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Unintended Consequences of Immigration Reform: Marriage Market, Intra-Household Bargaining, and Well-Being *

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Abstract

We examine the consequences of South Korea's 2008–10 immigration reforms on the marriage market and intra-household outcomes. The reforms unintentionally reduced foreign bride inflows. Exploiting regional variation in exposure to the reforms and using uniquely rich data—administrative records, household surveys, and registries—we find that the reforms resulted in fewer new marriages, increased women's intra-household bargaining power, shifted in women's time from housework to employment, and increased well-being for both spouses. Divorce rates fell, with a shift from general incompatibility to abuse-related grounds. These findings reveal the immigration reforms' unintended impacts on household dynamics and broader economic implications.

JEL Classification: F22, J12, J16, D13, K37, R23

Keywords: immigration, policy reform, marriage market, intra-household allocation, bargaining power, divorce.

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1 Introduction

Immigration is one of the defining forces shaping modern economies and societies. Beyond its immediate demographic effects, immigration has wide-ranging implications for international trade (Head and Ries, 1998; Peri and Requena-Silvente, 2010; Burchardi et al., 2018), labor markets (Card, 2001, 2009; Borjas, 2003; Peri, 2012; Kim et al., 2025), and housing markets and local amenities (Akbari and Aydede, 2012; Cascio and Lewis, 2012; Han et al., 2021; Sanchis-Guarner, 2023). Unsurprisingly, immigration often lies at the center of contentious policy debates often motivated by its implications for the labor market. Yet, despite this attention, relatively less is known about the broader—and sometimes unintended—consequences of immigration policies for family structures and household dynamics. Understanding these consequences is crucial, as households are the fundamental units of economic decision-making and thus key to the transmission of policy shocks into the wider economy.

In this paper, we study the unintended consequences of South Korea's 2008–10 immigration policy reforms on the marriage market, intra-household bargaining among native couples, and related economic outcomes. South Korea has long faced a pronounced male-to-female imbalance in some areas, making it difficult for many men to find spouses. Beginning in the early 1990s, Korean men increasingly sought foreign brides, most of whom were ethnically Korean Chinese (EKC)[1] because of cultural and linguistic proximity to South Korea.[2] Strong demand from Korean men, coupled with the institutional barriers EKC women faced on alternative immigration routes, meant that the interests of both groups converged. The reforms unexpectedly altered this pattern. By extending a semi-permanent residency visa to the EKC population who had previously been ineligible, the government offered EKC women a new, marriage-free pathway to South Korea. As an unintended consequence, the inflow of EKC brides via marriage visas slowed down, tightening the local supply of potential brides, increasing women's relative position in the marriage market, and likely shifting social norms in women's favor. Because marriage-market prospects are a key determinant of each spouse's "outside" option (Frimmel et al., 2024), the immigration reforms may have inadvertently reshaped intra-household bargaining power and household decisions.

In addition to the quasi-natural experiment setting based on the aforementioned immigration reforms, our study benefits from the unique richness of South Korean data. We integrate three sources. First, district-level administrative statistics on population, marriages, and foreign residents enable us to quantify excess demand for brides and the strength of migrant networks. Using the information on the number of marriages and foreign residents disaggregated by origin and visa type, we study how the reforms altered local marriage market conditions. Second, two nationally representative household panels—the Korean Longitudinal Survey of Women and Families (KLoWF) and the Korean Labor and Income Panel Study (KLIPS)—follow individuals through the reform

[1] The EKC population comprises ethnically Korean individuals who migrated to China—mainly in the early 1900s—and their descendants.

[2] This is likely a result of assortative matching in the marriage market, consistent with the theoretical predictions in Becker (1974a,b). Moreover, several studies provide empirical evidence supporting similar patterns across different contexts (Chiappori et al., 2012; Adda et al., 2020; Dziadula and Zavodny, 2023; Ahn and Lubotsky, 2024).

window. KLoWF records labor supply, time use, and direct indicators of intra-household bargaining (e.g., the degree to which women rely on their own judgments versus their husbands' in labor supply decisions) alongside marital satisfaction, whereas KLIPS records each spouse's subjective well-being. Third, we use the universe of divorce-registry records, which not only allow us to count the number of divorces but also list the grounds for dissolution for each case. These records allow us to examine both the overall incidence of divorce and shifts in the motivations behind it.

Our identification exploits the fact that the immigration reforms affected local marriage markets unequally. The diversion of EKC women away from marriage visas matters only where pre-reform excess demand for brides already existed—that is, in districts with high male-to-female sex ratios. Even there, the shock could be muted if well-developed migrant networks or matchmaking agencies continued to channel EKC brides or substitutes from other countries into the area. Hence, the most exposed districts combine two characteristics: a *high* sex ratio and a *weak* marriage-migrant network. We implement a difference-in-difference-in-differences (DDD) design that compares pre- versus post-reform changes in outcomes of interest (i) between weak- and strong-network districts within regions with high sex ratios relative to (ii) the analogous difference within regions with low sex ratios. For the causal interpretation of the results, we assume that, in the absence of the immigration reforms, there would have been identical differential trends in the outcomes across regions with varying strengths of migrant networks in both high and low sex ratio areas.

To support this identification assumption, we document parallel pre-trends in key demographic determinants of marriage market conditions. In addition, we show that our results are robust to controlling for contemporaneous labor-market changes attributable to the immigration policy reforms and to differential exposure to the 2008 global financial crisis. For the analysis using the individual panel surveys, we further control for all individual-level time-invariant characteristics (both observed and unobserved) by introducing individual fixed effects.

We find several striking findings. First, the immigration reforms resulted in a sizable marriage market shock. The reforms led to a 17 percent decline in the marriage rate. Moreover, this was driven by a fall in the inflow of EKC brides; foreign brides from elsewhere remained unchanged. Consistent with the reforms' objectives, the number of EKC migrants entering on work visas surged for both women and men. Taking these results together, we argue that the reforms tightened the supply of potential wives: single men faced tougher prospects, and even married men saw their outside options diminish. Conversely, this implies that the marriage market conditions improved for women, potentially shifting intra-household dynamics that we study next.

Second, we find that the immigration reforms shifted intra-household dynamics in favor of women. Married women gained greater autonomy over their labor market decisions: the reforms increased their decision-making power regarding taking or changing jobs by 0.35 and 0.29 standard deviation units, respectively. These changes in bargaining power led to meaningful behavioral adjustments in employment and time allocation. Women were 9.36 percentage points more likely to be employed, and at the intensive margin, they spent more time working. By contrast, we do not find any statistically significant changes in who decides husbands' labor supply. To validate our

interpretation of the results, we examine single women—a group unaffected by spousal bargaining—and find no significant changes in their time use or employment. Taken together, the results point to a redistribution of bargaining power within households, driven by shifts in marriage market conditions that inadvertently resulted from the reforms.

Third, using the KLIPS data, we find that, as women's bargaining power and autonomy rose within the households, their subjective well-being improved precisely where intra-household dynamics matter most: satisfaction with "living conditions" and with "family relations" both increased, while satisfaction with household income and social standing did not change. These gains are unlikely to stem from hiring more paid help—the probability of employing domestic workers did not increase despite the larger pool of EKC women on work visas. We further provide evidence that women's satisfaction with marriage increased. Notably, husbands report a similar pattern of improvements, suggesting that the reforms enhanced the home environment for both spouses rather than redistributing well-being from men to women.

Finally, we find that divorces among Korean-national couples fell by roughly about 16 percent after the reforms, a decline consistent with the simultaneous rise in wives' bargaining power and marital satisfaction. Examining the reported grounds for divorce reveals a notable shift in composition. Divorce filings citing "irreconcilable differences" shrank by 3.1 percentage points, while those alleging physical or emotional abuse rose by 0.9 percentage points. The latter shift is likely explained by empowered wives who now exit violent relationships or report abuse more candidly. Reasons tied to economic hardship, family conflict, infidelity, health, or "other" factors show no meaningful change. Together, the evidence suggests that stronger female bargaining power curbed divorces rooted in general incompatibility, yet made abuse-related dissolution more visible, implying an overall improvement in marital quality in line with improved well-being among married couples.

We contribute to the literature in international economics and economic geography, focusing broadly on understanding the impacts of immigration and policies regulating spatial mobility. A well-established body of research has explored immigration's impacts on labor markets and location decisions, leveraging both theoretical frameworks and empirical strategies (e.g., Card, 2001; Borjas, 2003; Card, 2009; Ottaviano and Peri, 2012; Cascio and Lewis, 2012; Peri, 2012; Dustmann et al., 2016; Burstein et al., 2020; Han et al., 2021; Albert and Monras, 2022; Cortes, 2008; Peri et al., 2022).[3] More recently, attention has turned to marriage migration, driven by its rising prevalence and economic implications (e.g., Kawaguchi and Lee, 2017; Weiss et al., 2018; Ahn, 2020; Dziadula and Zavodny, 2023; Ahn and Lubotsky, 2024).

Few economic studies link immigration policy to family outcomes. One of the notable exceptions is Adda et al. (2020), who exploit the staggered enlargements of the European Union to examine how legal status influences intermarriage and separation between natives and foreign spouses. Amuedo-Dorantes et al. (2020) document that access to a pathway to citizenship is an important determinant of intermarriage in the U.S. Similarly, Ahn (2020) studies the changes in

[3]For example, Card (2001) uses local labor market variation, while Borjas (2003) emphasizes national skill-based effects.

the matches in the marriage market in Taiwan after tightening visa requirements for marriage migrants.[4] In our paper, exploiting the unequal exposure of local areas to immigration policy reforms, we document how the resulting changes in the marriage market conditions affected intra-household outcomes: women's bargaining power and time allocation (house chores vs. labor supply), both spouses' subjective well-being, and the incidence and composition of divorce. Han et al. (2021) examine how native Koreans living in Seoul adjust their internal migration to the increased influx of EKC workers using a Bartik-style instrument built on the same immigration reforms we exploit in our paper. To our knowledge, we are among the first to study the unintended consequences of immigration policy reforms on the marriage market and, in turn, intra-household decisions. By linking cross-border migration policies to household behavior, our study underscores the interplay between immigration policy, marriage markets, and household dynamics, thereby emphasizing the multifaceted impacts of immigration policy beyond its labor market effects.

This paper contributes to the literature studying intra-household implications of economic conditions and intra-household bargaining in labor and family economics in two ways. First, we exploit the unintended consequences of South Korea's 2008–10 immigration reforms as a quasi-natural experiment that generates plausibly exogenous variation in local marriage market conditions. Earlier studies have relied on different sources of exogenous shifts. Bertrand et al. (2015) construct a shift-share instrument in the spirit of Bartik (1991) that combines industry-specific aggregate labor demand shocks with the gender composition of employment to study how spouses' relative earnings influence marriage formation and stability in the U.S.[5] Heath and Tan (2020) use unearned income changes arising from women's exposure to the Hindu Succession Act in India to examine labor-supply responses. A related literature exploits the staggered adoption of unilateral-divorce laws across U.S. states to measure intra-household effects (e.g., Gray, 1998; Gruber, 2004; Wolfers, 2006; Stevenson and Wolfers, 2006; Matouschek and Rasul, 2008).[6] Our approach complements the previous literature by showing that an immigration policy can reconfigure local marriage markets, alter spouses' "outside" positions, and ultimately influence intra-household bargaining and related outcomes.

Second, we harness South Korea's unusually rich data to address both the measurement and identification challenges common in the literature studying intra-household bargaining. Structural models have long highlighted how factors such as income, sex ratios, and legal reforms shape spousal negotiations (e.g., Manser and Brown, 1980; McElroy and Horney, 1981; Chiappori, 1988, 1992; Chiappori et al., 2012; Knowles, 2013), yet empirical work frequently lacks direct, repeated indicators of bargaining power—especially in developed economy settings.[7] We bridge this gap by merging two nationally representative panels—the Korean Longitudinal Survey of Women and

[4] Edlund et al. (2013) study the effects of the same reform in Taiwan on fertility and divorce risk.

[5] Zaremba (2024) uses the randomness in sex ratio birth as an instrumental variable for availability of male partners to estimate the health effects of marriage market conditions.

[6] Frimmel et al. (2024) uses the variation in gender composition at husbands' workplaces as an instrument for divorce.

[7] Exceptions include the India Human Development Survey (IHDS) and Demographic and Panel Surveys (DPS) in Africa, but comparable data for developed countries remain scarce.

Families (KLoWF) and the Korea Labor and Income Panel Study (KLIPS)—each of which follows the same respondents and records who makes key labor-supply decisions within the couple. These repeated observations, together with detailed well-being measures, allow us to difference out all time-invariant individual heterogeneity and to link shifts in local marriage market conditions directly to changes in bargaining power. Moreover, the divorce registry, which uniquely reports the grounds for each dissolution, enables us to study how bargaining positions and marriage-market conditions translate into both the incidence and the motives of marital dissolution.

The remainder of this paper is organized as follows. In Section 2, we describe the empirical background of this paper by discussing the sex ratio imbalance, international migration, and immigration policy reforms in South Korea. Section 3 presents the three different types of data sources that we harness for our empirical analyses. Section 4 presents the empirical strategy to estimate the effects of immigration policy reforms. Section 5, we discuss our results. Then, we conclude in Section 6.

2 Background

2.1 Sex Ratio Imbalance and International Marriages in South Korea

From the 1960s through the 1990s, South Korea underwent transformative changes that not only spurred rapid economic growth but also reshaped the spatial distribution of economic activity nationwide (Lee et al., 2015). These developments altered local marriage-market conditions as well. As structural transformation shifted the leading sector from agriculture to manufacturing and export-oriented industries (Connolly and Yi, 2015; Betts et al., 2017), urbanization accelerated, and migrants left rural areas for expanding cities. Internal migration in South Korea was especially pronounced among women, compared with men (Briselli, 2024), widening regional disparities in the male-to-female sex ratio gaps that persisted into the 2010s.

Panel (a) of Figure 1 traces how the male-to-female sex ratio among 20-39-year-olds changed between 2000 and 2015. The solid black circles correspond to the sex ratio computed at the national level, which remained remarkably steady, fluctuating within the range of the natural sex ratio (Jacobsen et al., 1999). This apparent stability conceals wide regional variation. We rank the country's administrative districts—the spatial unit of this paper—by their sex ratio observed in 2000, split them at the median, and plot the sex ratios for the two groups separately: districts above the median appear as blue hollow diamonds, and those below as red hollow circles.[8] The initial gap was dramatic. In 2000, below-median districts were well-balanced in terms of sex ratio, whereas above-median districts recorded roughly 120 males per 100 females—an excess of one man for every five women. This gap persisted through 2005, began to narrow only modestly after 2006, and still remained large even by 2015.[9]

[8] We focus on 229 administrative districts (si, gun, or gu) that together constitute the 17 provinces (teukbyeolsi, gwangyeoksi, or do) covering all of South Korea. Changwon and Sejong were created in 2010 and 2012, respectively, by merging adjacent districts. For consistency, we treat each as a single district throughout the entire sample period.

[9] In the appendix, Figure A.1 plots the map of South Korea and indicates the districts with male-to-female sex

Sex-ratio imbalances influence local marriage market conditions in several key ways. First, they often reflect long-standing socioeconomic disadvantages faced by one gender, which in turn generate gender-specific migration patterns; Briselli (2024) documents this mechanism for South Korea. Second, among individuals actively seeking a spouse, a high male-to-female ratio implies a shortage of women and thus excess demand for brides (Grosjean and Khattar, 2019). Third, skewed sex ratios, in turn, help shape broader social norms and attitudes toward women (Giuliano, 2020; Gelfand et al., 2024). Holding other factors constant, any increase in excess demand for brides in a region raises women's relative bargaining power—both for those who are single and for those already married who live in the region.

These imbalances, together with the restoration of diplomatic relations between South Korea and China in 1992, led to a large influx of Chinese marriage migrants—most of whom were ethnically Korean Chinese (hereafter EKC) women (Kim, 2010a). Before the 1990s, international marriage was uncommon in South Korea and, when it did occur, usually involved Korean women and foreign soldiers stationed in the country (Lee, 2008). At the start of that decade, such unions represented barely 1 percent of all marriages. By 2015, the share increased to roughly 8 percent, driven by marriages between foreign women and Korean men (Raymo and Park, 2020). In the 1990s and early 2000s, the overwhelming majority of Chinese brides in these marriages were EKC. Korean men's preference for EKC women reflects the EKC's unique position among immigrants. Thanks to their geographic proximity to the peninsula and Chinese policies granting cultural autonomy to certain minorities, EKC communities have preserved many Korean cultural practices, including proficiency in the language (Lee et al., 2006; Kim, 2017).

Notwithstanding the appeal of the EKC women conditional on excess demand for brides, their settlement patterns were far from uniform. Regional variation in EKC inflows reflects local socioeconomic factors as well as sex ratio imbalances that attracted the EKC brides into these regions. Local economic opportunities may influence the decision for the foreign brides to immigrate, as economic motivation partly explains marriage migration into South Korea (Cho, 2018). Search frictions matter as well. Korean men, who struggle to find a spouse locally, rely on matchmaking intermediaries that specialize in cross-border unions, channeling brides toward regions these agencies serve (Kawaguchi and Lee, 2017). Finally, migrant networks reinforce initial concentrations (Card, 2001; Burchardi et al., 2018; Parsons and Vézina, 2018). Established enclaves lower information and adjustment costs for later arrivals, further attracting foreign brides. As a result, EKC—and, more broadly, foreign—brides cluster where economic opportunity, intermediary activity, and social networks intersect, rather than being confined to districts with the most severe sex ratio imbalance.[10]

Panel (b) of Figure 1 plots the stock of international marriages between Korean men and foreign women during 1995–2019, with the series netting out divorces. The total number of such couples (represented by black circles) rose steadily across the entire horizon. In the first half of the sample

ratio above the median and those below the median.

[10]Within each sex ratio group (high and low), we further split districts at the median count of EKC brides per 100,000 residents in 2007 and display the resulting spatial distribution in Figure A.2.

period, the expansion was almost entirely driven by unions with Chinese wives: in 1995, these marriages represented more than 80 percent of all Korean-male/foreign-female marriages. After the mid-2000s, however, the series for Chinese wives (represented by red diamonds) flattened, and their share had decreased roughly by one-half by 2019.[11] During the same time period, marriages with women from other countries of origin—mostly from Southeast Asia (SA)—started to increase. This composition shift in foreign brides in terms of their countries of origin away from China during the later part of the 2000s coincided with key immigration policy reforms that affected the EKC population.

2.2 2008 and 2010 Immigration Policy Reforms and their Implications for the Marriage Market

In 1999, the South Korean government enacted the Act on the Immigration and Legal Status of Overseas Koreans, introducing the F-4 visa to grant a semi-permanent legal status to live and work in South Korea for overseas Koreans who had emigrated after 1948 and their descendants (Han et al., 2021). However, this temporal restriction excluded many overseas Koreans, particularly those whose families had migrated much earlier. The vast majority of Korean migration to China took place between the late nineteenth and early twentieth centuries, with substantial outflows beginning in the 1860s and intensifying during the Japanese colonial period from 1910 to 1945 (Kwon, 1997; Kim, 2010b).

In 2003, the F-4 visa program was amended to remove the restriction based on the timing of migration, but this expansion did not extend to ethnic Koreans residing in China and the Commonwealth of Independent States (CIS)—including Uzbekistan, Kazakhstan, Kyrgyzstan, Ukraine, and Tajikistan—who remained ineligible under the revised rules. Instead, the South Korean government instituted a separate short-term employment visa (F-1-4) for overseas Koreans from China and the CIS region, permitting temporary stays of up to three years and restricting employment opportunities primarily to the low-skilled service sectors, such as restaurant work, cleaning, personal care, and domestic labor.

In 2008 and 2010, the South Korean government implemented key immigration policy reforms benefiting overseas Koreans in China and the CIS. The 2008 revision expanded F-4 visa eligibility to include all ethnic Koreans from these regions, regardless of their migration history, providing them with semi-permanent residency and broader rights in South Korea. This inclusive policy shift recognized the historical patterns of Korean migration and addressed previous exclusions from earlier visa programs. In 2010, further reforms allowed those on an H-2 visa, which had replaced the F-1-4 program in 2007 and provided the option to renew for an additional 1 year and 10 months—to adjust their status to the F-4 visa.

These immigration policy reforms had important, albeit unintended, consequences for marriage

[11] The data underlying Panel (b) do not differentiate EKC wives from other Chinese wives. Separate visa statistics show that about 70 percent of Chinese nationals entering on marriage visas in 2006 were EKC women; the proportion had dropped to roughly 35 percent by 2015 (Lee and Klein, 2017).

migration patterns and marriage market conditions. By expanding access to the F-4 visa, EKC women acquired an alternative pathway to enter and reside in South Korea independently of demand for foreign brides. With this increased autonomy, EKC women would be less likely to rely on marriage visas, making it more difficult for Korean men—especially those in less attractive or lower-opportunity districts—to secure EKC spouses. This shift likely contributed to the notable decline in the share of EKC brides from the late 2000s onward, as shown in Panel (b) of Figure 1. In response, Korean men increasingly turned to brides from Southeast Asian countries, whose migration was affected little by the policy reforms.

The effects of these reforms, however, are unlikely to be uniform across the country. Districts that had few foreign brides before the reforms—often characterized by weaker migrant networks and limited locational appeal—should be affected more. In these areas, the contraction in the supply of EKC spouses due to the policy changes and difficulties in attracting other foreign brides might have led to sharper disruptions in local marriage markets, reshaping social norms and attitudes toward women, including both single and married women, and potentially improving intra-household bargaining power for married women.

3 Data

We combine three different data sources. First, district-level administrative statistics on population, foreign residents, and marriages allow us to construct measures of excess demand for brides and the strength of marriage migrant networks and to study local marriage-market conditions that, in turn, influence intra-household dynamics. Second, two nationally representative household panel surveys track the same couples (both spouses being native Koreans) over time and their intra-household bargaining power and related outcomes. Third, administrative divorce registry records allow us to construct the number of divorces and the principal grounds cited in each case.

3.1 District-level Administrative Statistics

The data on the annual population by districts of South Korea come from the Korean Statistical Information Service (KOSIS). In this dataset, we observe the total number of residents living in each district by gender and age. We construct the male-to-female sex ratio for the population between the ages of 20 and 39—most active in the marriage market—to understand the extent of gender imbalance indicative of excess demand for brides at the district level. The sex ratios ranged from 0.92 to 1.66 men per woman between 2006 and 2016, with the average across districts equaling 1.14 men per woman. We use the median value of the sex ratios in 2000 to define districts with high or low excess demand for brides, as in Figure 2. KOSIS also provides annual counts of marriages by district, and we compile them into a panel of districts spanning 2006–2015.[12]

[12] As a complementary dataset, we gather the district-level demographic variables, employment variables, housing market variables, and the total number of foreign residents observed in 2006 from KOSIS. We use this dataset to further shed light on the local factors associated with excess demand for brides and marriage migrant networks and to confirm the robustness of our main results to controlling for these variables.

Every year, the Ministry of Interior publishes an annual report tabulating the number of foreign residents in each district. These tables are further disaggregated by gender, visa type (marriage- and work-based), and country of origin. One of the advantages of this data source is that EKC are counted separately from the rest of the Chinese nationals residing in South Korea. Based on the reports, we construct a panel dataset of districts with the number of foreign residents by gender, visa type, and origin (EKC, Southeast Asia, and all other countries). Combining this data with the data on population, we construct a district-level measure of marriage migrant network before the immigration policy reforms (i.e., the number of EKC women on marriage visa per 100,000 residents in 2007) and divide the districts in terms of strong vs. weak networks, as used in Figure 2. Across districts between 2006 and 2015, the average number of EKC women on a marriage-based visa was 283, which is lower than the average number of female foreign residents from Southeast Asia (505) and those from all other countries (512). These average values, however, mask the substantial changes from the pre-reform period. For instance, the average values in 2006 were 287, 137, and 252 for EKC and those from Southeast Asia and all other countries.

3.2 Panel Surveys

The Korean Longitudinal Survey of Women and Families (KLoWF)

The Korean Longitudinal Survey of Women and Families (KLoWF), launched in 2007 by the Korean Women's Development Institute, follows a nationally representative panel of 9,997 women aged 19–64 living in 9,068 households. Wave 1 was conducted in 2007 and Wave 2 in 2008; thereafter, the survey was fielded biennially. For our analysis, we focus on Waves 1 and 2 as the pre-reform baseline and Waves 5 and 6 (fielded in 2014 and 2016) as the post-reform period, excluding the intermediate rounds (Waves 3 and 4 in 2010 and 2012) to allow the policy reforms time to take full effect.[13] The questionnaire focuses on women's economic activity and family life, recording individual preferences, intra-household decision-making, labor-market status, and time use, alongside basic demographics for all household members. Information on their district of residence allows us to merge the survey with our district-level measures of excess demand for brides and migrant networks.

KLoWF's longitudinal design, large sample size, and unique questionnaire are especially valuable for tracing how married women's bargaining power, time allocation, employment status, and marital satisfaction evolve. In every wave, each married respondent reports who decides whether she takes a new job or changes her current job, choosing a value from 0 (decision made entirely by the husband or wider family) to 3 (decision made entirely by herself). We normalize the 0–3 scale to have mean zero and unit standard deviation, and we treat it as our primary indicator of a wife's intra-household bargaining power.[14] The survey also asks the symmetric question about

[13] We exclude 18 women in the survey who were born abroad from our analysis; therefore, we focus on native Korean women in this paper. In addition, we focus on 9,808 women whose residency did not change throughout the sample period.

[14] As a validation exercise, Figure A.3 displays binned scatterplots of wives' bargaining power over her own labor-supply decisions plotted against three distributional factors (Chiappori et al., 2002): wives' years of schooling, the

who decides on the husband's labor supply choices. All women, regardless of marital status, record hours spent on household chores and work during the past year; married respondents additionally describe their husbands' time use and rate their own marital satisfaction.

Korean Labor and Income Panel Study (KLIPS)

The Korean Labor and Income Panel Study (KLIPS) serves as another source of household-level data. Launched in 1997 by the Korea Labor Institute with an initial nationally representative sample of 5,000 households, KLIPS is widely regarded as the Korean analogue to the U.S. Panel Study of Income Dynamics (PSID). Each original household and its split-offs have been interviewed annually. We restrict KLIPS to the survey waves that overlap with KLoWF—specifically 2007, 2008, 2014, and 2016—and to married couples.

Although this subsample is smaller than the corresponding KLoWF panel, KLIPS asks a unique set of questions in every wave about subjective well-being. Respondents rate their satisfaction (on a 1–5 scale) with overall life, household income, living conditions, family relations, and social aspects.[15] We transform these measures of subjective well-being to have standard deviation units. Because these assessments are collected annually, we can track how each dimension of well-being evolves before and after the immigration reforms, thereby linking local shifts in marriage-market conditions to changes in married couples' perceived quality of life.

3.3 Divorce-Registry Records

Our last data source is the administrative divorce registry, which records every legally finalized divorce in South Korea. We utilize the universe of filings from 2006 to 2015. A divorce becomes official only after the court's decree is registered with the national government. The law requires the couple to submit a joint divorce report, although one spouse may file unilaterally if the other does not contest the decree.[16] Each report lists the judgment date, date of marriage, primary reason for divorce, spouses' ages at the time of marriage, districts of residence, education attainment levels, occupations, and countries of birth.[17]

These rich administrative records enable us to link local marriage-market shocks to marital dissolution. We compute district-level divorce rates by year and examine how they change before and after the immigration reforms. We use the individual records to study shifts in the composition of divorce motives. For every case filed through 2015, we observe the principal ground for divorce, reported by the parties involved, as one of seven categories: irreconcilable differences, psychological

age gap (husband's age minus wife's), and the number of children.

[15] Respondents rated each item after seeing only its Korean keyword label; the questionnaire offered no additional explanation. For context, the term we translate as *living conditions* encompasses both the material setting and the atmosphere of the dwelling, while *family relations* refers to the quality of interactions among immediate household members.

[16] A single-party filing is accepted only if the non-filing spouse does not formally challenge it within the statutory period.

[17] Because our analysis centers on native-Korean couples, we restrict the divorce data to cases in which both spouses are Korean nationals.

or physical abuse, economic hardship, conflicts with extended family, spousal infidelity, health-related issues, and others.

4 Empirical strategy

4.1 Source of Variation

Our empirical strategy rests on two dimensions of pre-existing spatial heterogeneity that shape how strongly the 2008–2010 immigration policy reforms disrupted local marriage markets:

Excess demand for brides. By offering a more stable, semi-permanent status, the reforms unintentionally diverted many EKC women away from the marriage-visa channel. Districts where Korean men had previously relied most heavily on foreign brides—namely those with pronounced male-to-female imbalances—therefore faced a larger negative supply shock. To fix ideas, compare two otherwise similar districts that differ only in their pre-reform sex ratios. In the high-imbalance district, a sizable share of EKC women would have married local men to secure legal residency; after 2010 the same women could enter under the new, less restrictive visa, bypassing the marriage market altogether. The low-imbalance district, by contrast, had little excess demand for brides to begin with and thus experienced only a modest change in the availability of spouses.

Strength of marriage-migrant networks. The magnitude of the shock also depends on how attractive a district is to potential brides and on the presence of matchmaking intermediaries. Where migrant networks and agency ties were well established, Korean men could still reach EKC women—or substitute toward brides from other countries—offsetting the potential lost inflow. Districts with weaker networks lacked such channels; when the inflow of EKC brides dropped, their marriage markets had little capacity to adjust.

Figure 2 illustrate the resulting two-dimensional landscape. In Panel (a), along the horizontal axis, we plot pre-reform excess demand for brides (the sex ratio among 20-to-39-year-olds); along the vertical axis, we plot the pre-reform strength of the marriage-migrant network (EKC brides per 100,000 residents).[18] Both variables vary widely across districts, and—crucially—their joint distribution produces groups that are comparable on one dimension but differ sharply on the other. Panel (b) shows the districts on a map and the spatial distribution in terms of high vs. low excess demand for brides ($HSR = 1$ if high) and weak vs. strong migrant networks ($HEX = 1$ if weak).[19]

[18] In our main specification, we compute pre-reform excess demand for brides using data from the year 2000 and measure the strength of the marriage-migrant network in 2007 based on EKC brides. Our results are robust to alternative definitions—for example, using 2007 to measure pre-reform excess demand or considering all foreign brides when constructing the marriage-migrant network. The results are available upon request.

[19] We investigate which local characteristics correlate with the two key sources of variation. In the Appendix, A.1 and A.2 show that districts with high excess demand for brides are, on average, smaller in population, higher male-to-female ratios, and relatively inexpensive to live yet with newer housing stock; the strength of their migrant networks in these districts, however, is not systematically different from that of other districts. In contrast, districts with weak marriage-migrant networks tend to be more populous, have lower fertility rates, and have older, less attractive housing markets; they also draw disproportionately few female foreigners on work visas and foreign brides.

4.2 Estimating Equations

We exploit the aforementioned spatial implications of the immigration policy reforms along the dimensions of HSR (i.e., high excess demand for brides) and HEX (i.e., high exposure due to weak migrant network) and estimate the following specification, first focusing on the outcomes defined at the district level:

$$Y_{d,t} = \phi_d + \beta_1 \text{post}_t + \beta_2 \text{post}_t \times HSR_d + \beta_3 \text{post}_t \times HEX_d + \beta_4 DDD_{d,t} + \varepsilon_{d,t}, \tag{1}$$

where $Y_{d,t}$ represents an outcome of interest—namely, the number of marriages, inflow of immigrants, and the number of divorces)—for district d in year t. The district fixed effects (ϕ_d) capture all time-invariant district-specific factors like geographical or cultural differences.[20] The indicator post_t equals one for post-reform years, defined as in or after 2013, with pre-reform years set prior to 2009 to account for the multi-year immigration process (e.g., visa applications). We exclude the samples from the 2009–2013 transition period in our estimation to avoid contamination from partial reform implementation. post_t purges out the effects of all aggregate forces that uniformly affected the outcome across districts. We further allow for differential trends by district type along HSR_d and HEX_d, by introducing interaction terms between these variables and post_t. The triple interaction, $DDD_{d,t} \equiv \text{post}_t \times HSR_d \times HEX_d$, isolates the effect of the immigration policy reforms by leveraging the joint variation in high sex ratio districts (HSR_d) and weak migrant network—thus high exposure—districts (HEX_d). $\xi_{d,t}$ corresponds to an error term, which we cluster at the district level to account for arbitrary serial correlation within each district.

For the outcomes defined at the individual level based on the panel surveys, we modify Equation 1 and estimate:

$$Y_{i,d,t} = \alpha_i + \beta_1 \text{post}_t + \beta_2 \text{post}_t \times HSR_d + \beta_3 \text{post}_t \times HEX_d + \beta_4 DDD_{d,t} + W'_{i,t}\Gamma + \varepsilon_{i,d,t}, \tag{2}$$

where $Y_{i,d,t}$ is an outcome of interest (i.e., bargaining power, time use, and subjective well-being/life satisfaction) for individual i living in district d observed across year t. α_i corresponds to the individual fixed effects and captures the baseline differences in all time-invariant characteristics across individuals that may influence the outcome variable. In this specification, we compare the sample individual across time periods and absorb potential life-cycle effects by including a full set of age dummies, $W_{i,t}$.

We estimate a specification analogous to Equation 2 to estimate the effect of immigration policy reforms on the reasons for divorce. While we observe individual records j filed in each district d over time t, we cannot estimate the fixed effect for each record. Instead, we introduce a rich set of dummy variables for the marriage year and each spouse's age and occupation (W_j) to account for couple-level characteristics and heterogeneity across divorce cases. Implementing these changes, we

[20] For the number of divorces, we construct and following set of district-level control variables based on the registry records and include them in Equation 1: average age, income, and education of spouses filing for divorce, to mitigate confounding from composition changes.

estimate the following specification for the divorce records:

$$Y_{j,d,t}^{(r)} = \phi_d^{(r)} + \beta_1^{(r)}\text{post}_t + \beta_2^{(r)}\text{post}_t \times HSR_d + \beta_3^{(r)}\text{post}_t \times HEX_d + \beta_4^{(r)}DDD_{d,t} + W_j'\lambda^{(r)} + \varepsilon_{j,d,t}^{(r)}, \quad (3)$$

where $Y_{j,d,t}^{(r)}$ is a dummy variable taking the value 1 if the primary reason for divorce for case j between a couple residing in district d in year t is one of the seven reasons r: irreconcilable differences, psychological or physical abuse, economic hardship, conflicts with extended family, spousal infidelity, health-related issues, and others.

4.3 Identifying Assumption

Estimating the equations above effectively compares the pre- versus post-reform changes in intra-household outcomes between districts with weak and strong migrant networks, separately for high- and low- sex ratio districts, and then takes the difference of the differences. Therefore, our empirical design follows a difference-in-difference-in-differences (DDD) setup (Olden and Møen, 2022). To enable the causal interpretation of β_4—the coefficient for the triple interaction term ($DDD_{d,t}$), the following assumption must hold: in the absence of the reforms, the difference in the outcomes between districts with weak and strong migrant networks would have *trended* similarly across districts with high and low sex ratios.

Although this parallel trend assumption cannot be directly tested, we provide evidence in support of it. First, we show that HSR_d and HEX_d do not systematically explain each other as shown in Tables A.1 and A.2. This reduces the threat that their interaction is proxying for unobserved factors varying along these two dimensions. Given this pattern, we argue that the double interaction terms (i.e., $\text{post}_t \times HSR_d$ and $\text{post}_t \times HEX_d$) are particularly helpful to identify the causal effects of interest in our setting by absorbing out the trends specific to each group. Second, we show that our results are robust to augmenting the specification with district-specific controls (demographic, labor-market, and housing variables) interacted with flexible time trends, reinforcing our argument that differential pre-existing trends are not driving the estimates.

Third, we test the parallel trends assumption using population and new marriages, key indicators of local marriage market conditions with sufficient pre-reform data. We extend Equation 1 to a dynamic specification and present the results in Figure A.4. The estimates show no evidence of differential pre-trends in population, the male and female population aged 20–39, and new marriages between weak- and strong-network districts in high sex ratio areas relative to low sex ratio areas.

Lastly, the reform might have influenced districts through channels other than marriage—most notably by diverting EKC women from marriage visas to the F-4 (a type of work visa). Overall, our results are robust to additionally controlling for the annual inflow of EKC men and women on work visas. Furthermore, despite the 2008 global financial crisis, we argue that our estimates are unlikely to conflate its effects with those of the immigration policy reforms. In Table A.3, we

show that local labor market conditions—measured by the log number of firms and the log number of workers—did not change differentially in high-sex-ratio, weak-network districts relative to other districts.

5 Results

In this section, we present our estimation results. First, we discuss the effects of the immigration policy reforms on the marriage market. Next, using the individual panel surveys, we provide evidence that the changes in the marriage market conditions favorable to women coincided with improved women's intra-household bargaining power, a higher level of labor supply, and greater satisfaction with marriage and family members. Lastly, we document a post-reform decline in divorce rates accompanied by a compositional change in grounds for divorce, with "irreconcilable differences" becoming less prevalent than before.

5.1 Effects on Marriages and Migration

We begin by estimating Equation 1 with district-level counts of marriages and female migrant inflows as dependent variables; the results are summarized in Table 1. Columns 1–2 use the annual number of marriages in each district as the outcome. Column 1 employs the full 2006–2015 panel, whereas Column 2 restricts the sample to the four years for which both household surveys are available (2007, 2008, 2014, 2016). In both specifications, the coefficient on the triple interaction—our estimate of the reform effect—is negative and statistically significant at the 5 percent level, indicating that the reforms reduced the number of marriages in districts. The point estimate in Column 1 is more than 50 percent larger in magnitude than that in Column 2, suggesting that including the intermediate roll-out years of the reforms (2009–2013) attenuates the estimated impact. The estimated effect of the reforms based on a complementary log-linear specification is -0.19 ($S.E. = 0.05$), implying roughly a 17 percent decline in marriages.

Columns 3–8 replace the dependent variable with the number of female foreigners on a marriage visa, disaggregated by origin: ethnically Korean Chinese (EKC) in Columns 3 and 4, Southeast Asian in Columns 5 and 6, and all other nationalities in Columns 7 and 8. As before, the left column uses the full 2006–2015 sample and the right column the survey-year sample. The reform effect is negative, and significant at the 1% level for EKC brides, but statistically indistinguishable from zero for the other two groups. This pattern is exactly what the policy implied: by offering EKC women an alternative, marriage-free pathway to semi-permanent legal status in South Korea, the reforms curtailed their numbers in the marriage-visa stream, while the inflows of Southeast Asian and other women—whose visa options were unaffected—remained unchanged.[21]

Table 2 reports estimates of Equation 1 using district-year counts of foreigners entering on a work visa, disaggregated by gender and region of origin, as the outcome. For EKC migrant workers, the

[21] In the appendix, we replicate the results using the number of male foreigners on a marriage visa and report them in Table A.4. The estimated effect on the number of foreign grooms is economically negligible, reflecting the lower marriage rates between Korean women and foreign men.

reform effects are large, positive, and statistically significant for both women and men (see Columns 1–2 for females and Columns 3–4 for males). This pattern aligns with the policy's expansion of work-eligible status to EKC populations. Moreover, when we compare these magnitudes with the corresponding negative reform effects on the number of EKC brides in Table 1 (Columns 2–3), the increase on the work visa substantially exceeds the decline in marriage visas. Thus, simple diversion from marriage to work status explains only smaller part of the rise; additional growth reflects EKC migrants who would not have entered via marriage in the absence of the reforms either because they preferred independent work migration or because they arrived with their EKC spouses. Importantly, individuals entering on work visas are unlikely to have augmented the pool of prospective brides in local marriage markets. In contrast, the coefficients for migrants from Southeast Asia and other origins are generally negative and, while often imprecise, point to a mild crowd-out effect: the influx of EKC migrant workers appears to have reduced the opportunities for these groups in local labor markets.

In summary, the visa reforms sharply reduced the inflow of EKC brides and, as a consequence, lowered marriage formation. This contraction tightened the local marriage market: single (and married) men faced scarcer prospects, while women—also both single and already married—were likely to experience improved position in the market. In the remainder of our analysis, we study how this shift reverberated inside existing households, shaping wives' bargaining power, labor-supply choices, subjective well-being, and divorce outcomes.

5.2 Effects on Intra-Household Bargaining, Time Use, and Labor Supply

We investigate the effects of the immigration policy reforms on intra-household bargaining, time allocated to household chores, time spent in the labor market, and employment. We estimate Equation 2 using the Korean Longitudinal Survey of Women and Families (KLoWF) dataset[22] and summarize the results in Table 3. In Columns 1–2, the dependent variable measures intra-household bargaining in standard deviation units that captures the wife's control over her own labor-supply choices. Column 1 refers to the decision to take a new job, whereas Column 2 refers to the decision to change an existing job. In both cases, the estimated effects of the reforms—the coefficients in front of the triple interaction—are positive and statistically significant at the 1 percent and 5 percent levels, respectively, indicating that the reforms raised wives' bargaining power with respect to their own labor market decisions. More specifically, the immigration reforms increased women's autonomy over the decision to get a new job by 0.36 standard deviation and to an increase of 0.29 standard deviation in women's reported autonomy over changing jobs.

Columns 3 and 4 present results using time allocation as outcome, while Column 5 replaces the dependent variable with a binary indicator for whether the woman is employed.[23] The coefficient of interest in Column 3 indicates that the reforms led to an average reduction of 37.47 minutes per

[22] We exclude women born abroad from our sample of analysis.

[23] For this part of the analysis, we restrict the sample to those women who answered either one of the two questions on bargaining power, to compare results across the same individuals. The results are robust to relaxing this sample restriction.

week in time spent on housework for married women, but this result is not statistically different from zero. Column 4, whose sample includes only married women who are already employed, shows that the immigration reform increased women's time spent at work by 303.6 minutes per week. The results in Column 5 imply that the reform increased the probability of employment by 9.36 percentage points. For the three outcome variables, coefficients are statistically significant at the 5 percent level. The results suggest that the immigration reforms led married women to increase their labor market activity and raised employment rates.

Overall, Table 3 indicates a clear shift toward greater female control in labor-market decisions, accompanied by an increase in wives' time in labor market activities at both intensive and extensive margins. Thus, the immigration reforms produced unintended yet meaningful gains in women's household agency and labor-force participation. Because bargaining is zero-sum within a couple, increases in wives' influence imply offsetting reductions for husbands. To complete the picture, we therefore examine whether the reforms changed the extent of influence over husbands' labor supply choices.

We next examine bargaining over husbands' labor-supply decisions and summarize the estimation results in Table 4. The estimated effect of the reforms in Columns 1–2 are negative but statistically indistinguishable from zero, indicating no meaningful shift in who decides whether the husband takes or changes a job. Thus, while the point estimates lean toward greater male influence, we conclude that the reforms did not lead to changes in the intra-household bargaining power when it comes to husbands' labor supply. Taken together with the significant gains for wives reported in Table 3, the evidence points to an overall increase in women's intra-household bargaining power.

As a test, we turn to the sample of single women in the KLoWF—whose labor supply choices are uninfluenced by intra-household bargaining with husbands—and estimate how the reform affected their time allocation and employment.[24] If the immigration shock operates chiefly through shifts in spousal bargaining power, it should leave single women's behavior unchanged. Testing the null hypothesis that the reform effects are zero for this group would therefore reinforce our interpretation of the previous results in Tables 3–4 that the observed increase of married women's time in the labor market stems from enhanced intra-household bargaining rather than from broader labor-market forces.

The results for single women are summarized in Table 5. Across the columns, the point estimates have the opposite sign of those for married women and are statistically indistinguishable from zero. Thus, the reforms did not affect single women's time allocation and employment status, indicating that the effect which we observe for married women do not reflect a broad female trend but rather a redistribution of bargaining power within households driven by changed bargaining positions.

We documented a post-reform rise in married women's bargaining power and showed that these women responded by adjusting their labor supply and time allocation.[25] We now ask a

[24] The bargaining questions are asked only of married respondents.

[25] Appendix Tables A.5–A.13 show that the results are robust to adding additional district-level controls. In addition, we replicate estimates using housework time for husbands as an outcome variable, in Table A.14. The results show no change in the husbands' time spent on household chores.

natural follow-up question: Did these shifts in intra-household bargaining translate into changes in individual well-being? In the following subsection, we address this issue.

5.3 Effect on Subjective Well-being

In the KLIPS panel, each respondent rates five aspects of life–overall satisfaction, household income, living conditions, family relations, and social standing–every year. We estimate Equation 2 for each outcome; the results are reported in Table 6. The estimated coefficient for the triple interaction term in Column 1 shows no statistically significant change in overall life satisfaction. Disaggregated results tell a richer story. Satisfaction with *living conditions* (Column 3) and with *family relations* (Column 4) rose significantly, with both estimates positive and significant at the 5 percent significance level. By contrast, satisfaction with *household income* (Column 2) and with *social standing* (Column 5) remained unchanged.

The two dimensions that improve are those most directly shaped by intra-household interactions. Specifically, wives' satisfaction with living conditions and family relations improved by 0.59 and 0.51 standard deviation units, respectively. *Living conditions* encompass the physical and emotional environment of the home. *Family relations* reflect day-to-day interactions, conversations, and negotiations among household members, including those between spouses. In this sense, living conditions also mirror the quality and consequences of intra-household dynamics. The improvement of subjective well-being in these dimensions are consistent with our findings on greater female bargaining power.

Another potential channel for the observed improvement in living conditions is the arrival of EKC women on work visas who may have filled jobs in domestic services (e.g., housekeeping or caregiving). Our estimates are unchanged when we control for this labor-market channel, indicating that the main results do not merely reflect increased availability of paid household help. In the appendix, we replicate Table 6 by introducing additional district-level controls. Tables A.15–A.17 show that the results remain robust when accounting for an extensive set of pre-policy district characteristics interacted with time polynomials and contemporaneous inflows of EKC migrants on work visas.[26]

Column 6 of Table 6 turns to marital satisfaction. To further support the evidence based on the KLIPS in Columns 1–5, we draw on the KLoWF, which posed an analogous question to married women in each wave (repeatedly asking the same question over time): "How happy are you with your marriage?"[27] The estimated policy effect is positive and statistically significant at the 5 percent significance level. This result suggests that women's enhanced bargaining position may have translated into a measurable increase in marital happiness.

[26] We also examine whether the reforms changed the likelihood that a household employs domestic help. The estimated effect is economically negligible and statistically indistinguishable from zero. The results are available upon request.

[27] KLoWF interviews only women, so husbands are not asked this question. Respondents rate their happiness on a 0–100 scale; to maintain comparability with the 1-5 scales used for the KLIPS well-being items, we linearly rescale the KLoWF measure to the 1-5 range before estimation.

Table 7 replicates the analysis in Table 6 using husbands' responses to the same KLIPS well-being questions. The pattern broadly mirrors that for wives. The estimated coefficients in front of the triple interaction term for *overall life*, *household income*, and *social standing* remain close to zero and are not statistically significantly different from zero. By contrast, the coefficients for *living conditions* and for *family relations* are positive and economically sizable; the former is significant at conventional levels, while the latter reaches marginal significance (p-value ≈ 0.13). These findings suggest that the rise in wives' bargaining power—and the gains in their own well-being—did not come at husbands' expense; if anything, husbands appear to share in the improvements to the home environment and family dynamics.[28]

5.4 Effects on Divorces and Composition Change

Until now, our analysis has focused on women who remained continuously married across the pre- and post-reform periods. Replicating the household-survey results for couples that separated is infeasible due to the limitations of our data: attrition in both panels and the small number of divorces within each cell undermine statistical power. Instead, we turn to the universe of administrative divorce records to study the reduced-form impact of the visa reforms on marriage dissolution.

Greater bargaining power for wives could influence divorce in two distinct ways. First, a more balanced distribution of power within the household may reduce the incidence of divorces by allowing spouses to resolve conflicts before they escalate into irreparable breakdowns. Second, women may become empowered and emboldened to exit marriages that they would have endured in an environment where women had less market and intra-household leverage. To assess both margins, we estimate the effects of the reforms not only on the overall divorce rate but also on the composition of divorces by stated grounds, using the complete registry of divorce records.

We estimate Equation 1 with district-level divorce counts among Korean-national couples, and Columns 1–2 of Table 8 present the results. In levels (Column 1), the estimated effect of the reforms is -67.4 and statistically significantly different from zero at the 5 percent level, indicating a sizable drop in the number of divorces after the reforms. To express the magnitude in proportional terms, Column 2 re-estimates the equation with the natural log of divorces as the dependent variable. The estimated coefficient implies a sharp decline of about 16 percent in divorce cases.[29] This decline is consistent with our earlier evidence of higher marital satisfaction—indicative of its quality—and increased female bargaining power in the post-reform period.

Conditional on a divorce occurring, we next ask whether the composition of cases—classified by the primary ground for dissolution—shifted after the reforms. If the overall decline in divorces is not

[28] We show that the results are robust to adding additional district-level controls to the estimation in Appendix Tables A.18–A.20.

[29] Because the immigration policy reforms the status options of EKC foreign spouses—both prospective and already married, we expand the sample in Appendix Table A.21 to cover *all* divorces (between native Koreans and between a foreign spouse and a Korean-national). The share of cases involving a Korean husband and a foreign wife rises post-reform, whereas divorces involving Korean wives and foreign husbands do not change.

proportionally distributed across the pre-reform composition of reported reasons, the shares of those reasons must change. Accordingly, we investigate which grounds for divorce fell disproportionately and which declined less—or even rose—relative to the others by estimating Equation 3.

Columns 3–9 of Table 8 examine how the reform shifted the *distribution* of divorce grounds across seven categories. First, cases arising from *irreconcilable differences*—historically the most common reason—fell sharply: the share dropped by 3.15 percentage points (Column 3), significant at the 10 percent level. We argue, along with the previous results in this paper, that a plausible interpretation is that the post-reform rise in women's bargaining power and marital satisfaction prevented a subset of divorces that would otherwise have been attributed to general incompatibility. Second, divorces attributed to *physical or emotional abuse* rose by 0.86 percentage points (Column 4), significant at the 5 percent level, roughly one-quarter of the decline in irreconcilable-difference cases. Because abuse-based filings are more likely to be initiated by wives, this increase may reflect greater empowerment to leave violent relationships or more truthful reporting of the underlying cause once social constraints weaken. Finally, Columns 5–9 show no statistically meaningful changes in divorces filed for economic hardship, family conflict, spousal infidelity, health concerns, or "other" reasons. Thus, the reforms chiefly reduced divorces stemming from broad incompatibility while making abuse-related dissolution more visible.

6 Concluding Remarks

In this paper, we study the impacts of immigration policy reforms on marriage market conditions and intra-household dynamics. South Korea's 2008–10 expansion of its visa program for Overseas Koreans to ethnic Korean Chinese (EKC) resulted in an unintended consequence of tightening the supply of potential brides in regions that had already faced excess demand and lacked the ability to weather the shock due to a weak migrant network. We leverage the differences in exposure to the immigration policy reforms as a source of exogenous variation in local marriage market conditions.

We first documented that the reforms reduced the influx of foreign brides—driven by EKC women choosing an option now available due to the expansion—and new marriages. At the same time, these changes coincided with an increase in women's intra-household bargaining power, shift of time allocation from housework to labor market activity, and improved individual well-being. Furthermore, overall divorce fell sharply, with a composition change away from "irreconcilable differences" and toward abuse-related filings—evidence that improved women's bargaining power both improves marital quality and empowers them to exit from violent relationships.

These findings underscore how policies can reshape economic behavior and well-being, extending far beyond their intended scope. More broadly, they suggest that balanced gender dynamics can raise aggregate productivity and social welfare. We highlight that regulations governing spatial mobility and migration do more than move workers across borders; in addition to their labor market implications, they may also affect the marriage market and shift bargaining positions within families, with consequences that extend to labor force participation and marital stability.

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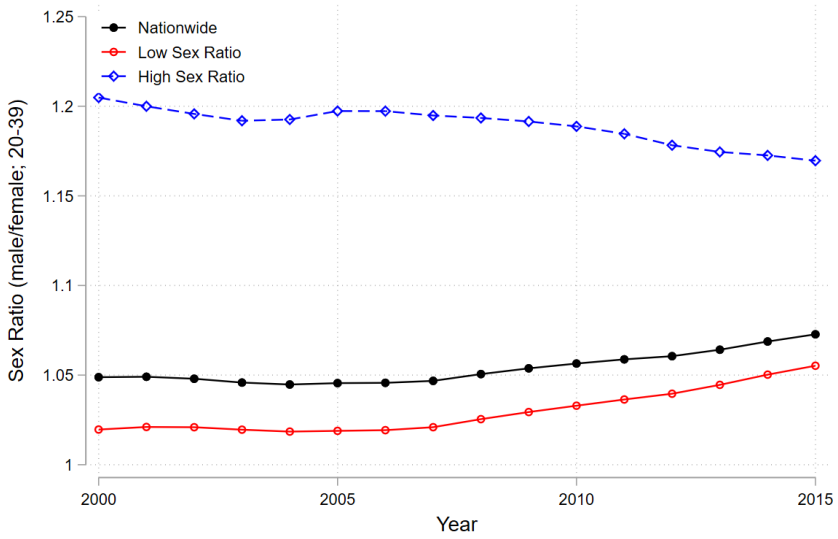
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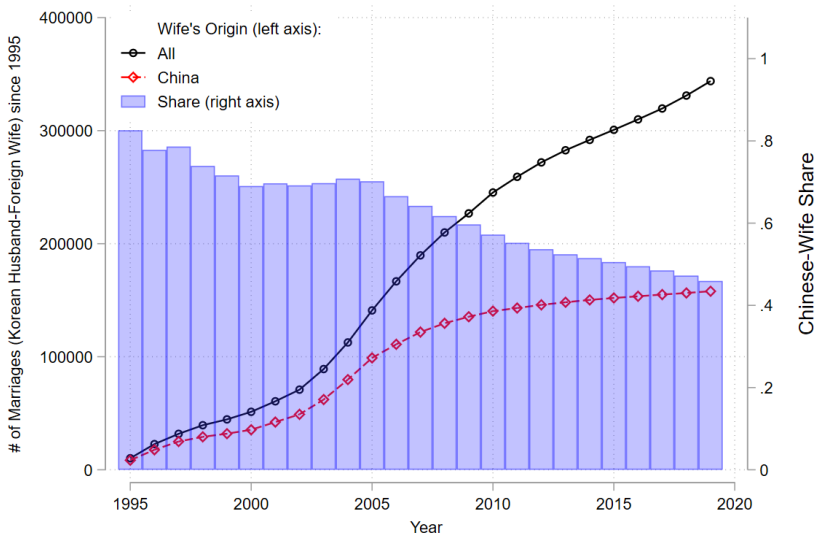
Figures and Tables

Figure 1: Sex Ratios and Marriage between Korean Husbands and Foreign Wives

(a) Sex Ratio



(b) International Marriage

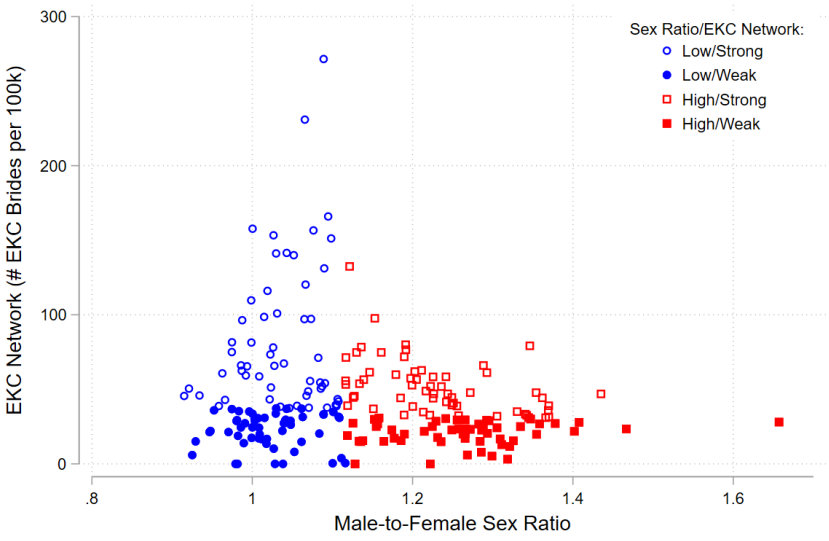


Data sources: Korean Statistical Information Service

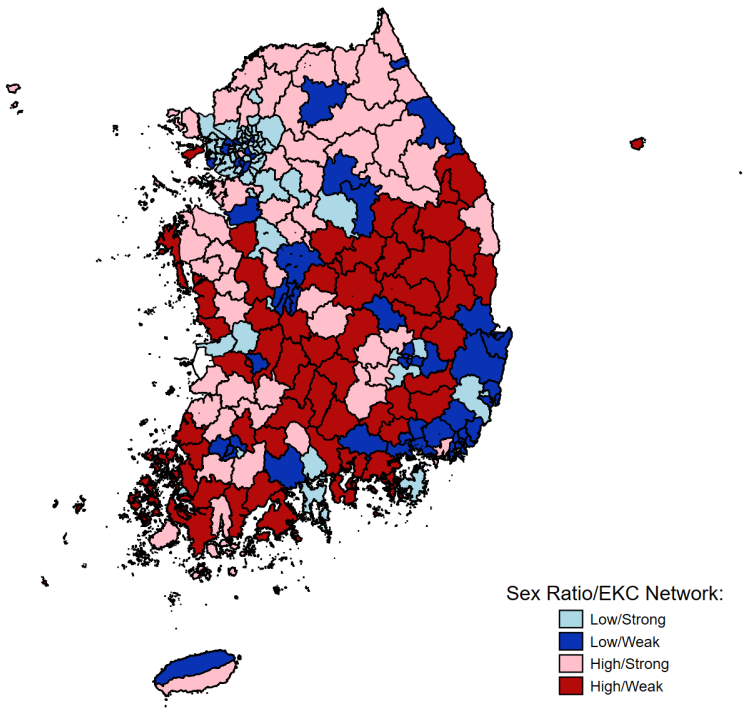
Notes: This figure illustrates sex ratios and marriages between Korean husbands and foreign wives in Panels (a) and (b). Panel (a) shows male-to-female sex ratios from 2000 to 2015 at the national level (black circle), and the average ratios for districts below (red circle) and above (blue diamond) the median. Panel (b) displays the number of marriages between Korean husbands and foreign wives (black circle; left axis) and those with Chinese wives (red diamond; left axis) from 1995 to 2019, with blue bars (right axis) indicating the annual share of Chinese wives in total international marriages between Korean husbands and foreign wives.

Figure 2: Excess Demand for Brides vs. Marriage Migrant Network

(a) Scatter Plot



(b) Map



Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: This figure presents the distribution of districts by excess demand for brides and the strength of the ethnic Korean Chinese (EKC) migrant network. Excess demand is proxied by the male-to-female sex ratio in 2000, and network strength is proxied by the number of EKC brides per 100,000 residents in 2007. Panel (a) plots network strength (strong: hollow markers; weak: solid markers) against excess demand (high: red squares; low: blue circles). Panel (b) shows the spatial distribution of districts by excess demand (high: blue; low: red) and network strength (lighter: strong; darker: weak). The appendix includes Figure A.1 and Figure A.2, which separately map the spatial distribution of excess demand and network strength.

Table 1: Changes in the Number of Marriages and Foreign Brides

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			# Foreign Brides					
	# Marriages		EKC		SA		Other	
post	-69.95**	-241.2***	-59.76***	-94.68***	161.6***	215.1***	146.7***	199.6***
	(28.38)	(42.29)	(12.96)	(17.10)	(13.60)	(19.16)	(20.85)	(28.26)
post×HSR	77.88**	243.2***	48.05***	78.69***	-85.70***	-113.6***	-111.4***	-154.1***
	(35.49)	(57.97)	(13.10)	(17.31)	(16.20)	(22.81)	(21.93)	(29.70)
post×HEX	50.07	84.84	45.46***	75.20***	13.72	25.60	-36.11	-48.49
	(34.86)	(55.73)	(14.38)	(18.85)	(20.82)	(28.99)	(24.91)	(33.64)
DDD	-99.07**	-157.2**	-38.34***	-64.48***	-26.46	-46.03	25.01	33.63
	(41.12)	(68.77)	(14.62)	(19.22)	(23.45)	(32.61)	(26.14)	(35.32)
Constant	1392.0***	1417.9***	115.0***	111.2***	109.7***	88.19***	135.9***	120.7***
	(6.170)	(6.887)	(2.184)	(1.914)	(3.511)	(3.255)	(3.908)	(3.521)
Survey Sample Period	No	Yes	No	Yes	No	Yes	No	Yes
N	2290	1145	2290	1145	2290	1145	2290	1145

Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: This table reports the results estimating the effects of immigration reforms on the number of marriages in Columns 1 and 2 and the arrival of foreign brides, focusing on ethnic Korean Chinese (EKC) in Columns 3 and 4, Southeast Asian (SA) in Columns 5 and 6, and all others in Columns 7 and 8, as captured by the coefficient of the triple interaction term ($DDD = \text{post} \times HSR \times HEX$). The dependent variables in Columns 3–8 are based on visa issuance and the district of residence registration. For each origin group, the left column includes all samples from 2006 to 2015, while the right column is restricted to years overlapping with the Korean Longitudinal Survey of Women and Families (2007, 2008, 2014, 2015). All columns include district-fixed effects. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: Changes in the Number of Foreigners on a Work Visa

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	# Female						# Male					
	EKC		SA		Other		EKC		SA		Other	
post	469.7***	570.6***	8.762	9.766	4.626	0.667	595.3***	826.6***	203.5***	327.4***	144.4***	225.9***
	(128.7)	(172.1)	(12.08)	(18.66)	(17.39)	(26.07)	(158.6)	(223.1)	(42.66)	(69.88)	(30.28)	(48.09)
post×HSR	-386.1***	-472.4***	12.60	25.14	-3.333	3.954	-464.8***	-669.1***	10.65	40.63	-5.721	-3.248
	(135.2)	(178.5)	(13.85)	(21.18)	(18.45)	(27.64)	(166.0)	(231.0)	(67.07)	(111.4)	(45.49)	(73.26)
post×HEX	-358.3***	-424.2**	4.939	10.51	5.901	13.62	-455.7***	-621.8***	67.75	66.92	59.62	69.61
	(132.2)	(176.8)	(14.14)	(21.28)	(23.69)	(34.51)	(162.8)	(229.0)	(74.47)	(110.2)	(52.02)	(78.14)
DDD	300.8**	359.2*	-5.251	-8.481	-1.897	-8.445	378.3**	532.3**	-113.8	-177.9	-109.5*	-155.1
	(138.9)	(183.6)	(17.17)	(26.15)	(24.59)	(36.04)	(171.3)	(239.0)	(95.76)	(147.2)	(64.82)	(99.76)
Constant	354.2***	258.1***	75.73***	71.90***	100.5***	101.4***	415.3***	299.4***	391.6***	347.4***	332.6***	310.4***
	(20.78)	(18.30)	(2.571)	(2.610)	(3.677)	(3.592)	(25.63)	(23.82)	(14.37)	(14.74)	(9.727)	(9.986)
Survey Sample Period	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	2290	1145	2290	1145	2290	1145	2290	1145	2290	1145	2290	1145

Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: This table reports the results estimating the effects of immigration reforms on the arrival of foreign workers by gender (female: Columns 1–6; male: Columns 7–12), focusing on ethnic Korean Chinese (EKC) in the first two columns, Southeast Asian (SA) in the middle two, and all others in the last two, as captured by the coefficient of the triple interaction term ($DDD = \text{post} \times HSR \times HEX$). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables are based on visa issuance and the district of residence registration. For each origin group, the left column includes all samples from 2006 to 2015, while the right column is restricted to years overlapping with the Korean Longitudinal Survey of Women and Families (2007, 2008, 2014, 2015). All columns include district-fixed effects. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Married Women: Bargaining Power, Time Allocation and Employment

	(1)	(2)	(3)	(4)	(5)
	Bargaining Power		Time and Employment		
	Get New Job	Change Job	HW Time	W Time	EMPL
post	0.156	-0.0398	-274.9***	571.1***	0.0625**
	(0.112)	(0.130)	(47.71)	(105.5)	(0.0272)
post×HSR	-0.220***	-0.181**	82.23*	-412.5***	-0.108***
	(0.0838)	(0.0892)	(46.43)	(99.74)	(0.0282)
post×HEX	-0.216***	-0.121	76.96*	-207.0***	-0.0391*
	(0.0720)	(0.0782)	(41.10)	(79.60)	(0.0209)
DDD	0.353***	0.291**	-37.47	303.6**	0.0936***
	(0.116)	(0.114)	(61.35)	(120.7)	(0.0357)
Constant	-0.00726	0.0700	667.0***	2423.8***	0.575***
	(0.0456)	(0.0505)	(17.35)	(44.52)	(0.0111)
N	15425	14328	15787	8577	15792

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results estimating the effects of immigration reforms on intra-household bargaining power (Columns 1–2), time allocation (Columns 3–4), and labor supply (Column 5), as captured by the coefficient of the triple interaction term ($DDD = \text{post} \times HSR \times HEX$). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables in Columns 1–2 measure bargaining power (in standard deviation units): a higher value corresponds a higher level of independence in decision making for the woman. Column 1 refers to bargaining power over the decision of getting a new job, and Column 2 over the decision of changing job. The dependent variables in Columns 3–4 measure weekly time allocation. Column 3 refers to minutes spent on housework, and Column 4 to minutes spent at work. In Column 5, the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference with the husband. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Husbands: Bargaining Power

	(1)	(2)
	Bargaining Power	
	Get New Job	Change Job
post	-0.178	-0.195
	(0.143)	(0.140)
post×HSR	0.205**	0.185*
	(0.101)	(0.102)
post×HEX	0.136	0.146
	(0.105)	(0.109)
DDD	-0.154	-0.132
	(0.139)	(0.137)
Constant	0.0682	0.0741
	(0.0600)	(0.0551)
N	15268	15106

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results estimating the effects of immigration reforms on intra-household bargaining power for husbands, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure bargaining power (in standard deviation units): a higher value corresponds a higher level of independence in decision making for the wife. Column 1 refers to bargaining power over the decision of getting a new job and Column 2 over the decision of changing job. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference between husband and wife. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Single Women: Time Allocation and Employment

	(1)	(2)	(3)
	Time and Employment		
	HW Time	W Time	EMPL
post	41.78*	-93.02	-0.230***
	(21.52)	(175.1)	(0.0713)
post×HSR	-13.96	406.7**	0.0287
	(31.83)	(184.8)	(0.0682)
post×HEX	7.958	83.47	0.111**
	(17.26)	(129.9)	(0.0493)
DDD	46.47	-447.8	-0.0612
	(39.49)	(292.6)	(0.113)
Constant	65.92***	2582.7***	0.619***
	(9.457)	(73.63)	(0.0345)
N	2822	1215	2832

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results estimating the effects of immigration reforms on time allocation (Columns 1–2), and labor supply (Column 3) for single women from the Korean Longitudinal Survey of Women and Families (2007, 2008, 2014, 2015), as captured by the coefficient of the triple interaction term ($DDD = \text{post} \times HSR \times HEX$). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post $\times HSR$ and post $\times HEX$ interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure weekly time allocation. Column 1 refers to minutes spent on housework and Column 2 to minutes spent at work. For Column 3, the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects and age fixed effects. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Wives' Subjective Well-being

	(1)	(2)	(3)	(4)	(5)	(6)
	Overall	HH Income	Living Condition	Family Relation	Social	Marriage
post	0.120	-0.185	0.278	0.152	0.0319	0.422***
	(0.157)	(0.129)	(0.171)	(0.198)	(0.159)	(0.0507)
post×HSR	-0.0777	0.00200	-0.205	-0.148	0.0184	0.0300
	(0.210)	(0.135)	(0.154)	(0.160)	(0.188)	(0.0439)
post×HEX	-0.127	-0.00216	-0.210**	-0.212***	-0.0110	-0.0414
	(0.0835)	(0.0833)	(0.0852)	(0.0784)	(0.104)	(0.0321)
DDD	0.257	0.0692	0.591***	0.508**	0.0506	0.157***
	(0.258)	(0.195)	(0.207)	(0.217)	(0.263)	(0.0579)
Constant	-0.0182	0.124*	-0.0879	-0.0434	0.00773	-0.160***
	(0.0819)	(0.0677)	(0.0857)	(0.106)	(0.0806)	(0.0205)
N	8400	8401	8400	8401	8400	24552

Data sources: Korean Labor and Income Panel Study, Korean Longitudinal Survey of Women and Families

Notes: This table reports the results estimating the effects of immigration reforms on wives' life satisfaction, as captured by the coefficient of the triple interaction term ($DDD = \text{post} \times HSR \times HEX$). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, social life in Column 5, and marriage in Column 6. Columns 1–5 use individual-level panel data from the Korean Labor and Income Panel Study (KLIPS), while Column 6 uses data from the Korean Longitudinal Survey of Women and Families (KLoWF). All columns include individual fixed effects and age fixed effects (separately for wives and husbands). We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: Husbands' Subjective Well-being

	(1)	(2)	(3)	(4)	(5)
	Overall	HH Income	Living Condition	Family Relation	Social
post	-0.000925	-0.151	0.0490	-0.0834	0.0647
	(0.142)	(0.135)	(0.148)	(0.169)	(0.159)
post×HSR	0.158	-0.0412	-0.0558	0.0894	0.134
	(0.245)	(0.133)	(0.141)	(0.157)	(0.206)
post×HEX	-0.133	-0.0736	-0.187**	-0.127	-0.00144
	(0.0900)	(0.0761)	(0.0774)	(0.0822)	(0.0918)
DDD	0.135	0.109	0.574***	0.314	0.191
	(0.286)	(0.178)	(0.199)	(0.247)	(0.283)
Constant	0.0492	0.124*	0.0192	0.0578	-0.0149
	(0.0784)	(0.0732)	(0.0814)	(0.0915)	(0.0873)
N	8378	8375	8374	8374	8374

Data sources: Korean Labor and Income Panel Study

Notes: This table reports the results estimating the effects of immigration reforms on husbands' life satisfaction, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, and social life in Column 5. As the Korean Longitudinal Survey of Women and Families (KLoWF) does not survey husbands, their marital satisfaction is unobserved. All columns include individual fixed effects and age fixed effects (separately for wives and husbands). We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Divorce and its Composition Change

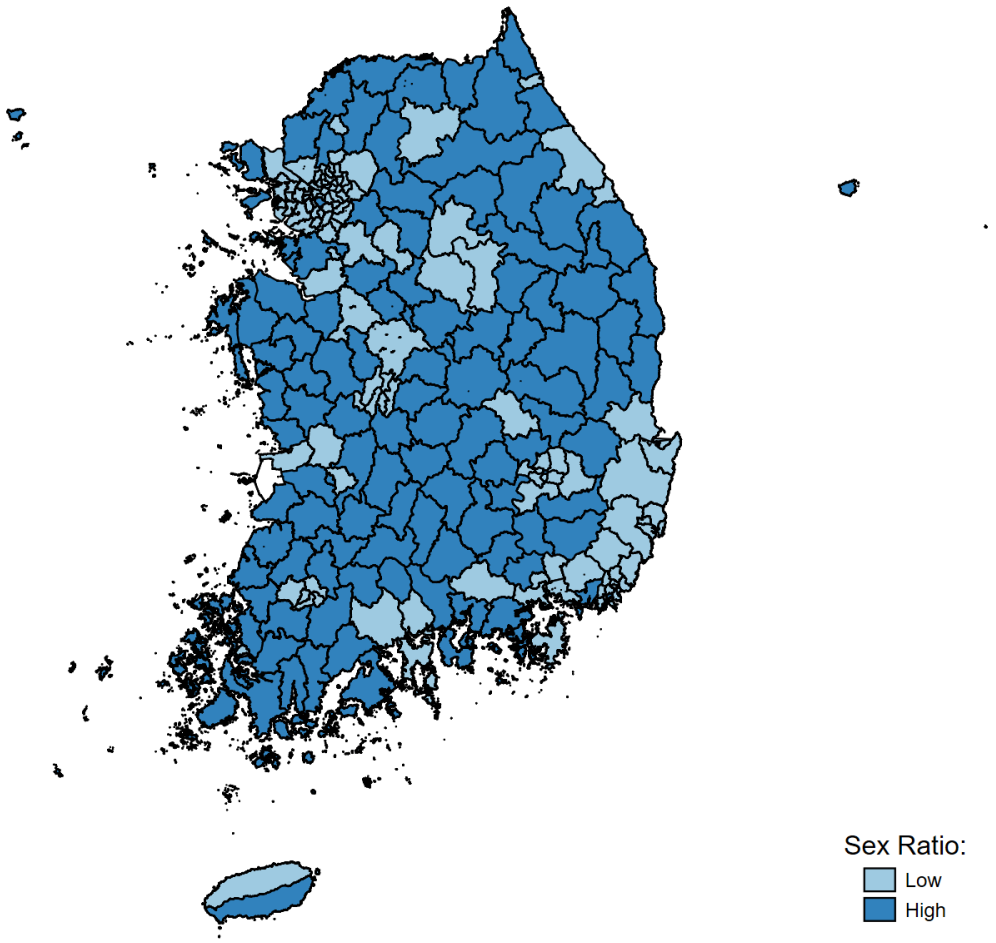
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	# Divorce		Reasons for Divorce						
	Level	Log	Irreconcilable Difference	Abuse	Economic Hardship	Family Conflicts	Spousal Infidelity	Health	Other
post	-72.12***	-0.0147	-0.0407***	-0.00541***	-0.0249***	-0.0126***	0.000320	-0.00128***	0.0845***
	(17.68)	(0.0284)	(0.00743)	(0.00172)	(0.00377)	(0.00251)	(0.00261)	(0.000418)	(0.00773)
post×HSR	98.98***	0.0684**	0.0385***	-0.00252	-0.00132	-0.00676	-0.0106***	0.000628	-0.0179
	(17.97)	(0.0308)	(0.0131)	(0.00250)	(0.00671)	(0.00604)	(0.00371)	(0.000966)	(0.0113)
post×HEX	61.50**	0.127	0.0321***	-0.00658***	-0.0115**	0.00202	-0.00603*	0.000617	-0.0107
	(29.67)	(0.0823)	(0.0107)	(0.00210)	(0.00518)	(0.00519)	(0.00321)	(0.000631)	(0.00986)
DDD	-69.42**	-0.174*	-0.0315*	0.00856**	0.00776	0.00758	0.00197	-0.00278	0.00838
	(30.67)	(0.0892)	(0.0178)	(0.00423)	(0.00987)	(0.00937)	(0.00587)	(0.00176)	(0.0143)
Constant	645.6***	6.236***	0.523***	0.0443***	0.156***	0.0831***	0.0767***	0.00654***	0.111***
	(64.11)	(0.217)	(0.00217)	(0.000543)	(0.00113)	(0.00107)	(0.000768)	(0.000153)	(0.00211)
N	1374	1374	394196	394196	394196	394196	394196	394196	394196

Data sources: Divorce Registry of South Korea

Notes: This table reports the results estimating the effects of immigration reforms on the number of divorces in Columns 1 and 2 and the reasons for divorce (irreconcilable difference in Column 3, physical and emotional abuse in Column 4, economic hardship in Column 5, family conflicts in Column 6, spousal infidelity in Column 7, health issues in Column 8, and all other reasons in Column 9, as captured by the coefficient of the triple interaction term ($DDD = \text{post} \times HSR \times HEX$). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). Columns 1–2 control for district fixed effects and district-level variables, including average age at marriage (husbands and wives) and at divorce. Columns 3–9 include district, education, occupation, and age-at-marriage fixed effects. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and are robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Appendix: Additional Figures and Tables

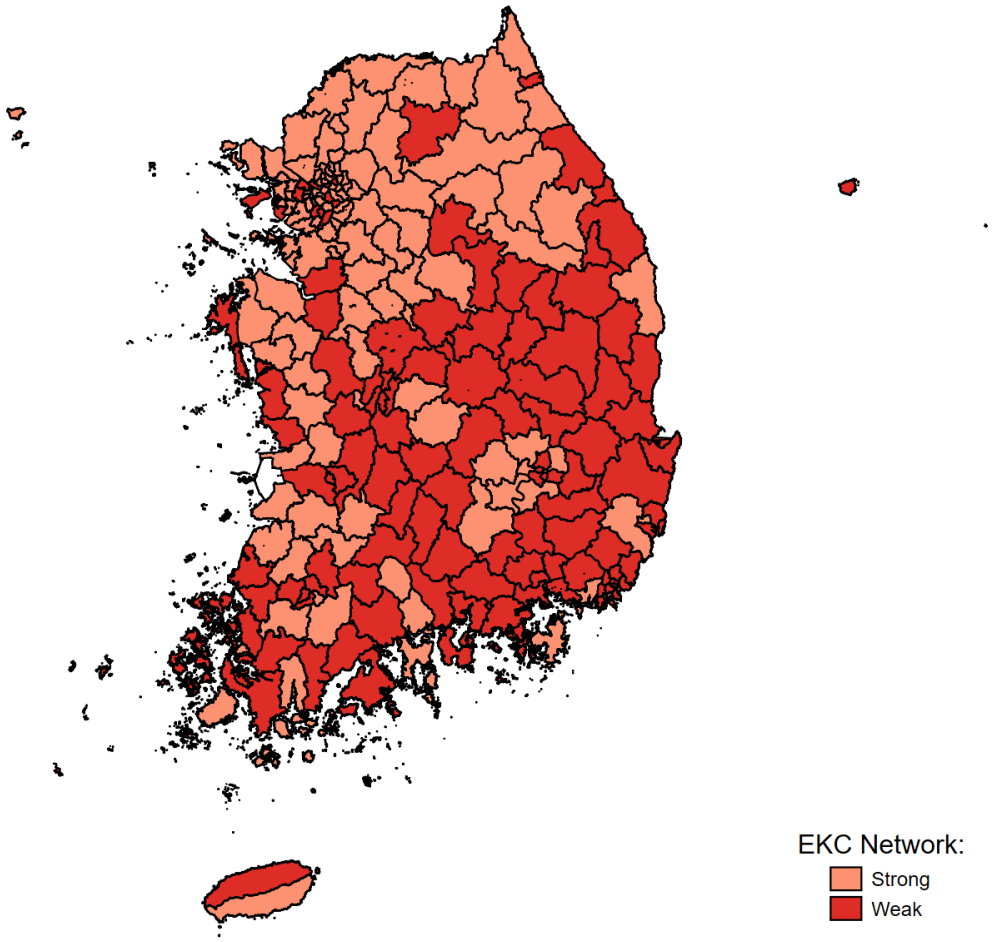
Figure A.1: Excess Demand for Brides Proxied for by Low vs. High Sex Ratio



Data sources: Korean Statistical Information Service

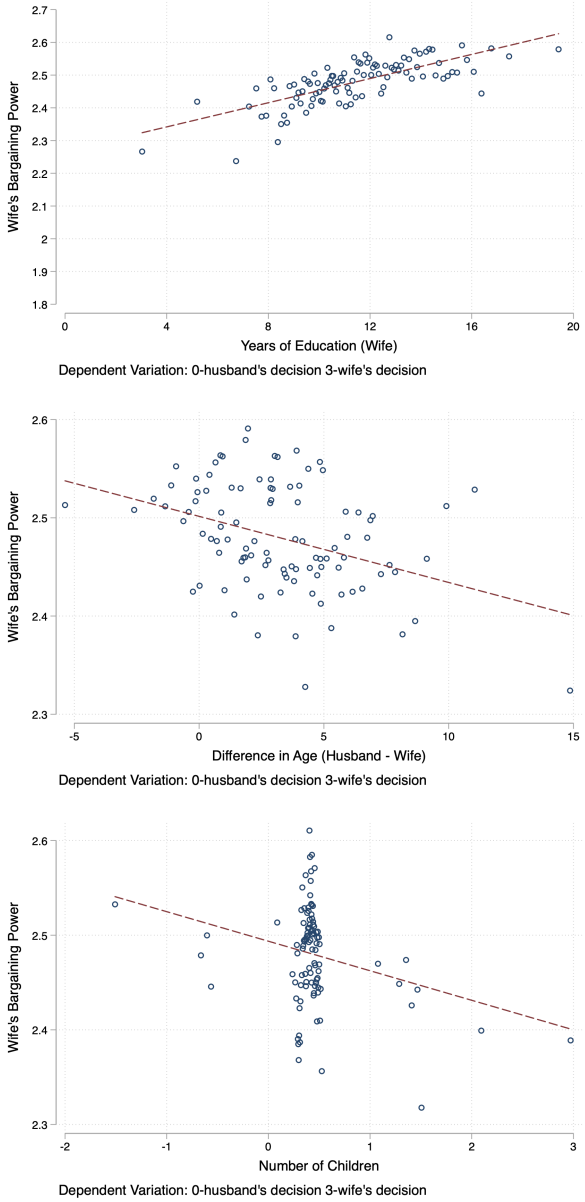
Notes: This figure shows the spatial distribution of districts by excess demand for brides (lighter: low; darker: high), proxied for by the male-to-female sex ratio in 2000.

Figure A.2: Network Strength Proxied for by Low vs. High Concentration of EKC Brides



Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents
Notes: This figure shows the spatial distribution of the districts by the strength of the ethnic Korean Chinese (EKC) migrant network (lighter: strong; darker: weak), proxied for by the number of EKC brides per 100,000 residents in 2007. South Korea with low concentration of EKC brides (dark red) and high concentration (light red) in 2007.

Figure A.3: Determinants of Intra-Household Bargaining Power



Data sources: Korean Longitudinal Survey of Women and Families

Notes: The figure plots wives' reported bargaining power over their own labor-supply decisions (0 = husband decides entirely, 3 = wife decides entirely) against three distributional factors. The top panel relates the index to wives' years of schooling; the middle panel to the age gap (husband's age minus wife's); and the bottom panel to the number of children. For all panels, we include survey-year fixed effects. In addition, the top panel controls for the ages of both spouses, the middle panel controls for both spouses' years of schooling, and the bottom panel controls for both age and education.

Table A.1: Local Determinants of *High* Excess Demand for Brides

	(1)	(2)	(3)	(4)	(5)	(6)
Log(Population)	-0.152***					-0.227***
	(0.0344)					(0.0354)
Male-to-female Sex Ratio (age: 20-39)	2.160***					1.848***
	(0.312)					(0.238)
Total Fertility Rates	0.144					-0.0752
	(0.103)					(0.0974)
Log (# Firms)		0.832***				0.0762
		(0.166)				(0.122)
Log (# Workers)		-0.641***				-0.0707
		(0.122)				(0.0831)
Log (Home Price)			-0.409***			0.0281
			(0.0506)			(0.0437)
Avg. Year of Houses Built			0.0260**			0.0101
			(0.0112)			(0.00625)
Log (# Land Transactions)			0.0698**			0.0754***
			(0.0288)			(0.0174)
Log (# Foreign Residents)				-0.0313		
				(0.0488)		
Log (# Male Foreign Workers)					0.0599	0.0188
					(0.0390)	(0.0259)
Log (# Female Foreign Workers)					-0.191***	0.00300
					(0.0309)	(0.0232)
Log (# Foreign Brides)					-0.0213	0.0221
					(0.0316)	(0.0182)
Constant	-0.330	0.622	-50.07**	0.570***	1.128***	-19.85
	(0.755)	(0.617)	(22.28)	(0.114)	(0.156)	(12.26)
R^2	0.733	0.120	0.445	0.00184	0.310	0.777

Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: This table presents regression results examining the association between pre-reform district-level characteristics observed in 2006 and excess demand for brides (proxied by the 2000 male-to-female sex ratio). The dependent variable is an indicator for districts with high excess demand. Column 1 includes demographic variables, Column 2 employment variables, Column 3 housing market variables, Columns 4 and 5 immigrant density, and Column 6 all variables combined. Standard errors are robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

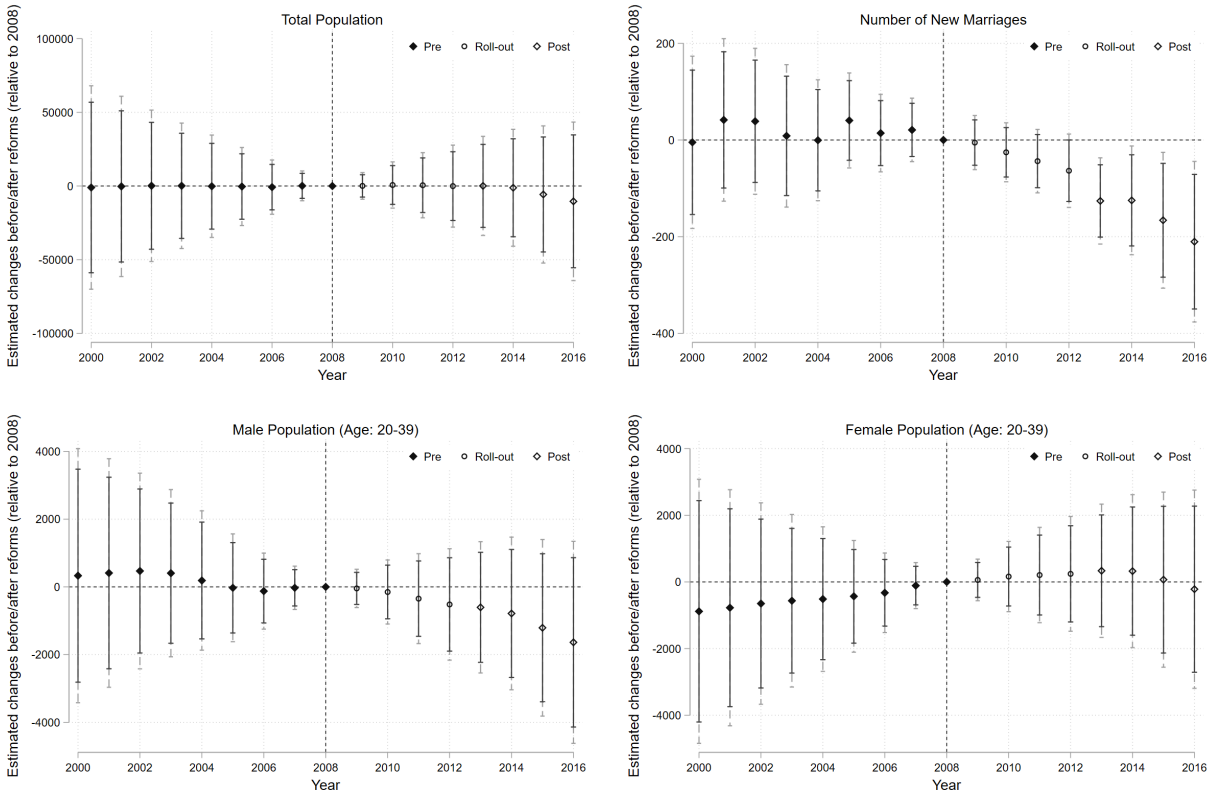
Table A.2: Local Determinants of *Low* EKC Network

	(1)	(2)	(3)	(4)	(5)	(6)
Log(Population)	-0.00268					0.264***
	(0.0541)					(0.0758)
Male-to-female Sex Ratio (Age: 20-39)	0.255					-0.0134
	(0.415)					(0.512)
Total Fertility Rates	-0.180					-0.405*
	(0.180)					(0.221)
Log(# Firms)		0.102				-0.272
		(0.177)				(0.244)
Log(# Workers)		-0.138				0.240
		(0.130)				(0.166)
Log(Home Price)			-0.237***			-0.416***
			(0.0550)			(0.0858)
Avg. Year of Houses Built			-0.0232**			-0.000767
			(0.00993)			(0.0124)
Log(# Land Transactions)			-0.0135			0.000487
			(0.0311)			(0.0312)
Log(# Foreign Residents)				-0.233***		
				(0.0381)		
Log(# Male Foreign Workers)					0.0368	-0.0135
					(0.0419)	(0.0505)
Log(# Female Foreign Workers)					-0.0720**	-0.0711*
					(0.0346)	(0.0406)
Log(# Foreign Brides)					-0.0632*	-0.0834*
					(0.0374)	(0.0437)
Constant	0.455	0.852	48.09**	1.019***	0.906***	1.962
	(1.063)	(0.533)	(19.71)	(0.0929)	(0.167)	(24.46)
R^2	0.00627	0.00540	0.0873	0.102	0.0524	0.209

Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: This table presents regression results examining the association between pre-reform district-level characteristics observed in 2006 and ethnic Korean Chinese (EKC) network (proxied by the number of EKC brides per 100,000 residents in 2007). The dependent variable is an indicator for districts with a weak EKC network. Column 1 includes demographic variables, Column 2 employment variables, Column 3 housing market variables, Columns 4 and 5 immigrant density, and Column 6 all variables combined. Standard errors are robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure A.4: Dynamic DDD Estimates—Pretrends in Population and New Marriages



Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: We extend Equation 1 by replacing the post-reform indicator variable (post) with a set of dummy variables indicating calendar years τ ($D_t^{(\tau)}$): i.e.,

$$Y_{d,t} = \phi_d + \sum_{\tau=2000}^{2016} \left[\beta_1^{(\tau)} D_t^{(\tau)} + \beta_2^{(\tau)} D_t^{(\tau)} \times HSR_d + \beta_3^{(\tau)} D_t^{(\tau)} \times HEX_d + \beta_4^{(\tau)} DDD_{d,t}^{(\tau)}\right] + \varepsilon_{d,t}, \tag{A.I}$$

where $DDD_{d,t}^{(\tau)} = D_t^{(\tau)} \times HSR_d \times HEX_d$; $\beta_k^{(2008)} = 0 \; \forall k$. This figure plots the estimated coefficients $\beta_4^{(\tau)}$ from the dynamic DDD specification above, capturing changes in total population (top left), number of new marriages (top right), male population aged 20–39 (bottom left), and female population aged 20–39 (bottom right) around the onset of the 2008–2010 immigration policy reforms. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.3: Reform Effects on Local Labor Market Conditions

	(1) log # Firms	(2) log # Workers
post	0.0722***	0.125***
	(0.00749)	(0.00919)
post×HSR	0.00924	0.0212*
	(0.0100)	(0.0128)
post×HEX	-0.00157	-0.00507
	(0.00976)	(0.0128)
DDD	0.0165	0.0251
	(0.0128)	(0.0171)
Constant	4.220***	5.703***
	(0.00192)	(0.00256)
N	2260	2260

Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: This table presents the effects of immigration reforms on the number of firms and workers in Columns 1 and 2, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). All columns include district-fixed effects. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.4: Changes in Male Foreigners on Marriage Visa

	(1)	(2)	(3)	(4)	(5)	(6)
	China (Ethinic Korean)		Southeast Asia		Other	
post	27.47***	31.06***	-0.260	1.225	33.79***	52.08***
	(9.387)	(11.21)	(1.101)	(1.590)	(7.032)	(9.890)
post×HSR	-22.26**	-24.50**	0.841	-0.0269	-25.86***	-39.88***
	(9.787)	(11.62)	(1.123)	(1.641)	(7.396)	(10.49)
post×HEX	-17.55*	-18.10	2.268*	3.129	-1.462	-3.895
	(10.01)	(12.08)	(1.243)	(1.898)	(8.278)	(11.76)
DDD	13.60	13.56	-2.797**	-4.052**	-3.130	-3.295
	(10.41)	(12.50)	(1.269)	(1.954)	(8.648)	(12.35)
Constant	21.47***	19.32***	2.627***	2.805***	31.84***	30.34***
	(1.556)	(1.246)	(0.190)	(0.195)	(1.293)	(1.232)
Survey Sample Period	No	Yes	No	Yes	No	Yes
N	2290	1145	2290	1145	2290	1145

Data sources: Korean Statistical Information Service, Annual Report on Foreign Residents

Notes: This table presents the effects of immigration reforms on the arrival of foreign grooms, focusing on ethnic Korean Chinese (EKC) in Columns 1 and 2, Southeast Asian (SA) in Columns 3 and 4, and all others in Columns 5 and 6, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables in Columns 3–8 are based on visa issuance and the district of residence registration. For each origin group, the left column includes all samples from 2006 to 2015, while the right column is restricted to years overlapping with the Korean Longitudinal Survey of Women and Families (2007, 2008, 2014, 2015). All columns include district-fixed effects. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.5: Married Women: Bargaining Power, Time Allocation and Employment with Control Variables (1)

	(1)	(2)	(3)	(4)	(5)
	Bargaining Power		Time and Employment		
	Get New Job	Change Job	HW Time	W Time	EMPL
post	0.114	0.0101	-169.6***	621.7***	0.0668**
	(0.0852)	(0.100)	(50.21)	(107.6)	(0.0318)
post×HSR	-0.0578	-0.116	-81.72	-397.8***	-0.0791**
	(0.0880)	(0.0845)	(56.15)	(142.7)	(0.0371)
post×HEX	-0.170***	-0.127**	3.500	-185.7**	-0.0560**
	(0.0540)	(0.0603)	(39.59)	(90.59)	(0.0233)
DDD	0.230***	0.209**	-7.475	291.3**	0.0779**
	(0.0843)	(0.0868)	(55.62)	(125.5)	(0.0339)
Constant	13.86	17.53	-4657.8	21304.1	-8.614
	(10.16)	(11.34)	(8323.8)	(19779.3)	(6.266)
N	14065	13070	14409	7872	14414

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 8 while controlling for linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on intra-household bargaining power (Columns 1–2), time allocation (Columns 3–4), and labor supply (Column 5), as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure bargaining power (in standard deviation units); a higher value corresponds a higher level of independence in decision making for the woman. Column 1 refers to bargaining power over the decision of getting a new job, and Column 2 over the decision of changing job. The dependent variables in Columns 3–4 measure weekly time allocation. Column 3 refers to minutes spent on housework, and Column 4 to minutes spent at work. In Column 5, the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference with the husband. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.6: Husbands: Bargaining Power with Control Variables (1)

	(1)	(2)
	Bargaining Power	
	Get New Job	Change Job
post	-0.167	-0.173
	(0.156)	(0.150)
post×HSR	0.0827	0.00689
	(0.161)	(0.158)
post×HEX	0.109	0.122
	(0.106)	(0.110)
DDD	-0.0611	-0.0413
	(0.142)	(0.141)
Constant	-26.05	-24.03
	(19.61)	(19.28)
N	13912	13774

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 4 while controlling for linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on intra-household bargaining power for husbands, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure bargaining power (in standard deviation units); a higher value corresponds a higher level of independence in decision making for the wife. Column 1 refers to bargaining power over the decision of getting a new job and column 2 over the decision of changing job. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference between husband and wife. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.7: Single Women: Time Allocation and Employment with Control Variables (1)

	(1)	(2)	(3)
	Time and Employment		
	HW Time	W Time	EMPL
post	50.57**	-248.9	-0.182**
	(23.47)	(168.3)	(0.0745)
post×HSR -48.94	82.56	-0.0336	
	(45.77)	(207.6)	(0.0954)
post×HEX	4.783	161.4	0.0914
	(17.32)	(128.3)	(0.0627)
DDD	87.06*	-264.7	-0.0317
	(48.51)	(252.7)	(0.121)
Constant	-6832.4	63114.6**	-5.075
	(4469.7)	(29729.7)	(13.01)
N	2535	1080	2542

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 5 while controlling for linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on time allocation (Columns 1–2), and labor supply (Column 3) for single women, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure weekly time allocation. Column 1 refers to minutes spent on housework and Column 2 to minutes spent at work. For Column 3 the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects and age fixed effects. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.8: Married Women: Bargaining Power, Time Allocation and Employment with Control Variables (2)

	(1)	(2)	(3)	(4)	(5)
	Bargaining Power		Time and Employment		
	Get New Job	Change Job	HW Time	W Time	EMPL
post	0.0860	-0.103	-137.4*	690.1***	0.0415
	(0.152)	(0.166)	(71.02)	(148.6)	(0.0336)
post×HSR	-0.0110	-0.0769	-96.58*	-493.8***	-0.0810**
	(0.134)	(0.115)	(57.07)	(148.3)	(0.0379)
post×HEX	-0.249***	-0.178**	6.431	-175.7*	-0.0579**
	(0.0783)	(0.0784)	(39.84)	(90.87)	(0.0233)
DDD	0.331***	0.282**	-9.304	291.6**	0.0795**
	(0.122)	(0.114)	(55.54)	(126.0)	(0.0338)
Constant	16.76	20.34	-4762.3	20451.6	-8.572
	(14.58)	(14.99)	(8325.4)	(19710.1)	(6.293)
N	14065	13070	14409	7872	14414

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 3 while controlling for linear and quadratic time trends interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on intra-household bargaining power (Columns 1–2), time allocation (Columns 3–4), and labor supply (Column 5), as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure bargaining power (in standard deviation unit); a higher value corresponds a higher level of independence in decision making for the woman. Column 1 refers to bargaining power over the decision of getting a new job, and Column 2 over the decision of changing job. The dependent variables in Columns 3–4 measure weekly time allocation. Column 3 refers to minutes spent on housework, and Column 4 to minutes spent at work. In Column 5, the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference with the husband. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.9: Husbands: Bargaining Power with Control Variables (2)

	(1)	(2)
	Bargaining Power	
	Get New Job	Change Job
post	-0.297	-0.273
	(0.184)	(0.183)
post×HSR	0.0119	-0.0818
	(0.166)	(0.163)
post×HEX	0.115	0.133
	(0.105)	(0.110)
DDD	-0.0572	-0.0454
	(0.142)	(0.141)
Constant	-25.92	-24.73
	(19.54)	(19.20)
N	13912	13774

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)
Notes: This table reports the results replicating Table 4 while controlling for linear and quadratic time trends interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on intra-household bargaining power for the husbands, as captured by the coefficient of the triple interaction term ($DDD = \text{post} \times HSR \times HEX$). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX).The dependent variables for Columns 1 and 2 measure bargaining power (in standard deviation unit); to which a higher value corresponds a higher level of independence in decision making for the wife. Column 1 refers to bargaining power over the decision of getting a new job and Column 2 over the decision of changing job. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference between husband and wife. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.10: Single Women: Time Allocation and Employment with Control Variables (2)

	(1)	(2)	(3)
	Time and Employment (Controls 2)		
	HW Time	W Time	EMPL
post	79.61**	-13.85	-0.133
	(31.03)	(254.6)	(0.0937)
post×HSR	-48.03	194.3	-0.0629
	(46.57)	(213.5)	(0.0986)
post×HEX	3.081	140.2	0.0800
	(18.01)	(131.2)	(0.0631)
DDD	87.01*	-171.3	-0.0297
	(48.20)	(274.9)	(0.118)
Constant	-5852.0	55325.5	-0.941
	(5323.5)	(38369.2)	(15.69)
N	3157	1406	3164

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 5 while controlling for linear and quadratic time trends interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on time allocation (Columns 1–2), and labor supply (Column 3) for single women, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interacts the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure weekly time allocation. Column 1 refers to minutes spent on housework and Column 2 to minutes spent at work. For Column 3, the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects and age fixed effects. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.11: Married Women: Bargaining Power, Time Allocation and Employment with Control Variables (3)

	(1)	(2)	(3)	(4)	(5)
	Bargaining Power		Time and Employment		
	Get New Job	Change Job	HW Time	W Time	EMPL
post	0.158	-0.0430	-267.8***	611.0***	0.0705**
	(0.118)	(0.144)	(47.98)	(111.8)	(0.0287)
post×HSR	-0.162*	-0.148	73.96	-401.9***	-0.0938***
	(0.0910)	(0.0974)	(49.30)	(110.1)	(0.0267)
post×HEX	-0.193***	-0.102	68.21*	-189.7**	-0.0399*
	(0.0688)	(0.0781)	(40.80)	(81.44)	(0.0218)
DDD	0.278**	0.242**	-15.25	278.5**	0.0817**
	(0.122)	(0.122)	(64.04)	(130.1)	(0.0350)
Constant	-0.124	0.0859	717.9***	2360.1***	0.531***
	(0.127)	(0.172)	(57.88)	(148.6)	(0.0310)
N	14507	13438	14862	8042	14867

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 3 while additionally controlling for inflows of EKC on a work visa (separately for female and male): the estimated effects of immigration reforms on intra-household bargaining power (Columns 1–2), time allocation (Columns 3–4), and labor supply (Column 5), as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure bargaining power (in standard deviation units); a higher value corresponds a higher level of independence in decision making for the woman. Column 1 refers to bargaining power over the decision of getting a new job, and Column 2 over the decision of changing job. The dependent variables in Columns 3–4 measure weekly time allocation. Column 3 refers to minutes spent on housework, and Column 4 to minutes spent at work. In Column 5, the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference with the husband. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.12: Husband: Bargaining Power with Control Variables (3)

	(1)	(2)
	Bargaining Power	
	Get New Job	Change Job
post	-0.165	-0.217
	(0.151)	(0.146)
post×HSR	0.159	0.155
	(0.113)	(0.113)
post×HEX	0.121	0.137
	(0.104)	(0.109)
DDD	-0.103	-0.106
	(0.148)	(0.147)
Constant	0.0376	0.166
	(0.136)	(0.131)
N	14355	14195

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 4 while additionally controlling for inflows of EKC on a work visa (separately for female and male): the estimated effects of immigration reforms on intra-household bargaining power for the husbands, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure bargaining power (in standard deviation unit); to which a higher value corresponds a higher level of independence in decision making for the wife. Column 1 refers to bargaining power over the decision of getting a new job and Column 2 over the decision of changing job. All estimates are obtained using individual fixed effects, age fixed effects and fixed effects controlling for the age difference between husband and wife. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.13: Single Women: Time Allocation and Employment with Control Variables (3)

	(1)	(2)	(3)
	Time and Employment		
	HW Time	W Time	EMPL
post	45.35**	-151.8	-0.228***
	(22.44)	(169.6)	(0.0756)
post×HSR	-31.32	197.4	0.0345
	(37.24)	(148.7)	(0.0714)
post×HEX	6.709	34.52	0.116**
	(18.04)	(132.8)	(0.0522)
DDD	55.57	-125.0	-0.0667
	(44.46)	(284.9)	(0.118)
Constant	66.62**	3010.7***	0.556***
	(29.99)	(219.1)	(0.0870)
N	2659	1132	2669

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results replicating Table 5 while additionally controlling for inflows of EKC on a work visa (separately for female and male): the estimated effects of immigration reforms on time allocation (Columns 1–2), and labor supply (Column 3) for single women, as captured by the coefficient of the triple interaction term (DDD = post×HSR×HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variables for Columns 1 and 2 measure weekly time allocation. Column 1 refers to minutes spent on housework and Column 2 to minutes spent at work. For Column 3 the dependent variable is a dummy which takes value 1 if the woman is employed and 0 otherwise. All estimates are obtained using individual fixed effects and age fixed effects. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.14: Husbands: Housework Time Allocation

	(1) Baseline	(2) Controls 1	(3) Controls 2	(4) Controls 3
post	-8.159	-1.496	4.065	-7.131
	(12.46)	(13.40)	(17.19)	(12.63)
post$\times HSR$	10.11	-16.10	-17.38	12.04
	(9.491)	(14.30)	(14.62)	(10.19)
post$\times HEX$	7.502	6.164	6.959	7.542
	(9.550)	(9.400)	(9.431)	(9.491)
DDD	5.558	6.975	6.818	2.947
	(12.62)	(12.80)	(12.80)	(13.12)
Constant	83.71***	-1858.8	-1783.3	69.80***
	(5.176)	(1788.7)	(1787.5)	(19.27)
N	15221	14414	14414	14867

Data sources: Korean Longitudinal Survey of Women and Families (Waves 1, 2, 5, and 6)

Notes: This table reports the results estimating the effects of immigration reforms on housework time allocation for the husbands of respondents to the Korean Longitudinal Survey of Women and Families (2007, 2008, 2014, 2015), as captured by the coefficient of the triple interaction term (DDD = post $\times$ HSR $\times$ HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post $\times$ HSR and post $\times$ HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable is the time spent on housework. Column 1 presents baseline estimates based on Equation 2. Column 2 reports the results while controlling for linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006. Column 3 controls for linear and quadratic time trends interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006. Column 4 controls for inflows of EKC on a work visa (separately for female and male). All estimates are obtained using district-fixed effects, individual fixed effects, age fixed effects and fixed effects controlling for the age difference between husband and wife. We report the average of the estimated fixed effects in the fourth row, labeled Constant. Standard errors are clustered at the district level and heteroskedasticity-robust: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.15: Wives' Subjective Well-being with Control Variables (1)

	(1)	(2)	(3)	(4)	(5)	(6)
	Overall	HH Income	Living Condition	Family Relation	Social	Marriage
post	0.0580	-0.137	0.176	0.0613	0.00552	0.343***
	(0.0962)	(0.0987)	(0.123)	(0.120)	(0.0936)	(0.0405)
post×HSR	-0.0778	-0.0581	-0.0965	-0.0463	0.00845	0.0453
	(0.164)	(0.141)	(0.135)	(0.124)	(0.131)	(0.0490)
post×HEX	-0.0463	0.0386	-0.140**	-0.103**	-0.0182	-0.0491*
	(0.0532)	(0.0751)	(0.0691)	(0.0500)	(0.0607)	(0.0282)
DDD	0.0823	0.0410	0.377**	0.236*	-0.0294	0.0728
	(0.170)	(0.163)	(0.160)	(0.137)	(0.158)	(0.0482)
Constant	-9.838	-14.08	-27.20**	0.648	-24.58	-1.457
	(11.69)	(18.43)	(13.55)	(11.77)	(14.91)	(6.866)
N	8400	8401	8400	8401	8400	24638

Data sources: Korean Labor and Income Panel Study, Korean Longitudinal Survey of Women and Families

Notes: This table reports the results replicating Table 8 while controlling for linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on wives' life satisfaction, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, social life in Column 5, and marriage in Column 6. Columns 1–5 use individual-level panel data from the Korean Labor and Income Panel Study (KLIPS), while Column 6 uses data from the Korean Longitudinal Survey of Women and Families (KLoWF). All columns include individual fixed effects, and age fixed effects (separately for wives and husbands). Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.16: Wives' Subjective Well-being with Control Variables (2)

	(1)	(2)	(3)	(4)	(5)	(6)
	Overall	HH Income	Living Condition	Family Relation	Social	Marriage
post	0.0183	-0.225*	0.0934	0.0568	-0.0648	0.711***
	(0.115)	(0.136)	(0.154)	(0.131)	(0.134)	(0.0490)
post×HSR	-0.0793	-0.0645	-0.0912	-0.0500	-0.000100	0.0462
	(0.165)	(0.140)	(0.135)	(0.124)	(0.131)	(0.0497)
post×HEX	-0.0463	0.0365	-0.142**	-0.101**	-0.0161	-0.0459
	(0.0529)	(0.0754)	(0.0693)	(0.0500)	(0.0604)	(0.0283)
DDD	0.0818	0.0381	0.376**	0.247*	-0.0182	0.0689
	(0.171)	(0.162)	(0.161)	(0.137)	(0.158)	(0.0482)
Constant	-10.30	-14.65	-27.23**	1.061	-24.38	-1.206
	(11.61)	(18.33)	(13.43)	(11.73)	(14.76)	(6.863)
N	7946	7947	7946	7947	7946	22487

Data sources: Korean Labor and Income Panel Study, Korean Longitudinal Survey of Women and Families

Notes: This table reports the results replicating Table 8 while controlling for linear and quadratic time trends interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on wives' life satisfaction, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, social life in Column 5, and marriage in Column 6. Columns 1–5 use individual-level panel data from the Korean Labor and Income Panel Study (KLIPS), while Column 6 uses data from the Korean Longitudinal Survey of Women and Families (KLoWF). All columns include individual fixed effects, and age fixed effects (separately for wives and husbands). Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.17: Wives' Subjective Well-being with Control Variables (3)

	(1)	(2)	(3)	(4)	(5)	(6)
	Overall	HH Income	Living Condition	Family Relation	Social	Marriage
post	0.0518	-0.155	0.182	0.0850	0.00507	0.285***
	(0.0921)	(0.0969)	(0.115)	(0.113)	(0.0886)	(0.0395)
post×HSR	-0.0402	-0.00699	-0.137	-0.0756	0.0125	0.0747*
	(0.129)	(0.105)	(0.108)	(0.0938)	(0.110)	(0.0381)
post×HEX	-0.0760	-0.00209	-0.141**	-0.120***	-0.00688	-0.0324
	(0.0496)	(0.0618)	(0.0580)	(0.0441)	(0.0587)	(0.0254)
DDD	0.144	0.0383	0.394***	0.275**	0.0251	0.0438
	(0.157)	(0.147)	(0.143)	(0.126)	(0.154)	(0.0481)
Constant	2.524***	2.131***	2.410***	2.662***	2.580***	3.739***
	(0.0894)	(0.135)	(0.110)	(0.0867)	(0.103)	(0.0474)
N	8334	8335	8334	8335	8334	23341

Data sources: Korean Labor and Income Panel Study, Korean Longitudinal Survey of Women and Families

Notes: This table reports the results replicating Table 8 while additionally controlling for inflows of EKC on a work visa (separately for female and male): the estimated effects of immigration reforms on wives' life satisfaction, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, social life in Column 5, and marriage in Column 6. Columns 1–5 use individual-level panel data from the Korean Labor and Income Panel Study (KLIPS), while Column 6 uses data from the Korean Longitudinal Survey of Women and Families (KLoWF). All columns include individual fixed effects, and age fixed effects (separately for wives and husbands). Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.18: Husbands' Subjective Well-being with Control Variables (1)

	(1)	(2)	(3)	(4)	(5)
	Overall	HH Income	Living Condition	Family Relation	Social
post	-0.0266	-0.110	0.0339	-0.0608	0.0262
	(0.0850)	(0.103)	(0.102)	(0.0978)	(0.0928)
post×HSR	0.0719	-0.0640	-0.00671	0.0200	0.0441
	(0.176)	(0.143)	(0.128)	(0.120)	(0.139)
post×HEX	-0.0264	-0.00522	-0.114**	-0.0726	-0.00796
	(0.0540)	(0.0589)	(0.0532)	(0.0490)	(0.0582)
DDD	0.00635	0.0214	0.320**	0.136	0.0378
	(0.177)	(0.148)	(0.148)	(0.149)	(0.167)
Constant	-20.60	-17.94	-28.29**	-6.884	-17.91
	(13.21)	(16.63)	(14.02)	(11.22)	(14.09)
N	7923	7920	7919	7919	7919

Data sources: Korean Labor and Income Panel Study

Notes: This table reports the results replicating Table 8 while controlling for linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on husbands' life satisfaction, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, and social life in Column 5. As the Korean Longitudinal Survey of Women and Families (KLoWF) does not survey husbands, their marital satisfaction is unobserved. All columns include individual fixed effects, and age fixed effects (separately for wives and husbands). Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.19: Husbands' Subjective Well-being with Control Variables (2)

	(1)	(2)	(3)	(4)	(5)
	Overall	HH Income	Living Condition	Family Relation	Social
post	-0.0379	-0.204	0.0409	-0.00244	-0.0246
	(0.107)	(0.125)	(0.129)	(0.122)	(0.123)
post×HSR	0.0572	-0.0747	-0.0151	0.00769	0.0246
	(0.176)	(0.141)	(0.128)	(0.120)	(0.138)
post×HEX	-0.0277	-0.00771	-0.118**	-0.0713	-0.00765
	(0.0543)	(0.0594)	(0.0534)	(0.0491)	(0.0588)
DDD	0.0151	0.0289	0.323**	0.145	0.0531
	(0.177)	(0.147)	(0.148)	(0.149)	(0.167)
Constant	-20.23	-18.18	-28.14**	-6.314	-16.94
	(13.07)	(16.59)	(13.88)	(11.20)	(14.01)
N	7923	7920	7919	7919	7919

Data sources: Korean Labor and Income Panel Study

Notes: This table reports the results replicating Table 8 while controlling for linear and quadratic time trends interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on husbands' life satisfaction, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, and social life in Column 5. As the Korean Longitudinal Survey of Women and Families (KLoWF) does not survey husbands, their marital satisfaction is unobserved. All columns include individual fixed effects, and age fixed effects (separately for wives and husbands). Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.20: Husbands' Subjective Well-being with Control Variables (3)

	(1)	(2)	(3)	(4)	(5)
	Overall	HH Income	Living Condition	Family Relation	Social
post	-0.0146	-0.128	0.0280	-0.0476	0.0233
	(0.0831)	(0.0963)	(0.0947)	(0.0930)	(0.0918)
post×HSR	0.0884	-0.0469	-0.0359	0.0473	0.0684
	(0.149)	(0.0999)	(0.0942)	(0.0890)	(0.121)
post×HEX	-0.0783	-0.0542	-0.125**	-0.0702	-0.000487
	(0.0535)	(0.0551)	(0.0507)	(0.0453)	(0.0531)
DDD	0.0871	0.0827	0.369***	0.172	0.114
	(0.172)	(0.133)	(0.133)	(0.138)	(0.165)
Constant	2.525***	2.138***	2.499***	2.771***	2.613***
	(0.0896)	(0.103)	(0.108)	(0.0952)	(0.110)
N	8314	8311	8310	8310	8310

Data sources: Korean Labor and Income Panel Study

Notes: This table reports the results replicating Table 8 while additionally controlling for inflows of EKC on a work visa (separately for female and male): the estimated effects of immigration reforms on husbands' life satisfaction, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). The dependent variable—originally ranging from 1 (very unsatisfied) to 5 (very satisfied)—is standardized to have standard deviation units and measures satisfaction with overall life quality in Column 1, household income in Column 2, living conditions in Column 3, family relations in Column 4, and social life in Column 5. As the Korean Longitudinal Survey of Women and Families (KLoWF) does not survey husbands, their marital satisfaction is unobserved. All columns include individual fixed effects, and age fixed effects (separately for wives and husbands). Standard errors are clustered at the district level and robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.21: Changes in Divorce Cases involving Foreign Spouses

	(1) Foreign Wife	(2) Foreign Husband
post	0.0360***	0.00203***
	(0.00229)	(0.000615)
post×HSR	0.00998***	-0.000824
	(0.00339)	(0.000885)
post×HEX	-0.00399	-0.000811
	(0.00249)	(0.000618)
DDD	0.0103**	-0.000389
	(0.00517)	(0.000997)
Constant	0.0111***	0.00220***
	(0.000597)	(0.000154)
N	405595	395341

Data sources: Divorce Registry of South Korea

Notes: This table reports the results estimating the effects of immigration reforms on the number of divorces between international couples: between Korean husbands and foreign wives in Column 1 and between foreign husbands and Korean wives in Column 2, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). Both columns include district, education, occupation, and age-at-marriage fixed effects. Standard errors are clustered at the district level and are robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.22: Divorce and Composition Change with Control Variables (1)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	# Divorce		Reasons for Divorce						
	Level	Log	Irreconcilable Difference	Abuse	Economic Hardship	Family Conflicts	Spousal Infidelity	Health	Other
post	97.18***	0.252***	-0.00754	-0.0108*	-0.00763	0.0126	-0.0142*	0.00240	0.0252**
	(24.97)	(0.0473)	(0.0167)	(0.00568)	(0.00986)	(0.00797)	(0.00752)	(0.00157)	(0.0115)
post×HSR	-16.08	0.0202	0.0532***	-0.000718	-0.0168*	-0.0154	-0.00747	0.00161	-0.0144
	(27.33)	(0.0733)	(0.0176)	(0.00365)	(0.00934)	(0.00973)	(0.00518)	(0.00142)	(0.0156)
post×HEX	46.83**	0.114*	0.0241**	-0.00615*	-0.0117**	0.000139	-0.00339	0.00147	-0.00448
	(23.22)	(0.0663)	(0.0102)	(0.00335)	(0.00548)	(0.00528)	(0.00427)	(0.000980)	(0.0128)
DDD	-64.39***	-0.166**	-0.0285	0.00477	0.0106	0.00726	0.000650	-0.00315	0.00839
	(24.39)	(0.0734)	(0.0186)	(0.00539)	(0.00984)	(0.0103)	(0.00701)	(0.00202)	(0.0146)
Constant	491.6***	5.725***	0.531***	0.0434***	0.158***	0.0871***	0.0743***	0.00735***	0.0986***
	(52.12)	(0.239)	(0.00336)	(0.000781)	(0.00178)	(0.00172)	(0.00124)	(0.000267)	(0.00239)
N	1050	1050	312069	312069	312069	312069	312069	312069	312069

Data sources: Divorce Registry of South Korea

Notes: This table reports the results replicating Table 8 while controlling for linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on the number of divorces in Columns 1 and 2 and the reasons for divorce (irreconcilable difference in Column 3, physical and emotional abuse in Column 4, economic hardship in Column 5, family conflicts in Column 6, spousal infidelity in Column 7, health issues in Column 8, and all other reasons in Column 9, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). Columns 1–2 control for district fixed effects and district-level variables, including average age at marriage (husbands and wives) and at divorce. Columns 3–9 include district, education, occupation, and age-at-marriage fixed effects. All columns control for a linear time trend interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006. Standard errors are clustered at the district level and are robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.23: Divorce and Composition Change with Control Variables (2)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	# Divorce		Reasons for Divorce						
	Level	Log	Irreconcilable Difference	Abuse	Economic Hardship	Family Conflicts	Spousal Infidelity	Health	Other
post	49.07	0.174**	-0.0108	-0.00164	0.0221**	0.00833	-0.00934	0.00117	-0.00974
	(35.33)	(0.0697)	(0.0222)	(0.00795)	(0.00982)	(0.00906)	(0.0116)	(0.00188)	(0.0161)
post×HSR	-5.313	0.0171	0.0528***	-0.000579	-0.0169*	-0.0152	-0.00830	0.00179	-0.0136
	(29.46)	(0.0805)	(0.0176)	(0.00373)	(0.00928)	(0.00972)	(0.00522)	(0.00144)	(0.0160)
post×HEX	45.32*	0.111*	0.0225**	-0.00555	-0.0114**	0.000804	-0.00265	0.00151	-0.00521
	(23.11)	(0.0653)	(0.0103)	(0.00337)	(0.00550)	(0.00527)	(0.00433)	(0.000988)	(0.0129)
DDD	-63.53***	-0.164**	-0.0291	0.00469	0.0107	0.00789	0.000420	-0.00308	0.00848
	(24.26)	(0.0728)	(0.0185)	(0.00541)	(0.00976)	(0.0102)	(0.00707)	(0.00203)	(0.0146)
Constant	494.1***	5.690***	0.532***	0.0424***	0.155***	0.0875***	0.0737***	0.00747***	0.102***
	(42.84)	(0.222)	(0.00376)	(0.000904)	(0.00199)	(0.00174)	(0.00137)	(0.000291)	(0.00213)
N	1050	1050	312069	312069	312069	312069	312069	312069	312069

Data sources: Divorce Registry of South Korea

Notes: This table reports the results replicating Table 8 while controlling for linear and quadratic time trends interacted with a set of district-level demographic variables, employment variables, housing market variables, and immigrant density observed in 2006: the estimated effects of immigration reforms on the number of divorces in Columns 1 and 2 and the reasons for divorce (irreconcilable difference in Column 3, physical and emotional abuse in Column 4, economic hardship in Column 5, family conflicts in Column 6, spousal infidelity in Column 7, health issues in Column 8, and all other reasons in Column 9, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). Columns 1–2 control for district fixed effects and district-level variables, including average age at marriage (husbands and wives) and at divorce. Columns 3–9 include district, education, occupation, and age-at-marriage fixed effects. Standard errors are clustered at the district level and are robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.24: Divorce and Composition Change with Control Variables (3)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	# Divorce		Reasons for Divorce						
	Level	Log	Irreconcilable Difference	Abuse	Economic Hardship	Family Conflicts	Spousal Infidelity	Health	Other
post	-45.31***	0.0109	-0.0421***	-0.00552**	-0.0204***	-0.0123***	-0.000527	-0.00118**	0.0820***
	(17.05)	(0.0271)	(0.00727)	(0.00227)	(0.00436)	(0.00255)	(0.00321)	(0.000475)	(0.00778)
post×HEX	71.44***	0.0648**	0.0350**	-0.00112	-0.00325	-0.00771	-0.00784*	0.000610	-0.0157
	(17.69)	(0.0308)	(0.0139)	(0.00326)	(0.00684)	(0.00651)	(0.00427)	(0.00104)	(0.0113)
post×HEX	55.68**	0.131*	0.0280***	-0.00658**	-0.0136**	0.00133	-0.00453	0.00123*	-0.00583
	(26.73)	(0.0773)	(0.0105)	(0.00255)	(0.00589)	(0.00557)	(0.00359)	(0.000717)	(0.0100)
DDD	-65.72**	-0.184**	-0.0237	0.00672	0.00941	0.00955	-0.00233	-0.00287	0.00319
	(27.44)	(0.0841)	(0.0188)	(0.00519)	(0.0102)	(0.0104)	(0.00689)	(0.00196)	(0.0151)
Constant	615.8***	6.090***	0.545***	0.0370***	0.149***	0.0855***	0.0691***	0.0105***	0.105***
	(71.17)	(0.237)	(0.0136)	(0.00339)	(0.00699)	(0.00665)	(0.00478)	(0.00122)	(0.00952)
N	1076	1076	326077	326077	326077	326077	326077	326077	326077

Data sources: Divorce Registry of South Korea

Notes: This table reports the results replicating Table 8 while additionally controlling for inflows of EKC on a work visa (separately for female and male): the estimated effects of immigration reforms on the number of divorces in Columns 1 and 2 and the reasons for divorce (irreconcilable difference in Column 3, physical and emotional abuse in Column 4, economic hardship in Column 5, family conflicts in Column 6, spousal infidelity in Column 7, health issues in Column 8, and all other reasons in Column 9, as captured by the coefficient of the triple interaction term (DDD = post × HSR × HEX). The dummy variable post equals 1 for years following the immigration reforms (2013 and after). The terms post × HSR and post × HEX interact the post-reform dummy variable post with, respectively, the dummy variable for districts with high sex ratios (HSR) and the dummy variable for districts with weak migrant networks (HEX). Columns 1–2 control for district fixed effects and district-level variables, including average age at marriage (husbands and wives) and at divorce. Columns 3–9 include district, education, occupation, and age-at-marriage fixed effects. Standard errors are clustered at the district level and are robust to heteroskedasticity: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.