To have it all? Navigating career and family across generations of college-educated Indonesian women

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ABSTRACT

Can college-educated women in rapidly developing economies balance career and family, or does compressed economic growth polarize their choices? This paper investigates how Indonesian women navigate these dual objectives across birth cohorts from the 1950s to the 1990s. We utilize 38 years of Labor Force Survey data to examine aggregate cohort patterns and five rounds of Indonesia Family Life Survey panel data to trace individual life-cycle trajectories. We document increasing polarization among younger cohorts. Younger cohorts either delay marriage and stay in the labor force, or opt out of the labor force altogether post-marriage. We trace this divergence to two concurrent trends. First, more women enter time-demanding, high-skilled professions traditionally dominated by men. Second, rising conservatism among young men creates marriage market frictions leaving educated women with stark choices: conform to conservative family expectations by leaving work, or prioritize careers while delaying or forgoing family.

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1. Introduction

Rapid economic growth after World War II ushered in a new era of profound socioeconomic changes and considerable structural transformations. Yet, despite massive improvements in human capital (World Bank, 2018; Evans and Yuan, 2022), female labor force participation (FLFP) in low- and middle-income countries remains puzzlingly stagnant. Goldin's influential U-shaped hypothesis (1994)—derived from cross-country comparisons—suggests that female labor force participation would initially decline before rising at higher development levels. However, recent empirical challenges this trajectory. Panel analyses reveal that the U-shaped pattern does not hold longitudinally (Gaddis and Klasen, 2014; Klasen, 2019), leading researchers to conclude that "gender equality is not a corollary of economic growth" (Agte et al., 2024).

A growing literature highlights how family formation decisions mediate female labor supply. These intrahousehold dynamics have important macroeconomic implications, influencing aggregate savings (Fernández-Villaverde and Krueger, 2007, 2011) and the allocation of talent across sectors (Hsieh et al., 2019, Goldberg et al., 2025). Goldin's (2021) seminal work argues that marriage and childbearing decisions historically act as counterforces to women's labor market participation. As social norms and social infrastructure co-evolve with economic development (Cavalcanti and Tavares, 2011), women become increasingly able to balance career and family objectives.[2] Examining U.S. college-educated women born between 1878 and 1978, Goldin identifies five distinct stages in how they navigate these dual objectives: (i) family or career, (ii) job then family, (iii) family then job, (iv) career then family, and (v) career and family. Drawing on this evolution—from stark trade-offs to greater integration—Goldin (2014) envisions a trajectory toward a "grand gender convergence".

Yet, this optimism may not translate to emerging economies. Advanced economies had centuries to gradually adapt social norms alongside economic change. By contrast, the

[2] Earlier literature suggests a decline in fertility or a delay in family formation as female education, employment, and wages rise (Feyrer et al., 2008; Baudin et al., 2015; Cantalini, 2017; Bertrand et al., 2021; and Koebe and Marcus, 2022). Recent studies in developed countries suggest that high educated women are increasingly able to work and have family in the long run (Jalovaara et al., 2019; Virtanen et al., 2024),[2] due to progressive family policies (Kim, 2023), expansion of childcare services (Bar et al., 2018; Hazan et al., 2023), and more gender-egalitarian norms (Esping-Andersen and Billari, 2015).

compressed pace of development in emerging economies intensifies social norm conflicts across generations and gender (Goldin, 2024). Husbands and mothers-in-law impose conservative expectations on wives (Anukriti et al., 2020), with non-working wives becoming social status symbols (Munshi and Singh, 2024). Rather than gradually expanding opportunities to combine work and family, rapid development may polarize educated women's options: pursue motherhood by conforming to conservative expectations and leaving work, or pursue careers by delaying or forgoing family.

This paper examines how women resolve career and family decisions as they attain higher education in Indonesia, one of the fastest-growing emerging economies in the 20th century. We utilize all available nationally representative Labor Force Surveys in Indonesia to examine the evolving dynamics of family formation and labor outcomes across birth cohorts from 1950s to 1990s. Furthermore, we employ a cohort-age regression analysis to disentangle generational effects from age effects. Following Goldin (2021), we trace the evolution of college-educated women's choices on these two dimensions. We distinguish careers from jobs by examining occupations with higher skill requirements to test whether "greedy work" in professional careers imposes further restraints on women's ability to pursue career and family objectives simultaneously. We restrict our sample to college-educated women to understand how improved labor market opportunities (and thus, opportunity costs) with attaining higher education shape these dynamics.

We find increasing polarization of the labor market and family formation outcomes among younger birth cohorts. The younger birth cohorts are more likely to participate in the labor force. Yet, at the same time, we are witnessing a paradox: more young college graduate women delay family formation, while those who do not delay tend to start their families earlier. We offer two potential explanations for this trend. First, more women college graduates are able to enter prestigious and time-demanding career positions that have traditionally been dominated by men. Meanwhile, we observe a rising conservatism, especially among male youth, and conjecture that the interaction of these two trends may have disrupted the marriage market and hindered family formation.

To our knowledge, our paper provides the first evidence on the interplay between career and family decisions among college-educated women in a rapidly developing economy. Existing evidence research on Indonesia examines female labor supply (Cameron et al., 2019) and family formation (Dong and Merdikawati, 2023) as separate outcomes.

While a substantial literature documents how household responsibilities constrain women's economic participation in Indonesia,[3] less attention has been given to the reverse: how do career pursuits shape family formation outcomes of educated women. Understanding this interplay is critical for interpreting persistent gender gaps in employment. Even effective interventions—such as improved childcare access, which increases female labor force participation by 8-10 percentage points in low- and middle-income countries (Halim et al., 2023)—are insufficient to fully close gender employment gaps. This raises a fundamental question: does the remaining gap reflect women's preferences for family specialization, or binding constraints that limit their ability to combine career and family?

Indonesia provides an ideal setting to examine these dynamics. As one of the fastest-growing economy since 1970, it experiences compressed development alongside dramatic expansion in female higher education. Moreover, Indonesia offers exceptionally rich data. The Labor Force Survey (Sakernas) is among the longest-running and most frequent surveys in low- and middle-income countries, providing 38 years of data allowing us to examine cohorts born from 1950 onward. The Indonesia Family Life Survey (IFLS) tracks detailed individual trajectories spanning over 21 years across five waves. This combination allows us to document both aggregate patterns across cohorts and detailed life-cycle dynamics.

The rest of the paper is organized as follows: Section 2 describes the background context of the study and details our data. Section 3 elaborates on our analytical framework. We report our main analysis in Section 4. Section 5 probes into the potential drivers of the results. Section 6 discusses the robustness of our results and summarizes our analysis. Section 7 summarizes the paper.

2. Background contexts and data

2.1. Background contexts

As the largest economy in Southeast Asia and the 16th largest in the world, Indonesia is dubbed one of Asia's "Tiger Cubs" (Restrepo-Echavarría and Arias, 2017), growing at an average annual rate of 5 percent since the 1970s.[4] Enrolment in primary education has been virtually universal since the 1980s (World Bank, 2020a). Tertiary enrolment has grown

[3] See Schaner and Das (2016); Halim et al. (2022); Cameron (2023); and Cameron et al. (2023).

[4] World Development Indicators, accessed on April 21, 2025.

sixteen times from 2.8 percent in 1970 to 45.1 percent in 2023.[5] Since 2012, female enrolment in tertiary education has surpassed male enrolment, with the gap widening over time (Figure 1). The expansion accelerated social mobility and enabled the emergence of the middle class, which has become the backbone of Indonesia's economic development (World Bank, 2020b).

2.2. Data

Our primary analysis is based on the nationally representative Labor Force Survey (Sakernas) in Indonesia. Sakernas is collected twice a year by the national statistics office. It is designed to closely monitor labor market dynamics. It contains granular information about employment, including the type of work and work hours, which allows us to distinguish jobs and careers. In short, we define "careers" as participation in time-demanding, high-skill occupations. We discuss this definition further in Section 5.1. We harmonize and pool 38 years of Sakernas cross-sectional data from 1986 to 2023, utilizing both biannual rounds whenever available.[6,7]

While this pooled cross-sectional data structure is similar to Goldin's (2021) analysis of census and ACS data for the United States, an ideal analysis is to use a rich panel data set to track individuals' transitions across life stages, as in Goldin's (2021) analysis of HRS data. Fortunately, Indonesia also has a relatively long household panel, spanning over 21 years from the first to the last rounds. The Indonesia Family Life Survey (IFLS) is a longitudinal survey that has tracked the same households (and their splits) since its first wave in 1993. There have been four follow-up surveys in 1997, 2000, 2007, and 2014.[8]

IFLS contains abundant and detailed information about households and individuals on various aspects of their lives. We use the IFLS panel data to offer contrasts and additional nuances to the pooled cross-sectional data. With a rich employment recall history, we can construct an individual employment panel annually for up to 29 years (1986-2014). As such,

[5] World Development Indicators, accessed on March 31, 2025.

[6] We provide the total sample size across data sources in Table A1.

[7] In earlier rounds, Sakernas was only collected once a year. The August rounds are representative at the district level, while the February rounds are representative only at the provincial level.

[8] The survey is representative of 83 percent of the population in the 13 sampled provinces in 1993 (Strauss et al., 2016).

we can identify women's labor market entry and exit, as well as the sequence of labor market and family formation decisions throughout their lives.[9]

We draw on two additional complementary datasets to contextualize the findings and explore the mechanisms underlying these outcomes. First, we use the 2023 National Socioeconomic Survey (Susenas). Susenas is also collected twice a year by the national statistics office, and is intended to capture broader demographic and socioeconomic indicators, such as fertility, migration, consumption, and poverty.[10] We use Susenas data to illustrate the correlation between the age at which individuals first get married and marital rates, as well as the rarity of childlessness among married couples.

Second, we utilize complementary data from the World Values Survey (WVS) to assess whether changes in social attitudes are correlated with marriage and labor dynamics in Indonesia. WVS is a cross-country survey about people's views and beliefs on a wide range of topics, including politics, culture, religion, and family. We utilize all three available data rounds for Indonesia: Wave 4 in 2001, when the country was first surveyed; Wave 5 in 2006; and the most recent Wave 7 in 2018. Like Sakernas and Susenas, WVS is a repeated cross-section and a nationally representative survey.

3. Empirical strategy

3.1. Adapting Goldin's approach to Indonesia

In the United States, Goldin (2021) observes that college-educated women's labor supply and family formation dynamics from the early 1900s until present times evolve across five stages: (i) family or career, (ii) job then family, (iii) family then job, (iv) career then family, and (v) career and family. In the first stage, women must choose between a family and a job, a decision that remains with them throughout their lives. In the subsequent three stages, women still have to choose one or the other at a given time, but there is a transition from one

[9] We focus our lifecycle tracking on women present in the latest wave (2014) and women whose age is at least 50 in the previous waves. This sample construction enables us to focus on women whose complete life cycle is observable, at least by the latest survey wave. College graduates are more likely to migrate (Bernard and Bell, 2018; Malamassam, 2022). We cannot ascertain the lifecycle transformation of the labor market and the family outcomes of women who are no longer present in the latest data. Additionally, including college graduates who have migrated by the latest wave will bias the data in favor of single and still childless women, as they are more likely to migrate as well (Pardede et al., 2020).

[10] Because of the broader objectives, Susenas does not collect as detailed information on employment as Sakernas. Therefore, our primary analysis relies on Sakernas instead.

choice to another, with different sequencings. In the fifth stage (present times), women pursue both family and career objectives simultaneously.

We focus on the college graduate (at least Diploma 1) women of the post-independence generations until the most recent birth cohorts, that is, 1950s-1990s birth cohorts. Unlike Goldin (2021), some cohorts of women in our data have not completed their life cycle, as we analyze a more recent data series compared to hers. Nonetheless, Goldin's (2021) framework is instructive in identifying the stage that college-educated Indonesian women are currently in.

Following Goldin (2021), we first examine the descriptive trends of family formation and labor outcomes across generations or birth cohorts in Sakernas. Given that women's economic participation is highly contingent on their family situations, cohort analysis allows us to separate life cycle effects on labor market outcomes (Cameron et al., 2019). For each birth cohort, we observe their outcomes in four stages of their productive age: during their late 20s (25–29-year-olds)[11], their 30s, 40s, and 50s. We do not group birth cohorts in Sakernas, as the large sample size allows us to use each birth year as a birth cohort.[12] We examine both labor market and marriage trends separately, as well as the interacted outcomes: married and in the labor force, unmarried and in the labor force, married and not in the labor force, and unmarried and not in the labor force.

In IFLS, we can leverage its longitudinal nature to infer whether college graduate women sequence between job/career and family, or whether they can pursue both simultaneously. In total, we define seven groups relevant for Indonesia: (i) family or career/job, (ii) job then family, (iii) family then job, (iv) job and family, (v) career then family, (vi) family then career, and (vii) family and career.

To distinguish between women who sequence (e.g., "job then family") and those who combine labor and marriage (e.g., "job and family"), we need to define a maximum allowable time gap between one decision and another. Our preferred specification is a 2-year distance.[13]

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[11] People typically graduate college in their early 20s. Other studies like Cameron et al. (2019) have also noted that age 25 is typically the critical juncture when women's LFP peaks and they start switching to childrearing responsibilities.

[12] Due to data availability, some cohorts have more limited data points. For example, since our data starts in the 1980s at the earliest, we can only observe the 1950s birth cohort from their 30s onwards.

[13] For robustness, we also test alternative cutoffs: 0 years and 3 years distance.

The longitudinal nature of IFLS also enables us to distinguish between those who manage to attain a career-based occupation (defined as a "time-demanding high-skilled occupation" and further elaborated in Section 5.1) in their lifetime and those who do not.

We can take a step further by factoring in labor market entry or exit due to family formations throughout one's adult life, on top of the time distance between outcomes. There are two ways we can do this. The most basic approach is to categorize the duration of temporary labor market exit after family formation. If it is below the median, we consider these women as pursuing both job/career and family at relatively the same time. Women are considered to be sequencing the two objectives otherwise.

Alternatively, we define a more complex grouping by also factoring in child-rearing responsibilities, on top of temporary labor market exit. For example, someone who has a job before starting a family, temporarily exits the labor market after having children, and returns to the labor market before their youngest child turns six is considered to be combining "job and family". Meanwhile, someone with the same first two conditions, yet returns to the labor market after their youngest child turns six, is sequencing "family then job". Detailed definitions of these groups are in Appendix F1.

As in Sakernas, we also examine the post-independence generations of college graduate women. However, since IFLS has not been updated with a new wave, we can only observe the outcomes as recent as the 1989 birth cohort, to ensure that the youngest observation is at least 25 years old by 2014. Additionally, due to the smaller sample size in IFLS, we categorize birth cohorts into 10-year intervals.

3.2. Family formation indicator

As in Goldin (2021), we use two types of indicators for family formation for two different datasets. Replicating Goldin's (2021) analysis of pooled cross-sectional data (US census and ACS), we use marital status in Sakernas. Marital status is available in all datasets, allowing comparability. In contrast, childbearing is generally not asked in labor force surveys. One common solution to this is to infer childbearing by the presence of children in the household. However, Sakernas does not provide information on household IDs in all survey years.

We argue that marital status is a justified indicator of family formation in the context of Indonesia, where traditional norms are particularly strong. There is still a high expectation

that married couples should have children, and those with (or expecting) children need to be married. Close to 80 percent of WVS respondents agree that having a child fulfills a duty to society (Figure A2). Seventy percent of respondents oppose having unmarried couples as their neighbors, and the actual incidence of cohabitation is extremely rare in Muslim-majority Indonesia (Anindita et al., 2021). Furthermore, women's domestic responsibilities that hinder their labor force participation often begin as soon as they enter marriage and before childbirth, as the prevailing social norms dictate that men should be the primary breadwinner (Jayachandran, 2021) and women should be responsible for the bulk of house chores and childcare (Sayer, 2005).

Nonetheless, following Goldin's (2021) analysis of panel data (HRS), we leverage the childbearing questions to define family formation as either marriage or childbirth, whichever occurs first, in the IFLS analysis. This allows us to examine whether the results of our primary Sakernas analysis hold under an alternative definition of family formation. We improve upon Goldin's (2021) analysis of HRS, as she uses only having a child as an indicator of family formation. As such, our family formation indicator in the panel data analysis captures household responsibilities more exhaustively, more appropriate for the cultural context of Indonesia, and retains consistency with the Sakernas analysis that focuses on marriage only. Even then, IFLS 2014 shows that less than one percent of unmarried women have children, and Susenas 2023 shows that, despite the rising trend in recent years (Wisana and Setyonaluri, 2024), a meager 6.7% of married individuals are childless.

We view IFLS as a more suitable alternative to complement our Sakernas analysis than Susenas, which also includes questions about childbearing. Unlike Susenas, IFLS asks childbearing questions to all women aged 15 and above, regardless of marital status. Susenas, on the other hand, asks childbearing questions only to ever-married women. As such, if the intention is to capture childbearing responsibilities, IFLS is more exhaustive in this regard. Indeed, one can infer childbearing by the presence of children in the household in Susenas. However, this proxy becomes increasingly inaccurate for older ages as the likelihood of children moving out of the household increases with mothers' age.[14]

[14] We can also mention that we cannot measure labor force participation in Susenas, as the questions to construct the labor force participation indicator are not as exhaustive as those in Sakernas.

3.3. Regression framework

We substantiate the descriptive findings with a birth cohort-age fixed effects regression framework. We only use the Sakernas data in the regression analysis because it has a sufficiently large sample size for the high-order fixed effects model. Specifically, we estimate the following regression:

$$Y_i = \beta_i + \tau_i BIRTH_i + \delta_i AGE_i + \theta_i RURAL_i + \pi_i YEAR_i + \sigma_i PROV_i + \varepsilon_i \quad (1)$$

Y_i is the labor market and family formation outcome of individual i. $BIRTH_i$ is our main variable of interest, the birth cohort. It is a vector of birth cohort dummies, grouped into 5-year bins. This approach allows us to model the non-linear effect of birth cohorts. For a robustness check, we conduct an alternative specification using 10-year bins. Similarly, AGE_i is a set of age group dummies. $RURAL_i$ is a dummy for living in a rural area, $YEAR_i$ is the year fixed effect, and $PROV_i$ is the province fixed effect. ε_i is a regular idiosyncratic error.

We estimate Equation 1 using a linear probability model (OLS) as our main specification. We also estimate the equation with categorical dependent variable model (multinomial logit) for sensitivity analysis. All of the estimators employ Huber-White's robust sandwich SE estimator. In the OLS estimations, we conduct separate estimations for unmarried and in the labor force, 2) married and in the labor force, and 3) married and not in the labor force[15], indicating the interaction between the labor market and family situation. As for the multinomial logit, Y_i represents the four states of labor market and family outcome combinations. For the categorical dependent variable model, we report the predicted probabilities for each cohort for ease of interpretation.

4. The evolution of family formation and labor market dynamics in Indonesia

4.1. Marriage trends

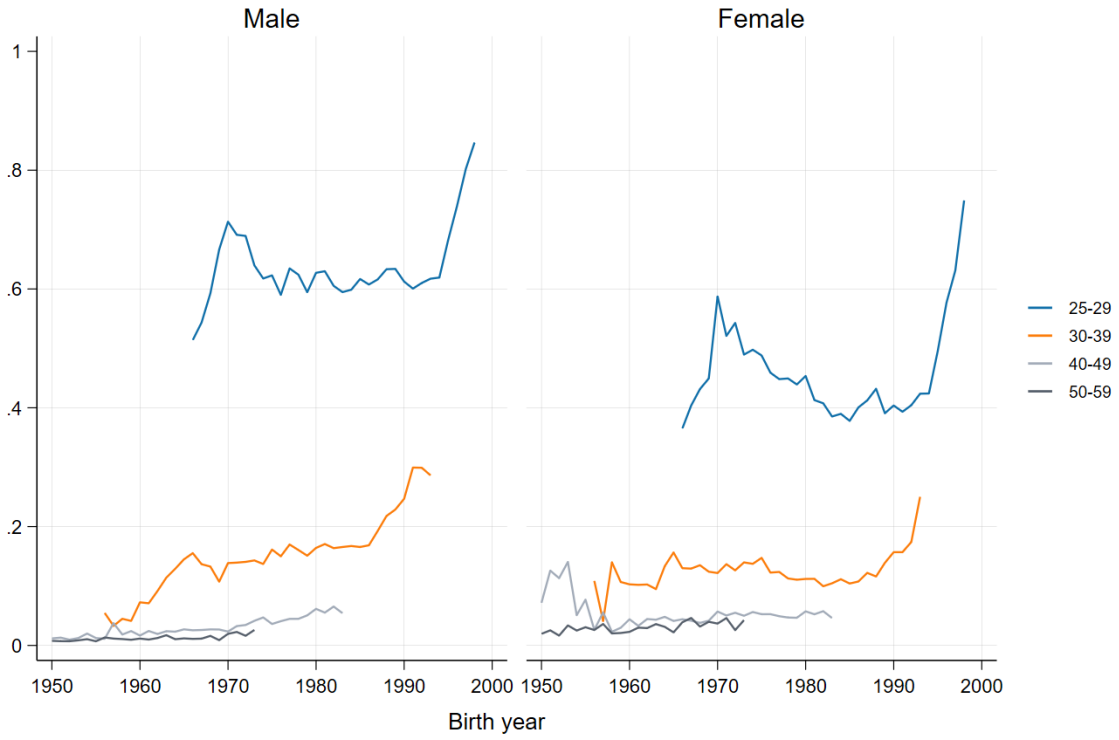
We begin our analysis by examining marriage trends among different cohorts of college graduate women. Figure 1 illustrates the evolution in the marriage rate across birth cohorts and age groups by showing the share of each group that has never married. When

[15] We perform regressions on unmarried and not in labor force condition, but do not plot the results in the figure because this will distort the figure. As shown in the descriptive patterns (see Figure 3), this state is highly uncommon among college graduate women.

analyzing this figure, it is essential to note the distance between the lines. People are more likely to have been married as they age; hence, the lines for the older age group are lower. The vertical distance between the lines represents the rate of marriage delay from one age group to the next. Widening distance means more people are delaying their (first) marriage.

It is visible that the rate of marriage delay in the late 20s is rising among college graduate women from the 1960s birth cohorts. From the 1970s to mid-1980s birth cohorts, the rate of marriage delay in the late 20s falls, indicating a higher percentage of women in these cohorts have ever been married by this age. The trend reverses again from the mid-1980s cohorts onwards, reaching its peak among unmarried college graduate women in the 1990s cohorts.[16]

Figure 1: Fraction of college graduates unmarried by age group and birth cohort



Source: Author's calculation using Sakernas

[16] Figure B3 zooms in on the late 20s age group to capture any heterogeneity in intercohort dynamics within the group. It shows that the spike in the unmarried rate of the youngest cohorts occurs in all ages except for those aged 29 years old.

After a relatively flat trend from the 1960s to mid-1980s birth cohorts, the rate of unmarried college graduate women in their 30s begins to rise in the mid-1980s birth cohorts. As in the 20s age group, the rate reaches its peak in the 1990s birth cohorts.[17] This fascinating pattern implies that more college graduate women of the youngest cohorts delay their marriage for longer, even beyond their 30s.[18]

Once we enter the 40s and 50s age group, there is no visible difference between the birth cohorts or even between the two age groups. This suggests that most of the intercohort marriage dynamics occur in the younger age group. Once they enter the older age group, people generally settle into families, and any new dynamics become increasingly unlikely.

However, it is interesting to observe that while the fraction of college-graduate males who are unmarried in their late 20s is higher than that of their female counterparts, the fraction of unmarried college-graduate women ended up being marginally higher than that of men in the older age groups (40s and 50s). This might suggest that men are more likely to marry than women throughout their lifetime. To ease the visual inspection, we provide an alternative display of the same statistics in Figure B1.

4.2. Labor force participation trends

We now turn to examining the descriptive trends of labor force participation across birth cohorts and age groups. Figure 2 shows that the labor force participation rate of college-educated women tends to fluctuate between approximately 70% and slightly above 80% throughout their lifetime and across cohorts. However, if we zoom in closely, we can still observe several important dynamics.

Figure 2 shows that in the late 20s age group, the labor force participation of college-graduate women fluctuates around 80% across birth cohorts.[19] Across birth cohorts, labor market exit occurs as college-educated women transition from their late 20s to their 30s. This

[17] Figure B4 disaggregates the 30s age group into 30-34 and 35-39 to observe any heterogeneity in intercohort dynamics within the group. It shows that the early 30s age group drives the spike in the rate of unmarried individuals in the youngest cohorts.

[18] In a few years, we'll have the data to observe the rate of unmarried individuals among the late 1990s birth cohort in their 30s and among the late 1980s birth cohort in their 40s. However, the recent trends are not so encouraging. Wisana and Setyonaluri (2024) demonstrate that there is a growing aspiration among young people to delay marriage and remain childless.

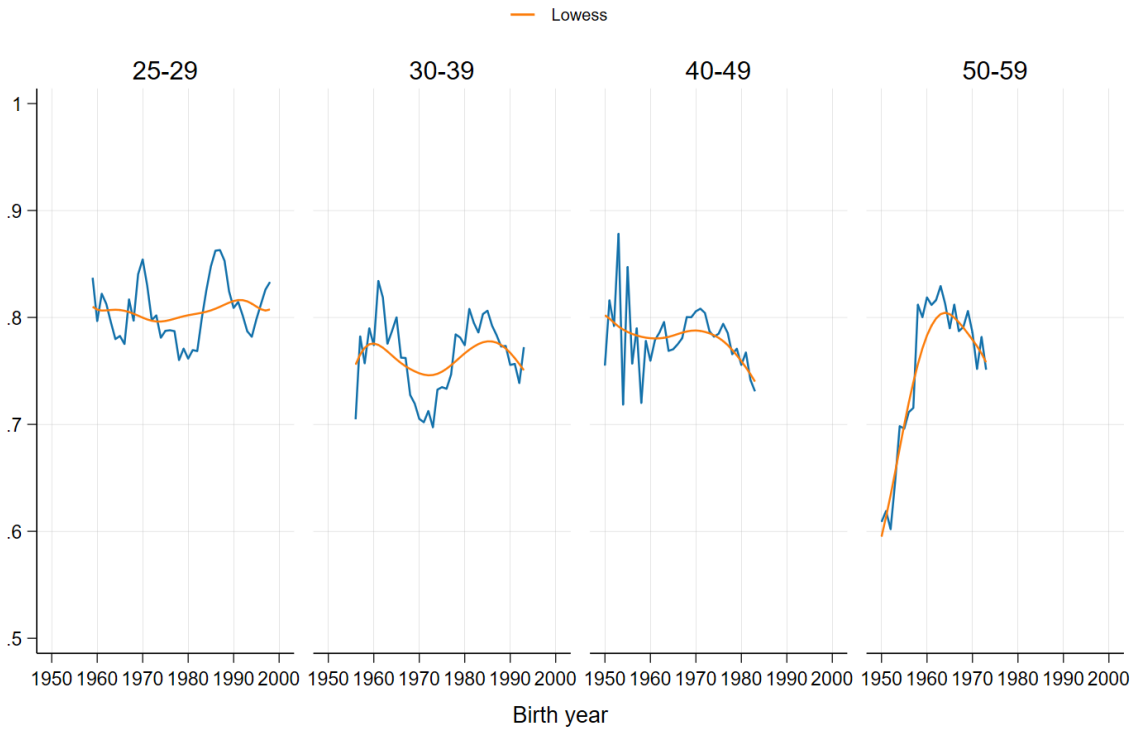
[19] To help readers visually inspect the height of the lines in each birth cohort, we provide an alternative display of the same data in Figure B3.

is indicated by the overall lower orange line in the 30s age group panel than the same line in the late 20s age group panel. This coincides with the higher marriage rate in the 30s age group compared to the late 20s age group, as discussed in the previous section.

However, the rate of labor market exit in the 30-year-old age group differs between birth cohorts. Within a certain age group, a downward trend in labor force participation indicates a higher labor market exit compared to other cohorts, while an upward trend indicates the opposite. As such, the mid-1950s birth cohorts begin with a declining rate of labor market exit (rising labor force participation) in their 30s. Then, each successive cohort seems to offset the trend in the previous cohort. The 1990s birth cohorts, based on the available data so far, seem to experience a falling rate of labor market exit in their 30s.

Labor force participation in the 40s exhibits a downward trend, suggesting that younger cohorts experience a rising labor market exit rate as they transition from their 30s to 40s. However, there is labor market reentry among the mid-1960s to mid-1970s birth cohorts, as their labor force participation is higher in their 40s than in their 30s, although still not as high during their late 20s.

Figure 1: Labor force participation rate of college graduate women by birth cohort and age group

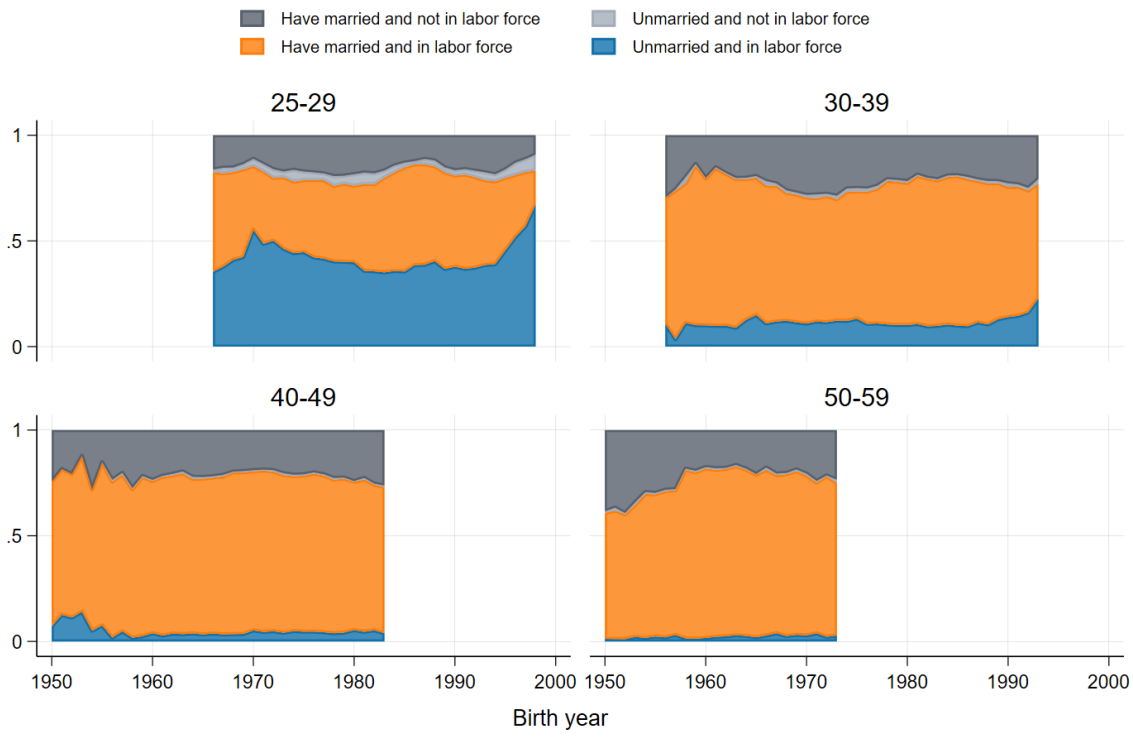


Source: Author's calculation using Sakernas

There is fluctuation too in the 50s age group. The labor force participation of the early 1950s birth cohorts exhibits an upward trend during this age, indicating a lower labor market exit when they transition from their 40s to their 50s. Yet, the trend changes from the late 1950s to the mid-1960s birth cohorts. In these cohorts, the story is about reentry as the 50s age group has a higher line than either the 30s or the 40s age group. The mid-1960s to early 1970s birth cohorts face a rising labor market exit as they transition from their 40s to their 50s, with a downward-sloping trend.

4.3. Joint marriage-labor trends

Figure 3: Evolution of marriage and labor market outcome among college-graduate women by age group and birth cohort



Source: Author's calculation using Sakernas

To capture the combined labor market and family formation outcomes, we turn to Figure 3. The figure shows the two-by-two interactions of labor market and marriage statuses. It provides several key takeaways. First, most unmarried people are indeed in the labor force. In any age group, the size of the light grey area, which represents those unmarried and not in the labor force, is negligible. The blue area, which represents those

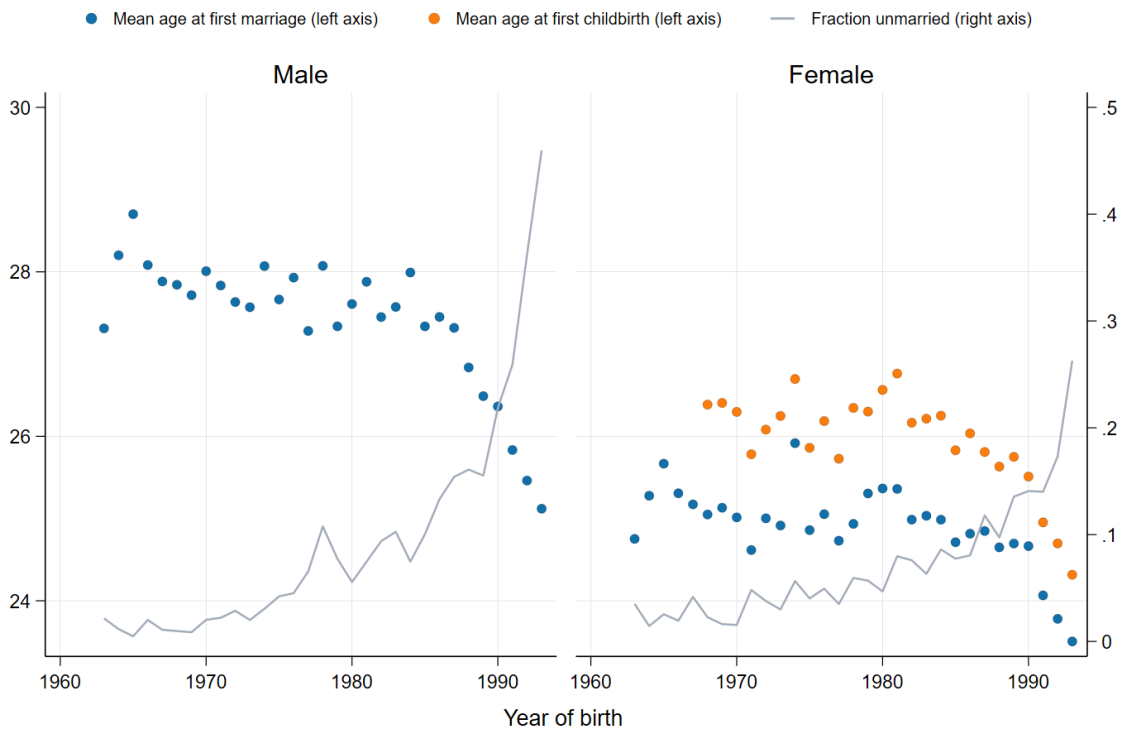
unmarried and in the labor force, dominates the composition of unmarried individuals. [20] Second, the sum of the light grey and blue areas represents the rate of unmarried women, which is the same as in Figure 1, and tells the story of marriage delay in the younger cohorts.

Third, most dynamics revolve around the composition of those in the labor force (non-grey areas). In any age group, the total size of the grey (not in the labor force) and non-grey (in the labor force) areas tends not to change significantly across birth cohorts, consistent with our observation in the previous section that labor force participation rate of college-educated women tends to fluctuate between approximately 70% and slightly above 80% throughout their lifetime and across cohorts (Figure 2). However, within the non-grey areas, there are noticeable changes in the composition of blue (unmarried) and orange (ever married) areas across the birth cohorts. Most notably, in the late 20s and 30s age group, the blue areas become more prominent in the younger cohorts.

This observation implies that the dynamics are more about who stays in the labor force rather than new entrants. In the older cohorts, the labor force is equally populated by married and unmarried women in the late 20s age group, and dominated by married women in the older age groups. Meanwhile, in the younger cohorts, those who remain in the labor force are increasingly dominated by unmarried women, especially in the late 20s age group; however, the trend is also becoming more prominent in the 30s age group.

Figure 4: Marital and childbirth outcomes of college graduates in 2023 by birth cohort

[20] The blue area also resembles the shape of Figure B2, which emulates Figure 1. It shows the fraction of unmarried college graduates who are in the labor force. The figure closely tracks the shape of the unmarried rate in Figure 1. This supports the assertion that most unmarried college graduates are in the labor force.



Source: Author's calculation using Susenas

The rising rate of unmarried women among younger cohorts of college graduates is an intriguing phenomenon, particularly in light of the declining age at first marriage and childbirth. Digressing briefly, we turn to the complementary Susenas data to illustrate the opposing trends in age at first marriage and childbirth, as well as the share of unmarried individuals in the population (Figure 4). As shown earlier, younger cohorts (capped to the 1993 birth cohort) have a higher unmarried rate. Yet, those who marry and have children tend to do so at an earlier age, echoing the insights from Dong and Merdikawati (2023). This alludes to the growing polarization of the labor market and family formation outcomes among younger cohorts.[21] Those who stay in the labor force tend to remain unmarried, and those who marry and have children tend to do so earlier.

4.4. Regression analysis

We perform several regressions to verify these descriptive patterns. To start, we show the differential likelihood of being in each marriage-labor state, by birth cohort, relative to the

[21] In Figure B6, we show that this polarization is not a population-wide trend, as the decline in age at first marriage and childbirth is less pronounced in the high school sample.

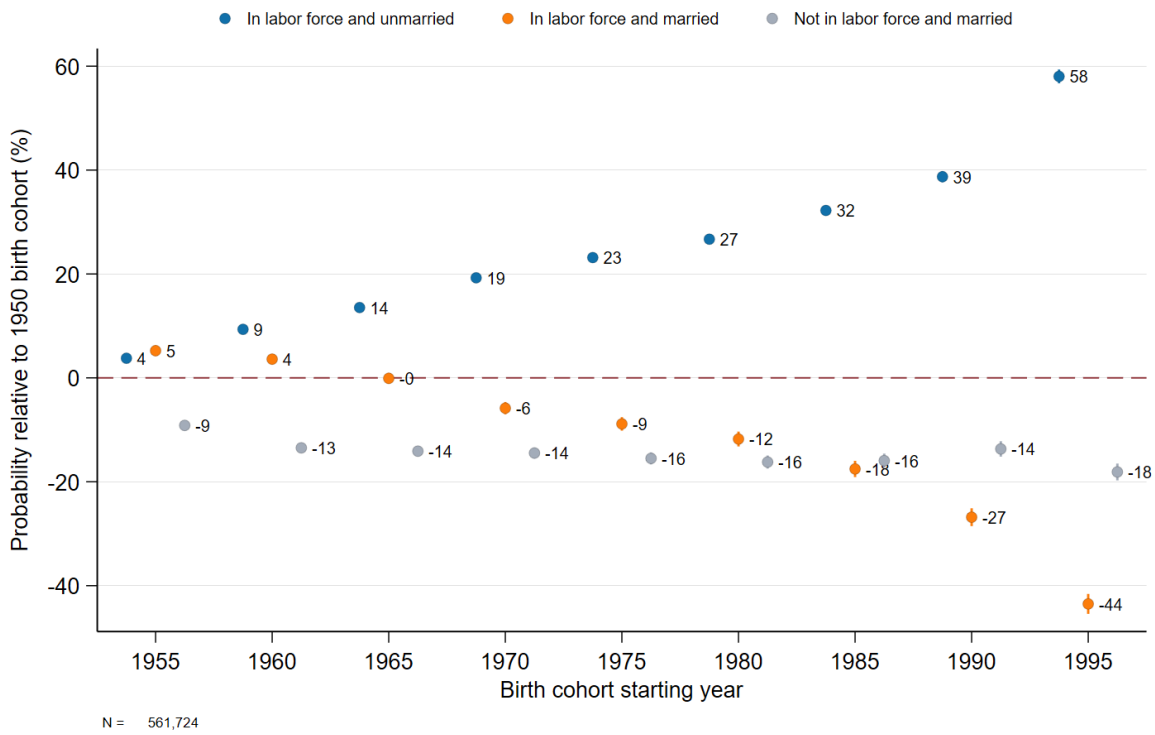
oldest (1950) birth cohort (Equation 1). Using the linear probability model (OLS), we conduct separate estimations for 1) unmarried and in the labor force, 2) married and in the labor force, and 3) married and not in the labor force.[22] Each dot represents the regression coefficients of each marriage-labor state on birth cohort bins. The spikes represent 95% confidence intervals.

The regression results confirm the descriptive patterns (Figure 5). Regardless of how we divide the birth cohorts, we find that the probability of participating in the labor force while unmarried is higher and monotonically increasing in younger cohorts relative to the oldest cohort (blue dots), consistent with the story from Figure 3. The youngest cohort is 58 percentage points more likely to be in the labor force and unmarried than the base cohort. All coefficients are statistically significant at the 1% level.

Meanwhile, the likelihood of being married and in the labor force (orange dots) almost resembles an inverted mirror image of the likelihood of being unmarried and in the labor force; although if we draw a line connecting the dots, the slope of the latter will be steeper than the former. As each successive cohort becomes more likely to be unmarried and in the labor force, they also become less likely to be married and in the labor force compared to the base cohort. The youngest birth cohort is 44 percentage points less likely to be married and in the labor force than the base cohort.

Figure 5: OLS coefficients of birth cohort effect on marriage and labor market participation

[22] We omit the fourth marriage-labor state (not in labor force and unmarried) because it is highly uncommon (see Figure 3) and it distorts the graph's scale, reducing readability.



Source: Author's calculation using Sakernas (1986–2023)

Likewise, the likelihood of not participating in the labor force while married also falls in the younger cohorts, albeit with a substantially smaller effect, which makes the trend rather flat. This is likely driven by a general trend of delaying marriage among them, as foretold in Figure 1. This result corroborates our labor market-marriage outcome polarization story.

Our results are consistent with those of Cameron et al. (2019), who, despite examining the broader population using Susenas, find that younger cohorts of women are more likely to participate in the labor market. Using joint outcomes among college graduates and a different dataset, we confirm that the same pattern is driven by unmarried women. While college-graduate women are making significant strides in the labor market, it appears that this progress coincides with a delay in family formation.

4.5. Panel data

We now turn to IFLS data to investigate the evolution of the sequencing of job/career and family across different cohorts of college-educated women throughout their lifetimes. Figure 6 portrays this evolution. For all cohorts, the sequencing scenarios ("Family then job", "Job then family", "Family then career", "Career then family") are the rarest, although there is an indication of an upward trend in "Job then family" (light grey) and "Career then family"

(dark orange) in the youngest cohort. The dominant scenario across cohorts is the simultaneous/balancing scenario, encompassing both "Job and family" (blue) and "Career and family" (light blue). Yet, the youngest cohort appears to exhibit the seed of the polarization scenario ("Family or job/career") that we fully observe in the more recent Sakernas data.

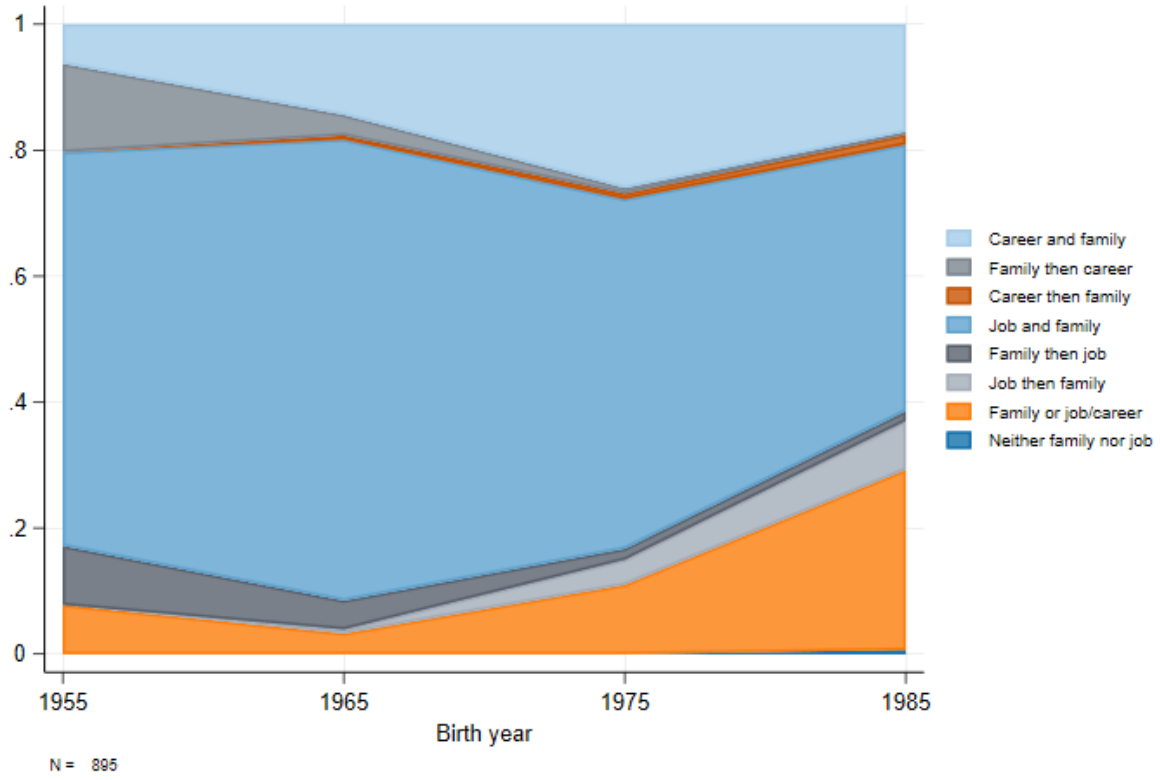
"Job and family" is the most dominant case for college graduate women from the 1950s to 1970s cohort. It still holds the largest share among the 1980s cohort, but its share has substantially shrunk from the peak in the 1960s cohort. "Career and family" begins its rise in the 1960s cohort and reaches its peak in the 1970s cohort. Like "Job and family", its share has also shrunk in the 1980s cohort.

As such, while the panel data is less recent than Sakernas[23], it presents a similar narrative, indicating an increase in polarization between labor market and family outcomes among younger cohorts of college graduate women, even under an alternative definition of family formation that takes into account childbearing.

Specifically, these younger cohorts are increasingly specializing in either the family or the labor market. For the final cohort in the data, the 1980s, the size of the "Family or job/career" (orange) group has overtaken the "Career and family" group, and is close to the most dominant group across cohorts (the "Job and family" group). In addition, another growing group in the younger cohorts is the "Job then family" group (light grey) and the "Career then family" group (dark orange), which indicates a higher percentage of college-educated women in the younger cohorts permanently exiting the labor market after family formation.

Figure 6: Career, job, and family among college graduate women (panel)

[23] Reminder: The latest IFLS wave is from 2014, and the youngest cohort is from 1989. This differs from Sakernas, whose latest wave is 2023, and the youngest cohort is 1998.



Source: Author's calculation based on IFLS.

By 2014 (the latest IFLS year), the "Family or job/career", "Job then family", and "Career then family" groups are the only ones with an increasing share, while all the others are in decline. "Family then career" (grey) and "Family then job" (dark grey) have noticeable shares in older cohorts, but are virtually non-existent in younger cohorts. This suggests a lower likelihood of starting or re-entering a career/job after starting a family among younger cohorts. "Career and family" (light blue) expands from the 1950s to the 1970s birth cohorts, but continues to shrink afterwards.

This shift to "Family or job/career" among the 1980s cohort is consistent with the Sakernas analysis. In 2014, they were in their late 20s to mid-30s. Figure 1 shows that the rate of unmarried women rises at this life stage for this cohort. Reflecting on the more recent trend in Sakernas, it is likely that the shares of "Family or job/career", "Job then family", and "Career then family" groups have become more dominant by 2023 (our latest Sakernas year), while "Career and family" and "Job and family" continue to fade. This again endorses our story about the polarization of labor markets and family outcomes among the younger cohorts of college-graduate women.

5. Potential drivers

In this section, we explore some potential hypotheses that might explain the polarization of labor market and family outcomes among the younger cohorts of college graduate women. First, it is the rise of "greedy work": high-paid occupations that are highly time-demanding, which exacerbate the challenges of balancing career and family objectives. Second, this rise of "greedy work" coincides with rising conservatism, especially among men, which might create social norm conflicts across gender, disrupting assortative matching and thereby the marriage market.

5.1. Breaking the glass ceiling in career building

Following Goldin (2021), we investigate how time-demanding, high-skilled occupations affect the labor market and family formation outcomes of college-educated women. While Goldin (2021) specifically focuses on occupations with irregular and extreme work hours, such as lawyers, as the definition of "greedy work," our study is less restrictive in its definition.[24] We follow the ILO's classification of high-skilled occupations (ILO, n.d.), which are skill levels 3 and 4. Based on this classification, we determine high-skilled occupations that are not time-demanding. We exclude teachers and preachers from our definition of "greedy work" because, while these are high-skilled professions, a substantial share of these workers work fewer than 35 hours per week; therefore, we categorize these professions as not time-demanding.[25] We categorize the remaining occupations as time-demanding, high-skilled work.

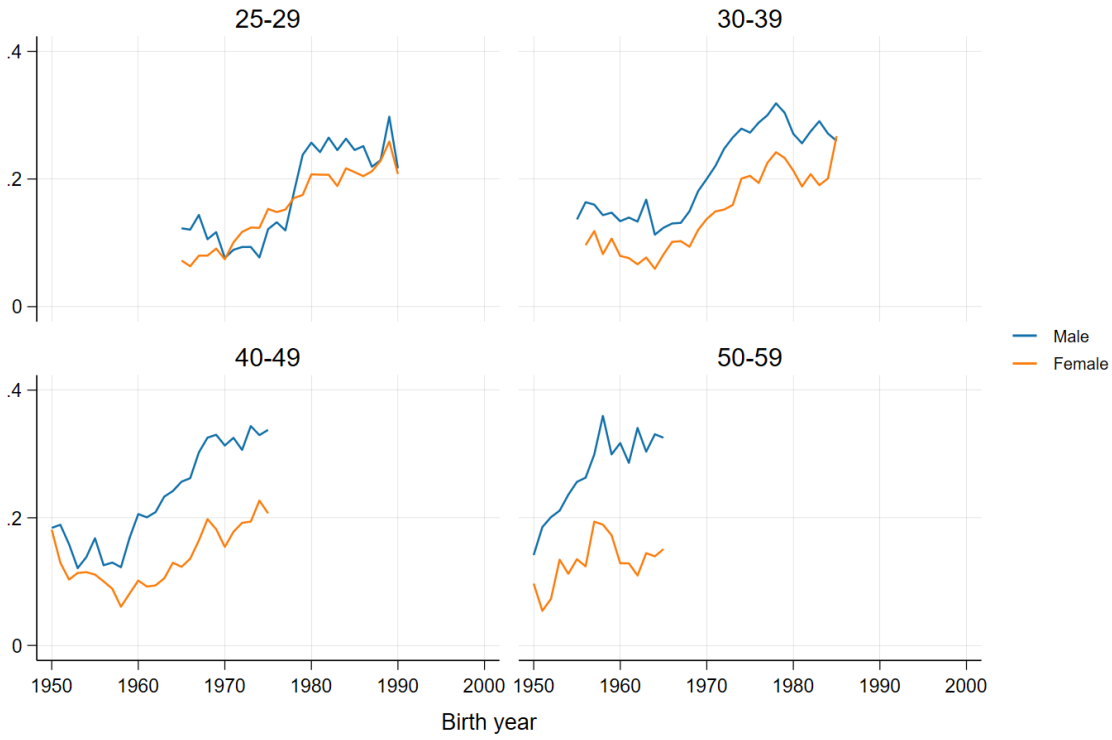
Figure 7 shows that younger cohorts of college-graduate women are increasingly likely to be in time-demanding, high-skilled occupations across all age groups, narrowing the gap with men. Among the younger cohorts in the late 20s and 30s age group, the share of college-educated women in time-demanding, high-skilled occupations is almost the same as that of men. College-educated women are increasingly entering high-skilled, time-demanding

[24] We also cannot follow Goldin's (2021) earnings-based definition of career as "earning above the 25th percentile of the full-time, full-year distribution for males in the same age bracket and education level for at least three years in each five-year period" because information about earnings in our panel data (IFLS) is not available annually.

[25] The distribution of work hours in each occupation from 1995-2015 can be found in Figure D1. These are the Sakernas years when at least a two-digit occupation code is available. We need at least a two-digit occupation code to make skill-based categorization.

occupations in fields where men have traditionally held the majority of positions (Figure D2A). These jobs typically command higher wages. Among those who enter these occupations, we find that younger cohorts are also narrowing the income gap with men (Figure D2B).

Figure 7: Fraction of college graduates in high-skilled, time-demanding occupations by birth cohort and age group



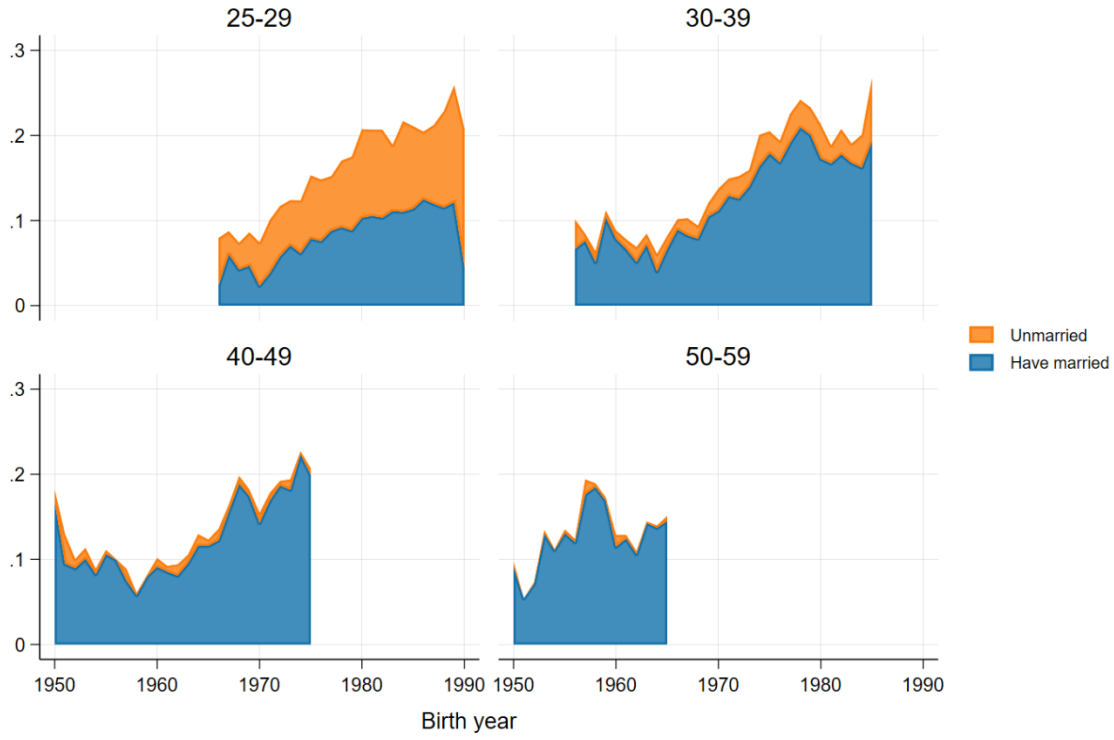
Source: Author's calculation using Sakernas

This trend coincides with a decline in the ages at which people get married and have children (Figure 4). Turning to IFLS data, we indeed find that the age of starting a time-demanding, high-skilled occupation has fallen alongside the age of starting a family (Figure D3).

This correlation suggests that college-educated women can increasingly attain both family and professional goals. However, upon closer examination, unmarried college-educated women are a substantial factor driving this labor market breakthrough. Figure 8 shows that their contribution to penetrating high-skilled, time-demanding occupations becomes increasingly pronounced in the younger cohorts, especially in the late 20s age group. The trend that young unmarried college graduate women increasingly occupy time-

demanding, high-skilled occupations, especially those traditionally dominated by men, while those who start a family do so earlier, provides additional support for the idea of growing polarization of family and labor market outcomes among younger college graduate women.

Figure 8: Marital status of college graduate women working in time-demanding high-skilled occupations by birth cohort and age group



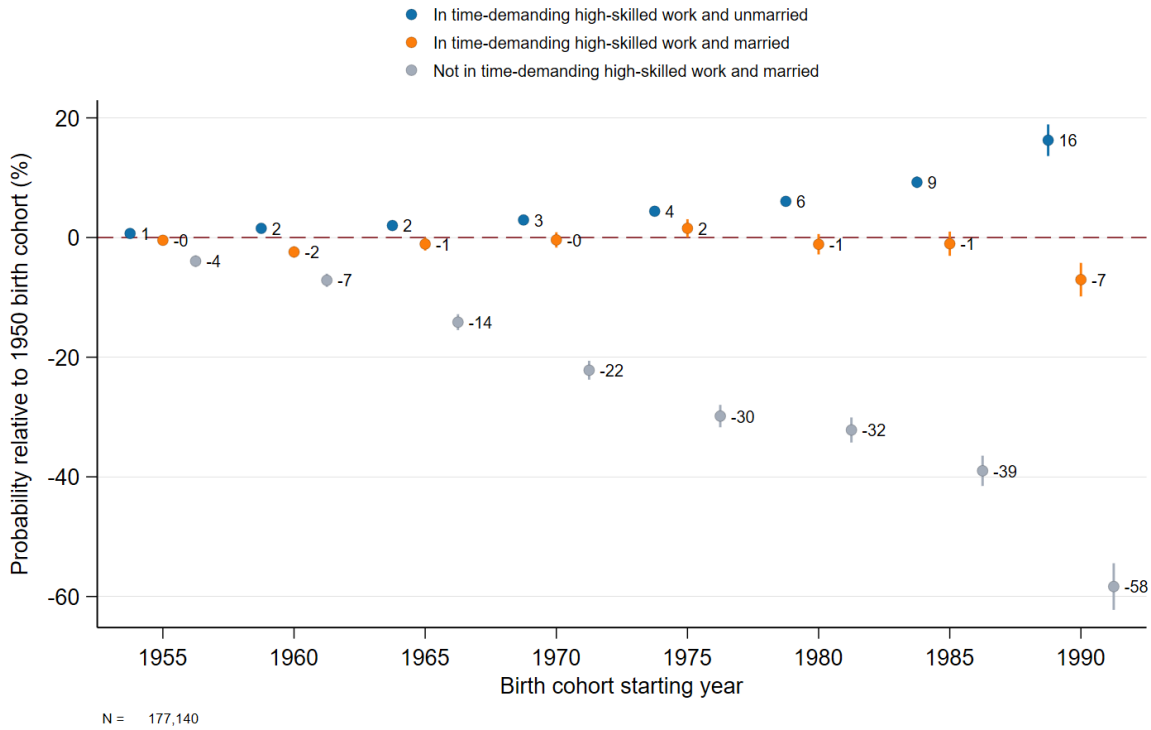
Source: Author's calculation using Sakernas

To verify this pattern, we repeat the regression analysis as outlined in Equation 1, with several modifications. Instead of labor force participation, we substitute the labor market outcome with a dummy for working in a time-demanding, high-skilled occupation. Since we are interested in the probability of working in a time-demanding, high-skilled occupation compared to other types of occupations, we restrict the sample to employed college-educated women. We report the OLS result in Figure 9.

The probability of working in a time-demanding, high-skilled job while unmarried is higher among younger cohorts (blue dots). In contrast, the probability of working in a time-demanding, high-skilled job while being married tends to be lower among younger cohorts (orange dots). These results are consistent with, although the magnitudes are smaller than, the previous results on labor force participation (Figure 5). The grey dots indicate that the

probability of not working in a time-demanding, high-skilled job while married also falls among younger cohorts. This is consistent with the findings that younger cohorts are increasingly working in those jobs.

Figure 9: OLS result of birth cohort effect on time-demanding high-skilled work and marriage outcome

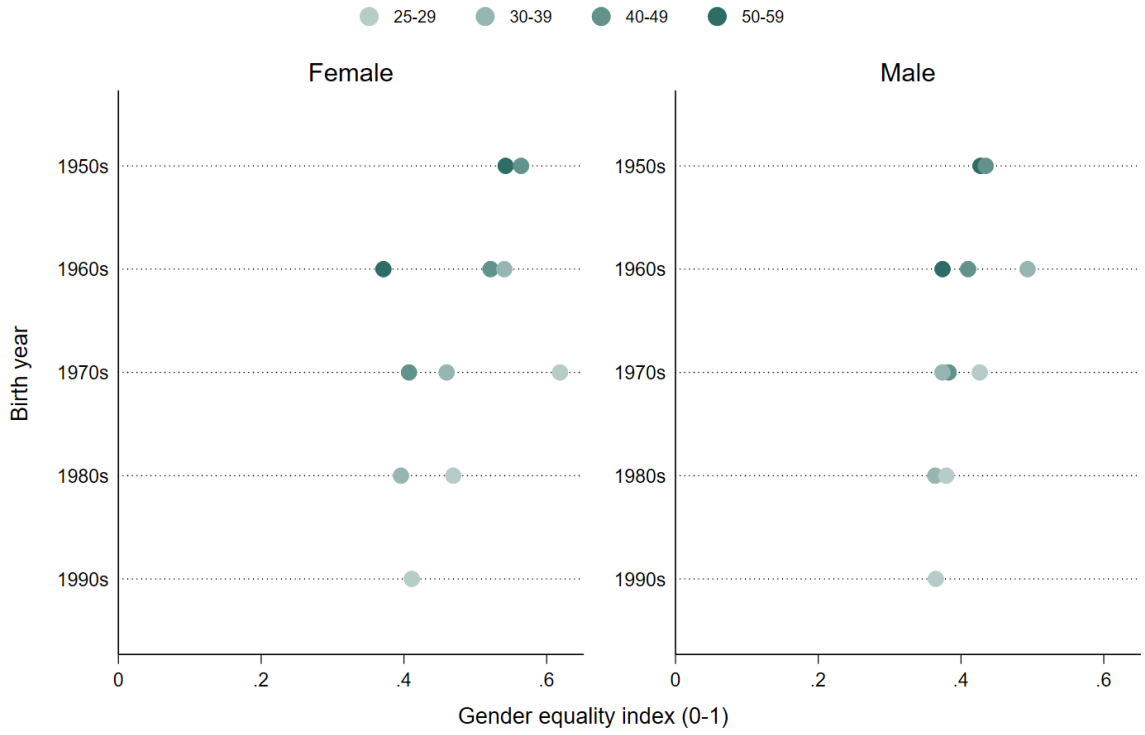


Source: Author's calculation using Sakernas

5.2. Rising conservatism

The increasing career orientation of younger cohorts of college graduate women occurs against the backdrop of a social context that is also experiencing a rise in conservatism, amidst economic progress. In this paper, we are agnostic about the origins and drivers of conservatism's re-emergence. Prior studies suggest several explanations. First, it might be a backlash against strong feminist movements (e.g., #MeToo) (Chung, 2025). Second, it can be intensified due to rapid economic progress, creating social norm conflicts across gender and generations (Goldin 2024). Third, conservative ideals, such as women staying at home and not working, represent a social or economic status that people aspire to as they move up the income ladder (Munshi and Singh, 2024).

Figure 20: Gender equality index among the general population by birth cohort and age group



Source: Author's calculation using World Values Survey

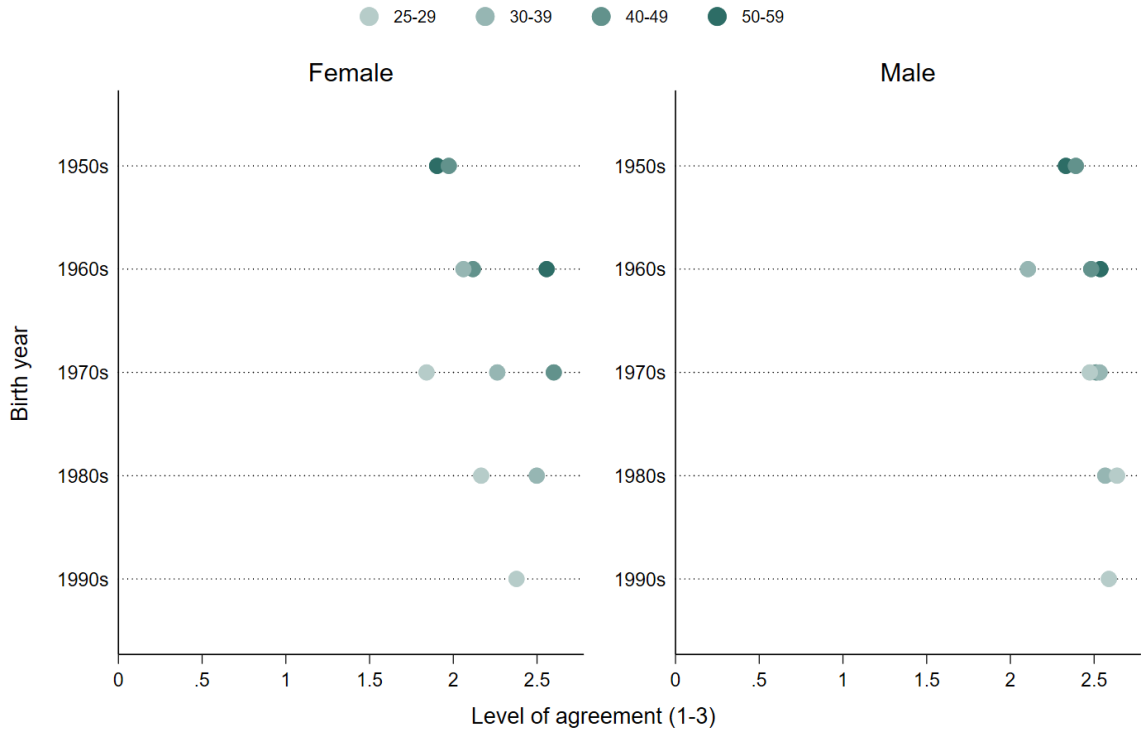
Using rounds of the World Values Survey (WVS), we document the overall shift in gender views and beliefs among the general population (Figure 10).[26] Note that the age group starts with lighter dots, which progressively become darker as the units get older. The figure shows that the gender equality index tends to decline in the younger cohort, as indicated by the leftward movement in the plots as the cohort ages. [27] This trend is most apparent in the male sample. Each successive cohort also tends to start out more conservative in their youth. Men born in the 1990s are slightly more conservative in terms of gender views during their

[26] For robustness, we plot the same graph restricted to only college graduates (Figure E1). We still find a similar pattern of rising conservatism even among college graduates. However, the direction of the gender score evolution as each cohort ages is less predictable than that of the general population sample. Some cohorts (the 1970s-1980s men and 1950s-1970s women) tend to become more progressive in gender norms as they age.

[27] The gender equality index was constructed based on three questions related to gendered views and beliefs about jobs, political participation, and education. It ranges from 0 to 1. A higher value represents greater equality. Please see Welzel (2013) for detailed notes.

late 20s than the men born in the 1950s during their 50s. This is indicated by the lighter dot in the 1990s birth cohort being slightly to the left of the darker dot in the 1950s birth cohort.

Figure 31: Response to the statement "When jobs are scarce, men should have more rights to a job than women" among the general population by birth cohort and age group



Source: Author's calculation using World Values Survey

A similar trend is also visible among the women. However, there is more variability in the evolution of gender norms among women. In addition, women on average hold a higher gender equality score than men, given the same birth cohort or age group.

Zooming in on the gender equality belief component related to economic rights, we find that younger cohorts have a higher inclination to agree that men should have more rights to a job than women when jobs are scarce (Figure 11). The same pattern also largely holds in the college graduate sample (Figure E2). However, younger women are less likely than older women to agree that "young children will suffer if their mothers are working" and that "a

woman earning a higher income than her husband will lead to a problem". Men, in general, are more likely to agree with these statements than women.[28]

We further discuss the implications of the joint trend of rising conservatism and increasing career orientation among younger cohorts of college-educated women for family formation in Section 6.2.

6. Robustness checks and discussions

6.1. Robustness checks

Our results are robust to various alternative specifications.

Limited dependent variables. Modifying the regression analysis (Equation 1), we use the categorical dependent variable model (multinomial logit) instead of OLS. We report the results in Figure C1. The figure displays a similar pattern to the OLS result. This model enables us to compare predicted probabilities of the three labor market and family outcomes directly across and within each birth cohort. The probability of being married and participating in the labor force in all the models starts very high in the older cohorts. Likewise, the probability of being unmarried and participating in the labor force is very low in the older cohorts. As this probability rises, the probability of being in the labor force and married falls. The results are also robust to alternative estimation strategies using logit and probit, which are available in the Online Appendix.

Birth cohort bins. Instead of 5-year birth cohort bins, we also define an alternative specification with 10-year birth cohort bins. This approach dissuades potential concern that we may be estimating a high-order fixed effects model with a small sample size in 5-year bins. Our results are robust to this alternative specification. These results are available in the Online Appendix.

Alternative labor market outcomes. We replace labor force participation with alternative labor market indicators, including: (i) employment dummy, (ii) working in FTE or overtime while unmarried, and (iii) working in FTE or overtime while married. Full-time employment (FTE) is defined as working 35-45 hours per week. Overtime is defined as working more than 45 hours per week. Employed dummy places a higher threshold on labor

[28] These questions are newly added in WVS Wave 7. Results are not shown because the data do not allow for comparisons by birth cohorts and age groups.

market outcomes than labor force participation because it excludes those who are seeking work, making it more restrictive. We report the results in Figure C2. The results suggest that younger cohorts of college-educated women are less able or less willing to attain both family and labor market goals at the early stage of their professional lives.

The latter two relax the constraint on time-demanding, high-skilled occupations to merely time-demanding occupations. The shares of unmarried college-educated women working in full-time and overtime positions in their late 20s and 30s are increasing in younger cohorts (Figures D4 and D5). The regression results similarly support that younger cohorts are more likely to work in FTE or overtime while unmarried (Figure D6). The probability of working in FTE while married is relatively constant across the cohorts, while the probability of working overtime while married tends to decline in the younger cohorts (Figure D7).

District fixed effect. Our inferences are robust to the lower-level region fixed effect. We relegate the results to the Online Appendix.

Alternative categories of joint family-work outcomes. In the IFLS panel data analysis, we define various distance cutoffs between when family and work decisions are considered to be sequenced or simultaneously combined. Our preferred specification is 2 years' distance. The qualitative results are robust to distances of 0 years and 3 years.[29]

We also define less granular categories of joint family-work in IFLS. The simplest definition only involves job and family, not distinguishing between jobs and careers. The slightly more complex iteration distinguishes careers from jobs. Then, we extend the definition of the categories to account for the duration of temporary labor market exit after family formation. Meanwhile, the most complete picture (presented in Section 4.5) integrates labor market entry and exit as well as childbearing responsibilities. The qualitative findings are robust to the less granular categorizations. These results are available in the Online Appendix.

6.2. Discussions

Our findings speak to the broader literature on marriage dynamics amidst growing professional opportunities for women. Women's choices to work and marry are not

[29] Results not shown.

independent of one another. The rise of both time-demanding professional occupations and conservative gender ideals presents two opposing forces that increasingly polarize women's outcomes. As a result, career and family may become two incompatible pursuits.

One channel underlying this tension is assortative matching—marriage formation based on aligned preferences and expectations between spouses. When prevailing gender norms among potential matches favor traditional household roles for women, ambitious, career-oriented women may face fewer compatible matches in the marriage market. This finding is consistent with qualitative evidence from Purnamasari et al. (2023) and Setyonaluri et al. (2021), who report that urban young men are receptive to women's employment only when women prioritize household duties.

Our WVS analysis bears a resemblance to a global pattern of ideological divergence: Burn-Murdoch (2024) documents that across many countries, young men are becoming more socially conservative, even as young women grow more progressive. Such divergence may deepen mismatches in preferences within the marriage market and increase the pressure on women to conform to traditional roles. The declining age at first marriage and childbirth, as demonstrated in Figure 4, indicates that some college graduate women may have relented to this pressure. Meanwhile, some others avoid this pressure by delaying marriage and pursuing careers. This results in the polarization of the labor market and family formation outcomes.

Even within marriage, labor market decisions may be shaped by concerns over disrupting household equilibrium. Rigorous evidence from high-income countries suggests that family–career trade-offs also occur at the intensive margin. To preserve marital harmony, women may forgo promotions or limit their earnings potential when advancing further would surpass their husband's career stage or income (Bertrand et al., 2015; Folke and Rickne, 2020). Anticipating such trade-offs, some women may delay or opt out of marriage altogether (Chiappori et al., 2009).

Our data does not yet cover a long enough horizon to observe the full arc of transformation in women's work and family trajectories. The polarizing patterns we observe today—between pursuing a career and starting a family—may represent an inflection point, a fork in the road leading to two divergent futures. In one path, what Goldin (2021) termed the "Career then Family" phase, women delay marriage and childbearing to invest in their careers early on, eventually forming families later in life. In another, bleaker scenario—what Goldin called "Career or Family"—some women may find it increasingly difficult to find compatible

partners in a marriage market shaped by persistent conservatism, ultimately opting out of family formation altogether. Which of these futures will unfold will become more apparent over the next decade, as younger cohorts enter their 40s and 50s.

Emerging evidence, however, suggests scope for positive intervention. Individuals may hold misperceived beliefs about prevailing social attitudes—underestimating how supportive others are of gender-equitable roles (Bursztyn et al., 2020). A recent online experiment in Indonesia finds that a simple information intervention can correct these beliefs and shift attitudes toward more work- and family-friendly decisions (Cameron et al., 2024).

7. Conclusions

This paper set out to investigate the evolving relationship between career aspirations and family formation among college-educated women in Indonesia, spanning birth cohorts from the 1950s to the 1990s. Our analysis reveals a growing polarization in the labor market and family outcomes among younger cohorts of female college graduates. Younger women increasingly face a dichotomy: either delaying marriage and focusing on career advancement or exiting the labor force upon marriage.

We find that younger generations of college-educated women have made substantial entry into high-skilled, time-demanding professions traditionally dominated by men. This development reflects an increasing prioritization of professional aspirations among unmarried women. On the other hand, those who form a family often do so earlier, suggesting a divergence of career and family paths. This divergence highlights the importance of examining college-educated women as a distinct subgroup, particularly as their prevalence continues to increase. Analyses focused on the general population often mask these nuanced dynamics, overlooking the intensified constraints and aspirations faced by women navigating professional opportunities within still-conservative social contexts.

We explore two potential drivers that underpin this trend. First, the growing presence of women in high-skilled, time-demanding jobs suggests that many are pursuing professional success while deferring or forgoing family life. Second, rising conservatism in gender attitudes, particularly among younger men, may be contributing to a disruption in the marriage market. This shift towards more traditional views on gender roles creates an environment in which successful, career-oriented women struggle to find partners who support their dual aspirations for work and family.

The implications of these findings are multifaceted. While increased female representation in high-skilled occupations signifies progress toward gender equality in the labor market, the associated delay or decline in family formation raises concerns about demographic trends and the well-being of women who may feel compelled to choose between their careers and families. Additionally, the resurgence of conservative gender norms could further complicate efforts to foster an environment conducive to work-family balance.

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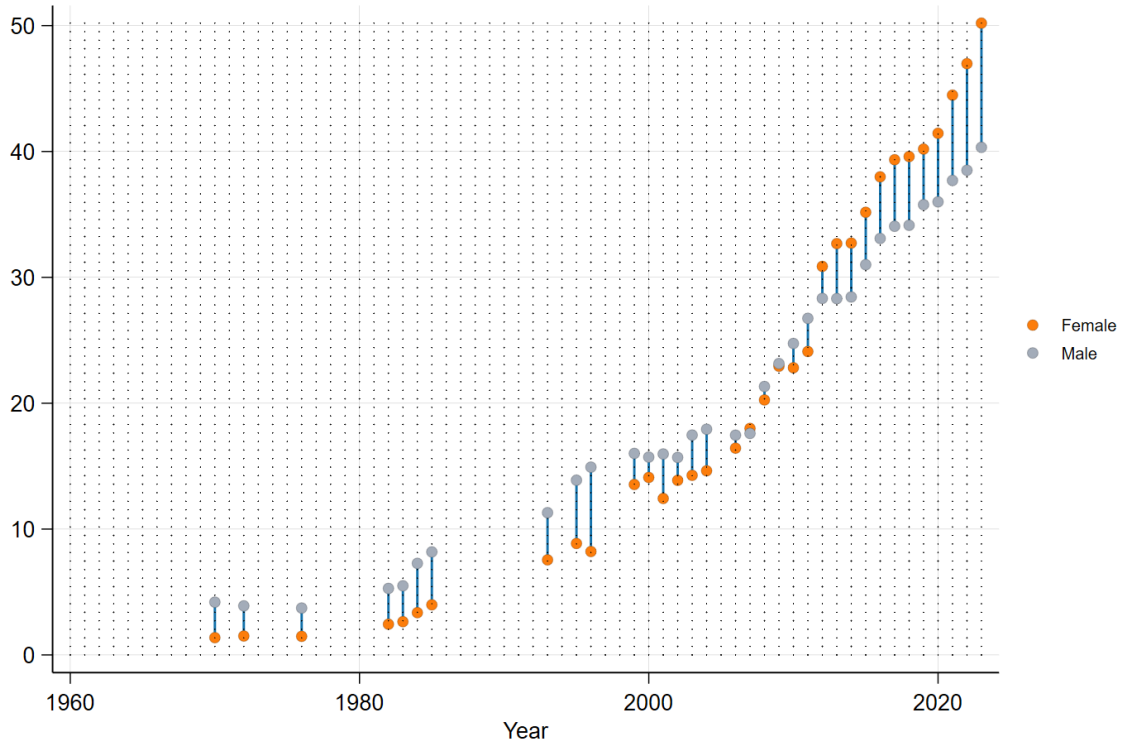
Appendices

Table A1: Total sample size across data sources

Data source	Sample size	% Female	Series
Sakernas	570,778	52.15%	1986-2023
Susenas	41,570	54.42%	2023
IFLS	2,718	53.27%	Wave 1 (1993), Wave 2 (1997), Wave 3 (2000), Wave 4 (2007), Wave 5 (2014)
WVS	4,146	52.36%	Wave 4 (2001), Wave 5 (2006), Wave 7 (2018)

The WVS sample consists of the general population (all observation units regardless of educational attainment), while the sample from the other data sources only comprises college graduates.

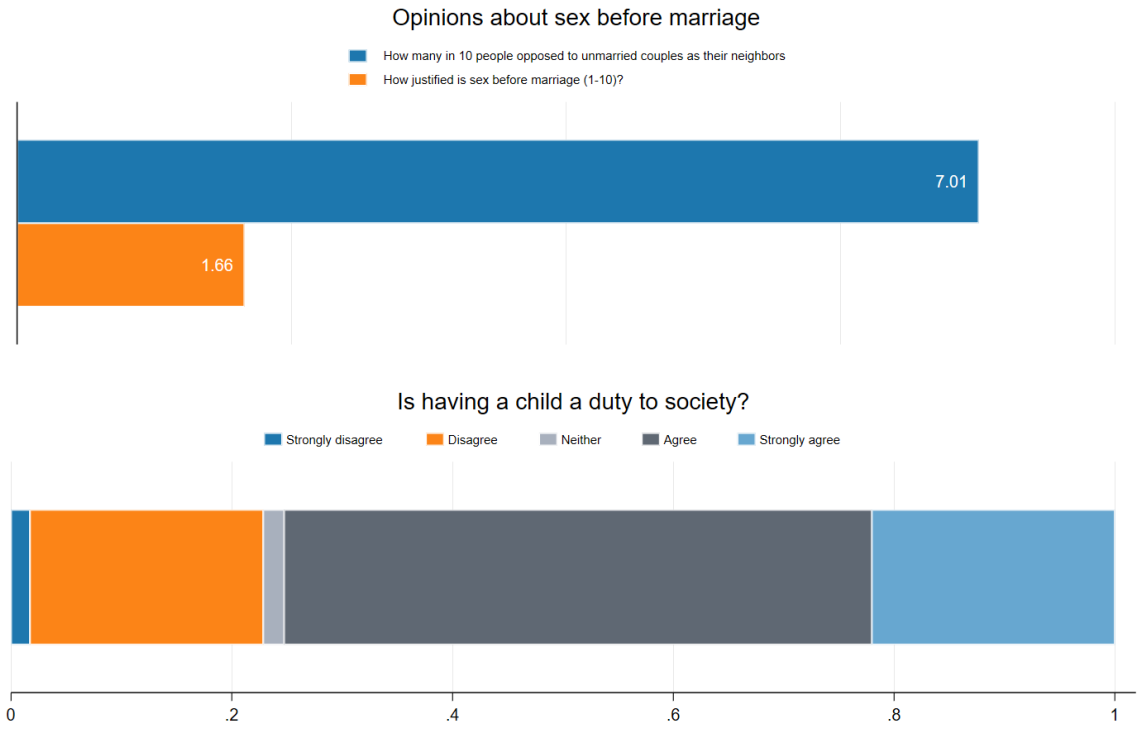
Figure A1: Tertiary education enrollment rate in Indonesia



Source: World Development Indicators.

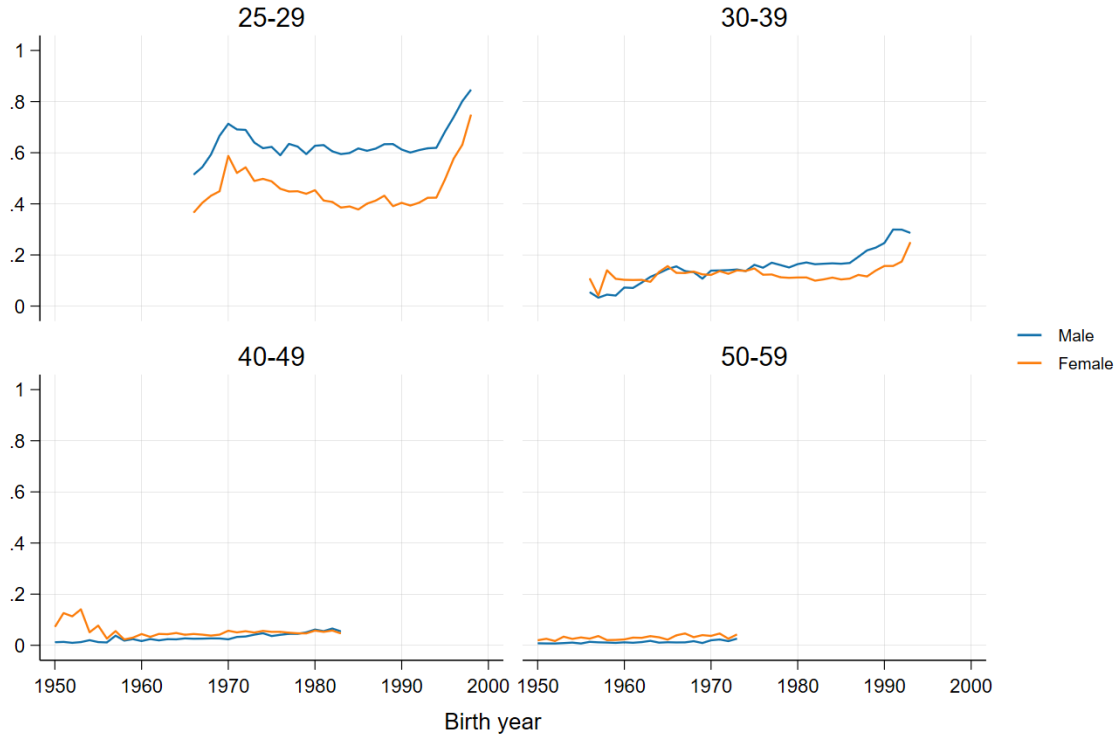
Notes: Orange and grey dots indicate tertiary enrolment rates of women and men in Indonesia, respectively. The blue vertical lines indicate the gender gap in tertiary enrolment.

Figure A2: Key opinions about marriage and childbearing in Indonesia



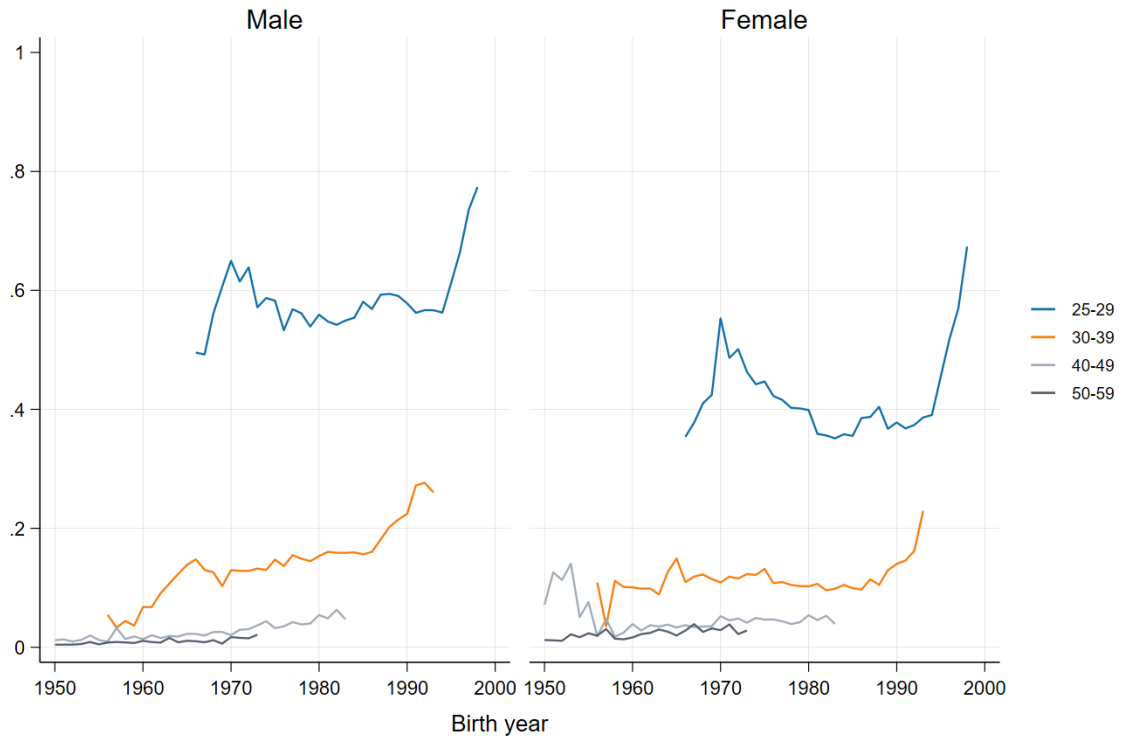
Source: Author's calculation using World Values Survey

Figure B1: Fraction of college graduates unmarried by age group and birth cohort



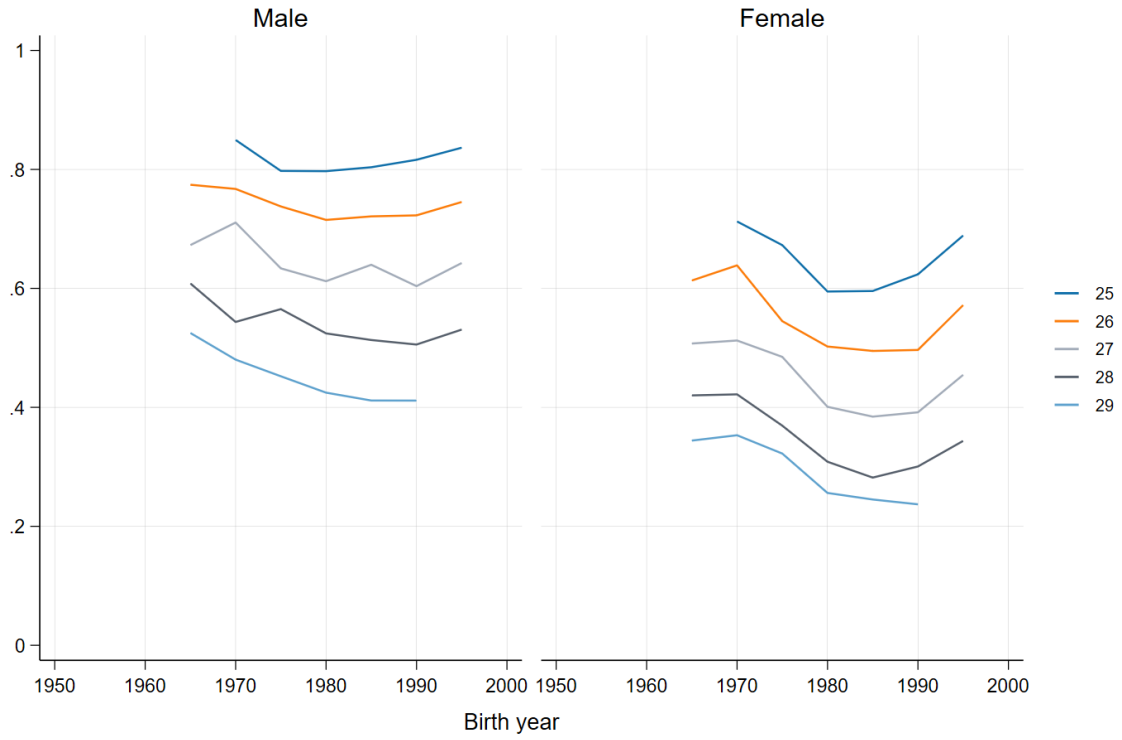
Source: Author's calculation using Sakernas

Figure B2: Fraction of college graduates unmarried and in the labor force by birth cohort and age group



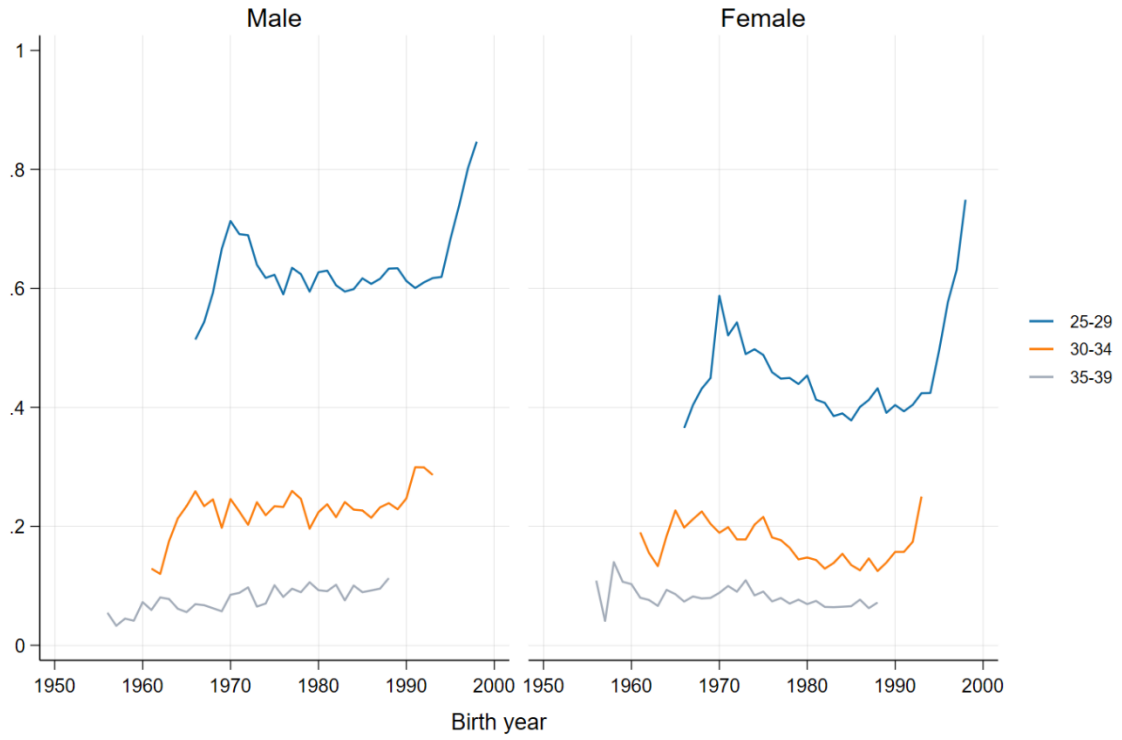
Source: Author's calculation using Sakernas

Figure B3: Fraction of college graduates unmarried by age group (late 20s only) and birth cohort



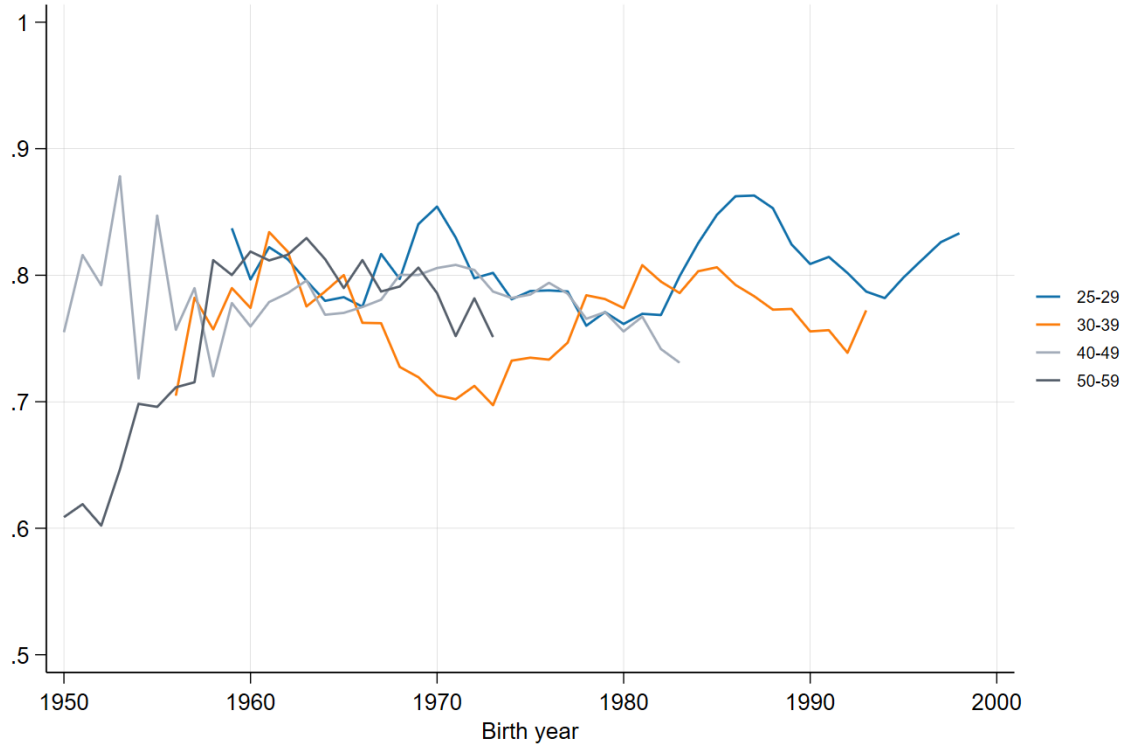
Source: Author's calculation using Sakernas

Figure B4: Fraction of college graduates unmarried by age group (late 20s and 30s only) and birth cohort



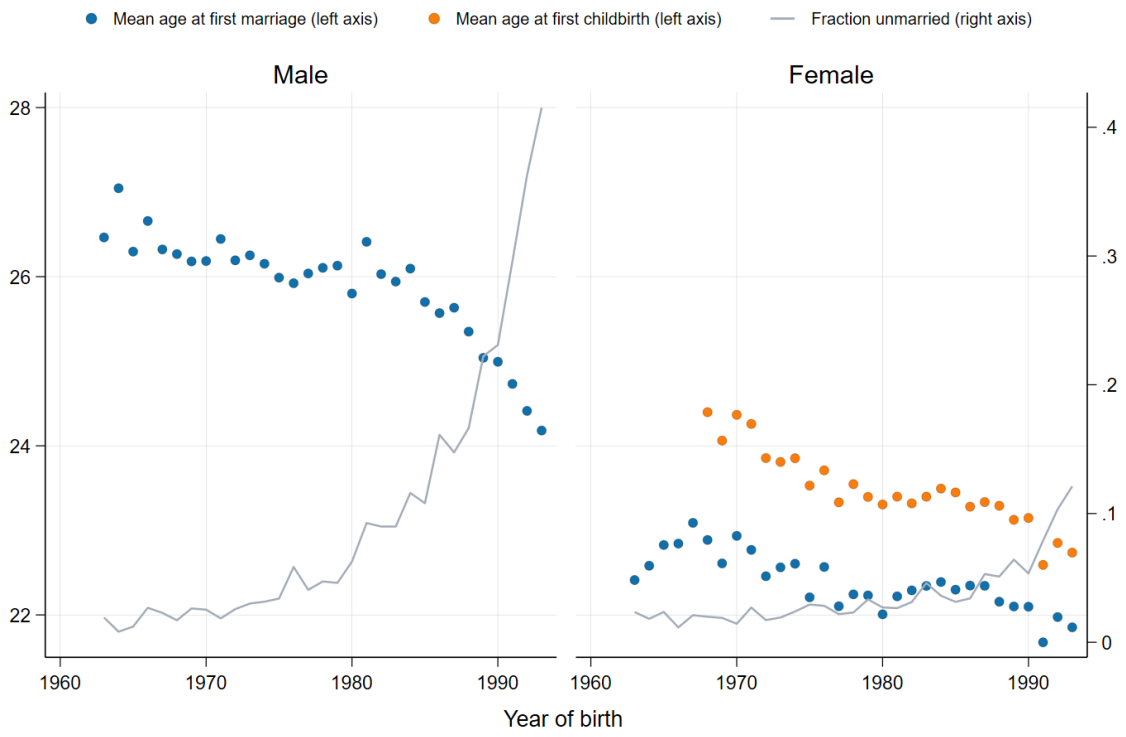
Source: Author's calculation using Sakernas

Figure B5: Labor force participation rate of college graduate women by birth cohort and age group



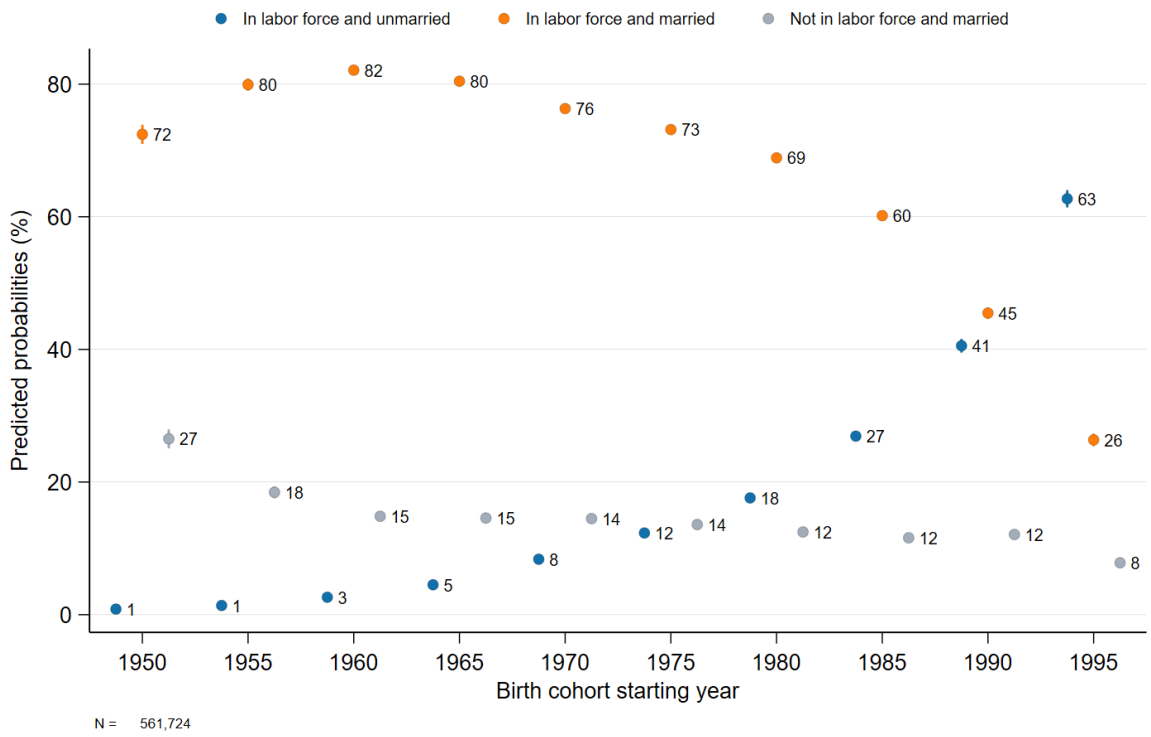
Source: Author's calculation using Sakernas

Figure B6: Marital and childbirth outcomes of high school graduates in 2023 by birth cohort



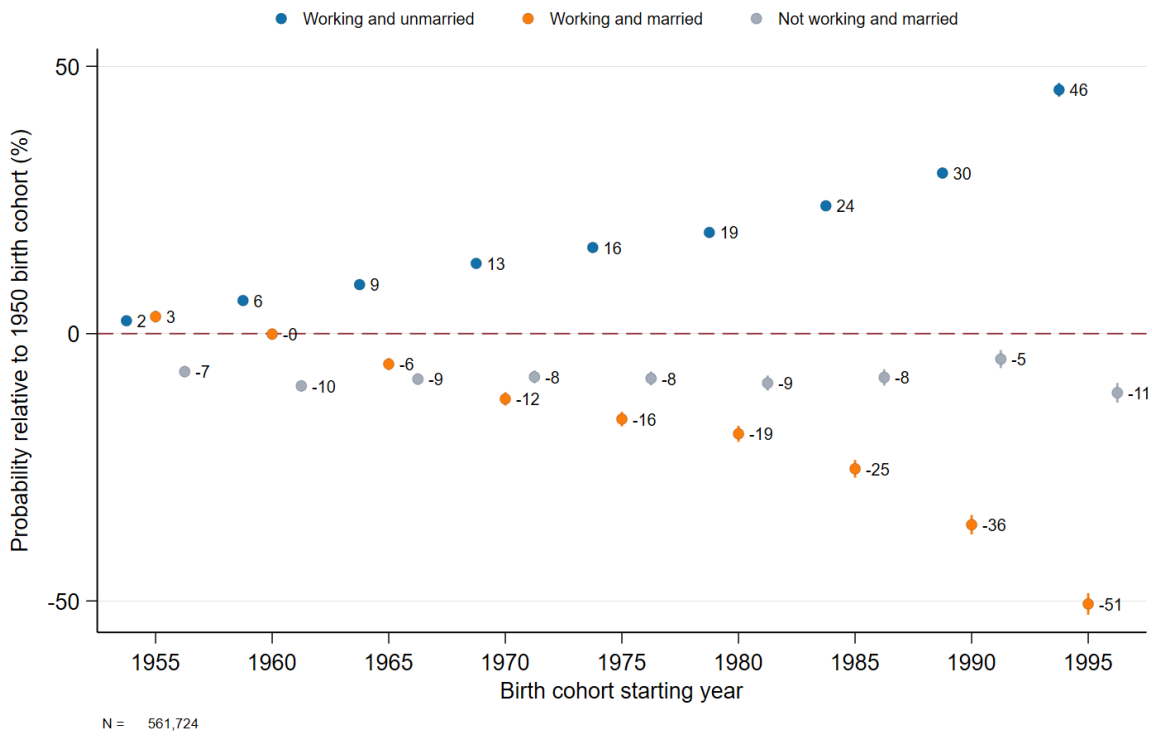
Source: Author's calculation using Susenas

Figure C1: Multinomial logit result of birth cohort effect on labor market participation and marriage outcome



Source: Author's calculation using Sakernas

Figure C2: OLS result of birth cohort effect on working and marriage outcome



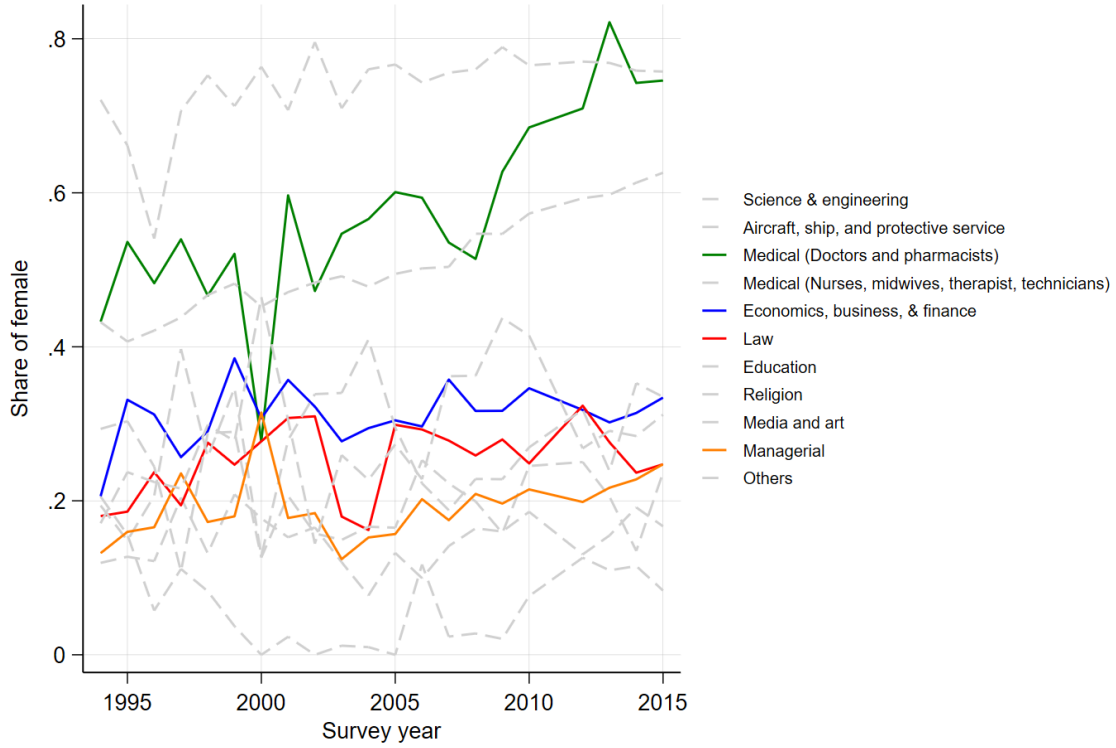
Source: Author's calculation using Sakernas

Figure D1: Work hour distribution of high-skilled occupations



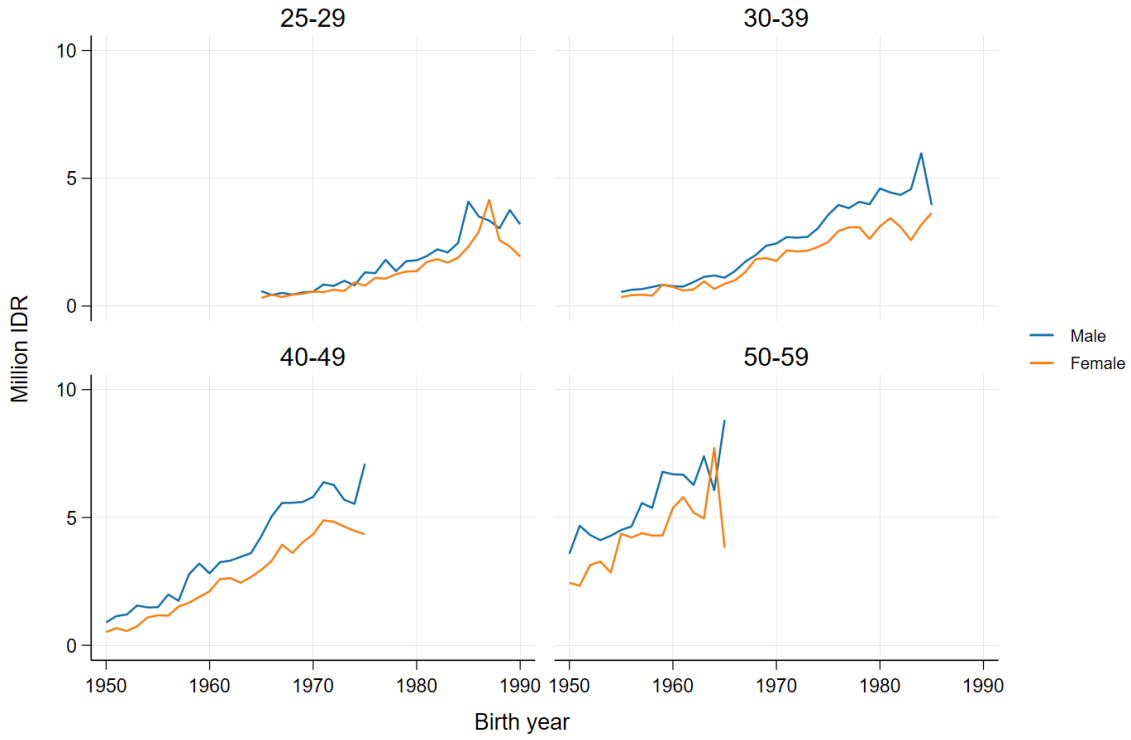
Source: Author's calculation using Sakernas

Figure D2A: Share of female college graduates in high-skilled occupations by field



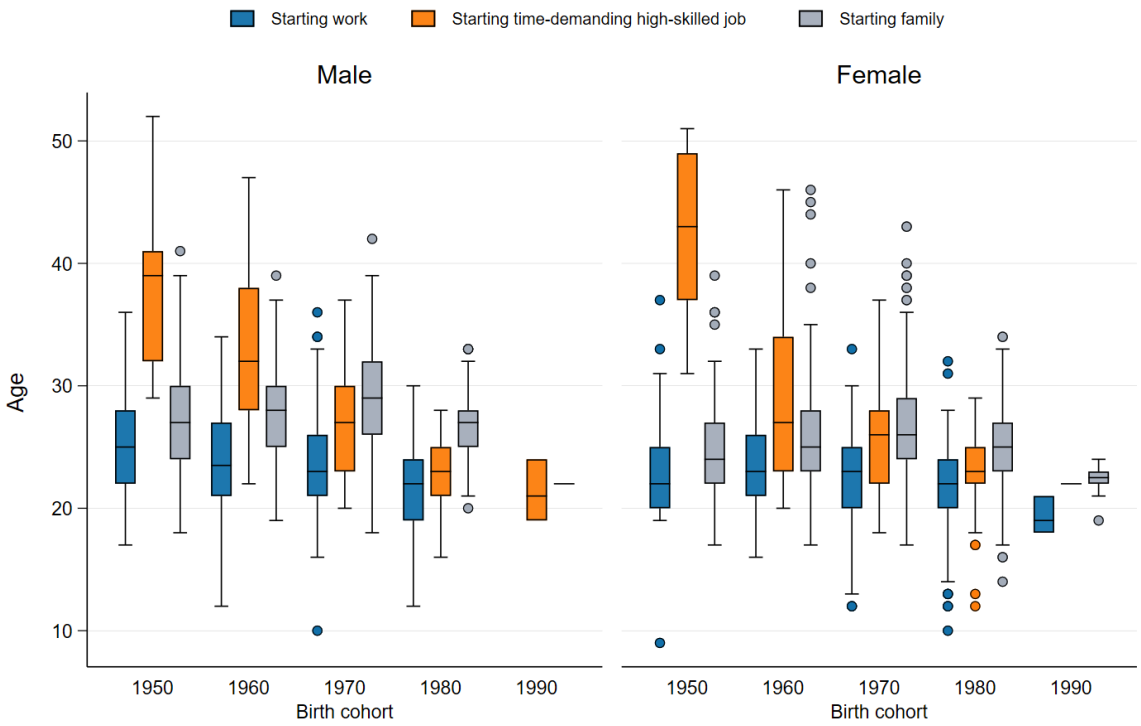
Source: Author's calculation using Sakernas

Figure D2B: Real earnings of college-educated time-demanding high-skilled workers by birth cohort and age group



Source: Author's calculation using Sakernas

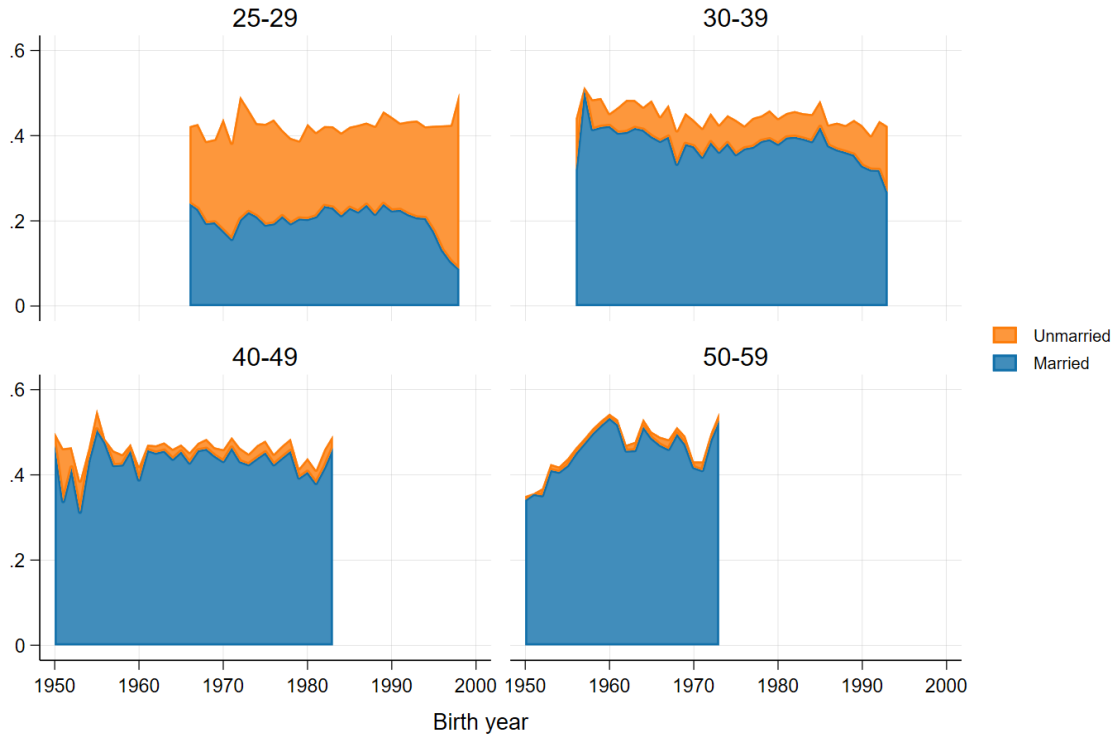
Figure D3: Starting age of work, time-demanding, high-skilled job, and family among college graduates by birth cohort in 2014



Source: Author's calculation using IFLS

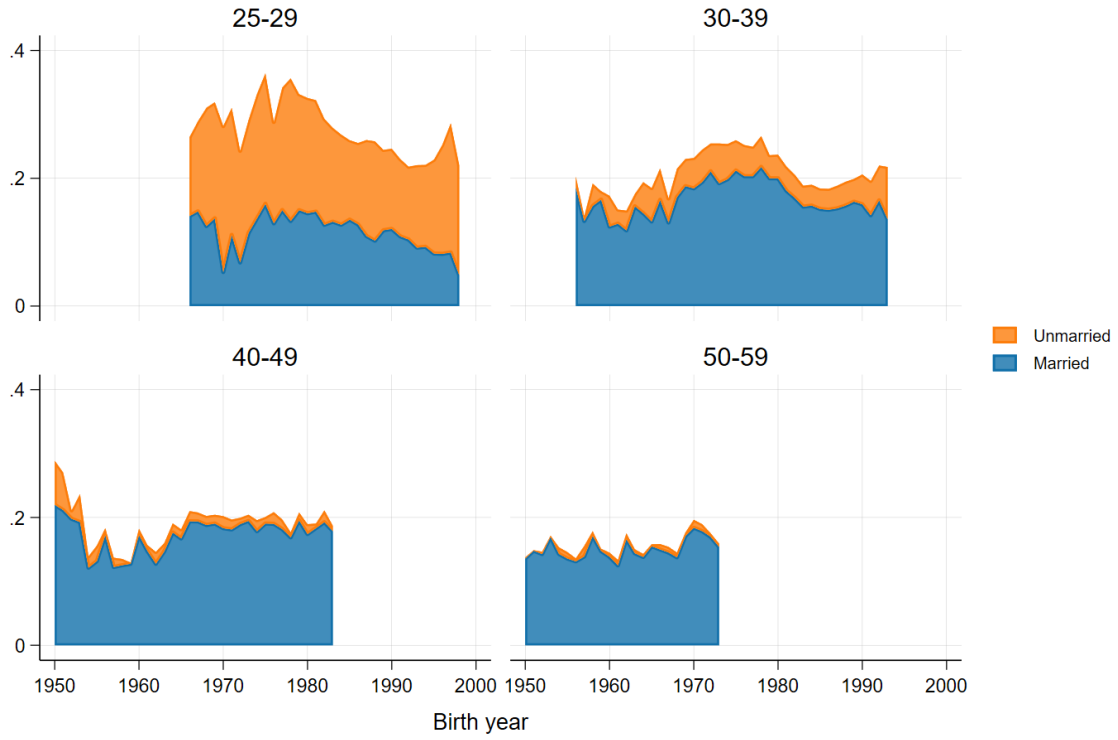
Note: Since IFLS asks childbearing questions to any woman older than 15 years, we use whichever is earlier between the age of first marriage and the age at which she first delivers a live birth as the age of starting a family.

Figure D4: Marital status of college graduate women working 35-45 hours per week by birth cohort and age group



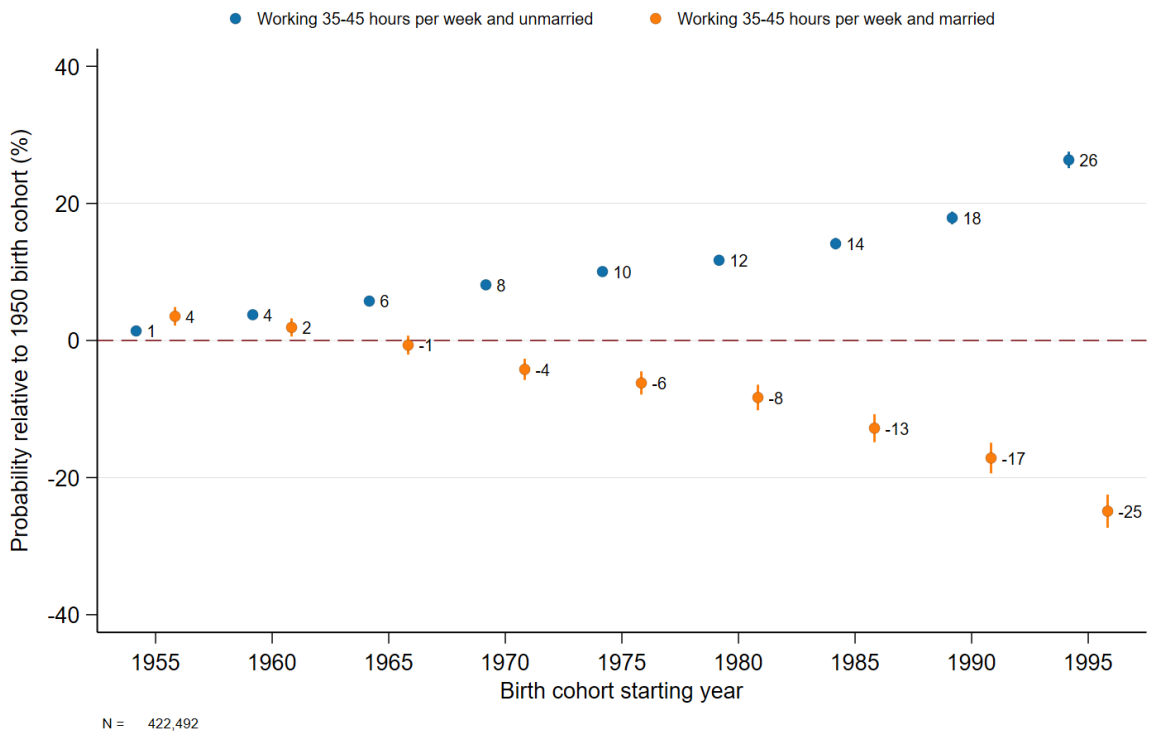
Source: Author's calculation using Sakernas

Figure D5: Marital status of college graduate women working >45 hours per week by birth cohort and age group



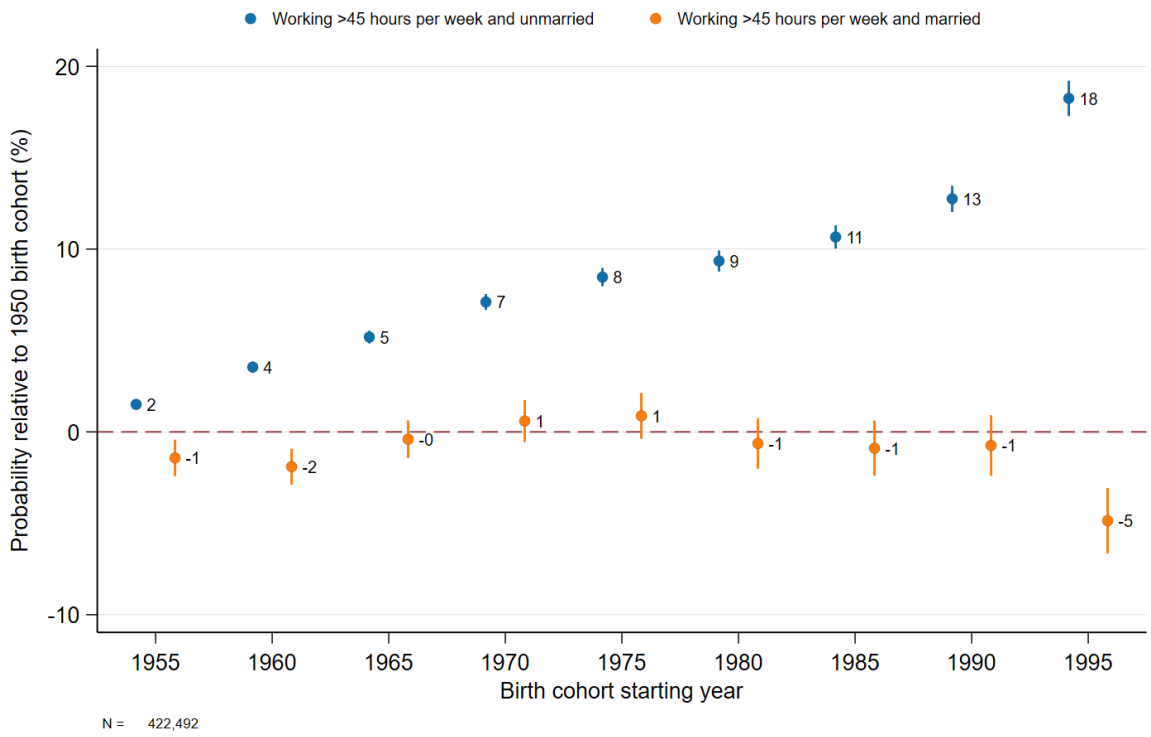
Source: Author's calculation using Sakernas

Figure D6: OLS result of birth cohort effect on working 35-45 hours per week and marriage outcome



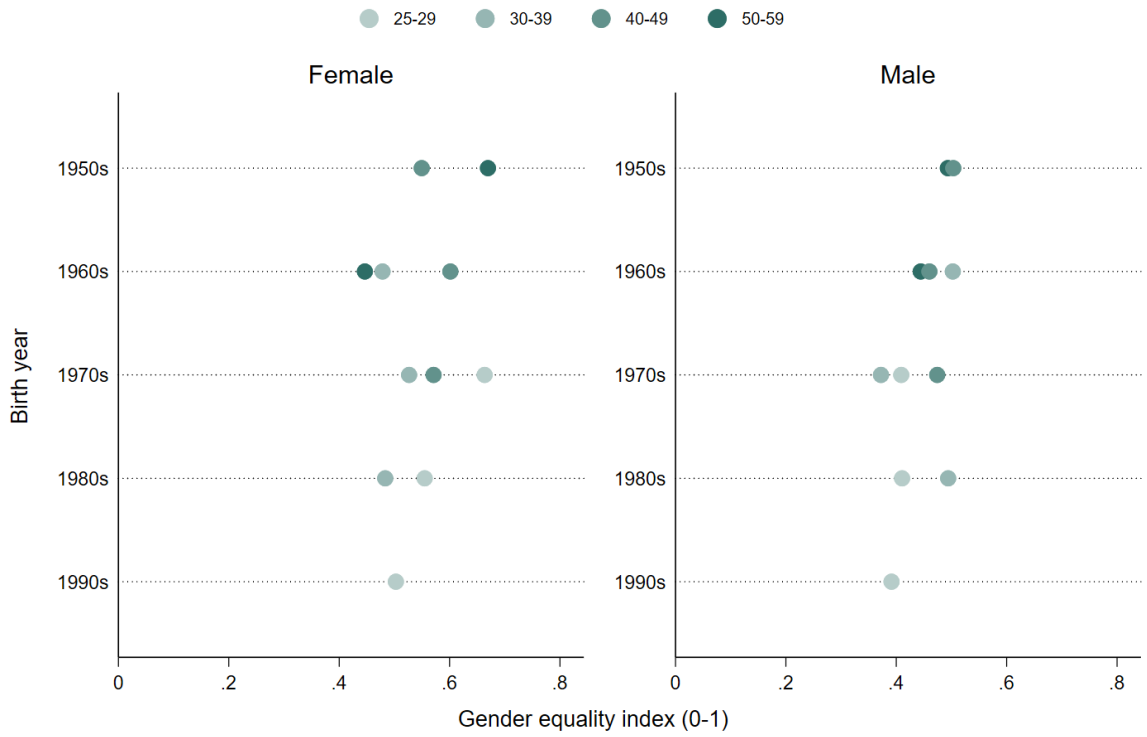
Source: Author's calculation using Sakernas

Figure D7: OLS result of birth cohort effect on working >45 hours per week and marriage outcome



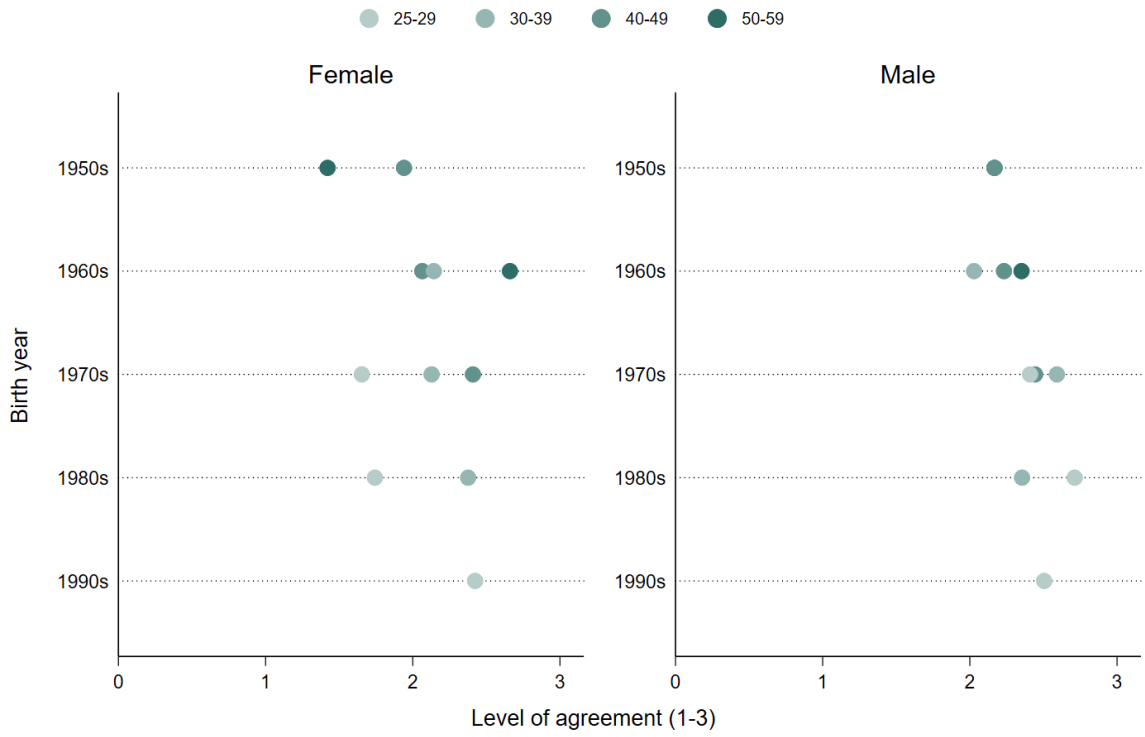
Source: Author's calculation using Sakernas

Figure E1: Gender equality index among college graduates by birth cohort and age group



Source: Author's calculation using World Values Survey

Figure E2: Response to the statement “When jobs are scarce, men should have more rights to a job than women” among college graduates by birth cohort and age group



Source: Author’s calculation using World Values Survey

Appendix F1. Definition of family-job/career categories in IFLS panel data

We closely adapted Goldin (2021) to develop these group construction methods. The first categorization system examines how college-educated women sequence their job/career, and family decisions. We do not factor in labor market exit and re-entry in the first categorization, as we are only interested in the starting sequence of job/career and family.

Building on the first framework, we also devise two additional categorization frameworks that account for temporary labor market exits after family formation. The first is the simpler one, as it only accounts for the duration of temporary labor market exit. The second accounts for child-rearing responsibilities (if any) that delay labor market reentry after family formation.

Group definition when only accounting for the duration of the temporary labor market exit

1) Group 1: Family or career/job

   This group only ever had either a family, a career, or a job in their lifetime.

2) Group 2: Job then family

   This group had a job (not a career) first, then a family later. Yet after starting a family, they permanently exit the labor market within two years.

3) Group 3: Family then job

   This group consists of:

   1. Those who start their first job at least two years after starting a family.
   2. Those who had a job before starting a family, then temporarily exited the labor market after. They return to the labor market after four years (median).

4) Group 4: Job and family

   This group is essentially the reverse of Group 3, with one additional case.

   1. Those who start their first job within two years of starting a family.
   2. Those who had a job before starting a family, then temporarily exited the labor market after. They return to the labor market within four years (median).
   3. Those who had a job before family and never exited the labor market even after starting a family.

5) Group 5: Career then family

Similar to Group 2, the women in this group had a career first before a family. After starting a family, they permanently exit the labor market within two years.

6) Group 6: Family then career

Similar to Group 3, this group consists of:

1. Those who start their first career at least two years after starting a family.
2. Those who had a career before starting a family, then temporarily exited the labor market after. They return to their careers after four years (median).

7) Group 7: Family and career

This group is essentially the reverse of Group 6, with one additional case.

1. Those who start their first career within two years of starting a family.
2. Those who had a career before starting a family, then temporarily exited the labor market after. They return to their career within four years (median).
3. Those who had a career before family and never exited the labor market even after starting a family.

8) Group 8: Neither family nor job/career

Those who had neither family nor job nor career in their lifetime.

Group definition when accounting for child-rearing responsibilities that delays labor market reentry

1) Group 1: Family or career/job

This group only ever had either a family, a career, or a job in their lifetime.

2) Group 2: Job then family

This group had a job (not a career) first, then a family later. Yet after starting a family, they permanently exit the labor market within two years.

3) Group 3: Family then job

This group consists of:

1. Those who start their first job after their youngest child turns six.
2. Those who had a job before starting a family, then temporarily exited the labor market after. They return to the labor market after their youngest child turns six.

4) Group 4: Job and family

This group is essentially the reverse of Group 3, with one additional case.

1. Those who start their first job after starting a family but before their youngest child turns six.
2. Those who had a job before starting a family, then temporarily exited the labor market after. They return to the labor market before their youngest child turns six.
3. Those who had a job before family and never exited the labor market even after starting a family.

5) Group 5: Career then family

Similar to Group 2, the women in this group had a career first before a family. After starting a family, they permanently exit the labor market within two years.

6) Group 6: Family then career

Similar to Group 3, this group consists of:

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2. Those who had a career before starting a family, then temporarily exited the labor market after. They return to their career before their youngest child turns six.
3. Those who had a career before family and never exited the labor market even after starting a family.

8) Group 8: Neither family nor job/career

Those who had neither family nor job nor career in their lifetime.