

## **Who Lives Alone in Korea?**

Seungwan Kim, Centro de Estudios Demográficos

Albert Esteve, Centro de Estudios Demográficos

### **Background**

According to World Bank data, South Korea's fertility rate in 2021 was 0.81, still the lowest in the world. The media often uses the term 'The Sampo Generation' (Korean: 삼포세대; Chinese: 三抛世代; RR: samposedae), meaning 'Three Giving-Up Generation,' to describe individuals who are said to have given up on three things: dating, marriage, and child-rearing. Although not a perfect measure, the increase in single-person households among age groups, who are potentially in a marital transition period, reflects a social phenomenon of reluctance to move forward in forming marital union and childrearing.

This situation raises questions about how living arrangements in South Korea have changed and whether these changes have occurred uniformly across different social groups or have had heterogeneous effects. This paper aims to understand the trends in living arrangements in South Korea and the possible social factors influencing these changes. In particular, this paper focuses on single-person households (living alone household) that have the potential to form a union and have children during the marital transition age.

### **Previous studies**

Chang et al. (2024) used discrete-time hazard models incorporating 23 waves of KLIPS data (1998–2020) to identify the gendered determinants of marriage. They found that parental wealth and income are positively related to men's likelihood of marriage. For women, income and parental wealth have also become important, but high educational attainment remains negatively associated with the probability of marriage in Korea.

Similarly, Lim (2021) utilized the Korean Labor and Income Panel Study (1998–2017) and discrete-time hazard models to examine the relationship between various socioeconomic indicators and the transition to first and second births. The study found that socioeconomically disadvantaged married couples tend to delay their transition to parenthood. Additionally, those with high socioeconomic status (SES) are more likely than their lower SES counterparts to have a second child.

Both studies weigh more on the significance of economic wealth in the transition to marriage and parenthood. However, Tan and Yu (2024), using sequence analysis with the Korean Longitudinal Survey of Women and Families, highlight that women who grew up with parents of higher socioeconomic status and in smaller families are more likely to experience delayed or declined marriage and fertility. In contrast, being born in a non-metropolitan area is associated with earlier family formation. This study places greater emphasis on the life course circumstance such as the sociocultural environment in which individuals are raised.

We propose that examining living arrangements can help reconcile these divergent empirical findings and their potentially conflicting implications. Three possible pathways exist: directly forming a new household with a partner from the parental home, establishing a single-person household before transitioning to marriage, or continuing to live alone without entering a marital union. The decision to live alone may be influenced by an individual's or family's socioeconomic status, which in turn shapes life course circumstances. Understanding these pathways provides a more nuanced perspective on marriage and fertility trends.

At the same time, we acknowledge that while economic wealth and life course circumstances can partially explain marital and fertility transitions, the broader and more significant driving factor may be the ideational changes suggested by the second demographic transition theory. If these ideational changes are more influential than other factors, we may find that the socioeconomic status of individuals or their family backgrounds has a less significant effect on living arrangements. Instead, the influence may lie more with the recent cohort, who holds different views on living arrangements, marriage, and parenthood compared to older generations.

## **Data**

This paper uses two data sets. First, we have 1% micro-sampling data from the Korean census spanning from 1970 to 2020, which we use to show the historical changes in living arrangements. Second, we use data from the 25 waves of Korean Labor and Income Panel Study (1998-2022) to examine the possible socioeconomic factors influencing variations in living arrangements in Korea.

## **Research Method**

Two research methods are mainly used: 1. logistic regression, 2. event history analysis.

## **Preliminary results**

According to micro-sample data from the Korean census (1970–2020), we observe a gradual increase in single-person households (household size = 1) and two-member households (household size = 2), while households with more than four members have become increasingly rare by 2020 (Figure 1).

**[Figure 1 insert here]**

In the 2020 micro-sample census data, more than 50% of households are either single-person or two-member households.

More specifically, we see a clear increase in the proportion of single-person households in more recent cohorts (Figure 1-a). Additionally, all cohorts show a high proportion of individuals living alone in old age, indicating issues related to longevity and an aging population that has lost their partners.

**[Figure 1-a insert here]**

When we stratify the groups by sex, we find that living alone has become a more common arrangement for both men and women in younger cohorts (Figure 1-b). However, younger male cohorts show a higher proportion of single-person households compared to their female counterparts. Conversely, older female cohorts exhibit a higher proportion of single-person households than older male cohorts, reflecting differences in survival rates in old age.

**[Figure 1-b insert here]**

When we more focused on data after 1995 given that Korea IMF crisis in 1997, which has changed the socioeconomic environment, particularly labor market, and marital status. In 2000, there were 3,691 never-married female households living alone (Figure 2), which grew to 12,919 by 2020 (Figure 3)—a 3.5-fold increase. Similarly, male households in 2000 numbered 5,512 (Figure 2), rising to 20,175 in the 2020 census sample (Figure 3). Even considering overall population growth, 6.5% of the sample households in 2000 were never-married individuals living alone, compared to 15% of the sample in 2020. In both 2000 and 2020, never-married individuals living alone consisted of approximately 40% females and 60% males.

**[Figure 2, 3 insert here]**

Given the macro-level trend of living alone households in Korea, we turned to the KLIPS data, which provides more detailed information about households through a panel data setting. This data allows us to track changes in household members, including who moves

out to establish new households, who moves in, and when two different households combine into one. For example, we limited the analysis to 4,974 households that were sampled and successfully interviewed in the first wave, then created a sequence plot to show how the number of household members changed across the waves. As shown in Figure 4, the number of household members in many households changes over time. When the number decreases, it typically indicates that some household members have moved out to establish new households, except in cases where the decrease is due to a member's death.

**[Figure 4 insert here]**

We pooled out the newly established households in each wave and do the logistic regression. When the newly established household is single-person households (living alone) then we coded 1, and otherwise we coded it 0. The regression model has following covariate : birth cohort category of household head of newly established household, their employment status (employed/unemployed), sex of household head, education attainment of household head, and residential area (region). This regression model is more focused on individual characteristics of who move-out rather than their family background such as parent's SES, economic wealth such as asset, income etc. Also, we only include aged less than 40 in consideration of recent average age of first marriage of men and women is 34, 31 in each.

**[Figure 5 insert here]**

According to the results, individuals born between 1980 and 1989 are 2.8 times more likely to live alone compared to those born between 1970 and 1979. Those born in or after 1990 are 9.2 times more likely to live alone compared to individuals born in 1970–1979, although this group is relatively young to be in the marriage market. Females are 3.9 times more likely to live alone compared to males. Being employed increases the likelihood of living alone by 1.4 times compared to being unemployed, although this is statistically significant only at a p-value of less than 0.1. Education level does not show a statistically significant effect on living alone, and living outside of Seoul is associated with a lower likelihood of living alone.

**Next Steps/Expected finding**

First, we will include additional economic factors such as individual income and assets, as well as family background variables like parental SES and economic wealth. This approach will allow us to examine whether the economic wealth of parents (the origin household) influences the decision to live alone, similar to findings in studies on marriage (Chang et al., 2024) and parenthood (Lim, 2021). Second, we will conduct an event history analysis to

explore whether family background and individual economic factors impact the timing of living alone. Based on preliminary results, we anticipate that cohort effects will significantly influence the likelihood of living alone at the individual level, even when accounting for economic factors. Regarding family background, whether our findings align with other studies or reveal new patterns, both outcomes will be informative and of interest to family demographers, contributing to our understanding of Korea's current low fertility rates and the popular notion of the 'Three Giving-Up Generation.'

Figure 1. Proportion of Households by Household Size Category 1970-2020 in Korea.

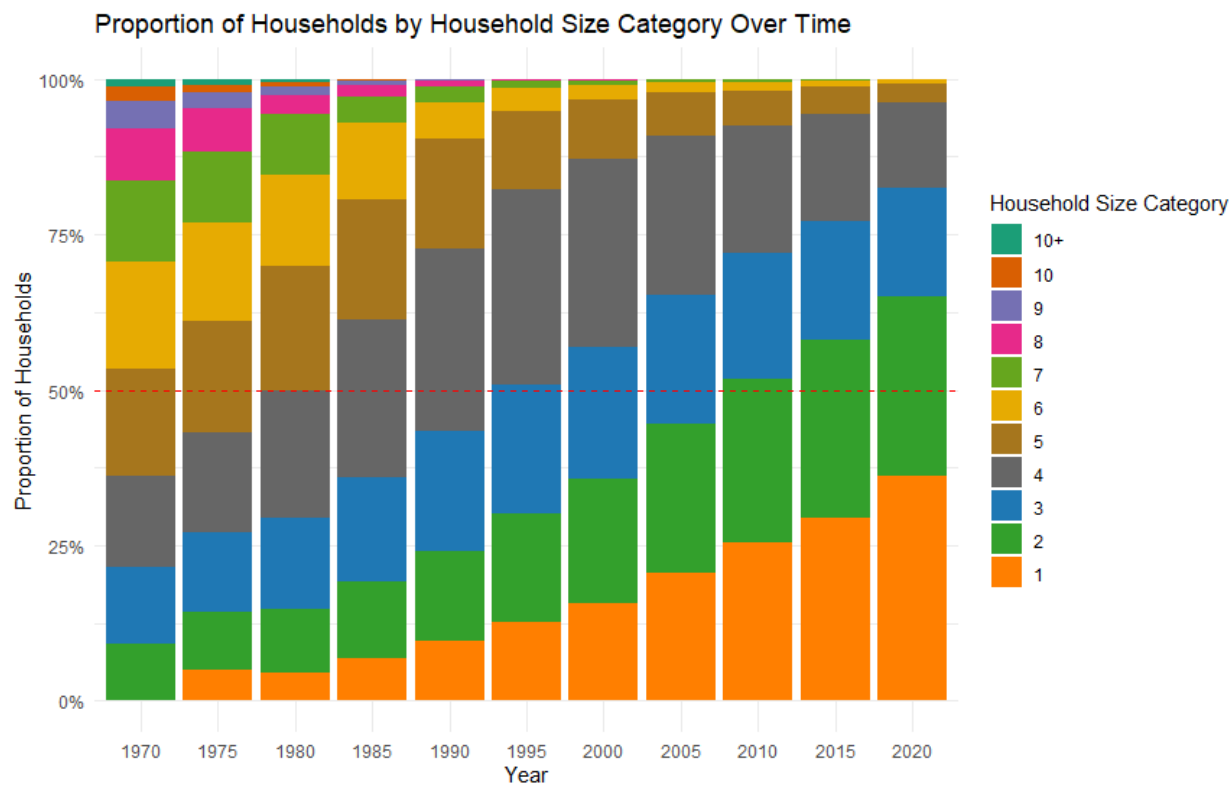
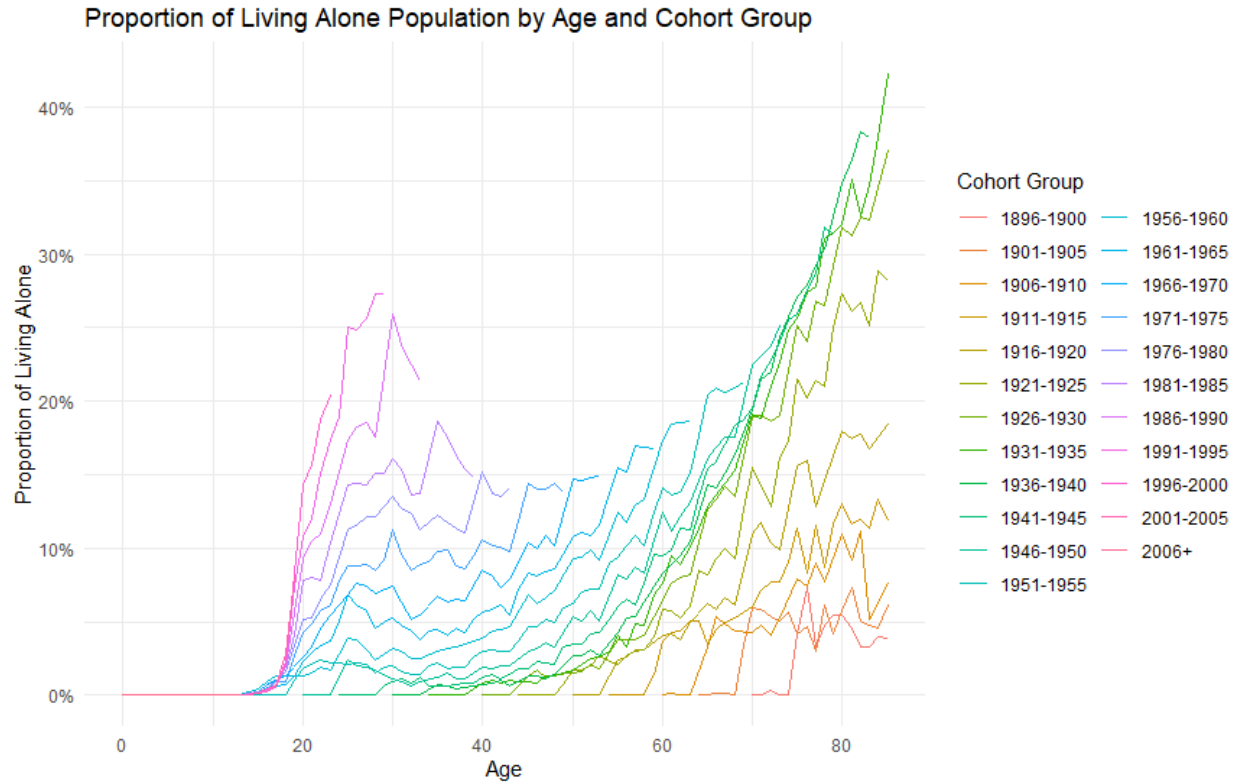


Figure 1-a.

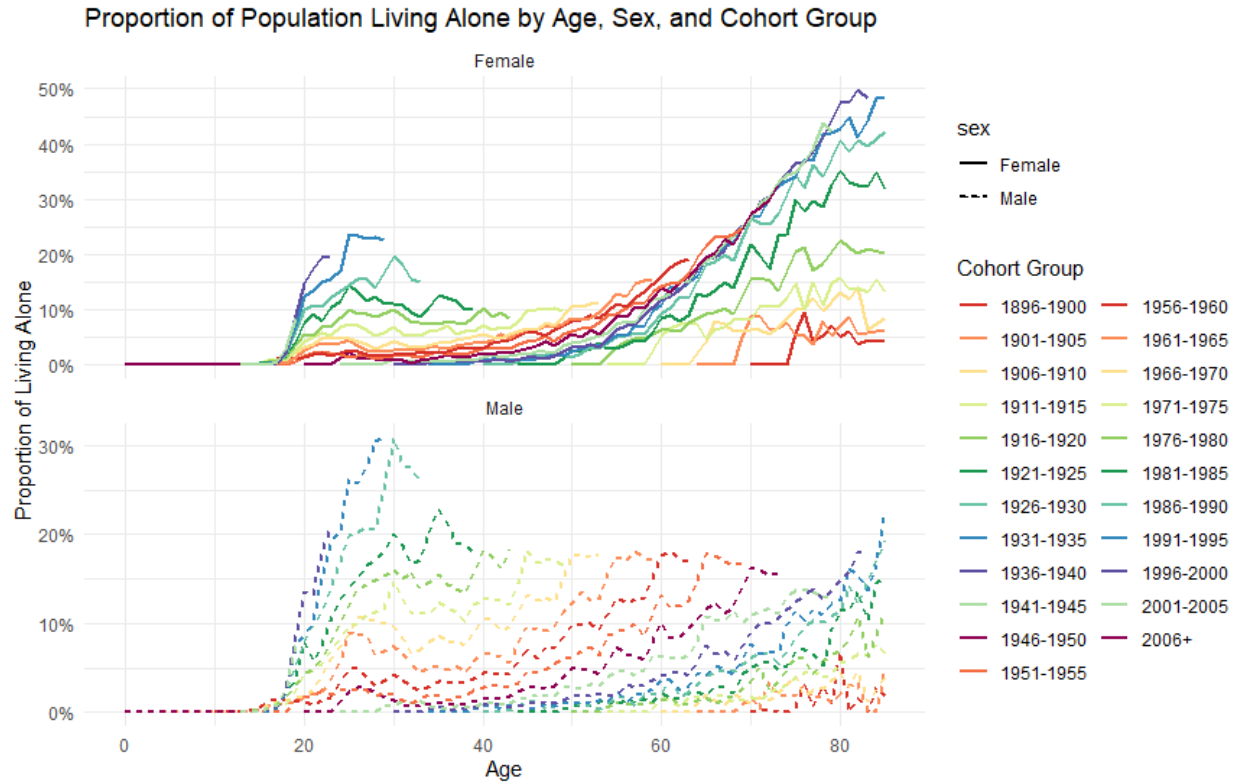


Proportion of living alone = number of living alone household of each birth cohort at that age / number of total households of each birth cohort at that age

Note: 1955-1963 is first baby boomer generation in Korea , and 1964-1974 as second baby boomer generation.

Also, this census has 5 years cycle, there is some spike appeared in 5 year term.

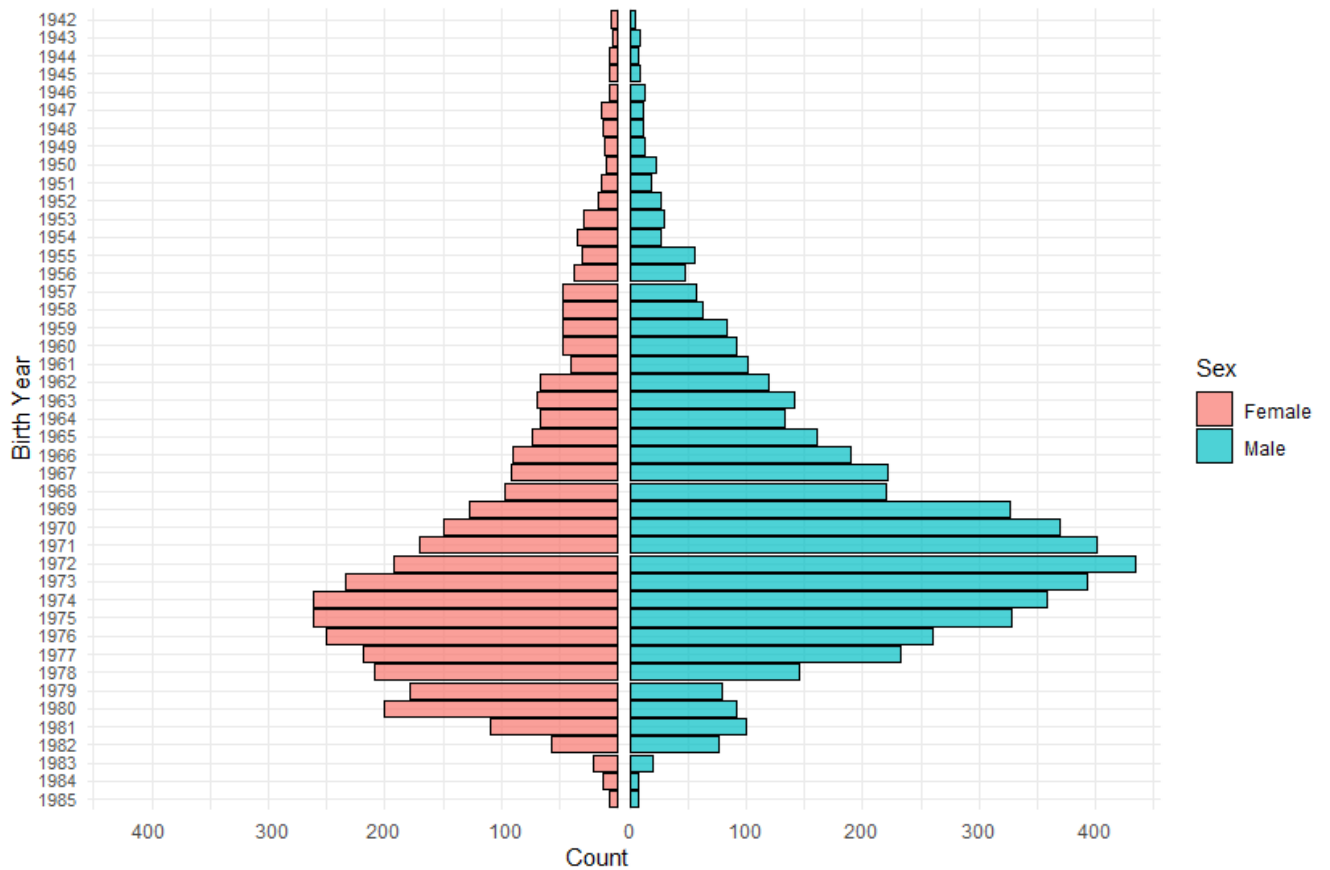
Figure 1-b. By sex



Before calculating, filter out all females to calculate the proportion of females living alone within the female group, and vice versa for males. Calculate the proportion of living alone as follows:

Proportion of living alone = number of female living alone households of each birth cohort at that age / number of total households of each birth cohort at that age.

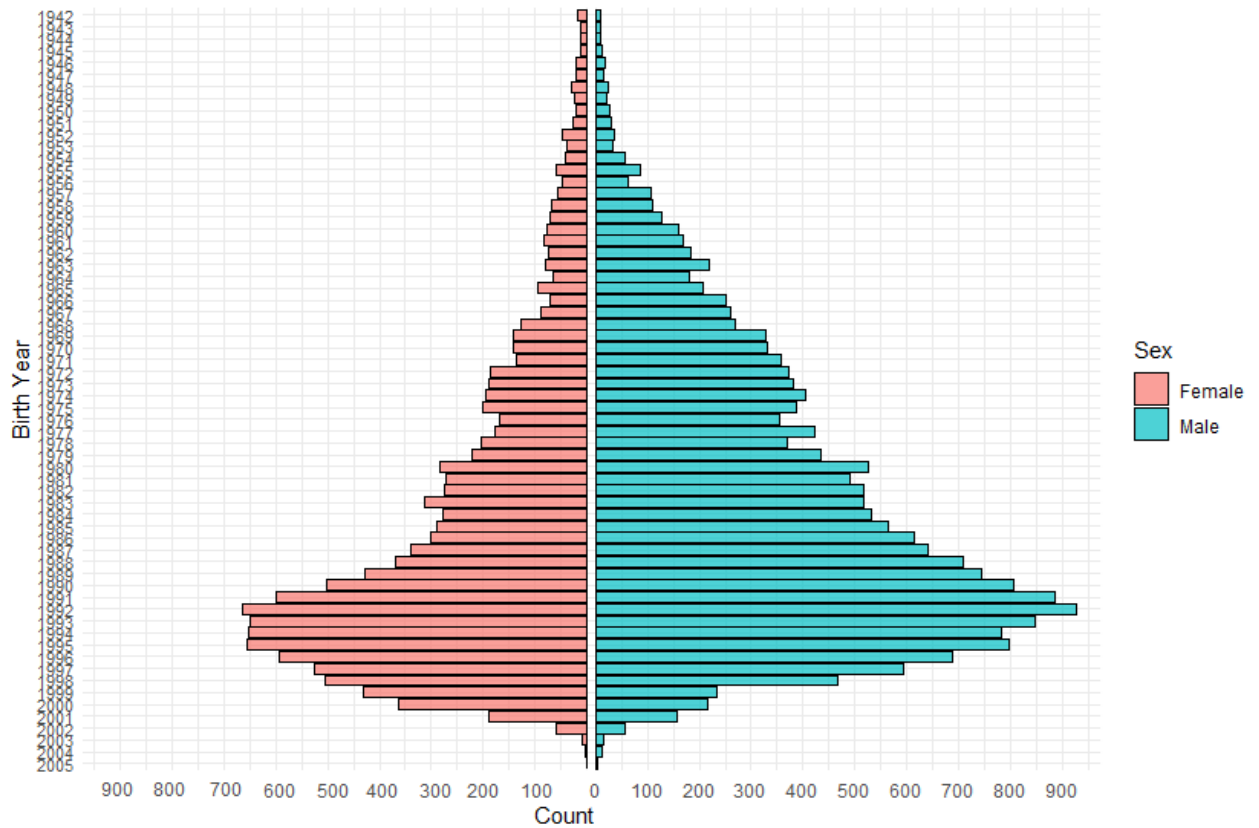
Figure 2. Population pyramid of never-married living alone household from 1% micro sample of 2000 Korea Census data (# of unique household: 142,995, # of individuals: 442,091)



Note: Total number of never-married living alone female is 3691, for male is 5512.



Figure 3. Population pyramid of never-married living alone household from 1% micro sample of 2020 Korea Census data (# of unique household: 209,295, # of individuals: 463,446)



Note: Total number of never-married living alone female is 12919, for male is 20175

Figure 4. Sequence plot of living arrangement changes across 25 waves in the KLIPS data for 4,974 households sampled and successfully interviewed in the first wave.

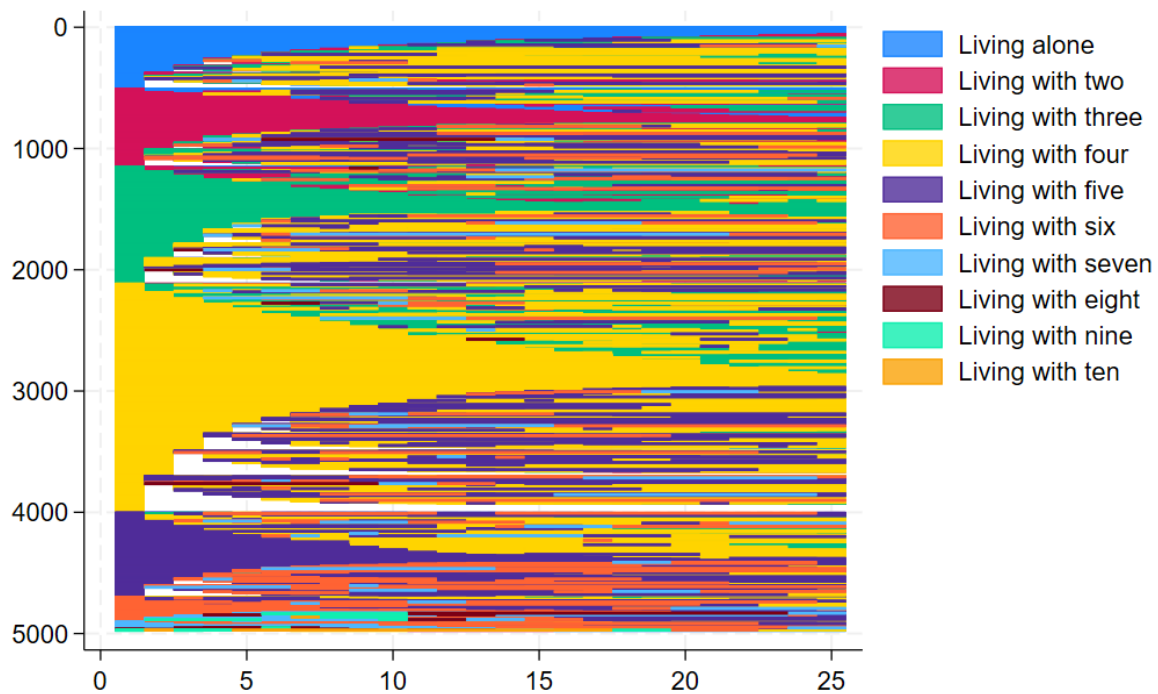
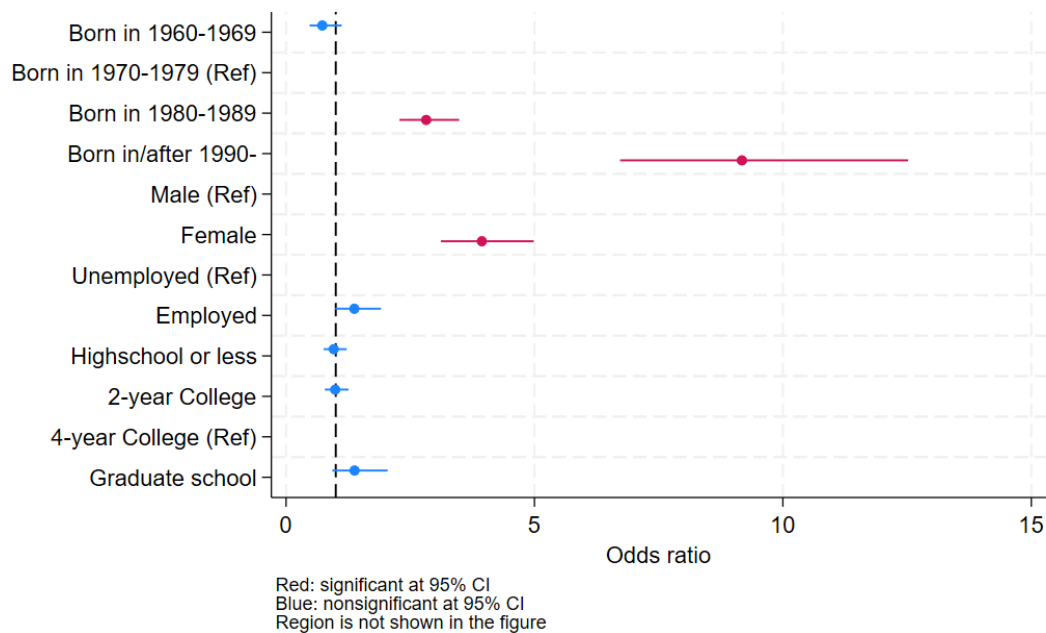


Figure 5 Odds ratio of Living Alone by Birth Cohort, Gender, Employment Status, Education, and Region



## Reference

Chang, P. Y., Oh, J., & Kim, Y. M. (2024). Opting out or left out? The gendered determinants of marriage in South Korea. *Journal of Marriage and Family*, 86(1), 132-153.

Lim, S. (2021). Socioeconomic differentials in fertility in South Korea. *Demographic Research*, 44, 941.

Tan, J., & Yu, S. T. (2024). A life course perspective: women's childhood background and family formation trajectories in low-fertility South Korea. *Journal of Population Research*, 41(2), 1-16.