“Til retirement do us part”? The divorce risk of seniors in France

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The rate of divorces occurring at older ages—so-called gray divorces—has been rising steadily in Western countries. This paper explores whether the transition to retirement may constitute a disruptive event for couple stability and contribute to this trend. Using the French Permanent Demographic Sample (EDP), an administrative panel covering 4% of the population between 2010 and 2020, we follow nearly 440,000 couples aged 50–75. A Cox survival model with time-varying covariates is estimated to assess how the transition to retirement of both partners affects the risk of separation, controlling for income variation, education, union type, and other socio-demographic factors.

Results show that, despite the general decline of separations with age and union duration, the retirement transition temporarily increases the risk of union dissolution. The hazard of separation rises by roughly 28% for men and 9% for women in the year of retirement before returning to pre-retirement levels some years later. Both income losses and income gains above 10% also raise separation risk, suggesting that upward or downward economic shocks can destabilize couples. The effect is strongest when only one partner retires, particularly when the woman retires first. These findings support the view that retirement constitutes a short-lived but significant turning point in late-life conjugal trajectories. Our future work will firstly investigate the role of retirement synchrony, distinguishing couples who retire in the same year from those who retire sequentially, and secondly provide a way to correct for possible endogeneity of the retirement timing.

Keywords: retirement, union dissolution, divorce, couple, senior, grey divorces

Introduction

The share of divorces occurring at older ages—often referred to as gray divorces—has been steadily increasing over recent decades in Western countries. In France, divorces involving individuals aged over 60 represented only 4% of all divorces in 1995 but now reach around 12% for women and 8% for men (Solaz, 2021). This is not only an effect linked to the larger cohort of the babyboomers reaching these ages, as we are now seeing a higher risk of separation at these ages. This trend, also observed in the United States (Brown & Lin, 2012), challenges conventional assumptions about the stability of long-term unions.

Among the potential explanations, the transition to retirement appears as a key life event that may destabilize couple dynamics. Retirement reshapes individuals' daily routines, social roles, and economic resources, and forces couples to renegotiate the use of time and space, especially for dual-earner couples. It can thus become a "critical moment" in later life (de Singly, 2023), especially in societies where personal identity and social value are strongly tied to professional activity. Beyond the end of paid work, retirement can imply financial reorganization, loss of social status, and shifts in gender roles—particularly when only one partner retires.

Building on the existing literature, we hypothesize that retirement is a potential turning point for conjugal stability, increasing the risk of separation even among long-established unions. We further explore whether this effect depends on who retires first and on the income changes associated with retirement. To address these questions, we use a unique, large-scale administrative panel covering 4% of the French population and apply survival models that account for censoring and time-varying covariates.

Literature review

Empirical research has long documented the rise of gray divorces in several Western countries (Brown & Lin, 2012; Prioux & Barbieri, 2012). This trend has been attributed to demographic and cultural changes: the arrival of baby boomers—who have higher rates of separation and remarriage than previous generations—into retirement ages; the growing economic independence of women (Ono & Stafford, 2001); and longer life expectancy, reducing the proportion of unions dissolved by death rather than by separation.

Theoretical frameworks from both economics and sociology suggest that retirement can reshape the "utility" of remaining in a relationship. According to Becker's (1976) model of marital instability, individuals may choose to separate when the expected satisfaction from singlehood exceeds that from remaining married. Retirement, by altering income, time allocation, and identity, can modify this expected satisfaction. Qualitative work (de Singly, 2023) also highlights that retirement often entails a renegotiation of domestic boundaries and gendered roles, sometimes leading to tensions—especially when men retire first and enter the domestic sphere previously managed by their wives.

Empirical studies on the causal relationship between retirement and marital dissolution remain scarce and country-specific. Stancanelli and Van Soest (2012) show that retirement increases unpaid work and time spent at home, particularly among men, while Doorley and Stancanelli (2014) find that the transition to retirement is associated with a temporary rise in marital instability in France. Other work (Keldenich & Luecke, 2020; Meyer & Mok, 2019) suggests that economic shocks such as job loss or disability may similarly destabilize couples. However, Lin et al. (2016) found no clear retirement effect in the US, possibly reflecting institutional and cultural differences.

Our study contributes to this literature by (1) combining a recent and rich administrative dataset with longitudinal survival modeling, which allows us to study a rare event—gray divorces—and to capture differences across union types; (2) focusing on the timing and sequencing of partners' retirement transitions; and (3) explicitly testing whether the effect of retirement on union dissolution is mediated by income changes rather than by retirement status alone.

Data, sample and analytical strategy

We use the Permanent Demographic Sample (Échantillon Démographique Permanent, EDP), a longitudinal administrative panel that covers approximately 4% of the French population. The EDP links census information, vital statistics, and fiscal records over 2010–2020, allowing us to follow about 440,000 couples aged 50–75. The richness of the fiscal component enables the precise identification of retirement transitions and income changes year by year.

The unit of analysis is the couple-year. We restrict the sample to couples where both partners are aged 50–75, excluding same-sex unions (due to gendered variables) and cases lacking information on union start date. A proxy for union duration was constructed using marriage, civil partnership (PACS), or first cohabitation records in census data. The dependent variable identifies couple dissolution, detected when a partner's fiscal declaration changes from "married/in a civil partnership/cohabiting" to "divorced" or "single" between two consecutive years. The key explanatory variable is retirement, defined as the first year in which pensions represent the main

source of income. To account for financial shocks, we include income variations of ±10% year-to-year. Control variables include age, education, union type, birthplace, income quintile, home ownership, urban size, dependents, and women's income share.

We estimate Cox proportional hazards models with time-varying covariates to model the risk of separation as a function of temporal distance to retirement (two years before, at retirement, and two years after). Robustness checks include discrete-time log-log models and alternative definitions of retirement.

Results

Separation at older ages remains infrequent but non-negligible. Across 2010–2020, the annual separation probability for couples aged 50–75 is low overall, with a clear age gradient: approximately 3% at age 50 and below 0.5% by age 70 (Figure 2). Around typical retirement ages (63–65), the downward trend flattens slightly, suggesting a temporary retirement-related disruption (Figures 2–3).

Figure 3 illustrates the evolution of separation risk by age group and sex between 2011 and 2019. For both men and women, the probability of separation declines steadily with age, reflecting the stabilizing influence of longer union duration. However, a temporary slowdown in this decline appears around ages 60–65, corresponding to the most frequent retirement ages. This inflection suggests that retirement may briefly interrupt the process of stabilization typical of later-life relationships. The pattern is more pronounced among men, whose separation risk slightly exceeds that of women across most age groups. This difference likely reflects gendered experiences of retirement: men—generally older and retiring earlier—are more exposed to abrupt changes in identity, daily rhythm, and domestic roles. For women, the decline in risk is smoother, possibly because their exit from the labor market is more anticipated and often accompanied by continued family or social engagement.

Survival models confirm this pattern. In the year of retirement, the separation hazard increases by about 28% for men and 9% for women, before returning to pre-retirement levels within two years. When income variations are controlled for, the effect weakens but remains significant, particularly for women. Both income losses and gains exceeding 10% heighten separation risk, showing that financial shocks—whether downward or upward—can destabilize couples.

The analysis of the timing of retirement (Figure 4, Table 1) further supports this interpretation. While separation risk generally declines with age, it peaks in the retirement year, then decreases and returns to its initial level roughly two years after retirement. These associations persist after adjusting for income, union type, and other covariates (Table 1), reinforcing the idea that retirement operates as a short-lived but critical turning point in late-life conjugal trajectories.

Figure 1 Annual average age-specific separation rate – trend between 2011/13 and 2017/19

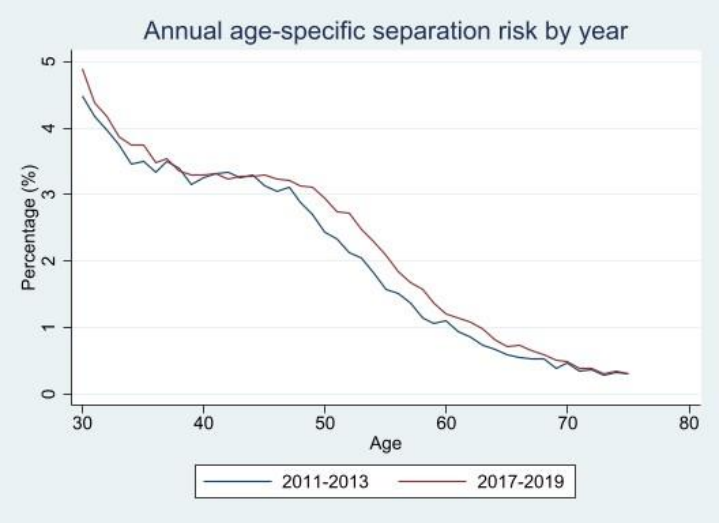


Figure 2 Annual separation risk by age group and sex (2011-2019)

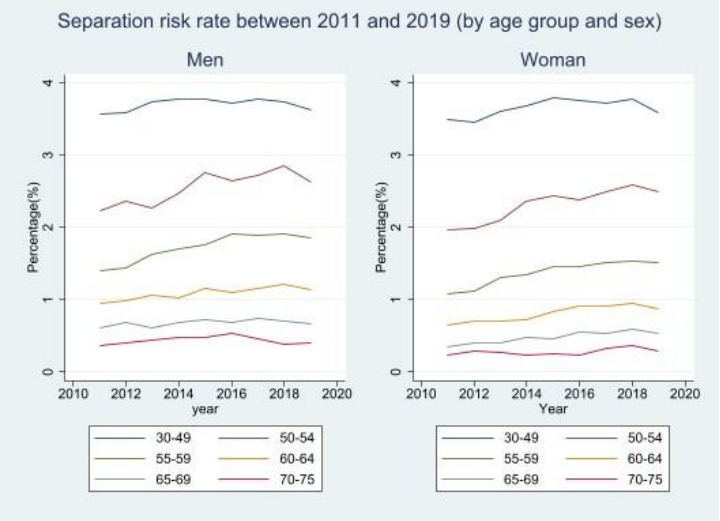
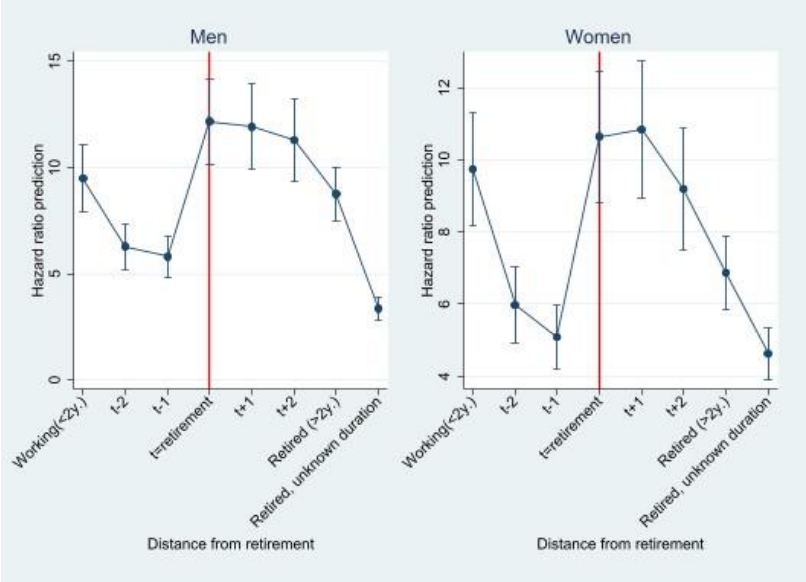


Figure 3 Separation risk by gendered distance to retirement



Discussion and future steps

Taken together, the results confirm that retirement is a short-lived but meaningful turning point in conjugal trajectories. While separations are rare and decline with age and union duration, retirement introduces temporary instability through both economic shocks and non-monetary reconfigurations of time, identity, and domestic roles.

Although the current analysis does not directly measure simultaneous retirement, future work will explicitly model retirement synchrony, distinguishing couples who retire within the same calendar year from those who retire sequentially. Previous evidence (Doorley & Stancanelli, 2014; Stancanelli & Van Soest, 2012) suggests that joint or closely timed retirements may protect against separation by fostering shared adaptation and balanced time allocation. Testing this hypothesis will clarify whether synchrony operates as an independent stabilizing factor beyond income and gender effects.

Further extensions will examine heterogeneity by union type, education, and employment history, and use instrumental-variable and regression-discontinuity approaches around legal retirement-age thresholds to address potential endogeneity between separation and retirement timing.

Table 1 Estimates of a Cox proportional hazard model – probability to separate

_t	Haz. ratio	Std. err.	z	P>|z|	[95% conf.	interval]
man_age	1.013606	.0011705	11.70	0.000	1.011315	1.015903
woman_age	1.014907	.0010838	13.86	0.000	1.012785	1.017034
age_diff	1.048017	.0011236	43.75	0.000	1.045817	1.050222
conjugal_status_corrected						
Civil union	2.639362	.0782553	32.73	0.000	2.490356	2.797284
Cohabiting couple	13.84395	.1837197	198.02	0.000	13.48851	14.20876
Foreign born	1.118894	.0183033	6.87	0.000	1.083589	1.155349
town_size						
2 000-19 999 inhabitants	1.02816	.0167271	1.71	0.088	.9958929	1.061473
20 000-199 999 inhabitants	.9673425	.0160009	-2.01	0.045	.9364843	.9992176
200 000-1 999 999 inhabitants	.8998447	.0150761	-6.30	0.000	.870776	.9298837
Paris area	.7991364	.0165698	-10.81	0.000	.7673112	.8322816
home_ownership						
Social rental	1.242923	.0231034	11.70	0.000	1.198456	1.28904
Private rental	1.408746	.0190192	25.38	0.000	1.371958	1.44652
Presence of minor dependent	1.018029	.0166624	1.09	0.275	.9858896	1.051216
Presence of adult dependent	1.297155	.0231448	14.58	0.000	1.252576	1.343321
man_education						
Middle	.9665825	.0203364	-1.62	0.106	.9275344	1.007274
High	1.14129	.0289329	5.21	0.000	1.085969	1.19943
Unkwown	.9064642	.0273575	-3.25	0.001	.8543995	.9617016
woman_education						
Middle	.9893983	.0187739	-0.56	0.574	.9532779	1.026887
High	1.143437	.0318821	4.81	0.000	1.082626	1.207664
Unkwown	2.729359	.0821093	33.38	0.000	2.57308	2.895129
distance_retirement_m						
t-2	.7021018	.0281414	-8.82	0.000	.6490565	.7594824
t-1	.6382772	.0246116	-11.64	0.000	.5918171	.6883847
t=retirement	1.024808	.0366756	0.68	0.494	.9553879	1.099272
t+1	.9774606	.0392761	-0.57	0.570	.903434	1.057553
t+2	.9689261	.0442372	-0.69	0.489	.8859889	1.059627
Retired (>2y.)	.784846	.0192048	-9.90	0.000	.7480937	.8234038
Retired, unknown duration	.4807012	.0141782	-24.84	0.000	.4537003	.509309
distance_retirement_w						
t-2	.6431255	.0296312	-9.58	0.000	.5875945	.7039046
t-1	.522404	.0243994	-13.90	0.000	.4767057	.5724831
t=retirement	.8614074	.0361325	-3.56	0.000	.793422	.9352183
t+1	.8605407	.039483	-3.27	0.001	.786533	.9415121
t+2	.7817632	.0423194	-4.55	0.000	.7030672	.8692677
Retired (>2y.)	.6148436	.0158555	-18.86	0.000	.5845396	.6467187
Retired, unknown duration	.5419941	.0172527	-19.24	0.000	.5092127	.576886
quintile_income						
Q2 : 23 848-34 164 euros	.9004535	.016171	-5.84	0.000	.8693103	.9327125
Q3 : 34 164 - 44 051 euros	.8935447	.0165971	-6.06	0.000	.8616	.9266738
Q4: 44 051-59 300 euros	.9132189	.0174866	-4.74	0.000	.8795809	.9481433
Q5 : More than 59 300 euros	.8821305	.018072	-6.12	0.000	.8474117	.9182717
Unkwown	.9564484	.0837695	-0.51	0.611	.8055825	1.135568
woman_share_cat						
40-60%	.954048	.0124771	-3.60	0.000	.9299041	.9788188
>60%	1.212212	.0195639	11.92	0.000	1.174467	1.251169
Unkwown	2.08037	.0841116	18.12	0.000	1.921877	2.251934
loss10_man						
More than 10%	1.104189	.0190784	5.74	0.000	1.067422	1.142222
Unkwown	.5426167	.0093066	-35.64	0.000	.5246792	.5611674
loss10_woman						
More than 10%	1.172672	.0209959	8.90	0.000	1.132235	1.214554
Unkwown	.6120627	.0099845	-30.09	0.000	.5928029	.6319482
increase10_man						
More than 10%	1.142113	.019062	7.96	0.000	1.105356	1.180091
increase10_woman						
More than 10%	1.221771	.0202136	12.11	0.000	1.182788	1.262038

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