

As baby-boomers arrive in their retirement years, policy makers are facing important challenges regarding the massive influx of people changing from a state of “producers” toward a state of so-called “dependents”. The good news for these policy makers is that the trend in delaying retirement in most developed countries, which started in the late nineties, is still ongoing (OECD, 2017). Many reasons have been put forward to explain this trend: a healthier aged workforce, the rise of life expectancy, lower contributions to private retirement funds, low interest rates, deferment of the normal retirement age and an increase in the debt of older workers. Other economic constraints on the action of retiring are fewer savings and higher mortgages than previous generations (Bédard et Michaud, 2018 ; Dew et Yorgason, 2010 ; Lewin-Epstein et Semyonov, 2016). As the timing and sequencing of union-related life events have a far-reaching effect on financial wellbeing during the retirement decision years (Le Bourdais *et al.*, 2016), the timing of retirement is expected to be impacted as well. A late life divorce seems to delay retirement for men (Damman *et al.*, 2011) and women as well but this effect disappears when they remarry (Damman *et al.*, 2015). This study aims to measure the relationship between union dissolutions and early retirement. The main hypothesis being that union dissolutions are negatively associated with an early retirement, especially for women.

CONTEXT

The second demographic transition theory (SDT) (Lesthaeghe, 2014) posits that changes in individuals’ autonomy and self-realisation have been the main drivers of a delay in life transitions and unions instability, resulting in a rise in union dissolutions. This theory remains however silent on one important late life transition: retirement. Could it be that the delay in retirement observed in developed countries in the last decades is linked to the SDT? So far, no clear theoretic or empirical link as been established between the SDT and the delaying in retirement. This study forays into this relationship by analysing the link between the individual trajectory of union formation and dissolution and the timing of retirement before age 65, i.e. early retirement¹. This research aims at providing answers to 3 questions.

1. Is the type (cohabitation, marriage, divorce, separation, death of the spouse), the timing and the duration of union-related events are linked to differences in probability to retire before age 65?
2. Is this association still present when we control for the economic trajectory and characteristics?
3. At what age and how do these events seem to influence the age at retirement?

METHODOLOGY

Since timing and duration of dissolutions are the key independent variables at play, discrete time-event analyses are performed. Control variables are of demographic (sex, number of children, age at each birth, general health), socio-demographic (education, age at last graduation, age at which child left home, homeowner status) and time varying socio-economic nature (revenue, sources of revenue, job tenure, pension contributions and mortgage repayment). The dependent variable is

¹ Early retirement is used to be coherent in the context of the research project on determinants and measures of early retirement

age at retirement, where retirement is defined as complete and definitive withdrawal from the labour market.

The data used for this research stems from the General Social Survey (GSS) of 2011, a representative survey of the noninstitutional Canadian population. This retrospective survey mainly covers family life course of respondents. The sample is composed of Canadian aged 50 years old and more with valid information for key variables (n=12229). The 2011 survey is also linked with longitudinal administrative fiscal data from 1983 to 2013 (T1FF).

PRELIMINARY DESCRIPTIVE RESULTS

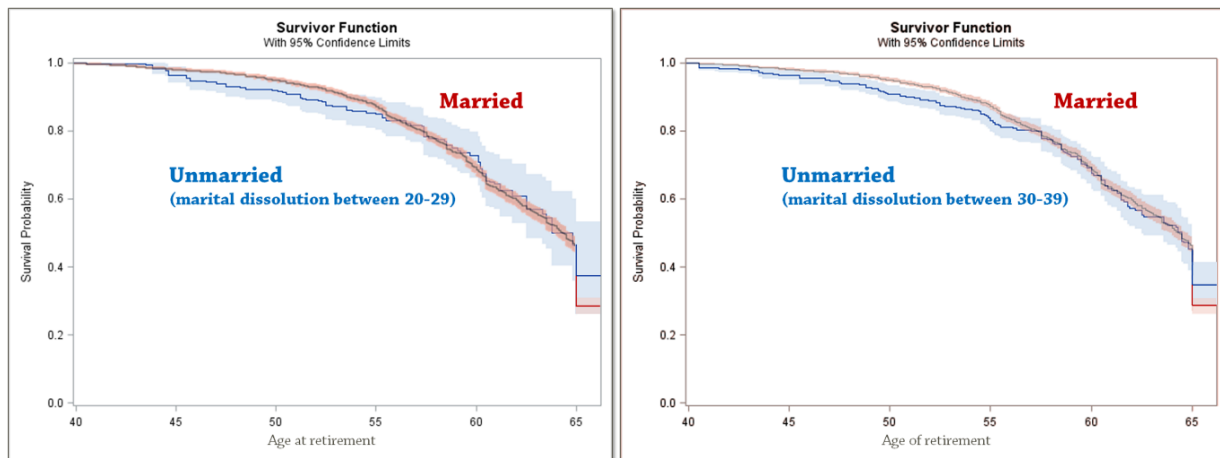
Divorce rates and effective retirement age

After amendments made to the law on divorce in 1968, divorce rates² have surged more than fivefold in Canada in the following 15 years³ and has mostly been stable afterwards. At the macro level, is the sharp increase in the rate of divorce, mostly in the 1970s, linked to the rise in the effective retirement age observed since the late 1990s? To assess whether this correlation is spurious or not, a micro level analysis is required.

Kaplan-Meier based survival functions

Creating a synthetic cohort of ever-married Canadians starting at age 40 to see how it depletes into retirement shows that those who lived through a separation or divorce (*Unmarried*) retire earlier in their forties than those who stayed married (*Married*), but later afterwards. Also, a marital dissolution before age 40 (Fig. 2a and 2b) seems to curtail age at retirement when compared to the married population. The difference is only observable if retirement happen before the mid-fifties though, prompting more questions about what the characteristics of those who retire in their forties are.

Figure 2a and 2b : Survival analysis : probability of being retired by age, comparing married to the unmarried (dissolution between age 20-29 (2a) and age 30 to 39 (2b))



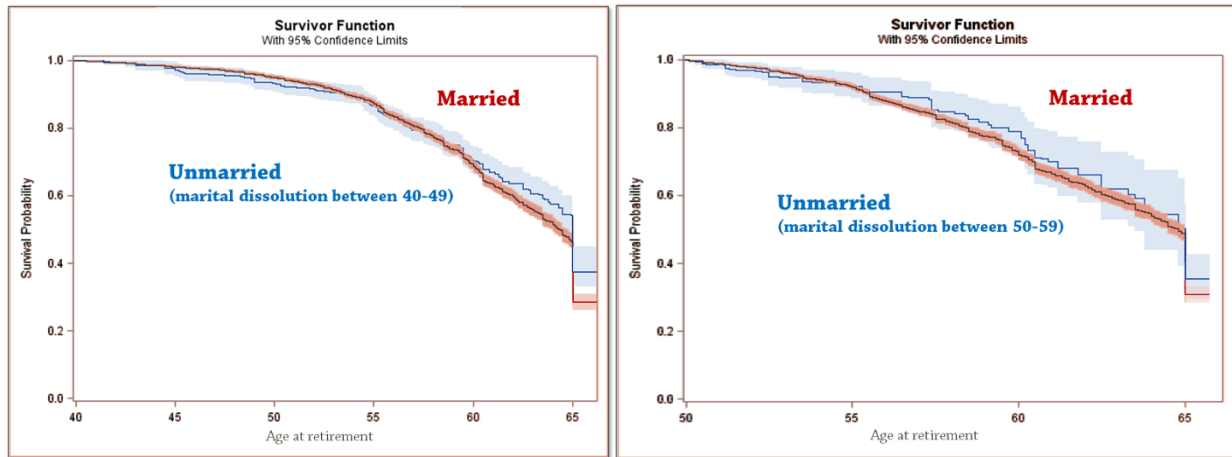
Source : General Social Survey, 2011

² To reduce be coherent with age at retirement, divorce rates are calculated on the 20 to 64yo population.

³ Sources : Divorces (Canadian Year Book, 1950-1997); Population by age, Statistic Canada; Effective retirement age (Carrière *et al.*, 2015)

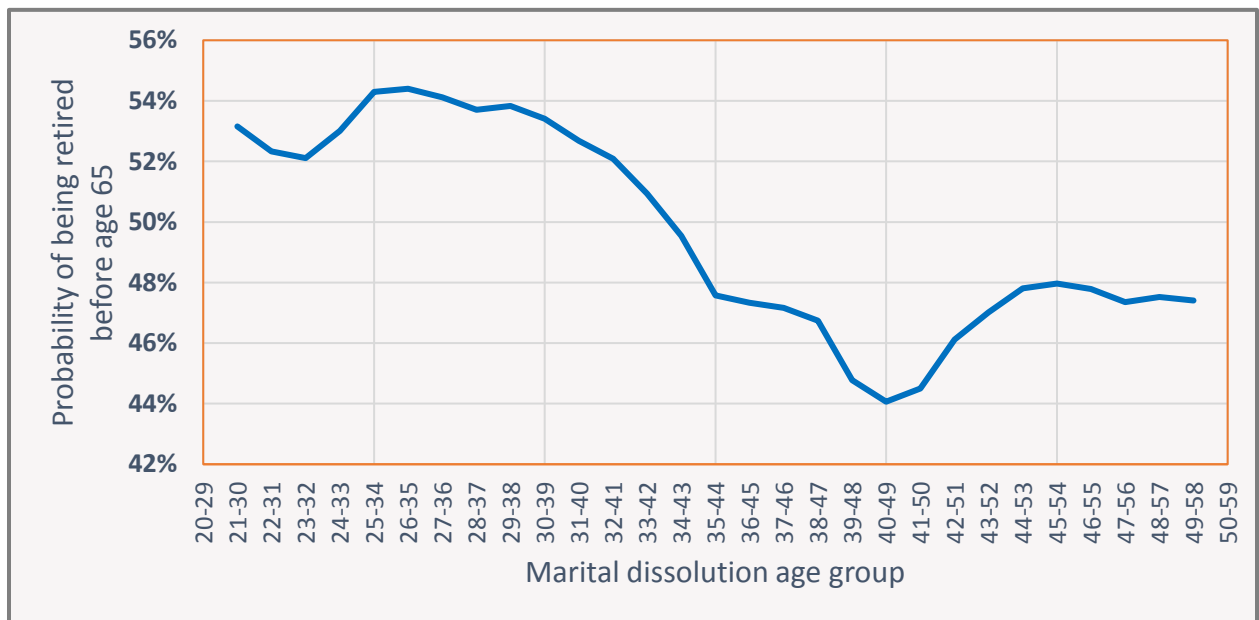
Finally, in the synthetic cohort of those who separated or divorced in their forties (Fig. 3a), less are quitting the labour force after age 60 than the married. For the few who unmarried in their fifties (Fig 3b), the difference with the married seem inconclusive.

Figure 3a and 3b : Survival analysis : probability of being retired by age, comparing married to the unmarried (dissolution between age 40-49 (3a) and age 50 to 59 (3b))



Source : General Social Survey, 2011

Figure 5 : Probability of being retired before age 65 by 10-year age group at union dissolution



Source : General Social Survey, 2011

Research on marital dissolution’s influence on age at retirement always puts an arbitrary threshold on the age at dissolution. These preliminary results show, among other things, that grouping together all couples who broke apart before age 50 might prevent from observing some interesting

differences. At the extremes, a non-negligible difference of 10% is observed between those who split in their forties compared to those who split between 25-36.

CONCLUSION

Research on associations between the life course trajectory of union formations and dissolutions and the timing of retirement is still scarce. As the age of effective retirement is increasing, it seems important to better understand the roots of this change. The preliminary results and some literature point towards union-related life course events. We hope that this research produces results that will lead to a better understanding of this phenomenon.

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