

## **Extended abstract**

# **Educational Inequalities in Conjugal Trajectories: A Life Course Analysis Using GGS Data from Uruguay**

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### **Abstract**

Uruguay constitutes a distinctive demographic case within Latin America, characterized since the mid-1980s by low marriage rates, widespread cohabitation, and high union instability. This study examines how educational attainment shapes union formation and dissolution among men and women in Uruguay, using nationally representative retrospective data from the 2022 Generations and Gender Survey. Adopting a life-course perspective, we analyze conjugal trajectories among individuals aged 15 to 45, focusing on generational differences and social inequalities.

Findings reveal pronounced educational and gender disparities. Women with lower education tend to enter unions earlier and experience higher instability, while more educated individuals—especially men—delay and stabilize their relationships. Although educational gaps in union formation persist, differences in dissolution timing are less marked, suggesting a complex interplay between social stratification and relationship stability.

We identified six clusters as a parsimonious and meaningful typology, capturing the coexistence of early and late marriage, the expansion of cohabitation, and persistent non-union paths, with varying levels of stability and re-partnering. Multivariate analyses highlight a cohort shift toward non-traditional unions: lower-educated individuals are concentrated in stable cohabitation, whereas higher-educated ones increasingly follow late marriage trajectories. These patterns indicate widening educational divides and enduring gendered differences in partnership behavior.

By situating Uruguay within broader debates on family change in the Global South, this research underscores how structural inequalities and demographic dynamics intersect. It contributes to a more nuanced understanding of conjugal life courses in Latin America and the stratified nature of contemporary partnership trajectories.

## 1. Introduction

Across the Western world, processes of family formation have undergone marked transformations over recent decades, particularly in the timing, sequencing, and stability of conjugal unions (Cherlin, 2016; Fasang & Raab, 2014). Delayed union entry, increased cohabitation, and growing instability have challenged the traditional family model and contributed to the de-standardization of life courses. While this has been well documented in Europe and North America, demographic change in Latin America—particularly in contexts marked by structural inequalities and historical instability—has followed more complex and heterogeneous paths (Castro Torres et al., 2022; Esteve et al., 2022; Lesthaeghe, 2024). Distinctive features of conjugal life in the region include early union formation, the coexistence of cohabitation and marriage, high levels of single motherhood, and the enduring role of extended family networks (Esteve et al., 2012, 2022). These contextual specificities challenge universalist models of family change and call for a deeper understanding of how structural inequalities mediate demographic behaviors.

Gender remains a central axis of heterogeneity in the transformation of union formation and dissolution. Prevailing gender norms, institutional arrangements, and labor market dynamics often shape men's and women's opportunities and decisions differently, resulting in gendered pathways of union formation and dissolution (Liu et al, 2023; Esping-Andersen & Billari, 2015; Van Bavel et al., 2018; Zhou, 2022). Moreover, differences across socioeconomic groups have become more pronounced, with education emerging as a strong predictor of family behaviors and stability (McDonald, 2000; Bavel & Kok, 2009).

Uruguay presents a particularly relevant case for analyzing these dynamics. Since the mid-1980s, marriage rates have declined sharply—by approximately half—while consensual unions have increased dramatically among young people across all educational strata (Cabella, 2009). Studies of young Uruguayans aged 20-29 between 1990 and 2008 show that consensual unions displaced marriage in all education levels, and that education was not a statistically significant predictor of whether young people chose marriage or union-free living during that period (Cabella & Fernández, 2012). However, trajectories in Montevideo indicate that women with higher education tend to delay both union formation and childbearing, and that the gap in these timings between educational levels has widened across more recent cohorts—in short, there is increasing educational heterogeneity in early life course transitions (Paredes, 2003; Videgain, 2012).

While Uruguay shares many of these trends with other Latin American countries, it is distinguished among them as relatively advanced in the transition: low marriage rates, high prevalence of consensual unions, significant levels of union instability (Esteve et al., 2022; Pesando et al., 2019). Uruguay resembles Southern European countries in its postponement of marriage, rise in cohabitation, and widening educational gaps in union formation, yet it remains between Latin America and Europe in the pace and stability of these changes. Prior research, particularly focused only on women in urban Montevideo, has shown strong associations between educational attainment and conjugal patterns. However, there is a lack of nationally representative analyses incorporating both sexes and capturing the interplay between educational gradients, gender, and generational change.

The aim of this study is to analyze the evolution of conjugal trajectories in the Uruguayan population between ages 15 and 45, considering generational differences and social inequalities. Specifically, we examine whether educational attainment influences the timing, sequence, and stability of first unions and dissolution, considering differences by sex and across three key birth cohorts (1958–1967, 1968–1977, and 1978–1987). For that, first describe conjugal states across the life course, comparing their variation by birth cohort, sex, and educational attainment. Then, we identify and characterize typical patterns of conjugal trajectories, analyzing their heterogeneity and variation according to sociodemographic factors. And finally, we examine the sociodemographic determinants of conjugal trajectories through a multivariate model, assessing the effects of birth cohort, education, sex, childbearing, region, and parental family structure during childhood.

## **2. Data and Methods**

This study draws on data from the *Generations and Gender Survey* (GGS) conducted in Uruguay in 2022. The GGS collected rich retrospective and cross-sectional information on demographic events and family dynamics, including detailed conjugal histories. The nationally representative sample includes 7,245 respondents (men and women) aged 18 to 79. For the purposes of this analysis, we restrict the sample to individuals aged 35 to 65 to ensure sufficient observation time for the reconstruction of conjugal trajectories while minimizing right-censoring at early ages.

Adopting a life course perspective, the analytical strategy unfolds in three stages:

1. Descriptive Visualization: Using retrospective annual data from age 15 to 45 (or until the year of interview), we reconstruct union status trajectories (never in union, 1<sup>st</sup>

cohabitation, 1<sup>st</sup> marriage, Separated or divorced of 1<sup>st</sup> Union, 2<sup>nd</sup> cohabitation, 2<sup>nd</sup> marriage, Separated or divorced of 2<sup>st</sup> Union and plus).

2. Sequence Analysis: We apply optimal matching (OM) algorithms to full conjugal sequences (ages 15–45) and perform cluster analysis to identify typical conjugal trajectories.
3. Sociodemographic determinants: We estimate a multinomial logit model where the outcome is the six-type trajectory cluster, using the trajectory of “Stable early marriage” as the reference category. We use as independent variables sex, birth cohort, educational level, the interaction between cohort and education, whether the parents were separated at age 15, whether the respondent has children, and the region of residence.

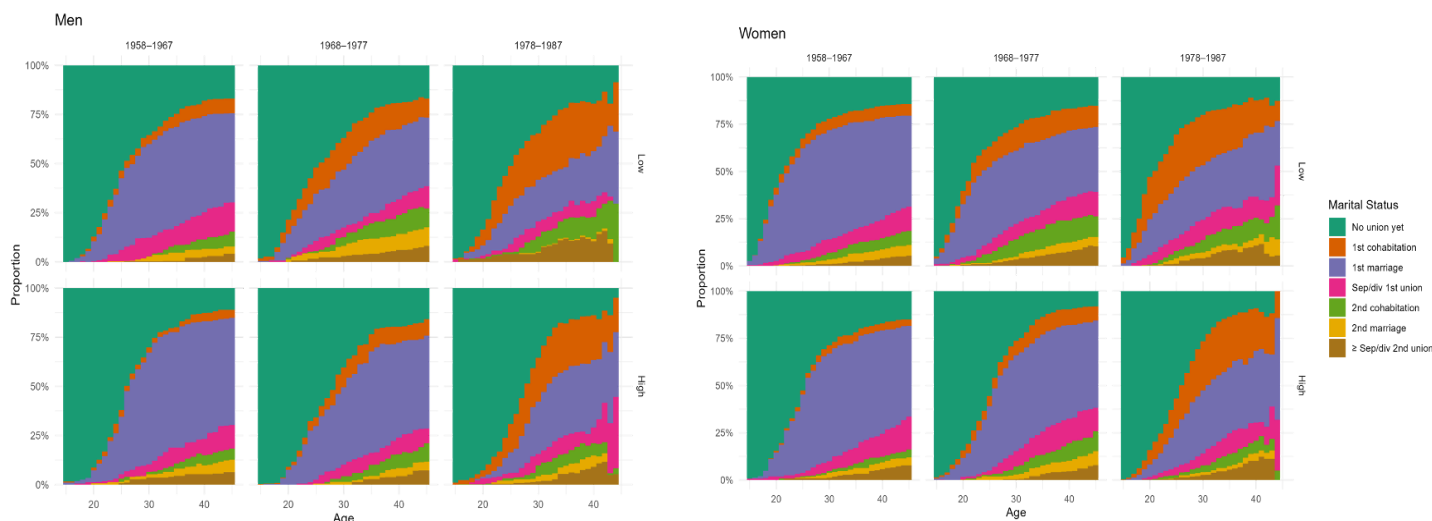
A central dimension of this study is the examination of educational gradients in conjugal trajectories. Educational attainment, used as a proxy for socioeconomic status, distinguishes individuals who completed secondary education from those who did not—reflecting persistent structural inequalities in Uruguay and enabling the analysis of stratified life course patterns. Education serves as a key variable to capture differences in union formation and dissolution by sex and cohort, given its strong empirical relevance in the literature and its capacity to reflect differentiated social trajectories. Yet, educational attainment is neither neutral nor exhaustive as an indicator of social position. As Carter (1999) notes, in unequal contexts education may reproduce social hierarchies under the guise of meritocracy, and in Uruguay, disparities in academic performance—strongly linked to social origin—are a major channel of inequality (Cardozo, 2018). Thus, despite educational expansion, equal opportunities have not fully materialized. Recognizing these limitations, education is approached here as a meaningful but context-dependent dimension for interpreting family dynamics.

All descriptive and multivariate analyses are disaggregated by education to assess whether divergence in conjugal behaviors has increased across cohorts and whether educational inequalities differ by gender. Including both men and women in the analysis expands on previous research focused primarily on women and contributes to a more comprehensive understanding of how social reproduction shapes union formation and dissolution in contemporary Uruguay.

### 3. Results

Figure 1 reveals marked generational and educational divergences in union status. Younger cohorts, particularly those with higher education, postpone both cohabitation and marriage. These results highlight both the postponement of union formation across cohorts and the persistent stratification of conjugal trajectories by education and sex. At ages 25 and 30, a larger share of highly educated men and women remain in the “no union yet” category compared to their less educated peers, and entry into first unions is more frequent through marriage. By contrast, individuals with lower education enter unions earlier, with cohabitation playing a more prominent role. By age 35, separations and higher-order unions are more visible among the less educated, while among the highly educated marriage remains dominant, albeit at later ages.

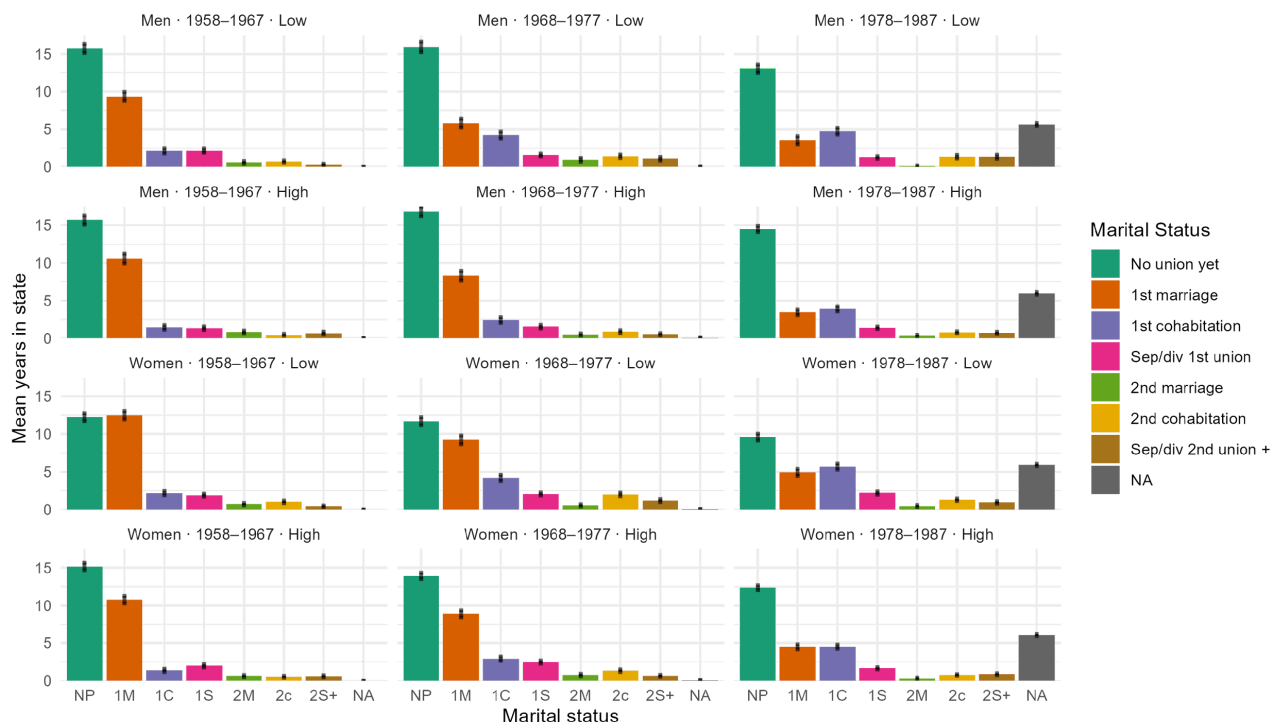
**Figure 1. Proportion union status by sex, age, cohort, and educational level. Uruguay 2022**



Source: GGS 2022 survey data.

Figure 2 illustrates a marked decline in the duration of first marriages and a concurrent increase in the duration of first cohabitations across cohorts. The time spent separated from the first union remains relatively stable for both men and women. Men tend to spend longer periods without a partner—approximately four years more on average—while women spend more time in their first marriage, although this duration declines over successive cohorts. By educational level, individuals with lower educational attainment spend more time outside a union (“Not in union yet”) and remain in cohabitation for longer. Among the most recent cohorts, the duration of first cohabitation even exceeds that of first marriage.

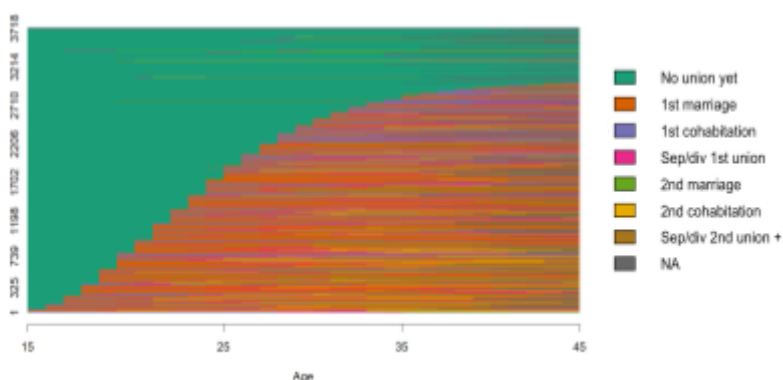
**Figure 2. Average duration between 15 and 45 years old in marital status by sex, age, cohort and educational level. Uruguay 2022**



Source: GGS 2022 survey data.

The Sequence Index Plots (Figure 3) summarize the full conjugal histories of individuals. When ordered by age at first union, they highlight differences in the timing of entry into conjugal life; when ordered by global similarity. Using OM distance, we applied hierarchical clustering using the Ward method. The dendrogram and partition quality criteria pointed to an optimal solution of around five to six clusters.

**Figure 3. Sequence Index Plot sort by first union. Uruguay 2022**

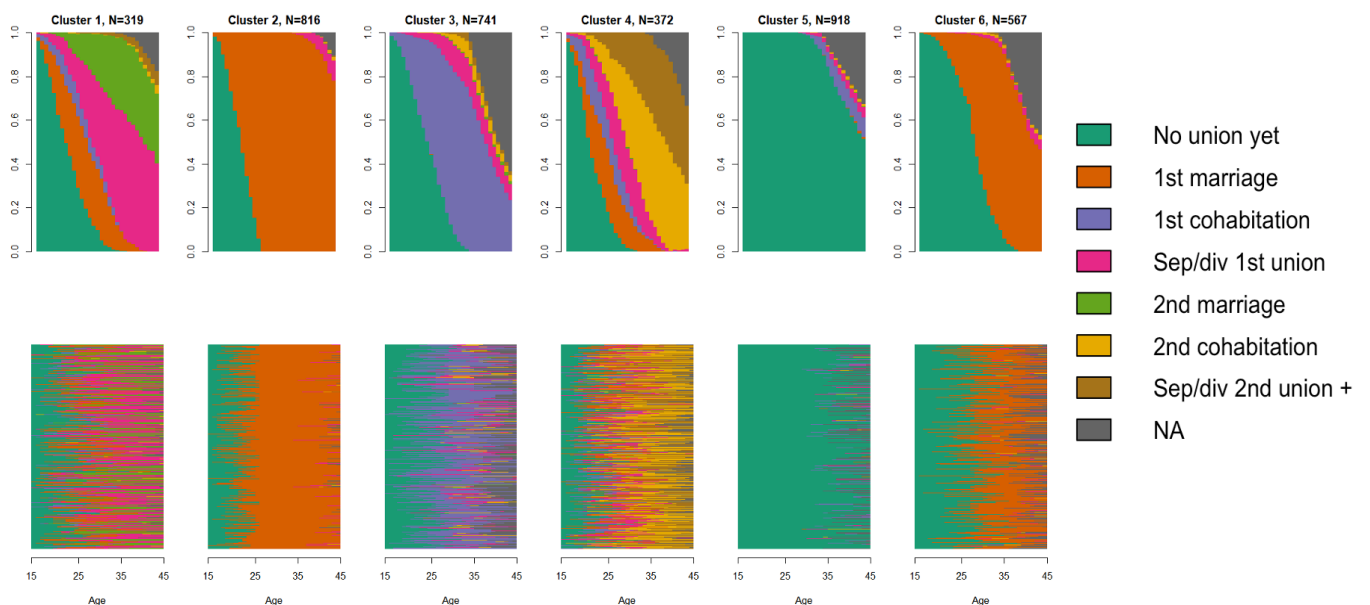


Source: GGS 2022 survey data.

We finally retained six clusters as a parsimonious and substantively meaningful typology (Figure 4). The first type, *early stable marriage*, represents individuals whose first union occurred through

marriage at a young age and who remained in that union without dissolutions. This is the most traditional and also the represent a high proportion pattern in the sample. The second type, *late stable marriage*, captures individuals who postpone first marriage to later ages and then remain in that union—i.e., a timing shift rather than a change in trajectory type. The third type, *never in union*, includes those who did not form any conjugal union between ages 15 and 45. The fourth type, *stable mid-age cohabitation*, includes individuals whose first union was a cohabitation formed at an intermediate age, which remained stable over time. The fifth type and the sixth type represent multiple transitions. The fifth type, *early marriage with separations*, captures trajectories where individuals married early, experienced a dissolution, and did not re-enter a stable marriage by age 45 — often transitioning to cohabitation or remaining single thereafter. The sixth type, *late marriage with a second union*, shows individuals who married later, experienced a separation, and later formed a second union, typically through marriage. Together, these six clusters summarize the main patterns of conjugal formation and dissolution in Uruguay, illustrating the coexistence of early and late union models, increasing cohabitation, and the persistence of non-union trajectories (Figure 4).

**Figure 4. Sequence Index Plot sort by first union. Uruguay 2022**

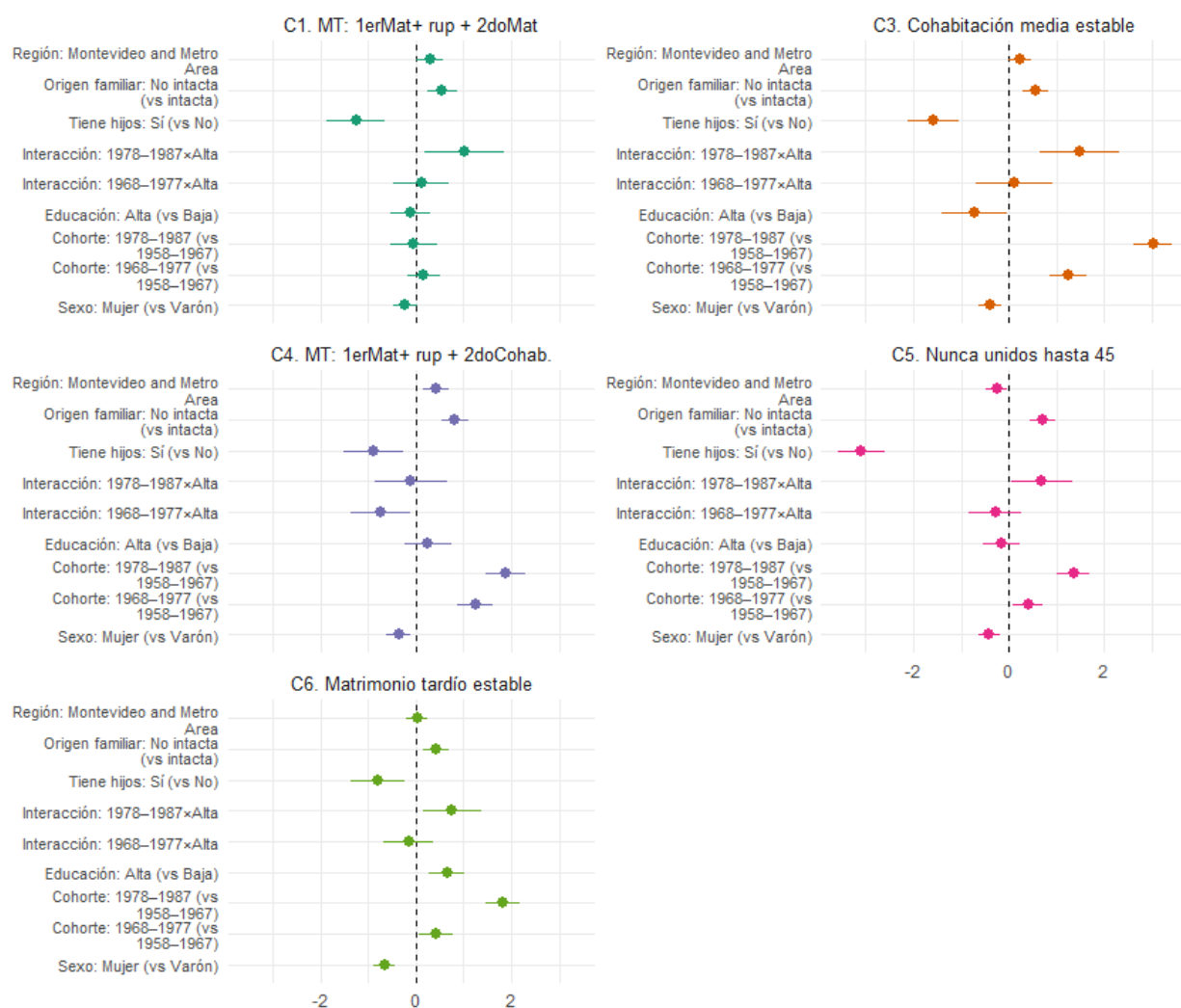


Source: GGS 2022 survey data.

Figure 5 shows a clear cohort shift: newer cohorts are more likely to follow non-traditional pathways—especially Stable mid-age cohabitation (C3) and Late stable marriage (C6). On the other hand, a Low-education profile concentrates in C3 (stable cohabitation), while High education is associated with C6 (late stable marriage). That is, education sorts timing/union type rather than

raising early stable marriage. These patterns reinforce that educational gradients in partnership formation intensify in later cohorts. Finally, women are less likely than men to be in all trajectories, implying a relative concentration of women in Early stable marriage. This, together with our descriptive evidence of later entry and more transitions among men, suggests that sex-stratified sequence models would be informative.

**Figure 5. Exponentiated Coefficients. Multinomial Logit Regression for Conjugal Trajectories (Reference: Stable Early Marriage). Uruguay 2022**



Source: GGS 2022 survey data.

To sum up, the results point to a clear pluralization of family formation patterns.

Younger cohorts are moving away from early and stable marriage towards more diverse trajectories—including stable cohabitation, delayed entry into first union, and a higher share of individuals who remain single by mid-adulthood. There is also a marked educational gradient: those with higher education tend to postpone union formation and cohabit less, while those with lower education form

unions earlier and cohabit more often. Finally, gender differences persist in the likelihood of non-traditional trajectories, although we do observe a partial convergence among younger cohorts—which reinforces the importance of analyzing men and women separately.

This analysis expands the understanding of marital trajectories by including men, a group that has been less explored in previous studies. While earlier research primarily focused on women, this study provides a more comprehensive view by examining both sexes and comparing their marital behaviors across cohorts and educational levels. Notably, significant differences between men and women were found in the timing and patterns of both first unions and dissolutions. For women, there is greater heterogeneity in the age at first union and dissolution, especially in younger cohorts. Educational disparities are more pronounced for women, with those from lower educational strata entering unions and experiencing dissolutions at younger ages compared to their more educated counterparts. In contrast, men exhibit less variability, showing more consistent patterns across educational groups. These findings highlight the divergent conjugal behaviors between the sexes and underscore the role of educational background in shaping marital experiences, particularly for women. By including men in the analysis, this study provides a more nuanced understanding of marital dynamics, offering new insights into how gender and education intersect to influence the timing and occurrence of union formation and dissolution.

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