

# Recent Socioeconomic Differentials in Marriage Rates in Korea and China: A Comparative Study<sup>†</sup>

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*This paper explores the relationship between socioeconomic status (SES) and the recent rapid decline in marriage rates in China and South Korea, using nationally representative longitudinal data. The analysis shows that recently rising never-married rates (NVMR) are increasingly concentrated among lower-SES individuals, especially in highly urbanised areas in both countries, highlighting the growing significance of financial barriers to family formation in recent years. Furthermore, income has become a stronger predictor of marriage entry by men in both nations. The overall rise in the NVMR reflects delayed marriage among the Chinese population and Korean women, but more persistent singlehood among lower-SES Korean men aged over 35. Notably, the faster growth of the NVMR among lower-SES groups has narrowed overall SES differences in marriage rates, eroding the historical pattern in which lower-SES individuals married earlier and more universally. In other words, marriage differentials based on SES are disappearing on absolute levels. This suggests that while financial constraints remain a key influence, broader structural and cultural shifts — such as evolving gender norms and rising opportunity costs — are also critical for understanding recent marriage declines in East Asia.*

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## I. Introduction

Recent demographic changes, such as declining marriage and fertility rates, have reemerged as major issues globally, with East Asian nations experiencing some

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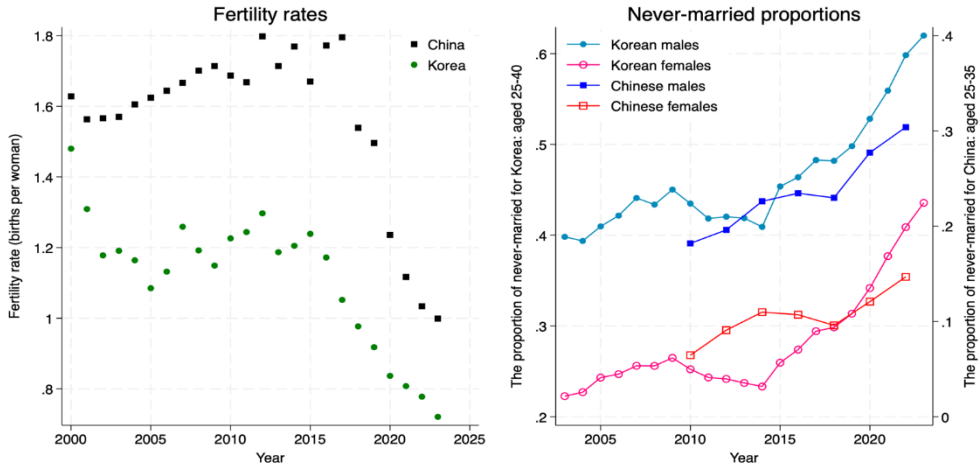


FIGURE 1. FERTILITY AND NEVER-MARRIED RATES OVER TIME

Source: (Left) World Bank data (Right) the Korean Labor and Income Panel Study and the China Family Panel Studies.

of the most rapid declines. In particular, China and South Korea (Korea, hereafter) currently share the common demographic challenges of delayed marriage and plummeting fertility rates.

Figure 1 (left) shows that both countries have been facing rapid declines in total fertility and marriage rates since the mid-2010s. Korea’s total fertility rate remained relatively stable at around 1.2 children per woman from 2008 to 2016 but began to decrease rapidly in 2017, falling below 0.8 by 2022 (World Bank, 2025). A similar pattern is observed in China, where the total fertility rate fluctuated between 1.6 and 1.8 until 2017, followed by a substantial downturn that began in 2018. In 2022, the average number of children per woman in China dropped below 1.2.

The timing of these fertility declines coincides with a sharp rise in the proportion of never-married individuals, as indicated in Figure 1 (right). This strong correspondence between fertility and marriage rates is not surprising given that non-marital childbearing remains uncommon in both countries (Tan, 2022; Chen *et al.*, 2024; Lee and Zeman, 2024). In Korea, the share of never-married adults aged 25-40 increased gradually from 2003 to 2014, followed by a rapid rise thereafter. By 2023, over 60% of Korean men aged 25-40 had never married, a significant rise from 20% in 2010. A similar trend is observed among Korean women, with never-married rates surging from below 30% in 2015 to over 40% in 2023. The Chinese population also exhibits a comparable pattern: between 2010 and 2020, the never-married rate among men rose by approximately ten percentage points, with a similar increase found among Chinese women.

These trends are concerning not only due to rapidly emerging population ageing and labour force shrinkage but also due to their potential to exacerbate existing socioeconomic inequalities. Recent studies attempt to identify associated factors explaining these declines. Hwang (2023) attributes part of this trend to behavioural shifts within educational groups, such as cultural and economic pressures that discourage marriage and childbearing across all education levels. Lee and Zeman

(2024) highlight that an increasing proportion of Korean women are delaying or not choosing marriage and childbirth, a trend no longer limited to highly educated groups. In China, demographic change is driven by structural and cultural factors such as large-scale rural-to-urban migration delaying marriage (Lu and Tao, 2015; Jin *et al.*, 2024), female education advancement lowering marriage rates (Qian and Qian, 2014), and the lasting impact of strict fertility policies weakening norms around family formation (Jones, 2019).

This study attempts to understand the recent rapid declines in marriage rates and their associations with individual socioeconomic status (SES) in China and Korea by posing the following questions:

- (1) How have marriage rates changed across SES groups in recent years? If so, how do they differ? If the data confirm a rapid decline, which group is driving it the most?
- (2) To what extent do socioeconomic factors, including individual income, education and family background, explain existing trends? Has the explanatory power of these factors strengthened or weakened, or remained the same in recent years?
- (3) Are the similarities in marriage declines, if observed, in the two countries driven by common factors? Are there differences, and if so, what are they?

To answer these questions, we employ nationally representative survey data from Korea and China to examine recent trends in never-married rates (NVMR) — the proportion of individuals who have never married by a certain age — across different SES groups. A key advantage of using such survey data is the ability of the data to capture detailed socioeconomic characteristics, such as parental education and personal income, which allow for a more refined classification than is possible with population census data. Using these datasets, we document recent changes in the NVMR, assess the extent to which these trends are explained by SES over the last decade, and analyse how the SES-NVMR relationship has evolved over time.

The results suggest the following:

1. Recent increases in the NVMR are driven mainly by the lowest SES groups — defined as relatively less-educated individuals who have less-educated fathers — in both countries, regardless of gender. These patterns are distinct in the highly urbanised areas of Seoul in Korea and in urban areas of China. Among men in Seoul, the lowest-SES group shows particularly rapid NVMR growth, and currently the never-married rate exceeds all higher-SES groups.
2. Individual income has become a stronger predictor of marriage, suggesting rising financial barriers to marriage in both countries. This income effect diverges by gender: higher incomes lower the NVMR for men but raise it for women.
3. There is no clear evidence of a rapidly increasing choice of permanent singlehood among Chinese men or women, or Korean women, compared to previous periods. In contrast, such a trend is apparent among Korean men, as shown by sharp increases in the NVMR at ages 35 and above, particularly within lower-SES groups.
4. Despite different speeds of recent NVMR growth across SES groups (e.g.,

groups with lower SES levels experiencing faster increases), overall NVMR levels are converging. That is, disparities in levels of marriage rates are narrowing, as the historical pattern in which lower-SES individuals married earlier and more universally has been eroded, indicating a broad rise in marriage delay or non-marriage across the population.

These findings highlight the key drivers of recent marriage declines in East Asia. The fact that NVMR growth is fastest among the lowest-SES groups in both countries indicates that marriage opportunities have become increasingly constrained for these populations. This interpretation is reinforced by the rising importance of individual income — especially for men — as a predictor of marriage, suggesting that economic precarity and rapidly rising living costs are intensifying barriers to family formation. A growing body of studies indeed highlights the importance of economic pressures: living costs are closely related to declining marriage rates (Wrenn *et al.*, 2019; Gao *et al.*, 2022; Qiu and Liu, 2025). According to earlier work, a 1% increase in house prices leads to an average fall in marriage rates of 0.31% in the 2000s in China (Wrenn *et al.*, 2019). In Korea, regional variations in housing prices have also been shown to delay marriage (Lee *et al.*, 2021). Other financial pressures also appear to explain marriage trends, such as the sharp rise in bride prices in China, interacting with the marriage squeeze resulting from imbalanced sex ratios (Sharygin *et al.*, 2013; Jiang *et al.*, 2015; Wan, 2024; Chae and Zhang, 2026), indicating that structural economic forces are increasingly central to family formation.<sup>1</sup>

However, a seemingly counter-intuitive finding is important to note: despite the more rapid growth of the NVMR among lower-SES groups (diverging trends in growth), overall NVMR levels are converging across socioeconomic strata. This convergence suggests broader societal shifts, with instances of delayed marriage or no marriage rising for all groups, reflecting structural and cultural changes, such as the increasing opportunity costs of marriage and growing aspirations for autonomy. Thus, while economic inequality helps explain who is most affected and why in recent years, the universal upward movement in the NVMR implies that marriage norms themselves may be undergoing a transformation beyond socioeconomic status. The present study cannot disentangle these mechanisms, but future research could explore the interplay between the economic and cultural mechanisms behind these shifts to gain a better understanding of the evolving nature of the unequal family formation patterns.

This study makes several contributions to the literature on recent demographic changes in East Asia. First, it offers a rare cross-national analysis of rapidly evolving marriage trends in the two countries. Comparing China and Korea provides insight into these trends by highlighting how similar demographic shifts — rising never-married rates, declining fertility, and increasing urbanisation — play out in different contexts. This cross-national perspective helps separate broad East Asian structural pressures from country-specific factors. While SES and gender patterns are broadly

<sup>1</sup>Bride price is the term for the money or gifts given by the groom or his family to the bride or her family as part of the marriage transaction. This cultural practice is prevalent in China and has been seen rapidly increasing prices in recent years (for example, see Chae and Zhang, 2026, Figure 1a).

consistent — such as the income of males becoming more important for marriage entry — Korea shows a sharper rise in permanent singlehood, whereas China's delays are often tied to migration and life-course timing. By contrasting these cases, the study clarifies which patterns are universal and which are context-dependent, offering a more nuanced understanding of how SES, gender, and urbanisation shape contemporary marriage behaviour. Second, by utilising nationally representative surveys from each country, the study examines how these trends vary with both individual and parental socioeconomic status, thereby offering insight into how both individual and parental socioeconomic backgrounds are associated with differences in marriage likelihood. Finally, by analysing changes over time, the study highlights how the influence of economic status on marriage has shifted in recent years, offering a better understanding of the dynamic relationship between economic conditions and demographic behaviour.

The rest of the paper is organised as follows. Section 2 reviews long-term trends in marriage rates in Korea and China. Section 3 describes the data and empirical strategy. Section 4 presents the main results on socioeconomic differentials in marriage rate changes. Section 5 examines how the influence of socioeconomic factors on marriage has evolved over time. Section 6 discusses potential mechanisms and policy implications, and Section 7 concludes the paper.

## II. Overview of Long-term Trends in Marriage Rates

This section summarises long-term trends in marriage rates in Korea and China over the past two decades using two nationally representative datasets: the Korean Labor and Income Panel Study (KLIPS) and the China Family Panel Studies (CFPS). Further details pertaining to these data sources are provided in Section 3. Specifically, we measure marriage outcomes using the never-married rate (NVMR), defined as the proportion of individuals who have never married. This serves as the key indicator throughout the analysis.

Figure 2 presents the NVMR by gender and educational attainment. Due to differences in data availability, we examine changes across 2003, 2013 and 2023 for Korea, and between 2010 and 2022 for China. To explore differences across socioeconomic groups, first we divide each sample into two educational groups, referred to here as less-educated and more-educated groups. Because educational attainment distributions differ between the two countries, to ensure sufficient sample sizes, we define the two educational categories differently. For Korea, the less-educated group includes individuals with a three-year college degree or less, and the more-educated group refers to those with a four-year university degree or more. In China, the former corresponds to middle school or below, and the latter includes those with a high school education or above.<sup>2</sup> Given that the NVMR is close to one for most younger adults, the analysis focuses on individuals aged 30-45 in Korea and 25-40 in China.

<sup>2</sup>As shown in Table 1, 40% of Korean men and 33% of Korean women fall into the more-educated category. In addition, 56-57% of the Chinese sample belongs to the less-educated group.

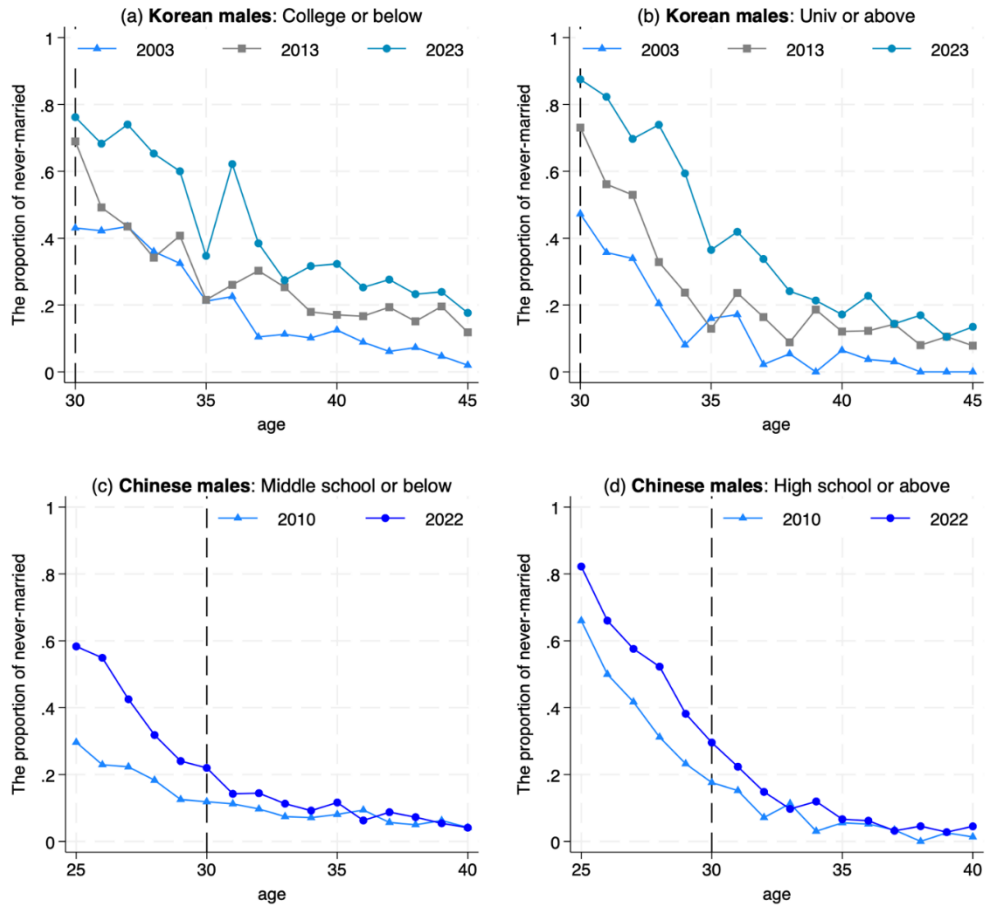


FIGURE 2. RECENT TRENDS IN NEVER-MARRIED RATES: MALES

*Note:* This figure shows the proportion of never-married individuals by age group across the survey years. Panel (a) plots trends for Korean men with a college degree or below in 2003, 2013 and 2023. Panel (b) presents trends for Korean men with a four-year university degree or above. Panel (c) presents the trends for Chinese men with a middle school education or less in the 2010 and 2022 survey years, and Panel (d) shows the corresponding trends for Chinese men with a high school education or above.

1. Sharp rise in the NVMR among men: Panels (a)-(c) of Figure 2 show a substantial rise in the NVMR among Korean and Chinese men over the past decade, especially at younger ages. Among less-educated Korean men, the NVMR remained relatively stable between 2003 and 2013 but then increased by roughly 40 percentage points for those in their early 30s between 2013 and 2023. A similar pattern appears for less-educated Chinese men (Panel c), whose NVMR at age 25 rose by roughly 30 percentage points between 2010 and 2022. More-educated men in both countries also saw increases, though more gradually; for example, the NVMR at age 30 among more-educated Korean men rose by about 20 percentage points from 2003 to 2013 and then by another 15 percentage points in the following decade.

2. Higher NVMR among less-educated men at later ages: While more-educated men exhibit higher NVMRs at younger ages, their rates rapidly decline after around

age 35 in Korea and 30 in China. On the other hand, less-educated men experience a slower decline as they age, suggesting socioeconomic constraints or disadvantages in the marriage market. By 2022, more than 10% of less-educated Chinese men remained in the never-married group at age 35 (Panel c), compared to less than 10% of more-educated men (Panel d). Similarly, at age 40, more than 30% of less-educated Korean men were never married (Panel a), versus fewer than 20% of more-educated men (Panel b). These patterns indicate that declining marriage rates in East Asia are increasingly stratified by socioeconomic status, with less-educated men facing greater barriers.

3. Persistent rise in the NVMR at older ages in Korea: In Korea, the NVMR among men over 35 has gradually increased over the past two decades. For example, fewer than 20% of men with a college degree or below were never married at age 40 in 2013, and this rate increased to 30% in 2023. Among less-educated Korean men, nearly 20% remain never married by age 45. In contrast, the increase among Chinese men is modest: nearly 90% of men are married by age 35, indicating that China's rising NVMR largely reflects delayed marriage rather than permanent singlehood.

4. Rising delays in marriage among more-educated women: Panels (b) and (d) in Figure 3 show a notable increase in the NVMR among more-educated women both in Korea and China, particularly at younger ages. Fewer than 30% of women in Korea were never married in 2003 and 2013, but the rate nearly tripled to over 70% by 2023. A similar though smaller pattern appears in China: about 40% of women with at least a high school degree were never married at age 25 in 2010, and within 12 years, this number increased by more than 20 percentage points.

5. Rise in the NVMR among less-educated Korean women at later ages: Less-educated Korean women have experienced an unprecedented rise in the NVMR at later ages. At age 35, fewer than 10% were never married in 2003 and 2013, but this rate reached nearly 40% by 2023. This pattern parallels that of less-educated Korean men (Panel (a) in Figure 2), suggesting that factors beyond education, such as economic insecurity or shifting cultural norms, could be driving the recent marriage declines in Korea. Chinese women with less education levels show a slight increase in the NVMR, which may also indicate that education alone cannot fully explain the rise in never-married rates in either country.

Overall, these patterns show a rising prevalence of never-married individuals in both Korea and China over the last decade. Three broad patterns stand out: (i) rapid increases in the NVMR in both countries, especially among men; (ii) substantial growth in the NVMR at older ages in Korea, likely suggesting a rise in permanent singlehood; and (iii) notable increases in the NVMR among younger cohorts in China, reflecting increasingly delayed marriages.

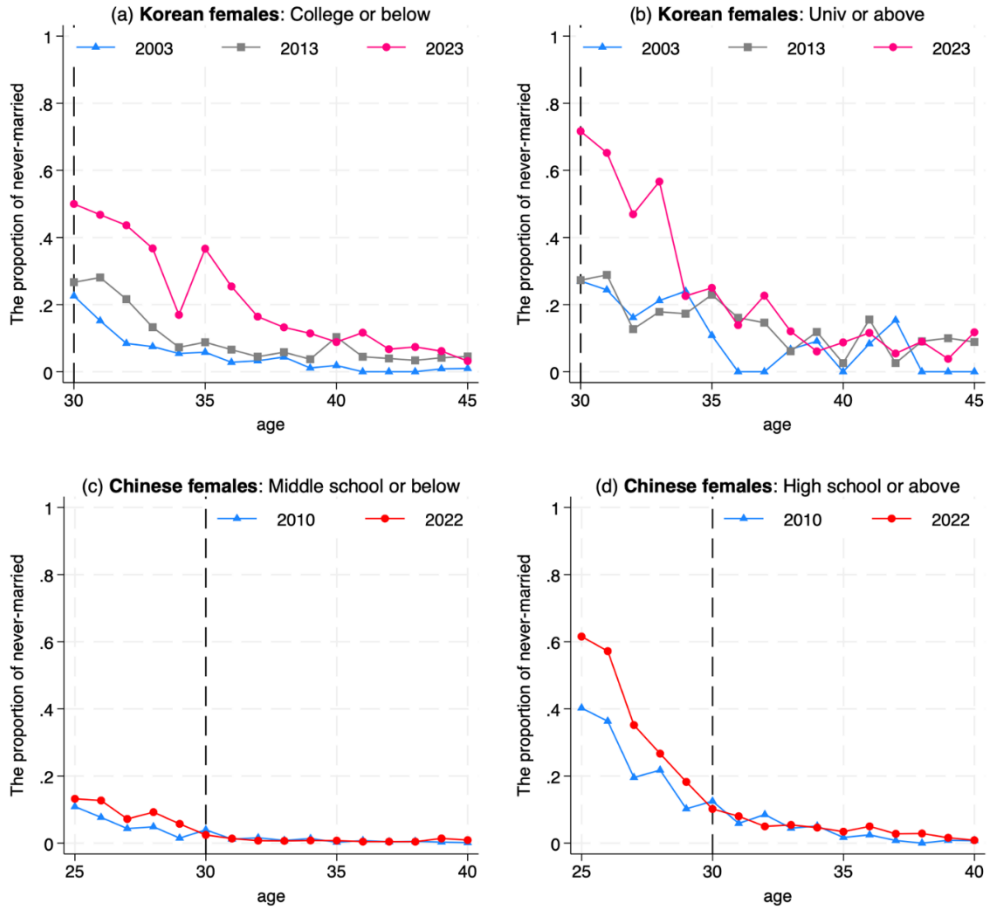


FIGURE 3. RECENT TRENDS IN NEVER-MARRIED RATES: FEMALES

Note: This figure shows the proportion of never-married individuals by age group across the survey years. Panel (a) plots trends for Korean men with a college degree or below in 2003, 2013 and 2023. Panel (b) presents trends for Korean men with a four-year university degree or above. Panel (c) presents the trends for Chinese men with a middle school education or less in the 2010 and 2022 survey years, and Panel (d) shows the corresponding trends for Chinese men with a high school education or above.

### III. Data

#### A. Analysis Sample

This study utilises two nationally representative household survey datasets: the Korean Labor and Income Panel Study (KLIPS) for Korea and the China Family Panel Studies (CFPS) for China. Both datasets provide rich demographic, economic, and social information, making them well suited for analysing changes in marriage patterns across different socioeconomic groups over time.

#### Korean Labor and Income Panel Study (KLIPS)

The KLIPS is an annual longitudinal survey that has been conducted by the Korea

Labor Institute since 1998. It collects detailed panel data on individuals and households residing in urban areas across Korea using a two-stage stratified cluster sampling method. First, 1,000 enumeration districts in cities nationwide are selected, after which five households are randomly sampled from each district. The survey is now in its 26th wave (completed in 2023).

This study uses data from 2003 to 2023 (21 waves) to examine trends over the past two decades. Our analysis focuses on individuals aged 25 to 45, provided that information on key variables for the main analysis — in this case, marital status, age, gender, education, current residential city information, and parental education — is available.

### **China Family Panel Studies (CFPS)**

The CFPS is a biennial longitudinal survey launched in 2010 by the Institute of Social Science Survey at Peking University. It is one of the most comprehensive panel datasets available in China, covering over 16,000 households across 25 provinces and municipalities. As of May of 2025, seven waves have been released, including the 2010 baseline and follow-ups in 2012, 2014, 2016, 2018, 2020 and 2022. The CFPS employs a probability-proportionate-to-size-sampling strategy, stratified by administrative unit (province, county/district, village/neighbourhood/community) and socioeconomic status, with households randomly selected within the sampled communities. For our analysis, we use CFPS waves from 2010 to 2022, restricting the sample to individuals aged 20 to 35 with complete data on marital status, age, gender, education, current household registration (*hukou*) status, residential area, and parental education.

## *B. Descriptive Statistics*

Columns 1 and 2 of Table 1 present summary statistics for the Korean analysis sample, which includes individuals aged 25 to 45 in each survey wave, conducted between 2003 and 2023. At the time of the survey, 38% of Korean men and 22% of Korean women were never married. The average age of the respondents is 33. Among males, 40% have completed at least a four-year university degree, compared to 33% of females. The average annual income for Korean men in the sample is 33.72 million KRW, while women earn approximately 60% of that amount. Although there are substantial gender disparities in individual-level characteristics, such as educational attainment and income, parental education, specifically, father's education, shows no notable gender differences. Approximately 20% of the sample resides in Seoul.

Columns 3 and 4 summarise the characteristics of the Chinese sample, which consists of individuals aged 20 to 40 across the survey waves from 2010 to 2022. As in Korea, the proportion of never-married individuals is higher among men than women: 32% of Chinese men and 20% of women report never having been married. The average age of Chinese respondents is 30 years. More than half of the sample has attained a middle school education or below, while 31-33% have completed high school. Income data are available for individuals who were employed at the time of the survey. On average, men earn 33,498 yuan annually, while women earn

TABLE 1—SUMMARY STATISTICS

	Korea: ages 25-45		China: ages 20-40	
	Male	Female	Male	Female
Never-married	0.38 (0.48)	0.22 (0.42)	0.32 (0.46)	0.20 (0.40)
Age	35.88 (5.89)	35.87 (5.85)	30.18 (5.89)	30.02 (5.91)
Primary school or below	0.01 (0.04)	0.01 (0.03)	0.23 (0.42)	0.26 (0.44)
Middle school	0.02 (0.15)	0.03 (0.17)	0.33 (0.47)	0.31 (0.46)
High school	0.28 (0.45)	0.34 (0.47)	0.22 (0.41)	0.20 (0.40)
Three-year college	0.23 (0.42)	0.25 (0.43)	0.12 (0.32)	0.12 (0.32)
Four-year university	0.40 (0.49)	0.33 (0.47)	0.10 (0.29)	0.10 (0.30)
Master's degree or above	0.06 (0.24)	0.05 (0.21)	0.01 (0.09)	0.01 (0.09)
Father's education: Below primary	0.27 (0.41)	0.27 (0.41)	0.51 (0.45)	0.51 (0.46)
Father's education: Middle school	0.21 (0.41)	0.22 (0.41)	0.31 (0.46)	0.31 (0.46)
Father's education: High school	0.51 (0.48)	0.51 (0.48)	0.18 (0.35)	0.18 (0.35)
Personal income	3372.31 (2110.25)	2149.73 (1537.96)	33498.04 (51037.18)	19331.82 (34081.11)
Living in Seoul	0.20 (0.40)	0.20 (0.40)		
Living in Urban area			0.50 (0.50)	0.51 (0.50)
Urban Hukou			0.24 (0.42)	0.24 (0.42)
Observations	58,894	58,606	40,281	40,582

*Note:* This table reports summary statistics of each country's baseline analysis sample. The Korean sample includes individuals aged 25 to 45. The Chinese sample includes individuals aged 20 to 40.

about 60% of that amount - similar to the gender income gap observed in the Korean data. Parental education levels, particularly fathers' education, do not exhibit significant gender differences. While half of the respondents live in urban areas, only 23-24% hold an urban hukou.

To assess the representativeness of our samples, we compare key characteristics with external data. For China, Table A1 compares our 2016 CFPS sample with the 2015 Population Census.<sup>3</sup> Compared to the census data, the CFPS sample has slightly fewer never-married individuals (0.33 vs. 0.36), less education, and a higher share of urban residents. For Korea, Table A2 compares our sample with the Korea Welfare Panel Study (KoWePS), a national panel survey that oversamples low-income households and includes rural areas; the comparison is restricted to urban

<sup>3</sup>Urban areas in the Census are defined based on current residence in a county or district, covering 82% of the sample; the remaining 18%, mainly in county-level cities, is excluded due to a lack of detailed urban-rural information. This may explain differences in urban shares between CFPS and the Census.

residents for consistency.<sup>4</sup> Compared to our sample, KoWePS respondents have lower education levels, lower incomes, and higher marriage rates. Overall, the Chinese sample appears reasonably representative, while the Korean sample's representativeness warrants further consideration.

### C. Estimation Model

This study explores the factors associated with recent marriage rate declines in Korea and China, focusing on whether the recent trends are linked to socioeconomic status (SES) indicators, such as individual education levels, incomes and parental backgrounds. The main analysis estimates the association between SES and the likelihood of being never married within each age cohort in each country and assesses how the influence of these SES factors has changed over time based on the following equation:

$$(1) \quad NV_{ict} = \alpha_0 + \beta_t + \delta_c + \gamma X_{it} + \varepsilon_{ict}$$

Here, the dependent variable equals one if individual  $i$  is never married in survey year  $t$ , and zero otherwise. Survey year fixed effects,  $\beta_t$ , capture temporal changes in never-married rates and are the main coefficients of interest. Note that these coefficients capture 'growth in the NVMR', not level differences across SES groups<sup>5</sup> Regional fixed effects,  $\delta_c$ , control for time-invariant geographic differences in marriage patterns: metropolitan cities and provinces in Korea, and counties in China.<sup>6</sup> The vector  $X_{it}$  includes individual and household characteristics, varying by country. In Korea, these include fixed effects for age and education; in China, they additionally include indicators for urban hukou (household registration status) and urban residence.

The analysis employs an age-fixed cohort framework, meaning that the coefficients of survey year dummies capture changes in the proportion of never-married individuals within age groups, net of age effects. We expect  $\beta_t$  to be positive, indicating a rising NVMR over time. The omitted (reference) survey years are 2003 for Korea and 2010 for China.

## IV. Socioeconomic Status and Recent Marriage Declines

This section investigates how recent declines in marriage rates are associated with SES, using the empirical framework described above. Because marriage patterns differ substantially by gender, first we present estimation results for men and then turn to women.

We classify individuals into four groups based on their own and their fathers'

<sup>4</sup>KoWePS has been conducted annually since 2006 by the Korea Institute for Health and Social Affairs.

<sup>5</sup>Eq. (2) in Section 5 discusses level differences

<sup>6</sup>The Korean sample includes 19 regional indicators, while the Chinese sample includes 162 counties based on the 2010 baseline wave.

education, which serve as proxies for SES: (1) LE-LF: less-educated individuals with less-educated fathers, (2) LE-HF: less-educated individuals with more-educated fathers, (3) HE-LF: more-educated individuals with less-educated fathers, and (4) HE-HF: more-educated individuals with more-educated fathers. For Korea, less-educated individuals include those with a college degree or below, and more-educated ones include those with a four-year university degree or above; for China, less-educated individuals include those with a high school degree or below, and more-educated ones include those with a college degree or above. In both countries, fathers are classified as less educated if they have a high school degree or below.<sup>7</sup> This classification allows us to examine how both individual and parental socioeconomic backgrounds relate to marriage patterns.

### A. Trends in Never-married Rates among Men

Figure 4 presents the results for men. Panel (Ka) shows the estimated NVMR growth among Korean men aged 25-45 between 2003 and 2023, controlling for age, education and region fixed effects. The vertical axis represents the change in the NVMR relative to the reference year, 2003. Specifically, the values indicate how much higher (or lower) the NVMR is in each year compared to 2003 for each SES group,

Two patterns stand out. First, the highest-SES group (HE-HF) consistently exhibits the lowest NVMR growth, while the other three groups show substantially larger increases. This pattern is consistent with prior research indicating that higher socioeconomic status is associated with earlier marriage (Lim, 2021). Second, the gap between the HE-HF group and the lower-SES groups has widened, particularly since around 2010. A plausible explanation is the rapid escalation of living costs during that period, such as housing prices, which likely placed a disproportionate burden on individuals with lower SES levels.<sup>8</sup>

To examine the role of financial barriers, we compare outcomes between Seoul — a highly urbanised area — and other urban regions. Panels (Kb) and (Kc) present the NVMR growth for residents inside and outside of Seoul, respectively. A notable distinction emerges between the two regions. In Seoul, the groups with less-educated fathers (LE-LF and HE-LF) exhibit the steepest increase in the NVMR in recent years, while the highest-SES group (HE-HF) consistently shows the lowest NVMR growth in Seoul. The NVMR increased by more than 30% points for the LE-LF group by 2023, compared to only about 20% for the HE-HF group. This pattern contrasts with non-Seoul regions, where NVMR growth among the four groups has been converging over the last several years. Another important observation is that NVMR growth was lowest for the lowest SES group until the mid-2010s in non-Seoul regions, while this group quickly caught up with others after the late 2010s.

The Chinese sample exhibits a similar pattern, as shown in Panels (Ca)-(Cc) of Figure 4. Since 2018, the gap in NVMR growth across SES groups has widened, with less-educated men experiencing the fastest increases. Panel (Ca) indicates that

<sup>7</sup>Later in this section, we also present results using residential regions and household registration status (hukou) as alternative SES measures.

<sup>8</sup>See Section 6 for a further discussion on recent trends in housing prices in the two countries.

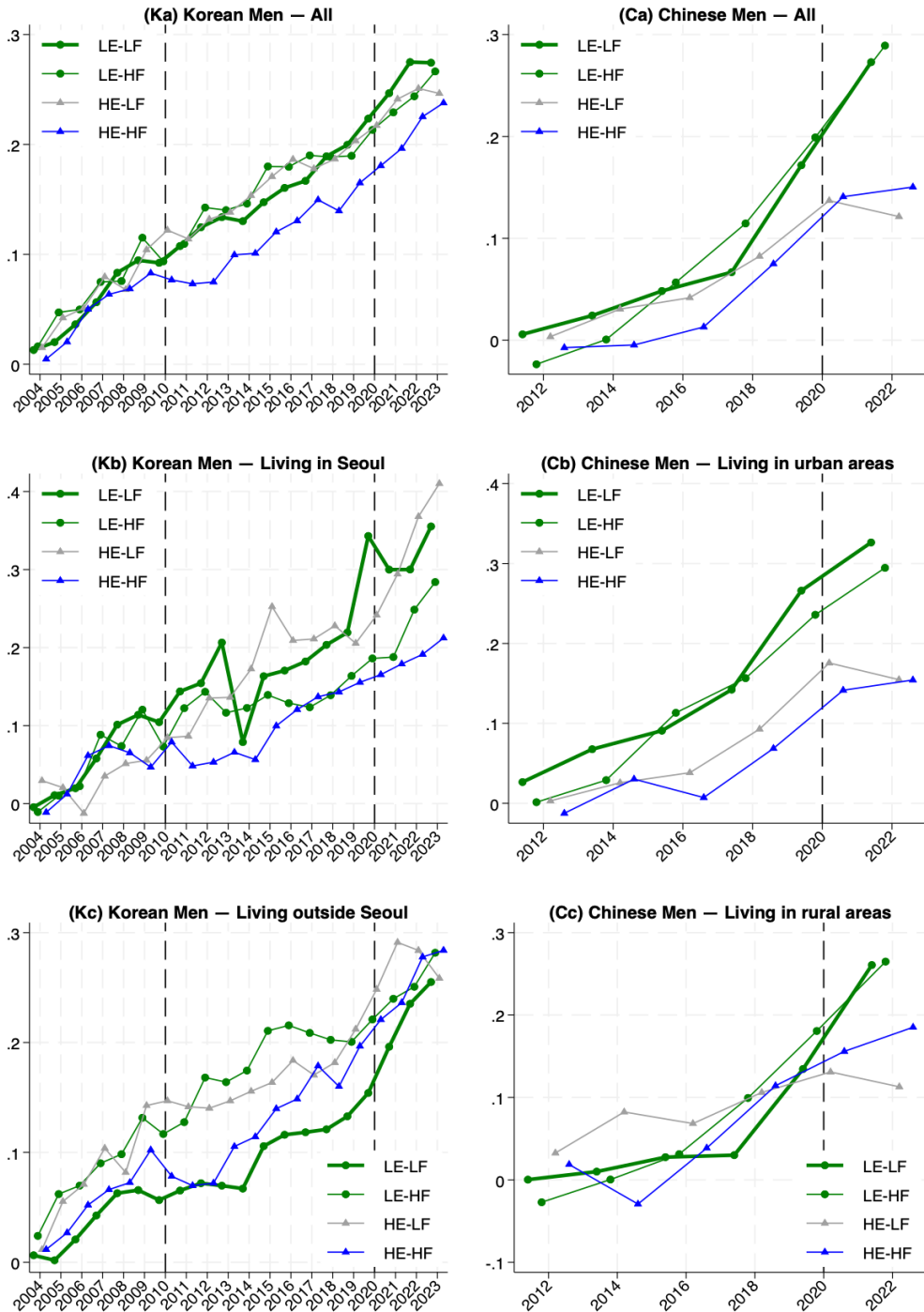


FIGURE 4. NEVER-MARRIED RATE TRENDS AMONG MEN

Note: This figure presents the estimates of  $\beta t$  for each year in Eq. (1), which captures changes in the proportion of never-married males relative to the reference year. For the Korean sample, the reference year is 2003, and for the Chinese sample, 2010 is omitted to be the reference. We divide the sample according to individual and paternal education levels: (1) LE-LF: less-educated individuals with less-educated fathers; (2) LE-HF: less-educated individuals with more-educated fathers; (3) HE-LF: more-educated individuals with less-educated fathers; and (4) HE-HF: more-educated individuals with more-educated fathers. More details are available in the text.

by 2022, their NVMR had risen by nearly 30%, while the increase is less than 15% for HE-HF men. The pattern is more pronounced among men living in urban areas, as shown in Panel (Cb). In rural areas, less-educated men also experience the largest growth in the NVMR, but group differences are smaller and the divergence begins slightly later than in urban areas, also coinciding with the pandemic period.

Overall, these findings suggest that lower-SES men in both Korea and China are experiencing the steepest decline in marriage rates, and the speed has accelerated since the mid-2010s. The pattern is far more pronounced in Seoul in urban China.<sup>9</sup> This disproportionate acceleration may indicate a widening gap in marriage opportunities due to financial constraints, effectively eroding the historical pattern in which lower-SES groups married earlier and more universally.<sup>10</sup>

### B. Trends in Never-married Rates among Women

Figure 5 presents the year-specific estimates of  $\beta_t$  for women. Panels (Ka) and (Ca) depict the NVMR growth across the four SES groups over time. Overall, NVMR growth speeds are diverging across SES groups in both Korea and China among women, but with different patterns. For Korea, the highest-SES group (HE-HF) consistently exhibits the highest NVMR growth, while lower-SES groups experienced the most rapid growth in the NVMR among Chinese women.

Panels (Kb)-(Cc) further clarify these differences. The rise in NVMR growth among HE-HF women occurs outside of Seoul. In contrast, the lowest-SES women experienced the fastest growth in never-married rates inside Seoul, consistent with the patterns for Chinese women and for Korean and Chinese men in Figure 4. The NVMR for the lowest-SES women in Seoul increased by almost 25 percentage points over the past decade (from about 0.1 to more than 0.3). The rise is comparable to that for the lowest-SES Chinese women in urban regions (from nearly 0 in 2012 to 0.3 in 2022). On the other hand, outside of Seoul, the HE-HF group exhibits the fastest growth, while that of the LE-LF groups is relatively slow. This suggests that multiple factors are at play in shaping marriage patterns among women, with financial barriers being more salient in highly urbanised areas.

These findings are notable because the rise in never-married men is often attributed to a marriage squeeze (Huang, 2014; Ebenstein, 2010) from imbalanced sex ratios in East Asia, but this logic does not apply to women. For low-SES women in urban areas, delayed marriage may result from migration (Lu and Tao, 2015), which is applicable to the Chinese case. Another potential mechanism is the growing financial burden of marriage, likely to explain the case of Korean women in Seoul and Chinese women in urban areas. Indeed, existing studies find that the major factors for marriage in Korea include rising housing costs and the high financial costs associated with having children (Jones, 2019; Lee *et al.*, 2021). Cultural shifts

<sup>9</sup>Lower-SES men in urban China are often rural-to-urban migrants who may face additional barriers to marriage due to hukou restrictions and social integration challenges. Figure 6 examines this possibility, but we do not find clear evidence that the pattern is driven specifically by male migrants.

<sup>10</sup>It is important to note that this finding captures the divergence in NVMR growth rates across SES groups, rather than differences in NVMR levels. Thus, the policy implication is that fast-growing NVMR among lower-SES groups requires attention, rather than these groups having the highest NVMR levels. Section 5 presents relevant results on NVMR levels.

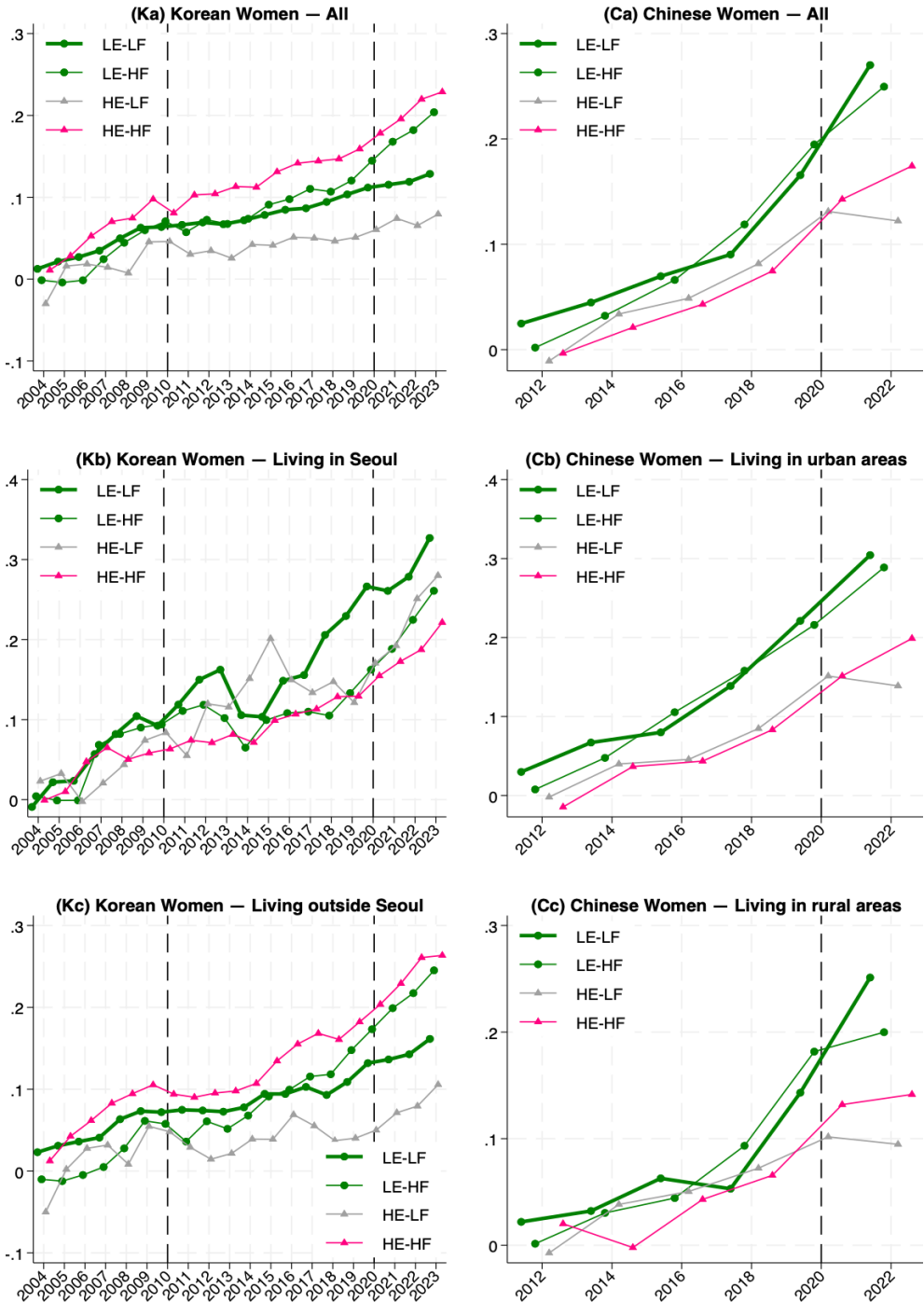


FIGURE 5. NEVER-MARRIED RATE TRENDS AMONG WOMEN

Note: This figure presents the estimates of  $\beta t$  for each year in Eq. (1), which captures changes in the proportion of never-married females relative to the reference year. For the Korean sample, the reference year is 2003, and for the Chinese sample, 2010 is omitted to be the reference. We divide the sample according to individual and paternal education levels: (1) LE-LF: less-educated individuals with less-educated fathers; (2) LE-HF: less-educated individuals with more-educated fathers; (3) HE-LF: more-educated individuals with less-educated fathers; and (4) HE-HF: more-educated individuals with more-educated fathers. Further details are available in the text.

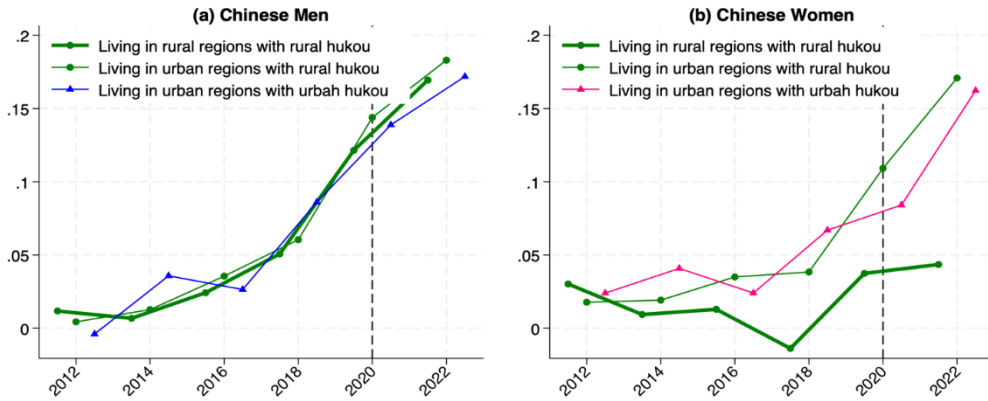


FIGURE 6. NEVER-MARRIED RATE TRENDS AMONG CHINESE ACROSS REGIONS AND HUKOU GROUPS

Note: This figure presents the estimates of  $\beta t$  for each year in Eq. (1), which captures changes in the proportion of never-married females relative to the reference year. We divide the Chinese sample according to residential area (rural vs. urban regions) and household registration status (rural hukou vs. urban hukou).

towards individualism and evolving gender norms may also play a role, although these mechanisms cannot be directly tested in this study.

In China, while education can serve as a proxy for socioeconomic status, an individual's household registration (hukou) status and residential area (urban vs. rural) are also critical determinants of SES and access to resources (Hung, 2022).<sup>11</sup> Accordingly, we divide the Chinese sample into three groups: (1) rural residents with a rural hukou, (2) urban residents with a rural hukou (i.e., migrants), and (3) urban residents with an urban hukou, considered the highest SES group.<sup>12</sup>

Figure 6 presents the results. Panel (a) shows that the NVMR among Chinese men has increased at similar rates across all three groups. Among women, growth patterns are more heterogeneous: rural residents with a rural hukou show the slowest increase, and urban residents with an urban hukou and migrants (urban residents with a rural hukou) display the fastest growth. As noted in prior research (Koh *et al.*, 2025), many women with a rural hukou migrate to urban areas seeking better marriage prospects. The rapid rise in the NVMR among female migrants possibly suggests growing challenges in finding marriage partners or mismatches within the urban marriage or labour market.

## V. Temporal Changes in Socioeconomic Differentials in Never-married Rates

Building on these growth patterns, we now shift from changes in never-married rates to level differences across socioeconomic groups. Previous figures showed that

<sup>11</sup>Hukou is the household registration system in China. All Chinese nationals' hukou statuses are classified along two dimensions: type and location. Hukou status, inherited at birth from one's parents, determines access to a range of public services and welfare programs, including education, healthcare, housing subsidies, social security, and residential permits (Song, 2014).

<sup>12</sup>Rural residents with an urban hukou, which is a rare case, are excluded due to their small sample size.

the NVMR acceleration is concentrated among individuals with both lower own and paternal education levels. This section examines whether these widening growth differentials have led to persistent level gaps or whether overall the NVMR convergence has reduced SES disparities. We also assess the role of individual income in NVMR levels and their evolution over time, and here our focus is on highly urbanised regions — Seoul and urban China. The following equation is estimated separately for each survey year:

$$(2) \quad NV_{ict} = \alpha_0 + \delta_0 LELF_i + \delta_1 LEHF_i + \delta_2 HEHF_i + \tau_c + \theta_i + \tilde{INC}_{it} + \gamma X_{it} + \varepsilon_{ict}$$

In this equation,  $LELF_i$ ,  $LEHF_i$ , and  $HEHF_i$  indicate whether  $i$  belongs to each group, as defined in Section 4.<sup>13</sup> Therefore,  $\delta_0$ ,  $\delta_1$ , and  $\delta_2$  capture differences in never-married proportions between each group and the reference group HE-LF. Note that earlier we focused on NVMR growth across the four SES groups, whereas this estimation captures the average differences in never-married rates among the four groups.  $\tilde{INC}_{it}$  indicates the log of annual personal income in each country's currency. All other variables are defined identically to how they are defined in Eq. (1).

### A. Results for the Seoul Region in Korea

Given that earlier we noted that the trends are significantly different between Seoul and non-Seoul regions, here we focus only on individuals living in the Seoul region.<sup>14</sup> To explore changes in socioeconomic differentials in marriage rates over time, we split the sample into two periods: the 2008-2015 survey years ('Past') and the 2016-2023 survey years ('Recent'). Odd-numbered columns present results based on the earlier period, and even-numbered columns use 'Recent' observations. For Korea, individuals are aged between 25 and 45, and for China, between 20 and 40. Columns 1 and 2 include all individuals, while columns 3 to 6 restrict the sample to those with income information.

**Table 2 Panel A — Seoul Men:** Columns 1 and 2 in Panel A highlight three points: First, the LE-LF group among Korean men now has the highest NVMR, up from the second-highest in the past. Their NVMR is four percentage points above the reference group (HE-LF), while the other two groups are substantially lower (-0.027 and -0.055). Second, this ranking shift appears closely associated with individual income: the gap between LE-LF and HE-LF falls from 3.1%p to 2.0%p once individual income is controlled for, with similar reductions for LE-HF (3.1 to 0.4) and HE-HF (5.8 to 1.9). In short, income strongly explains SES differences in marriage rates. A one-unit increase in log income reduces the likelihood of never having been married by 16.3-18.3 percentage points, and the effect of log annual income has grown over time (by approximately two percentage points).

<sup>13</sup>For example, LE and LF represent less-educated individuals and fathers, respectively. HE indicates more-educated individuals and HF means individuals have more-educated fathers.

<sup>14</sup>Due to a lack of observations for Seoul, we also include the surrounding regions — Gyeonggi province.

TABLE 2—DIFFERENTIAL SOCIOECONOMIC STATUS EFFECTS OVER TIME: KOREA

Panel A: Korean men in the Seoul region						
Dependent var.	All		Income info. available			
	Past	Recent	Past	Recent	Past	Recent
Never-married dummy	(1)	(2)	(3)	(4)	(5)	(6)
LE-LF	-0.010* (0.005)	0.040*** (0.009)	-0.013** (0.004)	0.031*** (0.008)	-0.017** (0.005)	0.020*** (0.004)
LE-HF	-0.068*** (0.007)	-0.027*** (0.006)	-0.069*** (0.006)	-0.031*** (0.007)	-0.023** (0.008)	-0.004 (0.007)
HE-HF	-0.059*** (0.006)	-0.055*** (0.004)	-0.061*** (0.004)	-0.058*** (0.003)	-0.018** (0.006)	-0.019*** (0.004)
Log personal income					-0.163*** (0.007)	-0.183*** (0.004)
Age fixed effects	✓	✓	✓	✓	✓	✓
City fixed effects	✓	✓	✓	✓	✓	✓
Observations	9,581	11,299	8,459	9,725	8,459	9,725
R <sup>2</sup>	0.331	0.362	0.277	0.303	0.319	0.346
Panel B: Korean women in the Seoul region						
Dependent var.	All		Income info. available			
	Past	Recent	Past	Recent	Past	Recent
Never-married dummy	(1)	(2)	(3)	(4)	(5)	(6)
LE-LF	-0.024*** (0.003)	-0.011* (0.005)	-0.044*** (0.008)	0.004 (0.010)	-0.043*** (0.008)	0.007 (0.011)
LE-HF	0.005 (0.007)	-0.007 (0.005)	-0.029** (0.012)	-0.002 (0.013)	-0.032** (0.012)	-0.003 (0.012)
HE-HF	0.053*** (0.005)	0.029*** (0.003)	0.027** (0.009)	0.045*** (0.006)	0.023** (0.009)	0.039*** (0.005)
Log personal income					0.012 (0.007)	0.030*** (0.008)
Age fixed effects	✓	✓	✓	✓	✓	✓
City fixed effects	✓	✓	✓	✓	✓	✓
Observations	9,413	11,476	5,170	6,751	5,170	6,751
R <sup>2</sup>	0.329	0.397	0.320	0.384	0.320	0.386

Note: This table presents OLS estimates based on Eq. (2). The sample is restricted to individuals residing in Seoul and the surrounding Gyeonggi province. “Past” refers to survey years 2008–2015, and “Recent” to 2016–2023. LE-LF denotes less-educated individuals with less-educated fathers, LE-HF less-educated individuals with more-educated fathers, and HE-HF more-educated individuals with more-educated fathers. HE-LF serves as the reference group. Definitions of less- and more-educated are given in Section 4. Standard errors are clustered at the survey-year level. \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

**Table 2 Panel B — Seoul Women:** For women, the HE-HF group consistently shows the highest NVMR, while LE-LF and LE-HF remain lower, and these differences are persistent and statistically significant across all specifications, ranging from 0.053 to 0.039 (columns 1 to 6). Importantly, the lowest-SES group once had higher marriage rates (i.e., lower NVMR: -0.024 to -0.044), but this tendency has nearly vanished (0.004), recalling the rapid NVMR increase in recent years, as shown in Figure 5. Unlike men, where LE-LF now have significantly lower marriage rates, female marriage rates are converging across SES groups, except for the highest-SES HE-HF group, whose NVMR continues to rise (2.7 to 4.5 percentage points). In other words, more education and having highly educated fathers are persistently associated with a higher NVMR among women. Income partially

explains this difference, as shown by the change in the HE-HF coefficients when income is controlled for: from 0.045 in column 4 to 0.039 in column 6. Income has the opposite effect compared to men, and its positive effect on the NVMR is growing: the income coefficient is small and statistically insignificant in the past (column 5; 0.012), but it becomes larger and highly significant in recent years (column 6; 0.030). In contrast, the coefficients for the other two SES groups remain close to zero in columns 4 and 6, which indicates that, unlike men, income does not explain much of the SES differences in marriage rates among women.

Another notable pattern is that the four socioeconomic indicators and income explain the variation in never-married rates better in recent years than in the past, as indicated by the increase in R-squared values across each pair of columns (e.g., from 0.331 in column 1 to 0.362 in column 2). Adding income improves the model fit for men in Panel A: R-squared increases from 0.277 to 0.319 between columns 3 and 5 and from 0.303 to 0.346 between columns 4 and 6, whereas R-squared changes very little for women in Panel B when income is included. This suggests that economic status plays a more central — and increasingly important — role in shaping marriage outcomes among men, whereas its explanatory power for women remains relatively limited.

### B. Results for Urban China

Table 3 presents results for the Chinese sample. Because the sample only covers 2010 to 2022, we define 2010 as ‘Past’ and the 2020 and 2022 samples as ‘Recent’. We restrict the sample to those living in urban areas.

Table 3 Panel A — Chinese men in urban areas: In the past (column 1), all three SES groups had a higher NVMR relative to the reference group (HE-LF), with the HE-HF group showing the largest gap (0.133). By the recent period (column 2), these gaps have narrowed: LE-LF fell from 0.047 to 0.004 and HE-HF from 0.133 to 0.054. This convergence suggests that SES differentials in marriage rates have declined over time. Controlling for income in columns 5-6, the patterns remain similar, though income shows a weak negative association with the NVMR (-0.010 to -0.020), roughly doubling over time. Thus, income plays a modest but growing role in male marriage likelihood in urban China, similar to the Korean case.

Table 3 Panel B — Chinese men in urban areas: Higher-SES women (HE-HF) consistently exhibit a higher NVMR, though the gap decreased from 0.157 to 0.106. The LE-HF group also exhibits smaller gaps in recent years (0.117 to 0.082), while LE-LF shows no significant difference from the reference group. Including income (columns 5 to 6) does not alter these patterns; the income coefficient remains small and statistically insignificant (0.005 to 0.009). This indicates that, unlike men, income does not significantly explain marriage differentials among Chinese women, largely consistent with the pattern among Korean women.

TABLE 3—DIFFERENTIAL SOCIOECONOMIC STATUS EFFECTS OVER TIME: CHINA

Panel A: Chinese men in urban areas						
Dependent var.	All		Income info. available			
	Past	Recent	Past	Recent	Past	Recent
Never-married dummy	(1)	(2)	(3)	(4)	(5)	(6)
LE-LF	0.047** (0.022)	0.004 (0.027)	0.048** (0.022)	-0.008 (0.032)	0.046** (0.022)	-0.007 (0.031)
LE-HF	0.090*** (0.021)	0.047** (0.023)	0.085*** (0.023)	0.042 (0.028)	0.090*** (0.023)	0.045 (0.027)
HE-HF	0.133*** (0.020)	0.054** (0.021)	0.130*** (0.019)	0.046 (0.028)	0.131*** (0.019)	0.050* (0.028)
Log personal income					-0.010*** (0.003)	-0.020** (0.008)
Age fixed effects	√	√	√	√	√	√
Province fixed effects	√	√	√	√	√	√
Observations	2,402	3,201	2,296	2,384	2,296	2,384
R <sup>2</sup>	0.552	0.662	0.501	0.637	0.504	0.640

Panel B: Chinese women in urban areas						
Dependent var.	All		Income info. available			
	Past	Recent	Past	Recent	Past	Recent
Never-married dummy	(1)	(2)	(3)	(4)	(5)	(6)
LE-LF	0.023 (0.014)	-0.011 (0.023)	0.017 (0.013)	-0.041 (0.025)	0.016 (0.013)	-0.041 (0.024)
LE-HF	0.117*** (0.020)	0.082*** (0.027)	0.097*** (0.021)	0.048 (0.035)	0.089*** (0.020)	0.044 (0.034)
HE-HF	0.157*** (0.025)	0.106*** (0.023)	0.139*** (0.027)	0.083*** (0.028)	0.130*** (0.026)	0.077*** (0.026)
Log personal income					0.005*** (0.001)	0.009 (0.005)
Age fixed effects	√	√	√	√	√	√
Province fixed effects	√	√	√	√	√	√
Observations	2,698	3,210	2,573	2,082	2,573	2,082
R <sup>2</sup>	0.547	0.728	0.453	0.686	0.456	0.687

Note: This table presents OLS estimates based on Eq. (2). The sample is restricted to individuals residing in urban regions. “Past” refers to the survey year 2010, and “Recent” to 2020–2022. LE-LF denotes less-educated individuals with less-educated fathers, LE-HF less-educated individuals with more-educated fathers, and HE-HF more-educated individuals with more-educated fathers. HE-LF serves as the reference group. Definitions of less- and more-educated are given in Section 4. Standard errors are clustered at the provincial level. \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

### C. Income Gradients in Never-married Rates Over Time in Both Countries

To examine temporal changes in the link between marriage likelihood and individual financial conditions further, we regress never-married status on individual income percentiles for each survey year separately, controlling for age and regional fixed effects.<sup>15</sup> Figure 7 presents the estimated coefficients, with the never-married indicator scaled such that 100 corresponds to never-married and 0 otherwise. Thus, the y-axis reflects the association between income and the NVMR. The top panel reports results for highly urbanised areas — Seoul in Korea and urban regions in

<sup>15</sup>Income percentiles are calculated separately by gender.

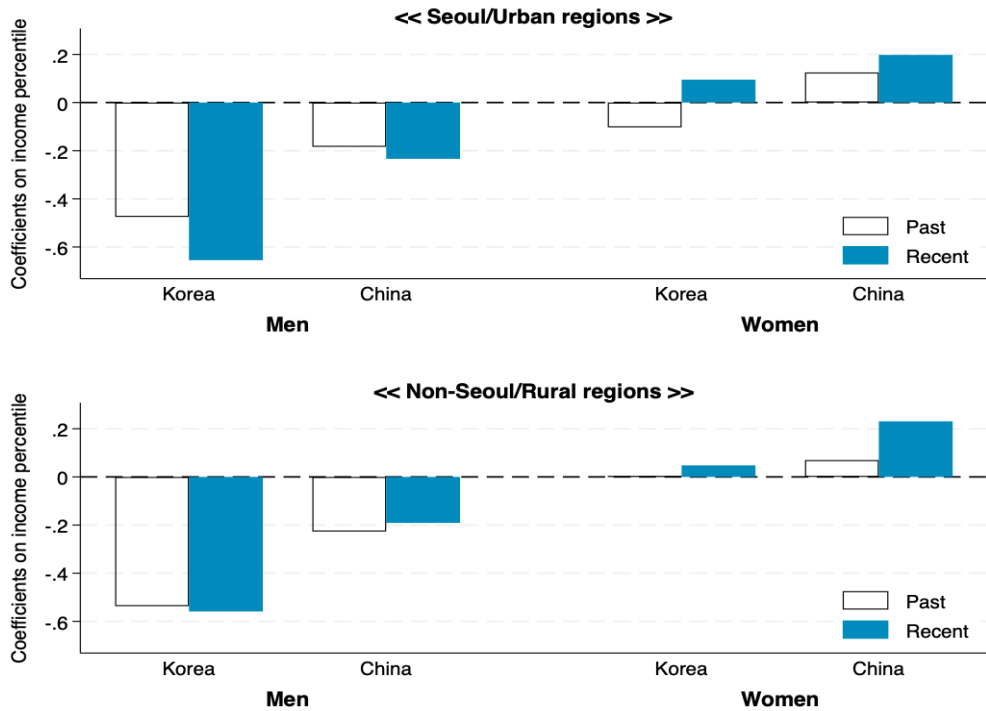


FIGURE 7. CORRELATION BETWEEN NEVER-MARRIED RATES AND INDIVIDUAL INCOME PERCENTILE

*Note:* This figure presents the estimated coefficients of income percentile on a binary indicator of being never married (scaled so that this never-married indicator equals 100 for never-married individuals and 0 otherwise). The estimation is based on a regression of never-married status on individual income percentiles for each survey year separately, controlling for age and regional fixed effects. Thus, the y-axis reflects the association between income and never-married rates. The top panel reports results for highly urbanised areas — Seoul in Korea and urban regions in China — while the bottom panel presents estimates for less urbanised areas, i.e., non-Seoul regions in Korea and rural regions in China. Past corresponds to survey years 2013 for Korea and 2010 for China, and Recent refers to survey years 2023 for Korea and 2020 for China, a decade later.

China — while the bottom panel shows estimates for less urbanised areas, non-Seoul regions in Korea and rural regions in China. ‘Past’ refers to survey years 2013 for Korea and 2010 for China, and ‘Recent’ refers to survey years 2023 for Korea and 2020 for China, a decade later.

The results reveal several patterns. First, for men in both countries, there is a clear negative correlation between income and never-married rates, indicating that higher income is associated with a lower likelihood of never having been married. For example, in Seoul in recent years, the income coefficient is approximately -0.6, suggesting that for every unit increase in income percentile, the probability of never having been married decreases by 0.6 percentage points. Second, this negative correlation has strengthened over time, particularly in highly urbanised areas. In Seoul, the income coefficient for men changed from approximately -0.45 in the past to -0.6 in recent years. This pattern is observed among urban Chinese men, where the coefficient moves from above -0.1 to below -0.2. Next, the correlation between income and the never-married rate is opposite among women in both countries in recent years. In Seoul, the income coefficient for women is around 0.2 in recent years, indicating that higher incomes are associated with a higher likelihood of never

having been married. This positive correlation has also strengthened over time, as the coefficient was negative in the past. A similar pattern is observed among urban Chinese women, where the coefficient increases from far below 0.2 to close to 0.2. The bottom panel shows that these patterns also hold in less urbanised areas, but changes in the strength of the correlations are less pronounced for men. Overall, the results indicate that the association between individual income and marriage likelihood has intensified over time.

## VI. Discussion

### A. Macroeconomic Environments and Marriage Trends

The results presented above suggest that the recent rapidly growing NVMR among lower-SES individuals in both Korea and China may be linked to broader macroeconomic challenges that disproportionately affect these groups. One such challenge is the dramatic rise in housing prices, which has significantly increased the financial barriers to marriage and family formation in East Asia.

Figure 8 and Figure A1 confirm that housing affordability has worsened considerably in both countries over the past decade. Crucially, these price increases have disproportionately impacted lower-income households, as evidenced by the widening gap in the price-to-income ratio (PIR) across the income groups in Panel (b) of Figure 8. In 2006, low-income households needed approximately six years of income to afford a home; however, this number began to climb after 2010, reaching ten years by 2016. The PIR gap between low-income households and middle/high-

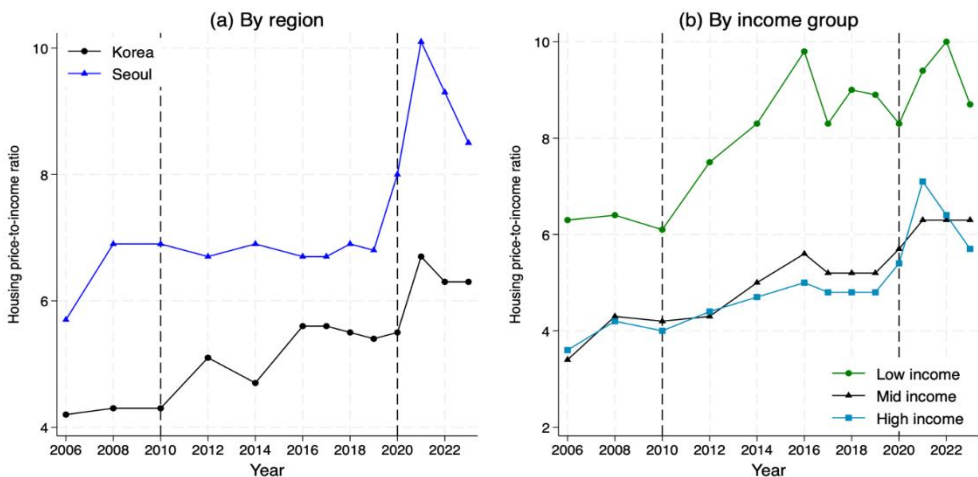


FIGURE 8. RECENT TRENDS IN THE HOUSING PRICE-TO-INCOME RATIO IN KOREA

Note: This figure displays the housing price-to-income ratio (PIR) in Korea, which is an indicator that measures housing affordability calculated by dividing median home prices by median annual household income. The data comes from the “Housing Condition Survey” of the Korean Ministry of Land, Infrastructure and Transport. ‘Seoul’ indicates the broader metropolitan area, including Seoul, Incheon and Gyeonggi province. Income groups in Panel (b) are categorised by monthly disposable household income: low income (deciles 1-4), mid-level income (deciles 5-7), and high income (deciles 8-10).

income households has widened since 2010 as well, which suggests that overall housing price increases may disproportionately affect individuals of a lower socioeconomic status. China has also experienced similar trends over the last decade. Hu *et al.* (2022) analyse the PIRs for 336 cities in China, finding that the urban PIR had been stable until 2015 but surged rapidly afterwards until 2020, as shown in Figure A1.

These macroeconomic challenges likely accelerated the NVMR increases among lower-SES individuals by exacerbating the financial burdens associated with marriage and child-rearing. For example, using China's 2010 Population Census data, Qiu and Liu (2025) find that a ten percent increase in housing prices delays the age of first-time marriage by 0.91 months for the urban-hukou population. Similarly, Lee *et al.* (2021) find that housing prices have been a delaying factor in marriage in Korea. These findings suggest that rising housing costs create significant barriers to marriage, particularly for lower-SES individuals, who are more sensitive to financial constraints.

### B. *Delaying Marriage versus Opting not to Marry*

A question that arises when exploring the recent, rapidly growing NVMR is whether this trend reflects postponed marriages or individuals choosing permanent singlehood. To investigate this, we divide the sample into two age groups — younger (20-30 for China; 25-35 for Korea) and older (30-40 for China; 35-45 for Korea). We then estimate Eq. (1) separately for each age group and SES group. These results are presented in Figure 9, which shows the estimated coefficients of year dummies ( $\beta_t$ ) from Eq. (1) for each year, capturing changes in the proportion of never-married individuals relative to the reference year (2013 for Korea; 2010 for China).

The results indicate that in China (Panels a and b), recent declines in marriage rates are concentrated among individuals in their twenties, suggesting that the trend reflects delayed marriage. This pattern is especially pronounced among less-educated groups.<sup>16</sup> A similar pattern is observed among Korean women.

In contrast, Korean men exhibit rapid increases in their NVMR across both younger and older cohorts. Among younger men (Panel c), the four SES groups do not diverge substantially.

However, the pattern among older men (Panel d) is markedly different. Korean men aged 35-45 show sizable increases in their NVMR, with the largest rise occurring among lower-SES groups. Panel (d) indicates that the LE-LF group experienced roughly a 15-percentage-point increase between 2013 and 2023, compared to less than five percentage points for the HE-HF group. This widening gap suggests that in Korea, the rising NVMR among lower-SES men reflects not only delayed marriage but an emerging pattern of long-term or permanent singlehood. This distinction is important: whereas the age profile of changes among Chinese and Korean women points primarily to delayed marriage, the trajectory for Korean men indicates deeper structural barriers to family formation, particularly for those with fewer socioeconomic resources.

<sup>16</sup>Because earlier results show no meaningful differences in recent trends between Chinese men and women across SES groups, we combine the male and female samples here for simplicity in this figure.

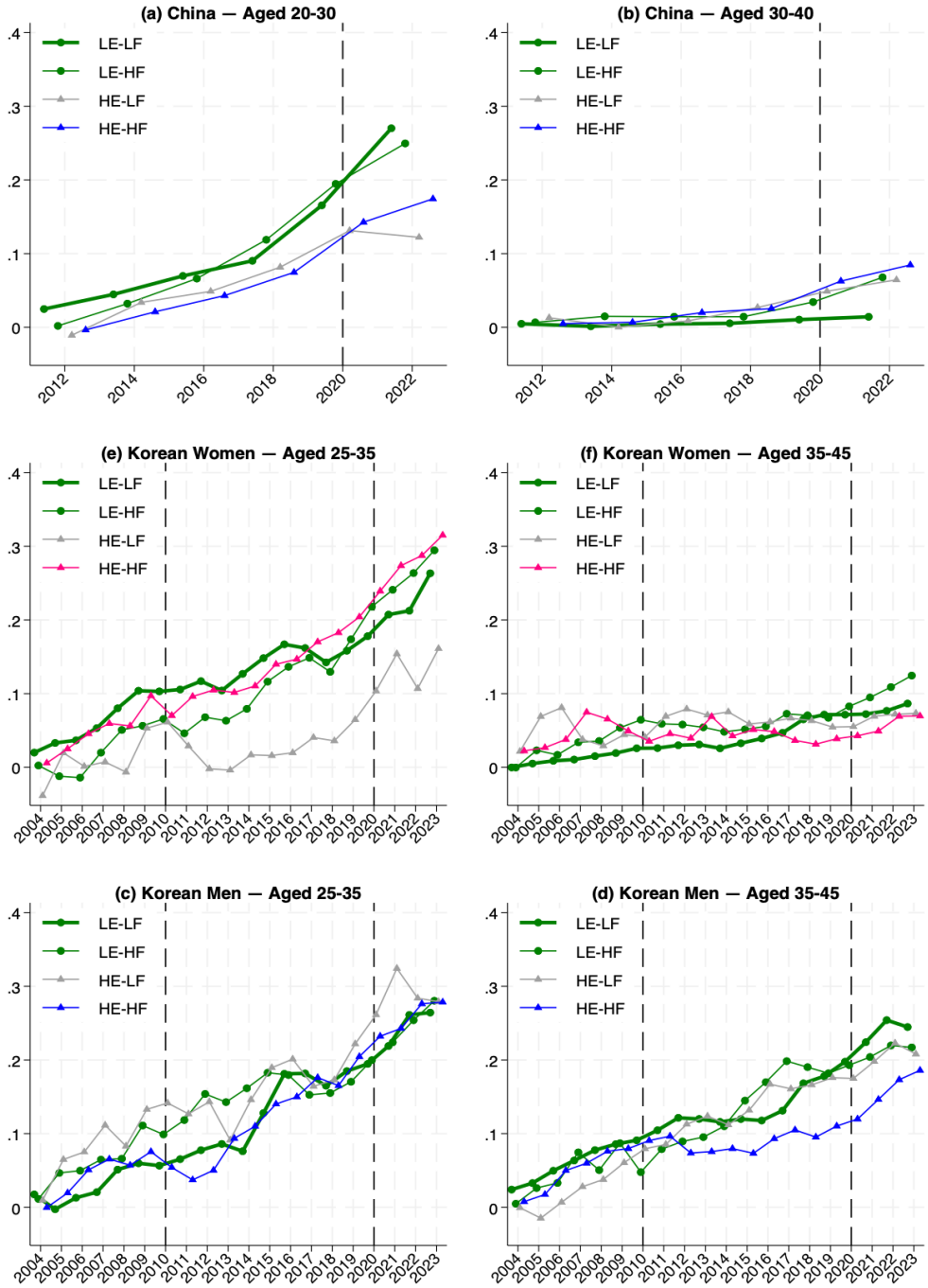


FIGURE 9. NEVER-MARRIED RATE TRENDS BY AGE GROUP

Note: This figure presents the estimates of  $\beta_t$  for each year, which captures changes in the proportion of never-married males relative to the reference year. For the Korean sample, the reference year is 2003, and for the Chinese sample, 2010 is omitted to be the reference.

### C. Policy Implications

The findings of this study suggest two main policy intervention directions. First, because never-married rates have increased most rapidly among low-SES individuals in highly urbanised areas, policies should prioritise reducing the financial barriers to marriage and early family formation. Rising housing costs, income instability, and high expected child-rearing expenses appear to deter marriage disproportionately among these groups in recent years. Targeted support — such as housing assistance for young adults, preferential mortgage or rental schemes for first-time households, and programmes that improve income security for low-SES youth — may help ease these constraints. Reductions in anticipated family costs, including expanded public childcare and more accessible parental leave, may further lower the economic threshold associated with marriage.

Second, the faster pace of NVMR growth among lower-SES groups has led to convergence in overall NVMR levels, which suggests that delayed or forgone marriage is becoming a general phenomenon across all socioeconomic groups. Figure 10 shows that the NVMR gaps between high- and low-SES groups have narrowed in both Korea and China over the past decade, except for that of Korean



FIGURE 10. CONVERGENCE IN NEVER-MARRIED RATES ACROSS SOCIOECONOMIC GROUPS

*Note:* This figure displays the proportion of never-married individuals according to socioeconomic status (SES) groups in Korea (Panels a and b) and China (Panels c and d). For the Korean sample, SES groups are defined based on individual education and paternal education, as in the previous analyses. For the Chinese sample, SES groups are defined based on residential and household registration locations. The y-axis represents the never-married rate, while the x-axis indicates the survey years.

men.<sup>17</sup> This narrowing is driven by the lower-SES groups — who historically married earlier and more universally — experiencing the most rapid acceleration in singlehood, thereby eroding their previous advantage in family formation.

This convergence implies that policies should not focus solely on targeted economic incentives for marriage but also on adapting institutional frameworks to reflect these broad structural shifts. Rather than attempting to reverse emerging attitudes toward autonomy, gender equality, or life-course diversity, governments could redesign existing systems to be less dependent on marital status — such as expanding eligibility for housing, taxation, and social insurance benefits to single-person and non-traditional households. Strengthening support for well-being and social inclusion regardless of marital status may be essential if attempting to align policy with this emerging demographic landscape.

Together, these approaches acknowledge both the financial constraints that disproportionately affect disadvantaged groups and the broader structural and cultural shifts that are reshaping family formation in contemporary East Asia.

## VII. Conclusion

This study examines how socioeconomic status (SES) — measured through individual education, parental education, and personal income — explains recent declines in marriage rates in Korea and China. By analysing nationally representative longitudinal data from both countries, the study reveals the following:

First, across both countries, individuals with lower SES levels have experienced the fastest recent increases in never-married rates (NVMR). These patterns are especially pronounced in highly urbanised areas such as Seoul and in Chinese cities, where rising living costs and financial pressures appear to impose stronger barriers to marriage. This trend, coupled with the strengthening positive association between male income and marriage entry, suggests that financial barriers — such as housing costs and income instability — are increasingly determining who marries and when.

Second, a cross-national distinction emerges: while the rise in the NVMR in China primarily reflects delayed marriage among younger cohorts, Korea exhibits clearer signs of permanent singlehood, specifically among lower-SES men aged over 35. This difference suggests that shared demographic trends across East Asia may be driven by both common structural pressures and also country-specific institutional or cultural factors.

Third, despite the diverging pace of growth (faster among lower-SES groups), overall NVMR levels are converging. This convergence indicates that the historical pattern, where lower-SES individuals married earlier and more universally, is eroding. While economic constraints drive the acute rise among disadvantaged groups, this universal upward movement suggests that broader structural and cultural shifts — including changing gender norms and rising opportunity costs — are reshaping marriage behaviours across the entire population.

These findings suggest that addressing the deepening economic disparity in access

<sup>17</sup>Age ranges for this figure are 35-45 for Korea and 20-30 for China. These ranges are selected to draw policy implications based on each country's circumstances.

to family formation requires the targeting of specific economic hurdles, including housing affordability and income instability. Furthermore, the convergence in non-marriage levels implies that institutional frameworks must adapt to reduce dependence on marital status, ensuring support for the growing number of single-person households. Given that the present analysis relies on correlational patterns, future research should prioritise causal identification and explore how cultural, institutional, and economic forces interact to shape marriage behaviour in rapidly changing East Asian societies.

APPENDIX

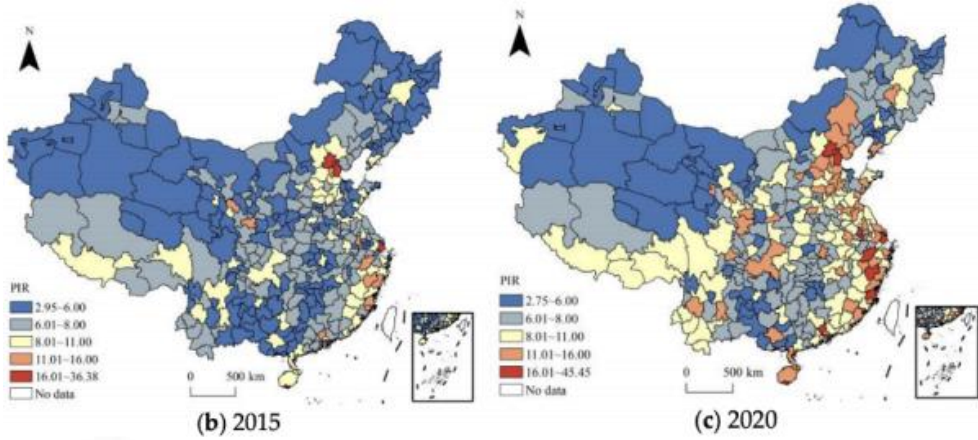


FIGURE A1. RECENT TRENDS IN THE HOME PRICE-TO-INCOME RATIO IN CHINA

Note: This figure displays the home price-to-income ratio (PIR), an indicator that measures housing affordability, across regions in China.

Source: Hu *et al.* (2022), Figure 1.

TABLE A1—COMPARISON WITH CHINESE POPULATION CENSUS 2015

	Chinese Males		Chinese females	
	2016 sample	2015 Census	2016 sample	2015 Census
Never-married	0.33 (0.47)	0.36 (0.48)	0.21 (0.41)	0.25 (0.43)
Age	29.79 (5.71)	29.90 (5.88)	29.46 (5.73)	29.87 (5.85)
Middle school or below	0.58 (0.49)	0.54 (0.50)	0.58 (0.49)	0.55 (0.50)
High school	0.20 (0.40)	0.22 (0.42)	0.20 (0.40)	0.20 (0.40)
Three-year college	0.12 (0.32)	0.12 (0.33)	0.13 (0.33)	0.13 (0.33)
Four-year university	0.09 (0.29)	0.11 (0.31)	0.09 (0.28)	0.11 (0.31)
Master’s degree or above	0.01 (0.11)	0.01 (0.10)	0.01 (0.09)	0.01 (0.11)
Living in Urban areas	0.50 (0.50)	0.45 (0.50)	0.50 (0.50)	0.46 (0.50)
Observations	6,638	275,299	6,473	265,921

TABLE A2—COMPARISON WITH KoWePs

	Males		Females	
	KLIPS (1)	KoWePs (2)	KLIPS (3)	KoWePs (4)
Never married	0.45 (0.50)	0.49 (0.50)	0.33 (0.47)	0.42 (0.49)
Age	34.45 (7.07)	35.45 (6.48)	34.14 (7.24)	34.88 (6.26)
Personal income	3450.43 (2145.53)	2644.10 (7141.23)	2154.93 (1540.87)	1192.82 (3237.46)
Seoul	0.19 (0.39)	0.21 (0.41)	0.20 (0.40)	0.22 (0.41)
Middle school or below	0.02 (0.13)	0.07 (0.25)	0.02 (0.15)	0.09 (0.28)
High school	0.25 (0.43)	0.30 (0.46)	0.29 (0.46)	0.30 (0.46)
Three-year college	0.24 (0.43)	0.20 (0.40)	0.26 (0.44)	0.23 (0.42)
Four-year university	0.43 (0.49)	0.39 (0.49)	0.37 (0.48)	0.34 (0.47)
Master's degree or above	0.06 (0.24)	0.04 (0.20)	0.04 (0.20)	0.03 (0.18)
Observations	57,819	24,762	58,801	29,041

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