was abolished for marriage immigrants. |
| 2004 | Allowed exceptions to foreign spouses in special cases to protect and support their children. |
| 2009 | KIIP |
| May 4th 2010 | Dual Nationality Allowed |

Figure 3: Foreign Bride's Preference on Legal Status

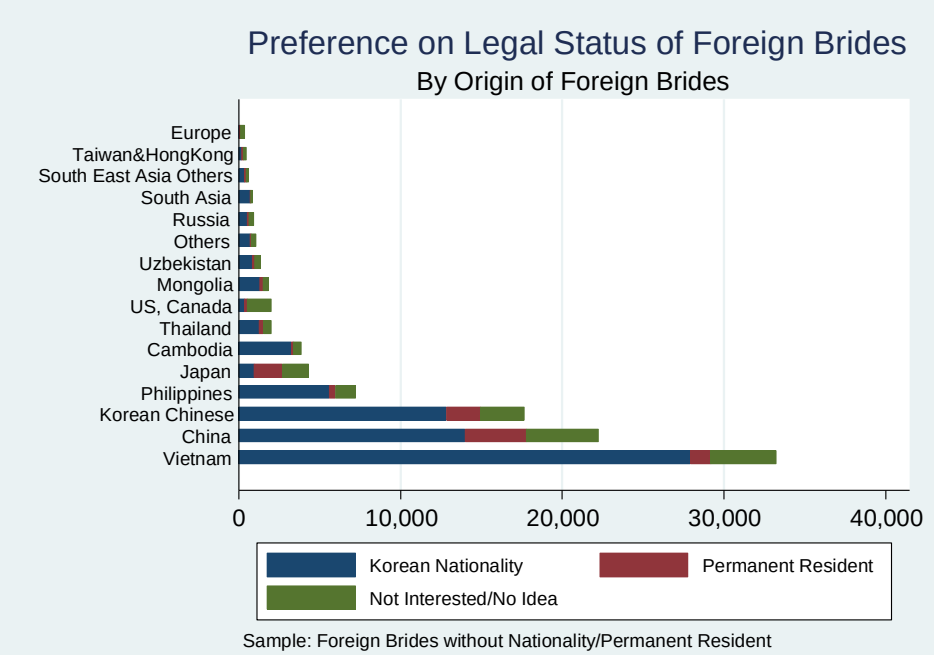



Figure 4: Legal Status of Foreign Brides

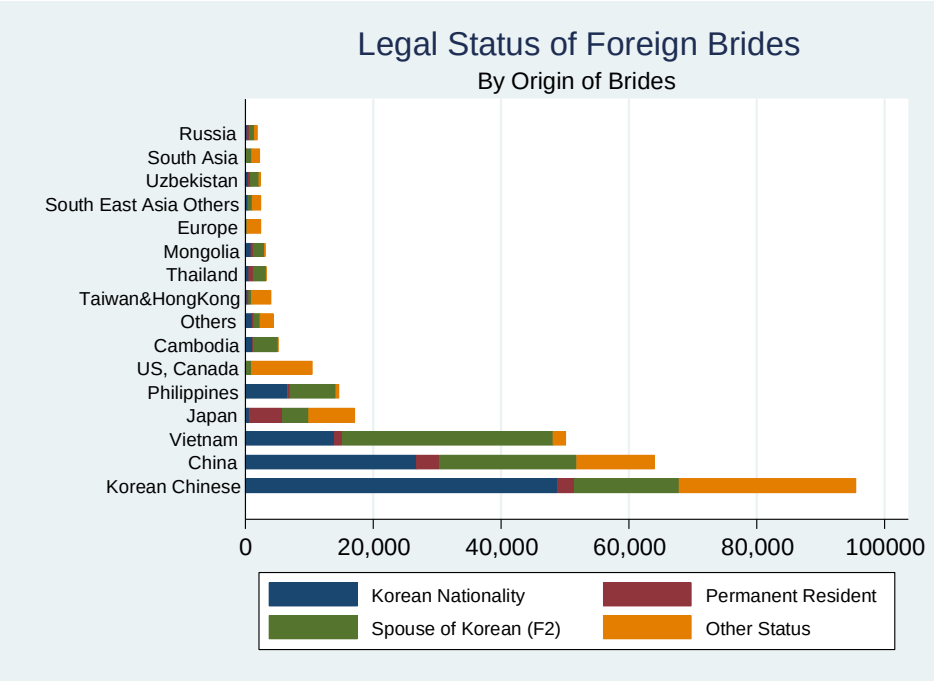

Legal Status of Foreign Brides
By Origin of Brides
Russia
South Asia
Uzbekistan
South East Asia Others
Europe
Mongolia
Thailand
Taiwan&HongKong
Others
Cambodia
US, Canada
Philippines
Japan
Vietnam
China
Korean Chinese
0
20,000
40,000
60,000
80,000
100000
Korean Nationality
Permanent Resident
Spouse of Korean (F2)
Other Status

Figure 5: The Legal Status of Foreign Brides by Year of Marriage

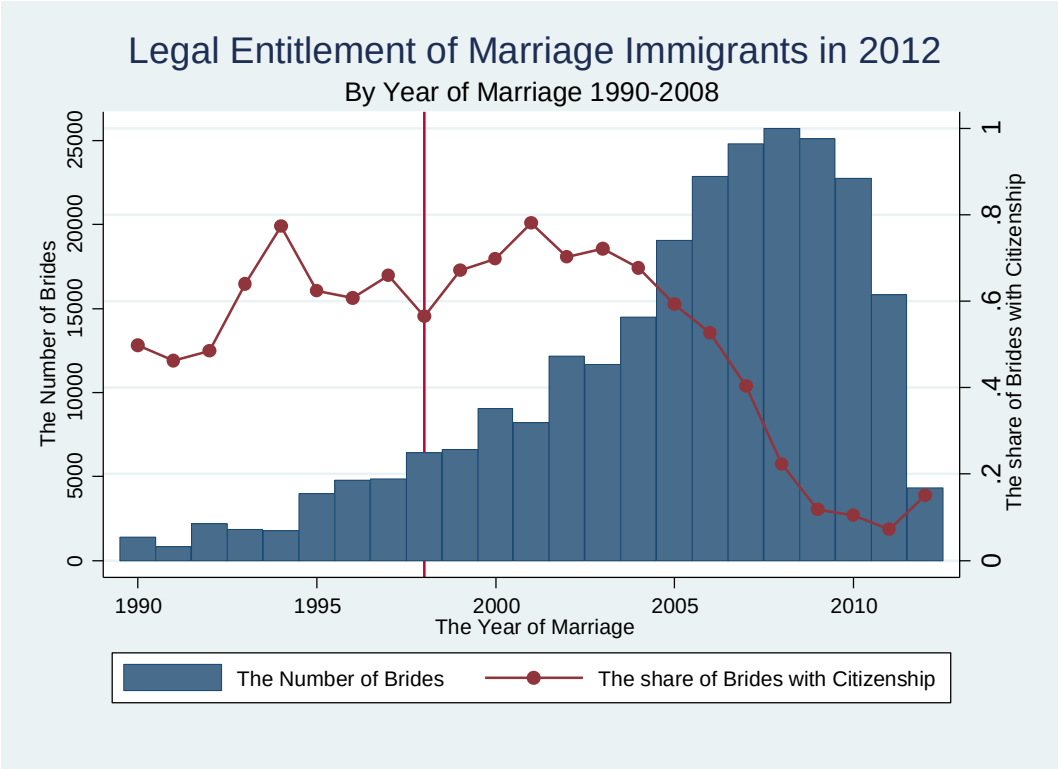
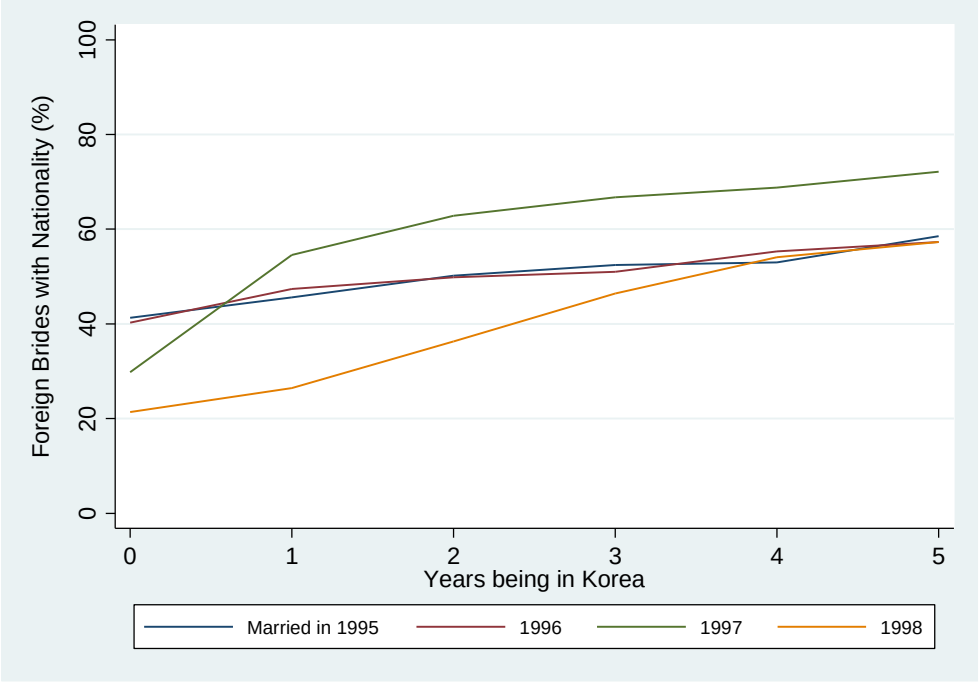


Figure 6: Trends of Citizenship Acquisition



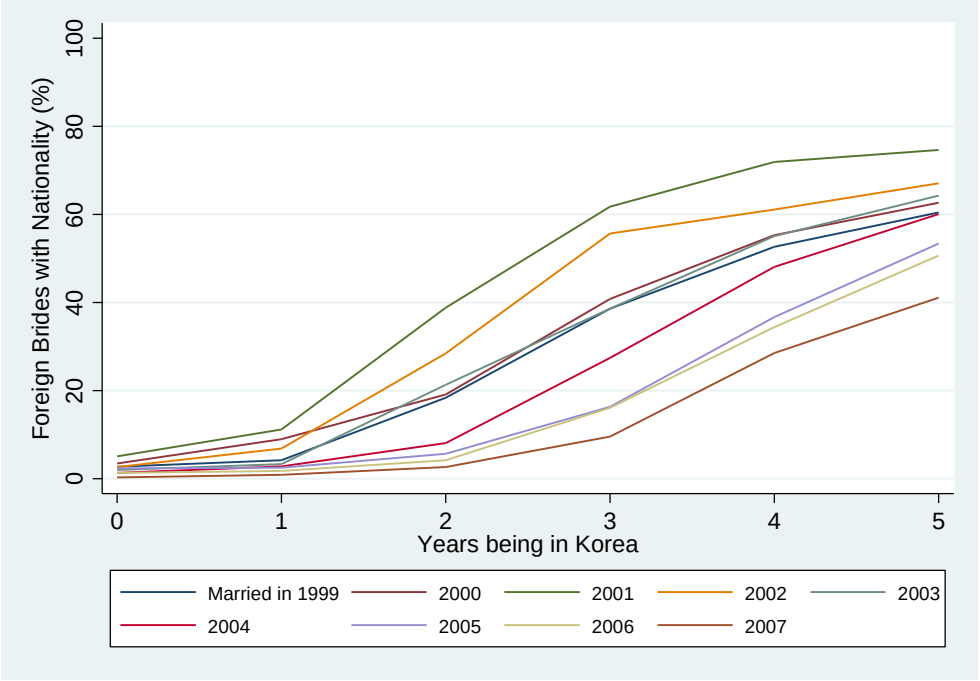



Table 3: Labor Market and Bargaining Power Statistics

| Dependent Variables | Whole Sample | Without Nationality | With Nationality | Difference |
|---|---|---|---|---|
| **Labor Market Outcomes** | | | | |
| Working | 0.522 | 0.521 | 0.522 | 0.001 |
| | (0.013) | (0.018) | (0.018) | (0.026) |
| Employed as a regular worker (only workers) | 0.317 | 0.290 | 0.340 | 0.050 |
| | (0.017) | (0.024) | (0.024) | (0.034) |
| **Bargaining Power in Household** | | | | |
| Active involvement in asset allocation decision | 0.167 | 0.124 | 0.201 | 0.077** |
| | (0.010) | (0.013) | (0.015) | (0.020) |
| Active involvement in expenditure decision | 0.308 | 0.253 | 0.354 | 0.101** |
| | (0.012) | (0.016) | (0.018) | (0.024) |
| Ever invited family members | 0.517 | 0.407 | 0.608 | 0.201** |
| | (0.013) | (0.018) | (0.018) | (0.025) |

** significanct at 1%. Sample: Marriage immigrants

Table 4: Requirements for Legal Entitlement

| Spouse of Korean (F-2 Visa) | Simplified Naturalization for Marriage Immigrants |
|---|---|
| 1. Married with Korean spouse | 1. Married with Korean spouses 1) for the past 2 (or more) consecutive years, maintained marriage status with the spouse and kept residence in Korea or 2) for the past 3 (or more) consecutive years, maintained marriage status and have spent more than 1 year in Korea. |
| 2. Reference certificate from spouse | 2. Participate with spouse and prove the normal marriage status is maintained. Possible to substitute that with the spouse's identification and fact only if unforeseen circumstances. |
| 3. Documents of funds and finance (bank balance, lease contract or estate more than 30 million won, a certificate of incumbency, etc) | 3. Documents of funds and finance (bank balance, lease contract or estate more than 30 million won, a certificate of incumbency, etc) |

Table 5: Variable Definitions and Descriptive Statistics

| Variable | Description | All | F2 Visa | Citizen | Difference |
|---|---|---|---|---|---|
| Citizen Dummy | | | | | |
| Citizen | =1 if respondent acquired nationality | 0.548 (0.013) | | | |
| Marriage Characteristics | | | | | |
| Remarriage | =1 if it is a remarriage to foreign bride | 0.149 (0.010) | 0.150 (0.014) | 0.149 (0.014) | 0.001 (0.020) |
| Spouse Remarriage | =1 if it is a remarriage to their spouse | 0.235 (0.011) | 0.251 (0.016) | 0.222 (0.015) | -0.028 (0.022) |
| House Own | =1 if they own house | 0.564 (0.013) | 0.507 (0.018) | 0.611 (0.018) | 0.103** (0.026) |
| Broker | =1 if they met through broker company | 0.471 (0.013) | 0.518 (0.018) | 0.433 (0.018) | -0.086** (0.026) |
| Bride's Characteristics | | | | | |
| Age | Age of foreign brides | 30.61 (0.183) | 29.93 (0.267) | 31.17 (0.248) | 1.24** (0.365) |
| Stayed | Years of being in Korea | 5.36 (0.028) | 4.864 (0.037) | 5.766 (0.036) | 0.902** (0.051) |
| Schooling | Years of schooling | 9.738 (0.067) | 9.657 (0.099) | 9.804 (0.091) | 0.146 (0.135) |
| Spousal Characteristics | | | | | |
| Spouse Age | Age of Korean spouse | 44.45 (0.158) | 44.50 (0.227) | 44.41 (0.220) | -0.090 (0.316) |
| Spouse Working | =1 if Korean spouse is working | 0.985 (0.004) | 0.983 (0.006) | 0.986 (0.004) | 0.003 (0.007) |
| Spouse Schooling | Years of schooling of Korean Spouse | 11.28 (0.052) | 11.33 (0.072) | 11.25 (0.073) | -0.079 (0.103) |

Standard errors are reported in parenthesis.

Table 6: Propensity Score Coefficient Estimates

| Variables | Probability(Citizenship=1) | | |
|---|---|---|---|
| **Demographic Variables** | | | |
| Age | -0.019** | -0.001 | -0.000 |
| | (0.007) | (0.008) | (0.009) |
| Years of being in Korea | 2.093** | 2.099** | 2.056** |
| | (0.395) | (0.396) | (0.399) |
| Years of being in Korea$^2$ - | 0.143** | -0.145** | -0.139** |
| | (0.036) | (0.036) | (0.037) |
| Years of schooling | 0.040** | 0.036** | 0.038** |
| | (0.013) | (0.014) | (0.014) |
| **Household Variables** | | | |
| Remarriage | | -0.406** | -0.392* |
| | | (0.157) | (0.156) |
| Spouse Remarriage | | -0.053 | -0.059 |
| | | (0.094) | (0.098) |
| Home ownership | | 0.299** | 0.299** |
| | | (0.072) | (0.072) |
| Broker | | -0.123 | -0.123 |
| | | (0.085) | (0.085) |
| **Spouse Characteristics** | | | |
| Age | | | -0.007 |
| | | | (0.008) |
| Years of Schooling | | | -0.038* |
| | | | (0.019) |
| Working | | | 0.317 |
| | | | (0.332) |
| **Fixed Effects** | | | |
| Origin Fixed Effects | Controlled | Controlled | Controlled |
| Spouse Income Quantile | | | Controlled |
| Sub-population Size | 1,968 | 1,968 | 1,968 |

* significant at 5%, ** significant at 1%

Figure 7: Common Support

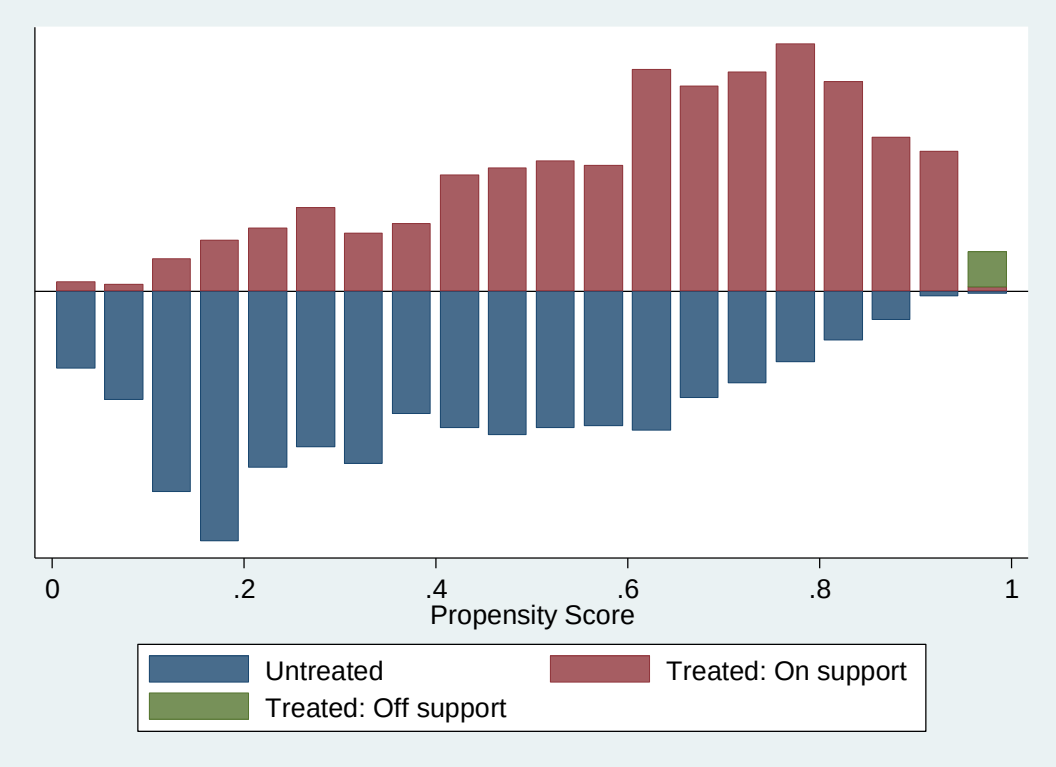


Table 7: Labor Market Outcomes and Bargaining Power

| Dependent Variables | Sample | Treated | Controls | Difference | T-statistic | N |
|---|---|---|---|---|---|---|
| **Labor Market Outcomes** | | | | | | |
| Employed | Unmatched | 0.518 | 0.498 | 0.019 | 0.85 | 979 |
| | Matched | 0.518 | 0.470 | 0.048 | 1.22 | 974 |
| Employed as a regular worker (only workers) | Unmatched | 0.346 | 0.275 | 0.071 | 2.43 | 488 |
| | Matched | 0.347 | 0.259 | 0.087 | 1.76 | 505 |
| **Bargaining Power in Household** | | | | | | |
| Involved in asset allocation decision | Unmatched | 0.172 | 0.116 | 0.055 | 3.51 | 979 |
| | Matched | 0.168 | 0.111 | 0.057 | 2.42 | 989 |
| Involved in daily expenditure decision | Unmatched | 0.243 | 0.243 | 0.080 | 3.97 | 979 |
| | Matched | 0.283 | 0.283 | 0.038 | 1.20 | 974 |
| Ever invited family members | Unmatched | 0.588 | 0.418 | 0.171 | 7.68 | 979 |
| | Matched | 0.586 | 0.438 | 0.148 | 4.09 | 974 |

Table 8: Effect of Legal Status by Brides with and without Network

| Dependent Variables | Sample | Treated | Controls | Difference | S.E. | T-Stat |
|---|---|---|---|---|---|---|
| **Labor Market Outcomes** | | | | | | |
| Employed | With Network | 0.527 | 0.432 | 0.096 | 0.046 | 2.08 |
| | Without Network | 0.530 | 0.587 | -0.057 | 0.064 | -0.89 |
| Employed as a regular worker (only workers) | With Network | 0.373 | 0.286 | 0.088 | 0.061 | 1.44 |
| | Without Network | 0.306 | 0.312 | -0.005 | 0.072 | -0.07 |
| **Bargaining Power in Household** | | | | | | |
| Involved in asset allocation decision | With Network | 0.152 | 0.101 | 0.051 | 0.027 | 1.88 |
| | Without Network | 0.185 | 0.148 | 0.037 | 0.038 | 0.97 |
| Involved in daily expenditure decision | With Network | 0.313 | 0.318 | -0.004 | 0.038 | -0.11 |
| | Without Network | 0.316 | 0.211 | 0.105 | 0.048 | 2.20 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ever invited family members | With Network | 0.622 | 0.472 | 0.150 | 0.042 | 3.58 |
| | Without Network | 0.519 | 0.275 | 0.244 | 0.055 | 4.44 |

# Appendix

Table A. Matching Quality

| Variables | Sample | Mean | | % bias | T-test |
|---|---|---|---|---|---|
| | | Treated | Control | | |
| Age | Unmatched | 30.5 | 29.7 | 13.4 | 2.97 |
| | Matched | 30.5 | 29.8 | 10.4 | 2.38 |
| Years of being in Korea | Unmatched | 5.7 | 4.9 | 85.2 | 18.9 |
| | Matched | 5.7 | 5.6 | 4.4 | 0.94 |
| Years of schooling | Unmatched | 9.9 | 10.1 | -4.4 | -0.97 |
| | Matched | 9.9 | 10.1 | -5.8 | -1.35 |
| Remarriage | Unmatched | 0.11 | 0.12 | -1.6 | -0.36 |
| | Matched | 0.11 | 0.10 | 5.9 | 1.36 |
| Spouse remarriage | Unmatched | 0.21 | 0.23 | -7.9 | -1.75 |
| | Matched | 0.21 | 0.19 | 3.8 | 0.88 |
| Home ownership | Unmatched | 0.63 | 0.55 | 17.0 | 3.77 |
| | Matched | 0.62 | 0.66 | -7.1 | -1.61 |
| Married through broker | Unmatched | 0.48 | 0.52 | -7.5 | -1.67 |
| | Matched | 0.48 | 0.46 | 4.8 | 1.07 |
| Spouse age | Unmatched | 44.3 | 44.3 | 1.2 | 0.26 |
| | Matched | 44.4 | 43.6 | 13.1 | 2.89 |
| Spouse years of schooling | Unmatched | 11.2 | 11.3 | -4.5 | -1.01 |
| | Matched | 11.2 | 11.3 | -3.9 | -0.88 |
| Spouse working | Unmatched | 0.9 | 1.0 | -3.8 | -0.83 |
| | Matched | 0.9 | 1.0 | -3.9 | -0.86 |

Table A. Matching Quality (continued)

| Origin Indicators | Sample | Mean | | % bias | T-test |
|---|---|---|---|---|---|
| | | Treated | Control | | |
| Chinese | Unmatched | 0.17 | 0.12 | 13.9 | 3.09 |
| | Matched | 0.17 | 0.16 | 3.5 | 0.73 |
| Korean Chinese | Unmatched | 0.16 | 0.05 | 34.8 | 7.72 |
| | Matched | 0.15 | 0.15 | 0.5 | 0.10 |
| Mongolia | Unmatched | 0.04 | 0.08 | -18.4 | -4.08 |
| | Matched | 0.04 | 0.04 | -1.1 | -0.30 |
| Vietnam | Unmatched | 0.36 | 0.34 | 3.3 | 0.73 |
| | Matched | 0.36 | 0.36 | 0.1 | 0.02 |
| Philippines | Unmatched | 0.11 | 0.16 | -15.2 | -3.36 |
| | Matched | 0.11 | 0.10 | 3.7 | 0.90 |
| Thailand | Unmatched | 0.01 | 0.06 | -27.9 | -6.21 |
| | Matched | 0.01 | 0.01 | -2.4 | -0.95 |
| Cambodia | Unmatched | 0.15 | 0.16 | -3.3 | -0.72 |
| | Matched | 0.15 | 0.16 | -3.6 | -0.78 |
| Uzbekistan | Unmatched | 0.02 | 0.04 | -11.0 | -2.45 |
| | Matched | 0.02 | 0.02 | -4.5 | -1.10 |

Table A. Matching Quality (continued)

| Variables | Sample | Mean | | % bias | T-test |
|---|---|---|---|---|---|
| | | Treated | Control | | |
| Income quantile 1 | Unmatched | 0.04 | 0.03 | 1.5 | 0.32 |
| | Matched | 0.04 | 0.04 | -0.8 | -0.18 |
| Income quantile 2 | Unmatched | 0.07 | 0.09 | -7.8 | -1.73 |
| | Matched | 0.07 | 0.08 | -2.1 | -0.48 |
| Income quantile 3 | Unmatched | 0.21 | 0.21 | -0.3 | -0.06 |
| | Matched | 0.21 | 0.20 | 3.3 | 0.73 |
| Income quantile 4 | Unmatched | 0.26 | 0.26 | 0.3 | 0.07 |
| | Matched | 0.26 | 0.24 | 4.1 | 0.91 |
| Income quantile 5 | Unmatched | 0.20 | 0.20 | 1.8 | 0.39 |
| | Matched | 0.20 | 0.18 | 5.0 | 1.12 |
| Income quantile 6 | Unmatched | 0.11 | 0.11 | -0.7 | -0.15 |
| | Matched | 0.11 | 0.14 | -9.1 | -1.91 |
| Income quantile 7 | Unmatched | 0.06 | 0.04 | 5.9 | 1.30 |
| | Matched | 0.05 | 0.08 | -10.9 | -2.13 |
| Income quantile 8 | Unmatched | 0.02 | 0.03 | -7.2 | -1.60 |
| | Matched | 0.02 | 0.02 | 2.9 | 0.76 |
| Income quantile 9 | Unmatched | 0.02 | 0.01 | 4.1 | 0.91 |
| | Matched | 0.02 | 0.02 | -1.3 | -0.26 |
| Income quantile 10 | Unmatched | 0.01 | 0.01 | 7.6 | 1.68 |
| | Matched | 0.01 | 0.01 | 5.6 | 1.22 |