

Legal Entitlement and Bargaining Power of Marriage Immigrants in Korea

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Abstract

The share of marriage between South Korean male and mail order brides from other Asian countries sharply increased since 1990s reaching around 10% of new marriage in 2005. The revision of immigration law in 1997 restricted legal entitlement of marriage immigrants by requiring them two-year conditional residence and guarantee of their spouses for naturalization. We employ large data set collected in 2012 to investigate the impact of citizenship acquisition of these brides on their bargaining power in various aspects. We employ propensity score matching using detailed information of brides, their spouses and households. Our results show that legal entitlement of marriage immigrants raises the chance of being hired as a regular worker, decision power in a household, and perception of discrimination. The findings in this paper implies that legal framework is important determinant of bargaining power in labor market, households, and society.

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1 Introduction

The bargaining power within couples is not simply determined by characteristics of two people in family, but also reflects surrounding social system such as cultural norm and legal system. Especially, law related to the dissolution of marriage affects outside option of marriage, and thereby could influence the bargaining position of couples. According to exit-threat bargaining model, household distribution can be a function of each spouse's outside option of marriage. Also, these laws related to marriage and divorce alter the factors of intertemporal decision between couples and could change the investment decision to marriage-specific human capital such as learning language of foreign spouse.

In this paper, we investigate the relationship between legal entitlement and various outcomes of households using rich data about marriage immigrants in Korea. Korean government enacted the two-year conditional residence and spousal support condition for increasing marriage immigrants to acquire nationality of Korea. This legal change redistributed bargaining power from female marriage immigrants to their male counterpart by raising their dependence on their husbands. Without spousal support, they cannot acquire stable legal status in Korea and may face deportation upon divorce. We examine whether this legal change affected bargaining power of female marriage immigrants inside and outside the household.

The classical economic models which viewed family as a single person. However, Browning and Chiappori (1998) suggested that collective setting should be considered in the analysis of intra-household allocation. More recent theories assumed that husband and wife have conflicting interest and play the cooperative game. The change in exit threat or non-cooperative outcome can affect decisions made by couples. (Lundberg and Pollak 1993, Manser and Brown 1980)

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 their children as well. The another revision in 2004 allowed those brides to acquire stable legal status through

appeal. However for foreign brides who has little knowledge of legal system in Korea, it would be tough to acquire her legal right through complicated process.

The relationship between legal status and bargaining power of these marriage immigrants is well studied in legal literature. Jang (2004) studied immigrants and refugee women and reported that these women are often the victims of domestic violence. Batterers often use legal system to abuse their partners further by claiming annulment of marriage based on alleged fraudulent marriage. Loke (1996) also documented that battered immigrant women face fears of deportation and language and cultural barriers. The Immigration Act of 1990 in United States tried to protect victims of domestic violence, however, there still remains many problems regarding work authorization and public benefits.

Legal status of immigrants are generally related to their labor market performance as well. Several papers found out that U.S. citizenship is associated with higher employment ratios and lower unemployment rates. (Chiswick 1982; Chiswick and Hurst 1996) As labor market opportunities can serve as an outside option for marriage, the effect of citizenship not only has direct impact on bargaining power, but indirect impact through altering outside option.

In this paper, we propose that citizenship acquisition of marriage immigrants can strengthen their bargaining power in households, labor market, and even in society. We use propensity score matching strategy to carefully measure the impact of citizenship on various outcomes reflecting bargaining power of these marriage immigrants. Using rich data and institutional requirement of Korean Immigration Authority we identify how foreign brides achieve Korean citizenship. Then we use those information to find proper control group of foreign brides who have citizenship.

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 Historical Backgrounds of Marriage Immigrants

2.1 History of Imported Brides in Korea

Since 1990s, marriage immigrants from other Asian countries accounts 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. Seol et al. (2009) forecast that the average annual growth rate of marriage immigrants would be around 6.7% from 2010 to 2020, thereby, the number of marriage immigrants in 2020 would reach 350,862, which is about twice the number of 2010.

Faced with the sharp increase in this new type of family, Korean government named it multicultural families and tries manly policies to assimilate them into the society. In the near future, the second generation of these multicultural family will indeed occupy significant portion of Korean society. <Figure 2> shows that share of births from multicultural family already reached 4.7% in 2011. Seol et al. (2009) forecast that the annual growth rate of the second generation of multicultural family would be around 8.17% from 2010 to 2020, and the number of them in 10 years will reach twice the number in 2020.

What is the driving force behind this rapid increase in marriage immigrants? As a matter of fact, 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 increases, the relative gain from marriage grew deteriorated. Therefore, women with a high labor

market option may remain single, resulting much imbalance in sex-ratio in the marriage market. Especially this issue seriously affects the men in rural area because women who left rural areas for better education and labor market and refuse to come back. (Lee 2010)

To handle this issue, Korean government has promoted marriage between Korean men in rural area and marriage immigrants from developing countries since 1990s. (Kim, 2009). For example, Gyeongsangnam-do, which is one of the eight provinces of Korea, enacted financial support for newly married Korean men with those marriage immigrants.

On the other hand, global economic disparity is the key of the supply side of marriage immigrants. (Kim, 2012) Women in developing countries with poor economic condition seek better socioeconomic status through marriage migration. Especially, Korean government does not approve employment-based residential immigration but marriage-based residential immigration (Kim 2009). Therefore, marrying abroad is relatively easy option for those women than finding a job opportunity in Korea. (Seol 2006) It also explains why these women are mail-order brides and different from usual immigrants married to Korean spouse. Most of mail-order brides first arrive in Korea after marriage without much information about Korean society, language, and even their spouses. (Kawaguchi and Lee, 2012)

<Figure 2> shows change in the composition of foreign brides by their origin country. It shows that brides from China, Vietnam and Philippines have sharply increased compared to those from Japan. Unfortunately, it is reported that many of these mail-order brides experience much difficulty in the process of assimilation. Often, they are the target of domestic violence and neglect by spouse and parents in law. At the same time, they are expected to perform traditional role as women by having children and taking care of housework without complaints. (Lee, 2005, Seol 2006, Yang and Kim, 2007)

In spite of these heavy burden, they seem to have low bargaining power at home. According to many surveys performed by government and research institutes, these brides rarely have deci-

sion power or economic independence at home. Many of them answered that they do not receive enough living expenses and should get permission when asking for it. Some reported that their mobility to meet friends or get education from public institutes is also restricted and thereby suffering from isolation and loneliness. Language barrier and financial difficulty allow them limited access to prenatal medical service which can lead long lasting effect on the second generation as well. (Seol 2006, Jang et al. 2010, Kim et al. 2011)

Second generation of marriage immigrants has also reported difficulties of school life. According to the report of Gyeonggi-do provincial assembly (2012), 43.8% of second generation of marriage immigrants in Gyeonggi-do did not enroll primary and secondary education. Even though, a large proportion of second generation does not suffer problems in school (Yang and Kim 2012), some children have low academic achievements and suffer emotional, verbal, and physical bullying from native-Korean peer group at school. Lower academic performance is partly due to low Korean proficiency of their mothers. However, lack of teaching program and recognition of teachers are pointed as more serious causes of significant size of drop-out. (Mo and Hwang 2007, Hong 2010)

2.2 History of Korean Nationality Act Regarding Foreign Spouse

When the Korean Nationality Act was enacted in 1948, there were two kinds of naturalization; one for marriage immigrants and one for all the other people who wish to acquire Korean nationality. Affected by paternalistic society at that time, there were two different rules for foreign brides and foreign grooms separately. 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 nationality eligibility exam to get Korean nationality. The nationality of children was also decided by the nationality of their father.

<Table 1> shows different kinds of visa status and legal eligibility in Korea. Since Korea does

not allow dual nationality of its people¹, marriage immigrants have to choose nationality of their origin country or Korean nationality to stay for a long time without extending their status every 3 years. Permanent resident was only adopted in 2002, and mainly aimed for Chinese Korean who had lived in Korea since they were born. As acquiring permanent resident is tough for marriage immigrants, they usually make a choice between naturalization and other limited status keeping their origin country nationality.

<Table 2> shows that law was revised in 1997, so all foreign spouses have to reside in Korea for two years to apply for citizenship. They also now had to take exam and acquire certain level of score in Korean and Korean history until it became exempted again in 2003. The whole point of conditional residence was to protect Korean men from marrying to foreigners who only want to acquire Korean nationality easily. Also it is required for marriage immigrants to get consensus and affidavit of financial support from their Korean spouses when applying for Korean nationality. This new revision created a situation in which mail-order brides' ability to remain in Korea depends exclusively on their husbands' good will and stable marriage.

It is no doubt that revision with new requirements raised worrying voices about the bargaining position of foreign brides whose empowerment is already very 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 deportation.

One of the worst case scenarios is mail-order brides who divorced within two years of marriage because of domestic violence. They will be treated as illegal immigrants as their marriage ends have to face deportation and separation with their children. Faced by critique, government added some exception in 2004 that foreign spouses can acquire Korean nationality in case of death or missing of Korean spouse even though they have not fulfilled all requirements. How-

¹In 2010, Korean government allowed to dual nationality under the condition that people do not exercise their foreign nationality while in Korea.

ever, these new exceptions could hardly help mail-order brides since language and cultural barrier often forbid them from getting legal support or seeking help.

What about other developed countries that has mail-order brides? Do they have better legal framework for these mail-order brides? In United States “mail-order bride” often represents young Filipinos marry to American guy through some broker company. According to Lloyd (2000), there are minimum of 4,000 men in US find brides through the mail-order bride industry each year. Though it has been criticized for its exploitation of women from developing countries, few laws have been enacted to address these issues. (Jang, 1994)

In 1986, congress passed the Immigration Marriage Fraud Amendments to prevent sham marriages by threatening brides with deportation as well. New system imposed two-year conditional residency and joint petition where immigrant woman and the sponsor-husband should agree to apply for naturalization. Failing of joint petition would lead termination of immigrant women’s conditional status and deportation.

However, there have been several changes to provide minimum protection to these mail-order brides. Congress enacted the Immigration Act of 1990 which added “battered spouse/child” waiver. Despite the waiver, the Act left an abusive husband in control over the initial petitioning process. (Loke, 1996) Also Act also raised concern by requiring battered women to provide the evidence of physical battery and mental cruelty. To fill the gaps left by 1990 Immigration Act, Congress passed the Violence Against Women Act in 1994 which enable immigrant women under domestic violence to self-petition to adjust their immigration status. Immigration Reform Act legislated in 1996 further increased protection to battered immigrant women by extending welfare benefit and public legal services to those immigrant women.

From the 1960s onwards, the matchmaking industry has increased within and across borders of Japan. According to Kojima (2001), Japan tried several actions to incorporate those brides as members of their society. One change in policy on a nationwide scale was the notice sent

to regional immigration bureaus and overseas diplomatic establishments on July 30, 1996. It allowed for single mothers supporting children whose fathers are confirmed to be Japanese to receive special permission to stay beyond their visa status. Prior to this notice, cases had been managed case by case, which resulted in a huge increase of deported children with Japanese nationality.

3 Data Description

3.1 Coverage of Data

We employ “Multicultural Family Data” collected by Ministry of Gender Equality and Family in 20012 to examine the impact of citizenship acquisition on bargaining power of marriage immigrants in various fields. The survey employed two stage clustering sampling and includes households with immigrants and Koreans. Survey was conducted in 10 different languages to acquire accurate information of foreign brides with low Korean proficiency.

The survey has foreign brides, foreign grooms, and single immigrants who naturalized eventually. Survey aimed to contain comprehensive information of each household and also surveyed their Korean spouses, parents living together, and also children. It not only contains demographic characteristics and 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 citizenship acquisition.

One potential caveat of this data set is survey cannot keep track of all the marriage immigrants who went back to their origin countries. Many of marriage immigrants face with various difficulties and their marriages do not last as long as usual marriage. The bias stemming from the attrition is ambiguous. Those brides who returned to their home countries could be least success-

ful group and omission of them in our analyses may underestimate the impact of entitlement on the improvement of their bargaining power. On the other hand, the fact that they returned to their origin countries may imply that they are the ones with better outside option. In that case, our results would overestimate the impact of citizenship acquisition on bargaining power of brides. Unfortunately, we do not have any information on those who returned to their origin countries, so our results are restricted to those who remain in Korea and should be interpreted carefully.

3.2 Legal Status of Foreign Brides

<Figure 3> shows difference in preference on legal status across brides from different origin countries. Brides from developing countries are more likely want to achieve Korean nationality for better job opportunity and welfare benefits they can get. As China strictly forbids holding dual nationality, preference toward naturalization is a bit lower Chinese brides. Among Asian brides, most of Japanese brides do not want to naturalize though they are certain to stay in Korea permanently. (Lee 2010) According to Lee (2010), Japanese brides want to keep their Japanese passport since do not experience much difficulty in living as a Japanese. They also think keeping Japanese passport is useful to when they visit Japan and get medical or welfare services there. Therefore, even it is easy for them to achieve Korean citizenship because of long time they spent in Korea, they tend to remain as foreigners. <Figure 4> shows that this legal preference is reflected in their actual status. Less than 5% percent of Japanese brides and Western brides are naturalized as Korean while more than 50% of typical marriage immigrants acquired Korean citizenship.

<Figure 5> shows trends of citizenship acquisition around revision of Nationality law in 1997. The revision was enacted in late 1997, but was effective since 1998. It shows that decline of proportion of brides who currently hold Korean citizenship started from the the cohort of brides who married after 1998. <Figure 6> also clearly shows that the differences mainly come from the timing of citizenship acquisition. For brides who married after 1998, there is sharp increase

in citizenship acquisition after two years. It is because two-year conditional residence required by Korean nationality law.

There can be other channels that may explain delayed legal entitlement among marriage immigrants in post-revision period. Understanding complicated legal requirements could be significant obstacle for foreign brides who have language barrier and limited access to public legal support. Also, requirement of legal and financial support from their spouse could be another administrative barrier for foreign brides who want to achieve Korean citizenship.

3.3 Summary Statistics

In this chapter, we discuss choice of our various outcome variables and show simple regression results as well. We employed Probit estimation for binary outcome variable such as being hired as a regular worker. For continuous outcome variable, we used ordinary least squares estimation. In all regressions, we controlled basic demographic characteristics of foreign brides, their spouses, and marriage related variables including way they met and indicator of remarriage.

Most of foreign workers are not union member and not aware of their legal right. With language barrier and lack of social protection they are very likely to have low bargaining position at work place and thereby receive relatively lower wage than workers with citizenship. Also, their legal status may affect the getting a good job and being hired as a regular worker.

In <Table 3>, we briefly compared summary statistics and regression coefficient of citizenship on three main outcomes about bargaining power in labor market : probability of working, being employed as a regular worker, and their monthly earnings which is reported as a categorical variable in survey. Summary statistics seem to suffer from standard error and show no differences between marriage immigrants with citizenship and without citizenship. However, regression coefficients show that citizenship acquisition have statistically significant relationship with probability of being employed as a regular worker. When we restricted analysis to brides

who is currently working the size of impact became greater.

To examine bargaining power of foreign brides we chose indicator variables showing whether they have decision power in consumption and asset allocation in households. Simple comparison of mean statistics show no meaningful result. However, when we control demographic and marital characteristics, it shows that brides with citizenship experience more decision power in asset allocation in households. It is also shown that brides with citizenship are more likely to invite their family members from origin countries.

Survey also provides subjective measure about experience of discrimination. On average, 40% of marriage immigrants reported that they in general experience discrimination. However, only 35% answered they ever appealed for discrimination. The meaningful difference is only found in general experience of discrimination. It is interesting that brides with citizenship are more likely to report that they ever experienced discrimination in their life.

3.4 Possible Endogeneity Issues

Comparison of brides with and without citizenship can be biased if these two groups have systematic differences. First of all, brides with citizenship may have stayed in Korea for 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 citizenship and much experience. Experience and communication skill can have them exercise more decision power in households as well.

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

4 Propensity Score Matching Estimation

In this chapter, we improve previous analysis using a non-parametric propensity score matching approach to identify the causal effect of legal entitlement on bargaining power of foreign brides. Our goal is to estimate the impact of citizenship acquisition of these foreign brides on their bargaining power in households. The difficulty of this estimation comes from the fact that brides who have acquired citizenship and who have not acquired citizenship are very likely to differ. If we do not consider the selection bias, estimated results would be biased.

Following the notation in the evaluation literature, let $D = 1$ if a foreign bride has Korean citizenship and $D = 0$ otherwise. We then define the outcome for citizen ($D = 1$) as Y_1 the outcome for foreigners ($D = 0$) 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 citizenship acquisition.

$$\tau_{ATE} = E(\tau) = E[Y(1) - Y(0)] \quad (1)$$

The parameter measures the expected effect of citizenship on the bargaining power of foreign brides if citizenship is randomly assigned to whole foreign brides. As Heckman (1997) already noted, this estimate is not much interesting to policy makers because it includes the the effect on brides who do not have intention to achieve Korean citizenship. 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 citizenship. It is given by following equation.

$$\tau_{ATT} = E(\tau|D = 1) = E[Y(1)|D = 1] - E[Y(0)|D = 1] \quad (2)$$

The expected value of ATT is difference of expected outcome with and without citizenship for those who actually acquired citizenship. In the sense that this parameter focuses directly on

actual effect of citizenship acquisition, it determines the realized gain from getting stable legal status and 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 citizenship can bias the results if factors affecting citizenship acquisition also affects outcome variables of our interest. The bias can be noted as difference between true average treatment effect and “selection bias” in the following equation.

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

The unbiased average treatment effect can be identified only if the selection bias is zero by random treatment. Our research will take advantage of rich micro data of foreign brides and rather simple requirement of citizenship application in Korea to solve identification issue. We aim to find out proper control group using propensity score matching and identify average treatment effect of citizenship on bargaining position of these foreign brides.

4.1 Empirical Strategy and Reliability of Matching Method

4.1.1 Choice of Covariates in the First Stage Estimation

Our goal is to use propensity score to pair each foreign bride with a other foreign bride who has not acquired Korean citizenship on the basis of observable characteristics. To tackle endogeneity issue mentioned in previous section, our estimation should satisfy conditional independence assumption which implies that systematic differences in outcomes between treated (brides with citizenship) and comparison (brides without citizenship) individuals can be attributed to treatment effect given a set of observable variables which affect treatment but not affected by it.

To ensure conditional independence assumption, we rely on previous researches in migration

studies and requirements of citizenship acquisition imposed by Korean government. Previous migration study by Yang (1994) suggest that country of origin and ethnic communities in the country of destination are as important as individual characteristics of immigrants. We also include marital and spousal characteristics as Korean government mainly require spousal support and proof of marriage as main conditions for citizenship acquisition.

In the first stage, only variables that are unaffected by acquisition of citizenship (or anticipation of it) should be included in the model. All the variables included in our model are either fixed over time or determined at the time of marriage already. Spousal support needed for citizenship application is very similar to what necessary for F2 visa application and hardly affected by brides' citizenship acquisition.

We adopt the method of propensity score matching by Rosenbaum and Rubin (1983) which suggest the use of the probability of acquiring treatment (citizenship acquirement in this context) conditional on those pre-program characteristics, to reduce the dimensionality problem. We employ Probit to estimate the following equation

$$P(\textit{Citizenship} = 1) = F(X)$$

, where X is a set of variables affecting citizenship acquirement.

<Table 9> and <Table 10> show variables used for the first stage estimation. We include characteristics of each household, foreign brides, and their Korean spouses. The origins of foreign brides are significantly different across brides with citizenship and brides without one. Yang (1994) showed that origin countries are the most important factor in naturalization decision. Economic and political condition, permission of dual citizenship, and its ethnic group in destination country can affect naturalization decision of foreigners. We control all those factors by controlling origin fixed effects in our first stage estimation. Also, approximation of years being in Korea, education level, and age of foreign brides are also included in the regression.

The most important requirement of citizenship acquisition in Korea is proof of marital relationship. It is also required to submit financial ability of Korean spouse to support their foreign brides. So we carefully included all detailed information of Korean spouse such as their wage category, education, and demographic characters. As same qualifications are required when applying for F2 visa already, these characteristics are not likely to be affected by citizenship acquisition.

We also included detailed information of marriage itself which might contain information of preferences of brides and their spouses regarding citizenship acquisition. We controlled whether they met through broker company, or through friends or relatives to somehow control their relationship and the characteristics of marriage. Remarriage indicators are also included as those couples can have different relationship or purpose forming union.

4.1.2 Sample Selection and First Stage Estimation

We carefully restricted our sample to satisfy good matching condition. We only included marriage immigrants from developing countries in Asia including China, Vietnam, and Philippine. To identify marriage immigrants, we selected only people whose year of marriage and year of first entry to Korea is the same. Our targets were in marriage at the time of survey and between 20 and 50 years old. We excluded marriage immigrants who has stayed in Korea less than two years since they are not eligible to acquire citizenship. We also excluded foreign brides who stayed more than six years or married more than 10 year to focus our analysis on brides who married after 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. Therefore, studying the behavior of relatively newlyweds allows us to isolate the effect of citizenship acquisition while minimizing the potential bias from selection into marriage.

The result of first stage estimation is demonstrated in <Table 11>. Demographic characteristics of foreign brides turned out to be all very significant except age and affect the probability of

getting citizenship. Origin country matters because some countries allow dual citizenship while the others do not. Also, economic and political conditional of origin country would affect willingness to apply of foreign brides. Home ownership and income quantile of spouse also matters as they are institutional requirements.

4.1.3 Reliability of Matching

A. Common Support

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

$$0 < P(\textit{Citizenship} = 1|X) < 1 \tag{4}$$

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

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

B. Assessment of Matching Quality

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

In <Table 8> and <Table 9> we show balance test results of covariates included in the first stage estimation using standardized bias as a indicator. Most of demographic variables are well matched and post-matching bias is below 5%. We only have bias over 5% in terms of brides who were originally Korean Chinese or Cambodian. Overall our match quality is good in this respect.

4.2 Empirical Results and Interpretation

A. Labor Market Outcome

<Table 10> demonstrates that citizenship acquisition increases the probability to work in the labor market and be employed as a regular worker. Being a regular worker implies that workers can get protection from the Labor Standard Act and union. 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 citizenship raises the probability to hired as a regular worker by 5 percentage points. However, we couldn't find out any significant impact on monthly wage reported by categorical variable. We presume it is caused by coarse measure of monthly wage using categories and mis-reporting. Our results indicate that having a citizenship provides more bargaining power to foreign brides in the labor market and hence, increases the outside option of marriage by raising chance that they can get secure job in formal sector.

B. Bargaining Power in Household

We also estimated the effect of citizenship acquisition on bargaining power of foreign brides in households. In the literature of household bargaining theory, one most important test is examining if bargaining distribution affects changes in consumption. Though our data does not

provide consumption information, we have direct question asking whether their spouses mostly have decision power in asset allocation and everyday expenditure.

Before the matching both measures show significantly lower probability for brides with citizenship, however, after the matching only measure on asset allocation survived with statistical significance. Our matching estimates show that having citizenship allows more decision power to brides on matter of asset allocation but not on matter of everyday expenditure.

Inviting family members in origin countries are important matter for foreign brides. Most of brides choose inviting their family members from origin country as number one priority they want. However this is costly consumption for the family and something should be bargained over. Our results show that foreign brides with legal entitlement are 16 percentage point more likely to have experience of inviting their family members from origin country. Our consistent evidence show that citizenship raises bargaining power of foreign brides in households.

C. Experience of Discrimination

We examined whether foreign brides experienced discrimination in various aspects of their life. Survey has various questions asking whether foreign brides experienced discrimination in general, in neighborhood, at the public institute (such as city hall or police station), and at the work place. Each measure has important implication and should be carefully considered.

Having Korean citizenship can affect these measures either by affecting awareness of proper right or changing the perception of people around them. Experience of discrimination in various places has different meanings. The experience of discrimination in neighborhood would affect their daily activity and construction of social network. Experience of discrimination at public institute is important in many aspects as they should serve as social safety net when these brides are battered in households. We also examine whether having citizenship affects attitude of foreign brides and encourage them to appeal when they experience any kind of discrimination.

Our matching estimates in <Table 11> show that brides with citizenship reported no mean-

ingful difference in experience of discrimination in anywhere but in general situation. Our interpretation is that these brides with citizenship consider themselves as a lawful being and more susceptible about discrimination they experience.

5 Conclusion

Our paper aim to contribute to the literature by showing that legal framework could be important determinant of bargaining power in and outside of households. We analyze marriage immigrants who has vulnerable legal status. Our results support the earlier conjectures that legal entitlement matters for bargaining power in various places. This study implies that supplementary legal support could help socially vulnerable group.

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Figure 1: Share of Marriages with Foreign Spouses

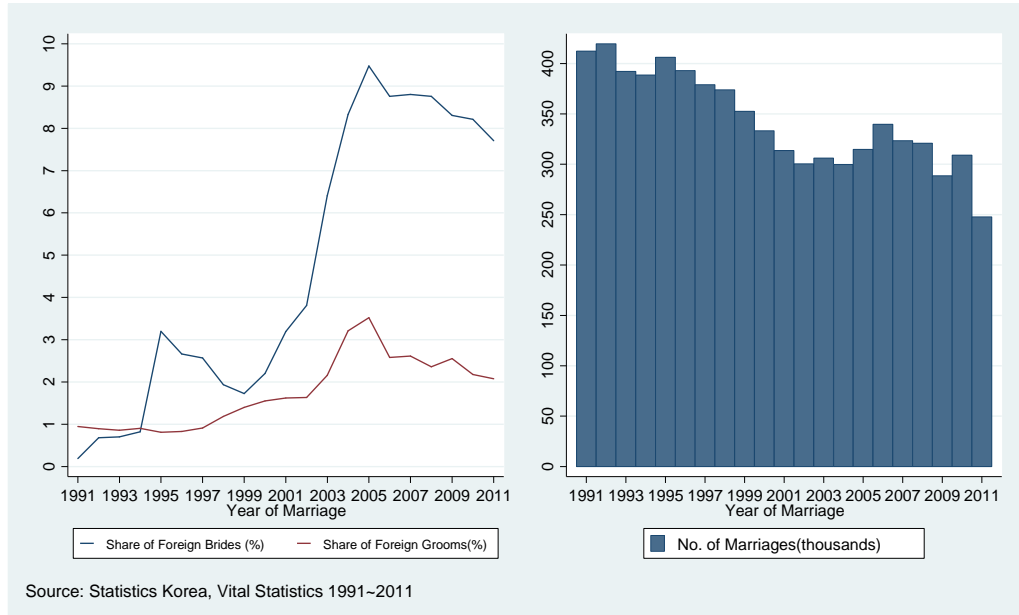


Figure 2: Origin of Foreign Brides

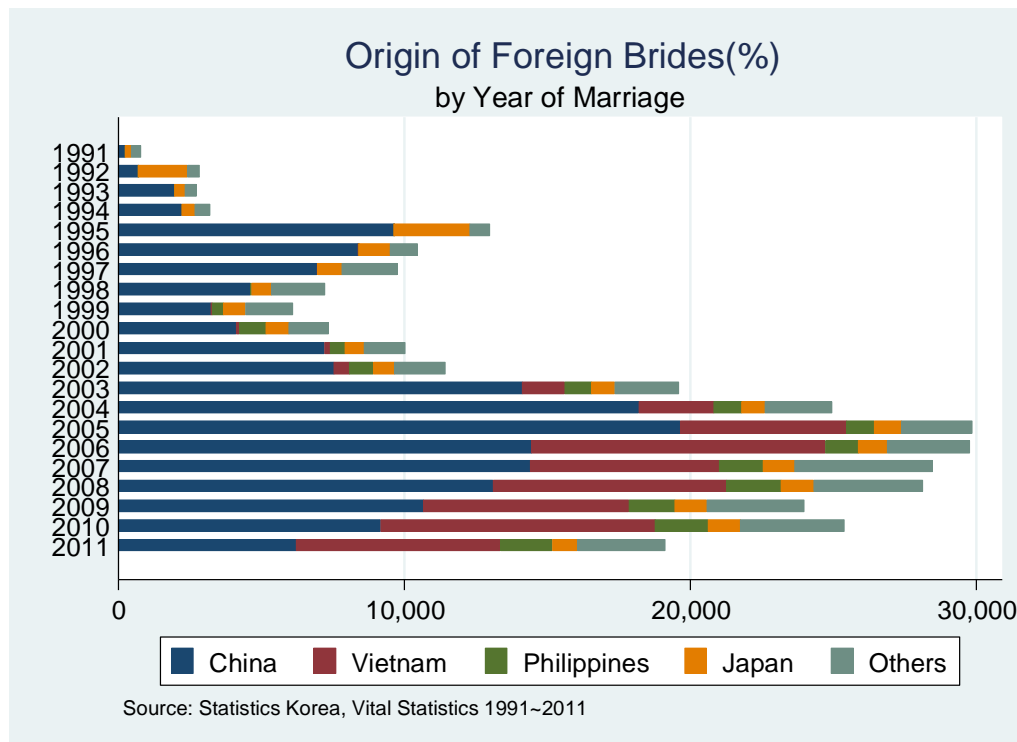


Table 1: Visa Status and Legal Eligibility

	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

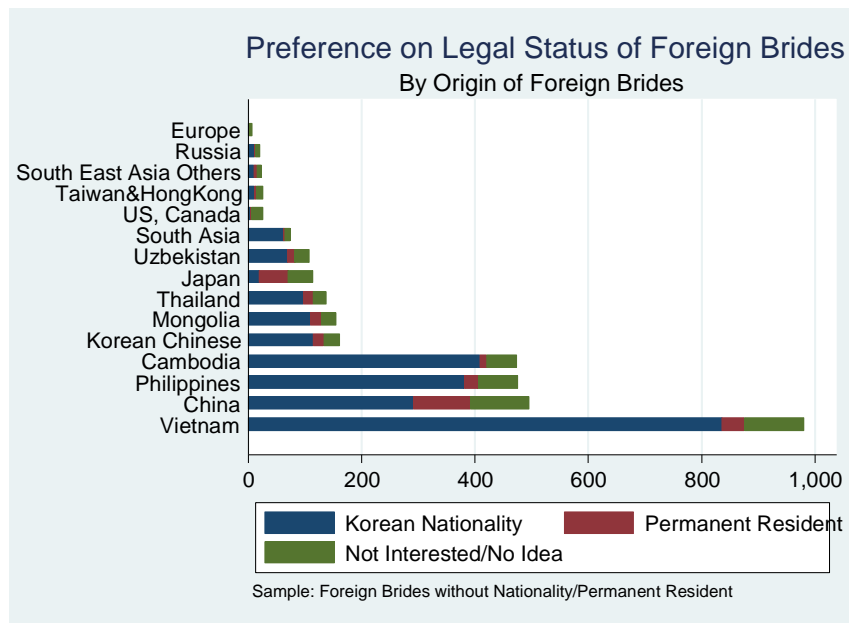


Figure 4: Legal Status of Foreign Brides

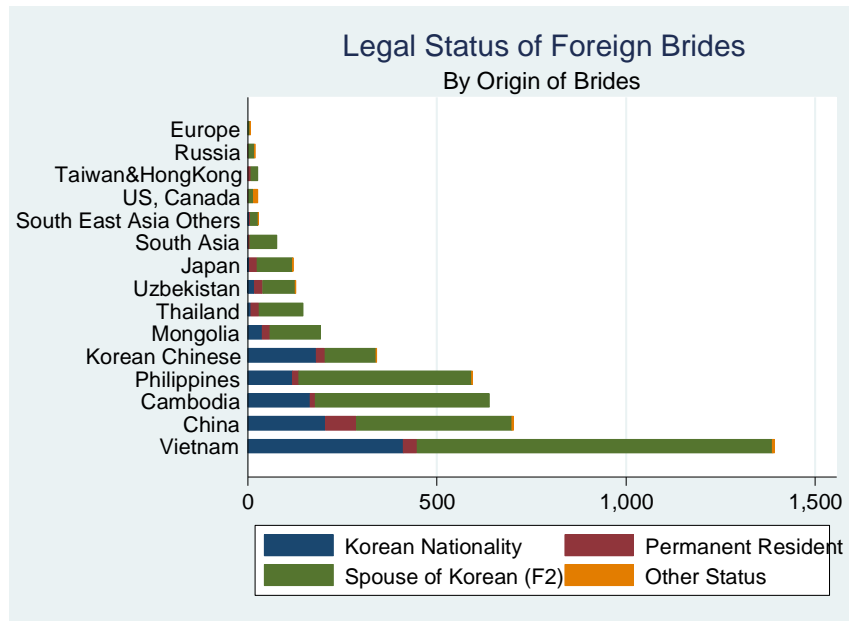


Figure 5: Trends of Foreign Brides and Their Legal Status

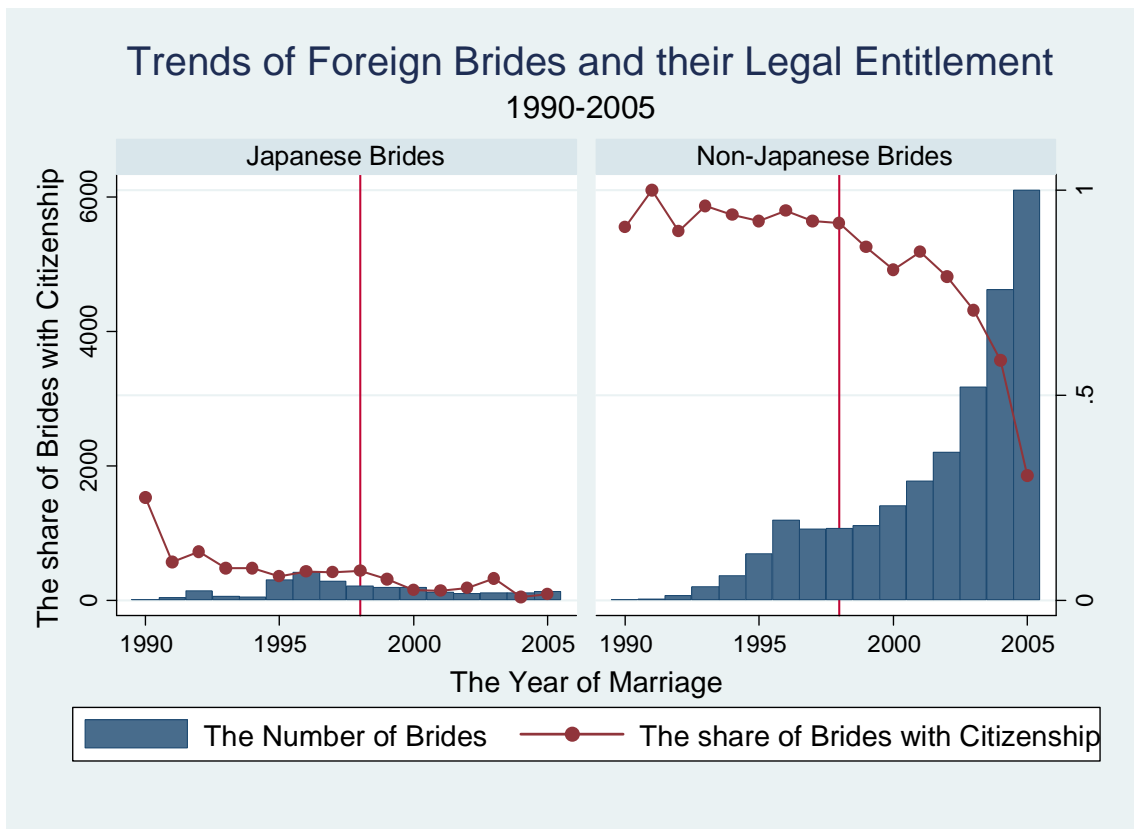


Figure 6: Trends of Citizenship Acquisition

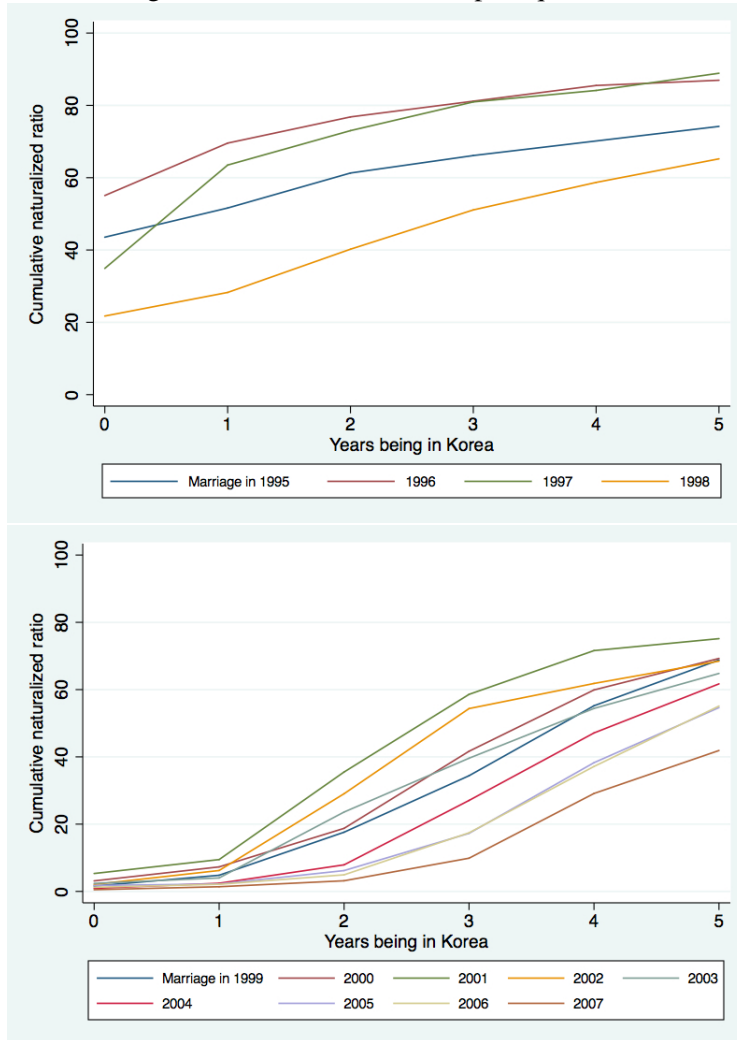


Table 3: Labor Market and Bargaining Power Statistics

Dependent Variables	Sample	Without Citi- zenn- ship	With Citi- zenn- ship	Difference	Regression Coefficient
Labor Market Outcomes					
Employed	0.132 (0.008)	0.399 (0.009)	0.515 0.015	0.116 (0.018)	0.044 (0.060)
Employed as a regular worker	0.123 (0.005)	0.101 (0.006)	0.174 (0.011)	0.073 (0.013)	0.192** (0.073)
Employed as a regular worker (only workers)	0.280 (0.011)	0.250 (0.013)	0.337 (0.020)	0.087 (0.024)	0.257** (0.089)
Monthly earnings	2.266 (0.025)	2.261 (0.030)	2.273 (0.043)	0.012 (0.053)	0.017 (0.062)
Monthly earnings (only workers)	2.263 (0.025)	2.259 (0.030)	2.273 (0.043)	0.009 0.016	0.022 (0.062)
Bargaining Power in Household					
Husband mostly decides asset allocation	0.638 (0.008)	0.671 (0.009)	0.556 (0.015)	-0.115 (0.017)	-0.124* (0.051)
Husband mostly decides expenditure	0.473 (0.008)	0.509 (0.010)	0.383 (0.015)	-0.127 (0.017)	-0.089 (0.059)
Ever invited family members	0.427 (0.008)	0.364 (0.009)	0.582 (0.015)	0.218 (0.017)	0.386** (0.061)
Encouraged to speak mother tongue at home	0.312 (0.007)	0.312 (0.009)	0.314 (0.014)	0.002 (0.016)	0.078 (0.061)

Table 4: Discrimination Statistics

Dependent Variables	Sample	Without Citizen- ship	With Citi- zenship	Difference	Regression Coefficient
Experience of Discrimination					
Ever experienced discrimination	0.394 (0.008)	0.373 (0.009)	0.445 (0.015)	0.071** (0.017)	0.165** (0.059)
Ever experienced discrimination in the neighborhood	0.286 (0.012)	0.288 (0.014)	0.282 (0.020)	0.007 (0.025)	0.009 (0.099)
Ever experienced discrimination at the public institute	0.105 (0.009)	0.102 (0.010)	0.111 (0.015)	0.009 (0.018)	0.173 (0.134)
Ever experienced discrimination at the work place	0.424 (0.015)	0.413 (0.019)	0.445 (0.026)	0.032 (0.032)	-0.020 (0.110)
Ever appealed for discrimination	0.258 (0.011)	0.237 (0.013)	0.302 (0.021)	0.065 (0.024)	0.155 (0.098)

Table 5: Variable Definitions and Descriptive Statistics: Foreign Brides

Variable	Description	All (N=3885)	F2 Visa (N=2761)	Citizen (N=1124)	Difference
Citizenship Dummy					
Citizen	=1 if respondent acquired citizenship	0.29 (0.007)			
Marriage Characteristics					
Remarriage	=1 if it is a remarriage to foreign bride	0.12 (0.005)	0.12 (0.006)	0.12 (0.010)	0.00 (0.011)
Spouse Remarriage	=1 if it is a remarriage to their spouse	0.23 (0.007)	0.25 (0.008)	0.20 (0.012)	0.04** (0.015)
House Own	=1 if they own house	0.57 (0.008)	0.55 (0.009)	0.62 (0.014)	-0.07** (0.017)
Broker	=1 if they met through broker company	0.49 (0.008)	0.49 (0.010)	0.48 (0.015)	0.01 (0.018)
Bride's Characteristics					
Age	Age of foreign brides	29.38 (0.105)	28.88 (0.125)	30.61 (0.189)	-1.73** (0.227)
Stayed	Years of being in Korea	4.24 (0.026)	3.67 (0.027)	5.64 (0.032)	-1.98** (0.042)
Schooling	Years of schooling	10.04 (0.047)	10.08 (0.057)	9.93 (0.083)	0.15 (0.101)
China	=1 if bride is from China and not Korean Chinese	0.15 (0.006)	0.15 (0.007)	0.18 (0.011)	-0.03* (0.013)
Korean Chinese	=1 if bride is Korean Chinese	0.08 (0.004)	0.05 (0.004)	0.16 (0.011)	-0.11** (0.012)
Mongolia	=1 if bride is from Mongolia	0.04 (0.003)	0.05 (0.004)	0.03 (0.005)	0.01* (0.007)
Vietnam	=1 if bride is from Vietnam	0.34 (0.008)	0.34 (0.009)	0.36 (0.014)	-0.02 (0.017)
Philippines	=1 if bride is from Philippines	0.15 (0.006)	0.16 (0.007)	0.10 (0.009)	0.06** (0.011)
Thailand	=1 if bride is from Thailand	0.03 (0.003)	0.04 (0.004)	0.01 (0.003)	0.03** (0.005)
Cambodia	=1 if bride is from Cambodia	0.16 (0.006)	0.16 (0.007)	0.15 (0.011)	0.02 (0.013)
Uzbekistan	=1 if bride is from Uzbekistan	0.03 (0.003)	0.03 (0.003)	0.02 (0.004)	0.01** (0.005)
South Asia	=1 if bride is from South Asia	0.02 (0.002)	0.03 (0.003)	0.00 (0.001)	0.02** (0.003)

Standard errors of mean are in parenthesis.

Table 6: Variable Definition and Descriptive Statistics: Korean Spouse

Variable	Description	All (N=3885)	F2 Visa (N=2761)	Citizen (N=1124)	Difference
Spousal Characteristics					
Spouse Age	Age of Korean spouse	43.81 (0.104)	43.59 (0.126)	44.35 (0.184)	-0.77** (0.223)
Spouse Working	=1 if Korean spouse is working	0.89 (0.005)	0.89 (0.006)	0.90 (0.009)	-0.01 (0.011)
Schooling	Years of schooling	11.35 (0.031)	11.41 (0.036)	11.20 (0.059)	0.207** (0.069)
Monthly Wage Level of Korean Spouse					
Wage Category1	Monthly wage is less than 1,000\$	0.10 (0.005)	0.10 (0.006)	0.09 (0.009)	0.01 (0.010)
Wage Category2	Monthly wage is between 1,000\$ and 1500\$.	0.18 (0.006)	0.18 (0.007)	0.19 (0.012)	-0.01 (0.014)
Wage Category3	Monthly wage is between 1500\$ and 2000\$	0.24 (0.007)	0.25 (0.008)	0.23 (0.013)	0.01 (0.015)
Wage Category4	Monthly wage is between 2000\$ and 2500\$.	0.18 (0.006)	0.18 (0.007)	0.19 (0.0121)	-0.00 (0.014)
Wage Category5	Monthly wage is between 2500\$ and 3000\$	0.10 (0.005)	0.10 (0.006)	0.10 (0.009)	0.00 (0.011)
Wage Category6	Monthly wage is greater than 3000\$.	0.19 (0.006)	0.19 (0.007)	0.20 (0.012)	-0.01 (0.014)

Standard errors of mean are in parenthesis.

Table 7: Propensity Score Coefficient Estimates

Variables	Probability(Citizenship=1)		
Demographic Variables			
Age	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Years of being in Korea	0.406** (0.030)	0.406** (0.030)	0.400** (0.032)
Years of being in Korea ²	-0.026** (0.003)	-0.026** (0.003)	-0.025** (0.003)
Years of schooling	0.007** (0.002)	0.007** (0.002)	0.006** (0.003)
Household Variables			
Remarriage		-0.070** (0.022)	-0.055† (0.026)
Spouse Remarriage		-0.028† (0.016)	-0.027 (0.018)
Home ownership		-0.013* (0.006)	-0.013* (0.006)
Broker		-0.008 (0.015)	-0.013 (0.016)
Spouse Characteristics			
Age			-0.002 (0.001)
Years of Schooling			-0.011** (0.004)
Working			0.018 (0.254)
Fixed Effects			
Origin Fixed Effects	Controlled	Controlled	Controlled
Spouse Income Quantile			Controlled
Pseudo R^2	0.34	0.34	0.35
Sample Size	3813	3813	3457

Table 8: Balance Quality Test

Variables	Sample	Mean		Bias Reduction(%)		T-test	
		Treated	Controls	%Bias	Bias	T-value	P-value
Age	Unmatched	30.54	28.86	26.10	88.50	7.24	0.000
	Matched	30.52	30.33	3.10		0.70	0.486
Stayed	Unmatched	5.64	3.66	155.80	99.90	41.38	0.000
	Matched	5.62	5.62	0.20		0.06	0.952
Stayed Squared	Unmatched	33.04	15.46	148.00	99.70	41.48	0.000
	Matched	32.74	32.69	0.40		0.09	0.929
Years of schooling	Unmatched	9.73	9.92	-6.60	31.80	-1.83	0.068
	Matched	9.72	9.85	-4.50		-1.07	0.286
Origin: Korean Chinese	Unmatched	0.16	0.05	37.30	78.70	11.73	0.000
	Matched	0.14	0.16	-7.90		-1.53	0.126
Origin: Mongolia	Unmatched	0.03	0.05	-7.90	82.10	-2.13	0.033
	Matched	0.03	0.03	1.40		-0.37	0.714
Origin: Vietnam	Unmatched	0.36	0.34	5.20	77.80	1.47	0.141
	Matched	0.37	0.36	1.20		0.27	0.789
Origin: Philippines	Unmatched	0.10	0.17	-17.00	76.50	-4.83	0.000
	Matched	0.11	0.09	4.20		1.11	0.265
Origin: Thailand	Unmatched	0.01	0.04	-22.70	87.40	-5.55	0.000
	Matched	0.01	0.01	-2.00		-1.11	0.266
Origin: Cambodia	Unmatched	0.15	0.16	-4.80	-29.50	-1.34	0.180
	Matched	0.15	0.17	-6.30		-1.44	0.151
Origin: Uzbekistan	Unmatched	0.02	0.03	-9.50	74.40	-2.52	0.012
	Matched	0.02	0.02	-2.40		-0.64	0.523
Origin: South Asia	Unmatched	0.002	0.026	-20.50	98.10	-4.93	0.000
	Matched	0.002	0.001	0.40		0.27	0.789
Remarriage	Unmatched	0.12	0.12	-1.30	-111.60	-0.35	0.726
	Matched	0.12	0.11	2.70		0.64	0.521
Spouse Remarriage	Unmatched	0.21	0.25	-10.80	70.30	-2.97	0.003
	Matched	0.21	0.19	3.20		0.78	0.435
House Own	Unmatched	0.63	0.55	15.20	96.30	4.23	0.000
	Matched	0.63	0.62	0.60		0.23	0.894

Table 9: Balance Quality Test (continued)

Variables	Sample	Mean		Bias Reduction(%)		T-test	
		Treated	Controls	%Bias	Bias	T-value	P-value
Meeting: relatives	Unmatched	0.20	0.17	7.40		2.08	0.037
	Matched	0.19	0.16	8.20	-11.60	1.97	0.049
Meeting: friend	Unmatched	0.24	0.24	-1.40		-0.40	0.686
	Matched	0.24	0.21	5.40	-274.20	1.29	0.198
Meeting: religious group	Unmatched	0.02	0.02	0.90		0.14	0.892
	Matched	0.02	0.01	3.70	-661.30	0.92	0.359
Meeting: by themselves	Unmatched	0.05	0.07	-5.40		-1.48	0.129
	Matched	0.06	0.10	-14.20	-163.40	-3.06	0.002
Meeting: etc	Unmatched	0.004	0.006	-3.30		-0.86	0.373
	Matched	0.004	0.003	0.70	79.90	0.18	0.855
Spouse age	Unmatched	44.36	43.60	123.60		3.31	0.001
	Matched	44.41	44.23	2.80	76.50	0.68	0.499
Spouse years of schooling	Unmatched	11.49	11.79	-13.10		-3.67	0.000
	Matched	11.49	11.67	-8.00	38.40	-1.84	0.062
Monthly wage is between 1,000\$ and 1500\$.	Unmatched	0.20	0.18	3.80		1.07	0.283
	Matched	0.20	0.19	2.20	41.10	0.52	0.605
Monthly wage is between 1500\$ and 2000\$	Unmatched	0.24	0.25	-3.60		-1.00	0.317
	Matched	0.24	0.23	3.10	13.30	0.74	0.461
Monthly wage is between 2000\$ and 2500\$.	Unmatched	0.19	0.18	0.90		0.25	0.805
	Matched	0.19	0.20	-4.30	-386.00	-0.98	0.328
Monthly wage is between 2500\$ and 3000\$	Unmatched	0.10	0.10	-1.00		-0.27	0.784
	Matched	0.10	0.11	-2.10	-119.10	-0.50	0.619
Monthly wage is greater than 3000\$.	Unmatched	0.18	0.17	2.80		0.78	0.433
	Matched	0.18	0.19	-2.00	26.60	-0.47	0.639
Spouse Working	Unmatched	0.91	0.91	1.40		0.78	0.433
	Matched	0.91	0.91	1.80	26.60	-0.47	0.639

Figure 7: Common Support

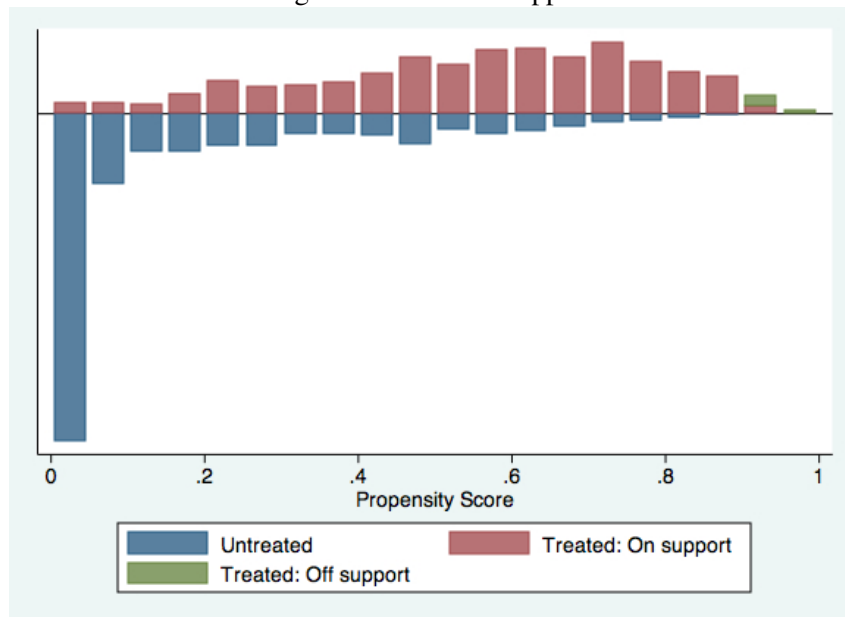


Figure 8: Distribution of Bias

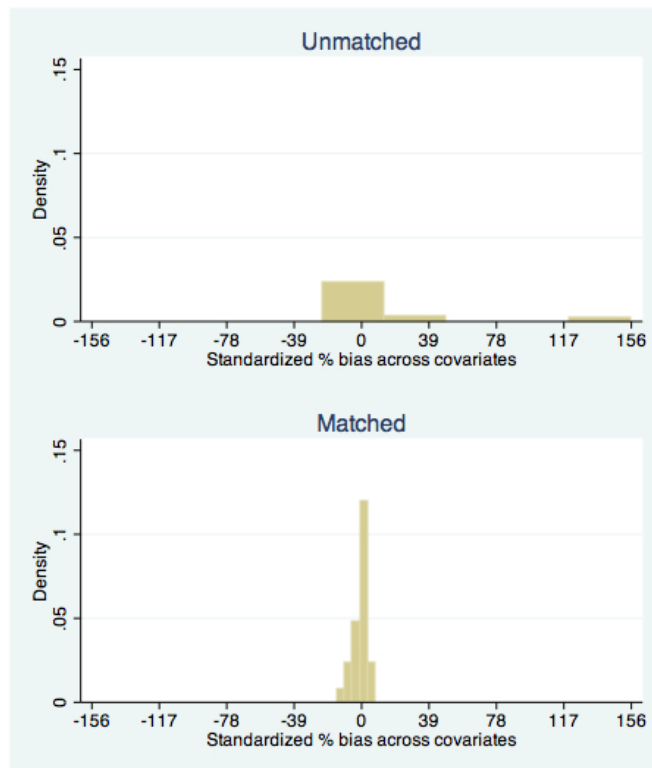


Table 10: Labor Market Outcomes and Bargaining Power

Dependent Variables	Sample	Treated	Controls	Difference	S.E.	T-Stat	Number of Treated
Labor Market Outcomes							
Employed	Unmatched	0.516	0.394	0.122	0.018	6.66	1021
	ATT	0.524	0.457	0.067	0.034	1.99	969
Employed as a regular worker	Unmatched	0.179	0.101	0.079	0.012	6.47	1021
	ATT	0.181	0.128	0.053	0.023	2.34	969
Employed as a regular worker (only workers)	Unmatched	0.345	0.252	0.093	0.024	3.84	527
	ATT	0.345	0.257	0.089	0.043	2.08	495
Monthly earnings	Unmatched	2.249	2.244	0.005	0.055	0.10	530
	ATT	2.241	2.243	-0.002	0.090	-0.02	498
Monthly earnings (only workers)	Unmatched	2.249	2.240	0.009	0.055	0.16	527
	ATT	2.240	2.224	0.016	0.090	0.18	495
Bargaining Power in Household							
Husband mostly decides asset allocation	Unmatched	0.559	0.676	-0.117	0.018	-6.59	1021
	ATT	0.576	0.635	-0.058	0.029	-1.99	969
Husband mostly decides expenditure	Unmatched	0.388	0.513	-0.125	0.018	-6.79	1021
	ATT	0.396	0.418	-0.022	0.030	-0.72	969
Ever invited family members	Unmatched	0.590	0.370	0.219	0.018	12.15	1021
	ATT	0.579	0.417	0.162	0.030	5.42	969
Spouse or family encourage my language at home	Unmatched	0.319	0.315	0.004	0.017	0.22	1021
	ATT	0.3232	0.276	0.047	0.028	1.69	969
Ever taught my language to spouse or family	Unmatched	0.235	0.216	0.019	0.015	1.20	1021
	ATT	0.233	0.197	0.037	0.025	1.49	969
Want to speak Korean as my language	Unmatched	0.915	0.934	-0.019	0.010	-2.01	1021
	ATT	0.918	0.912	0.006	0.016	0.38	969
Ever experienced a conflict with spouse	Unmatched	0.736	0.695	0.040	0.017	2.38	1021
	ATT	0.736	0.690	0.046	0.027	1.69	969
Ever experienced a conflict over economic issue	Unmatched	0.313	0.257	0.056	0.019	2.88	751
	ATT	0.313	0.280	0.033	0.033	1.01	713

Table 11: Experience of Discrimination and Cultural Respect

Dependent Variables	Sample	Treated	Controls	Difference	S.E.	T-Stat	Number of Treated
Discrimination Outcomes							
Ever experienced discrimination	Unmatched	0.445	0.370	0.075	0.018	4.13	1021
	ATT	0.440	0.388	0.051	0.030	1.76	969
Ever experienced discrimination in the neighborhood	Unmatched	0.279	0.290	-0.011	0.026	-0.41	441
	ATT	0.285	0.294	-0.009	0.043	-0.20	403
Ever experienced discrimination at the public institute	Unmatched	0.113	0.097	0.016	0.019	0.85	408
	ATT	0.115	0.098	0.017	0.030	0.56	374
Ever experienced discrimination at the work place	Unmatched	0.441	0.393	0.049	0.034	1.45	333
	ATT	0.440	0.525	-0.084	0.055	-1.54	302
Ever appealed for discrimination	Unmatched	0.304	0.238	0.066	0.025	2.61	454
	ATT	0.299	0.242	0.057	0.041	1.37	415