

Complexity and Diversity in Union Formation, Pathways to Parenthood, and Union

Dissolution in Canada

by

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University of Victoria

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We acknowledge and respect the ɫəkʷəŋən peoples on whose traditional territory the university
stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with
the land continue to this day.

Supervisory Committee

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Abstract

Sociologists and demographers have long sought to investigate the patterns, correlates, and consequences of intimate relationships. With shifts in societal values and economic circumstances, we have gradually observed delays in and even retreats from marriage, the growing popularity of cohabitation, the growing prevalence of non-marital births, and the increasing instability of unions. Against the backdrop of these rapidly changing union and family experiences, this dissertation investigates recent developments in union formation, fertility, and union dissolution in Canada using the 2011 and 2017 General Social Surveys conducted by Statistics Canada. Findings from three studies are presented.

The first study provides estimates of serial cohabitation prior to first marriage for Canadian women and men in three successive age cohorts (Baby Boomers, Generation Xers, Millennials). It also examines its risk factors and the joint risk of serial cohabitation and marriage among cohabitators. The study found that whereas the majority of women and men who experienced cohabitation had only one such relationship, approximately 11% of women and 13% of men experienced serial cohabitation before their first marriage. From Baby Boomers to Generation Xers, there was a more than a threefold increase in the prevalence of serial cohabitation. There were also notable regional differences in cohabitation experiences, with cohabitation being more common in Quebec than in other provinces in Canada. Women were more likely than men to transition from serial cohabitation to their first marriage, suggesting that cohabiting women may view cohabitation as a precursor to marriage while cohabiting men may view cohabitation as an alternative to marriage.

The second study examines the prevalence, correlates and stability of pre-conception and post-conception marital and cohabiting unions among young women who bore children in

Canada. The majority of first births occurred in the context of pre-conception marriages (72.47%), followed by post-conception marriages (10.25%), and a smaller proportion occurred in cohabiting unions established either before conception (9.20%) or after conception (3.20%). Compared to women in pre-conception marriages, women in all four other union types were more likely to belong to more recent cohorts and to be less educated, less likely to have been raised by biological or adoptive parents from birth to age 15, less religious, less likely to be immigrants, and less likely to live in urban areas. When considering the stability of these unions, the findings suggest that the type of union (cohabitation vs. marriage) has a greater impact on the risk of dissolution than the timing of union formation (pre-conception vs. post-conception).

The third study focuses on the most common union and family life course trajectories experienced during the earlier years of adulthood among women and men in Canada aged 50 and over, and how these trajectories impact union disruption later in life. The study found that nearly 80% of respondents were in long-term 'Marital unions with children', while 1 in 10 had been 'Single or cohabiting without children' until age 50. The 'Marriage without children' trajectory accounted for 7% of respondents, while only 5% were in the 'Cohabitation with children' trajectory. Those who were 'Single or cohabiting without children' but who were married by age 50 were more likely to see these marital unions dissolve in later life whereas those who were 'Married with children' in early adulthood but who were cohabiting by age 50 were more likely to see these cohabiting unions dissolve in later life. In general, women had more complex and diverse trajectories than men. Women and those with more complex trajectories had a higher risk of marital union dissolution in middle and later life than men and those with less complex histories. In addition, Baby Boomers had a higher risk of divorce than pre-Baby Boomers. Education, although not related to marital union dissolution was positively associated with the

odds of cohabiting union dissolution later in life. Finally, although people living in Quebec were more likely to experience marital union dissolution after age 50, there was no significant difference by province in cohabiting union dissolution.

The findings of these studies improve our understanding of the current state of families in Canada. They offer crucial information that can be used to develop policies and programs aimed at enhancing the lives of Canadians and their families. By identifying the most common types of union and family life course trajectories as well as their correlates and outcomes, these studies can help policymakers make informed decisions about how best to support different family structures.

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Chapter One: Introduction

Background

Over the past few decades, the family landscape in Canada has changed dramatically. Marriage is currently more likely to be delayed or foregone altogether compared to previous decades. In 1991, nearly 53% of the population aged 15 and older was married. By 2011, that proportion dropped to 45% (Statistics Canada, 2022). It has since remained relatively stable (Statistics Canada, 2022). While many people still marry, a major change in Canadian family life is the increase in cohabitation, which generally refers to two people living together in a non-marital conjugal relationship for some period of time (Government of Canada, 2019)¹. In just a few decades, cohabitation has gone from being a marginal to a more accepted phenomenon in Canada. In 1991, the proportion of individuals aged 15 and above engaged in cohabitation stood at less than 7%. By 2011, this figure had risen to 11%. Since then, there has been a slight further increase, reaching 12% in 2022 (Statistics Canada, 2022). People in Quebec exhibit the highest propensity for cohabitation, with 31% of people aged 25-64 living in cohabitation compared to 11% in British Columbia and 10% in Ontario based on Statistics Canada's 2017 General Social Survey (Families) (Statistics Canada, 2019c). Moreover, a growing number of Canadians are choosing cohabitation rather than marriage as a first partnership (Wright, 2016).

Importantly, despite a trend toward later marriage, the age at the first union, considering both marriage and cohabitation, has not changed across Canadian birth cohorts (Wright, 2016).

¹ In Canada, a distinction is often drawn between common law and cohabiting unions. Common law unions are frequently defined as cohabiting unions that have lasted for at least one continuous year (Statistics Canada, 2019). Statistics Canada data tends to reflect common law rather than cohabiting unions. However, in this dissertation, I do not restrict the duration of cohabitation, so cohabitation for less than one year is considered. I refer to these unions as cohabiting unions. Moreover, they include both different-gender and same-gender conjugal unions.

An increase in the age at first marriage, combined with the stable age at first union, signals an increase in premarital cohabiting relationships throughout adulthood. The growing prevalence of cohabitation as the first union experience is well-documented (Lamidi et al., 2019; Wright, 2016). However, we do not know enough about subsequent (two or more) cohabiting relationships, known as serial cohabitation, prior to the first marriage in Canada. This includes knowledge regarding its prevalence, its risk factors, and the likelihood of transition into marriage. This is of particular concern as prior research has shown that serial cohabitation tends to be concentrated among more economically disadvantaged populations, and that serial cohabitators are less likely to marry or stay married than those who cohabit once, at least in the United States (Lichter and Qian, 2008). Moreover, increasing levels of serial cohabitation mean that more people are at risk of instability within their families, which can lead to a range of negative outcomes, including declines in children's well-being (e.g., declines in cognitive development, increases in behavioral problems, and declines in physical health - Lee and McLanahan, 2015). There is a scarcity of research available on the topic of serial cohabitation in Canada. The most relevant Canadian study is by Wu and Schimmele (2005). Their research suggested that couples may be more likely to choose cohabitation over marriage if they have experienced a first union disruption. However, they were limited to the first two unions, did not take into account all possible premarital cohabitations, and used data from the 1995 General Social Survey. The lack of recent research on serial cohabitation before marriage in Canada is a research gap that needs to be addressed.

The declining popularity and stability of marriage have also produced greater variation in the contexts within which children are born. As the number of cohabitators among young people has increased, the number of births during cohabitation has also increased in Canada (Le

Bourdais and Lapierre-Adamcyk, 2004) and elsewhere (Guzzo and Hayford, 2020). The percentage of non-marital births in Canada increased from about one in six births to about one in three births between the early 1980s and 2000s (Le Bourdais and Lapierre-Adamcyk, 2004). Distinct regional variations between Quebec and other provinces in Canada are also apparent. According to Statistics Canada (2021), more than 60% of children born in Quebec since 2006 were born to couples who were not married. Fostik and Le Bourdais (2020) highlighted that this trend is primarily driven by an increasing number of births among couples who live together without being married. In Quebec, the line between cohabitation and marriage regarding the context of having or raising children has become blurred. However, in other Canadian provinces, cohabitation is still commonly regarded as a stage in a couple's relationship that precedes having children (Le Bourdais and Lapierre-Adamcyk, 2004). The growing number of cohabiting births suggests that as the conceptual boundaries between cohabitation and marriage become more blurred (Lichter et al., 2016), cohabitation is increasingly becoming accepted as a setting for childbearing and parenting. Previous studies have typically focused on couples at the time of childbearing but have typically ignored the union transitions that occur between conception and childbearing (Lichter et al., 2014; Rackin and Gibson-Davis, 2012). However, studies have shown that pregnancy significantly influences relationship transitions, including entering or exiting cohabitation or marriage (Lichter et al., 2014). The occurrence of a pregnancy leading to a live birth outside of a union can serve as a catalyst for couples to transition from a non-cohabiting relationship to cohabitation or marriage, and from cohabitation to marriage (Thorsen, 2019).

Research, conducted primarily in the United States, indicates that pregnancy currently appears to be more of a precursor to cohabitation than to marriage as couples have been less

likely to transition into a first marriage following a non-marital conception in recent decades (Lichter et al., 2014; Rackin and Gibson-Davis, 2012). However, to my knowledge, no research has as yet been conducted in Canada to examine union transitions between conception and childbearing. Understanding how this context has evolved in recent years is therefore an important step in understanding how complex and diverse the process of family life has become for Canadian children. At the same time, it is worth noting that non-marital unions with children are known to be less stable than marital unions with children (Le Bourdais and Lapierre-Adamcyk, 2004; Manning et al., 2014). This trend may lead to increasing stratification between those who are more socioeconomically advantaged and those who are more disadvantaged in the family system. Those who are more advantaged may be more likely to marry and have children in stable marital relationships, whereas those who are more disadvantaged may be more likely to have children before or outside of marriage, contributing to a worsening of their economic and social status (McLanahan, 2004). Thus, there is also a need for research that examines the characteristics associated with transitions into cohabitation or marriage at the time of birth.

Finally, the union formation (marital, cohabiting) and childbearing experiences of earlier adulthood are also likely to influence union outcomes in middle and later life. The changing patterns of family formation and dissolution witnessed over the past half-century have created a context in which today's families in later life are different from those of previous generations. Separation and divorce are becoming more and more acceptable for couples in less than ideal relationships, even for older couples in long-standing marriages (Brown and Lin, 2012). For example, after 27 years of marriage, Bill and Melinda Gates shocked the world when they suddenly announced their divorce (Duffy, 2021). This and other such events have brought attention to a growing trend toward "Gray Divorce," a term that has been used to refer to the

dissolution of a marriage in which one of the former partners is age 50 or older (Brown and Lin, 2012). In Canada, the proportion of those aged 50 and over who report being divorced or separated (and not cohabiting) increased from approximately 7% in 1991 to over 13% in 2022 (Statistics Canada, 2022). According to the 2017 General Social Survey (Families), 10% of Canadians aged 55 and older were separated or divorced from their marriages, up from 9% in 2006. In comparison, 5% were separated from a common-law union, up from 2% in 2006 (Statistics Canada, 2019d). Moreover, the median age of marital union dissolution also increased. From 1991 to 2008, the median age of divorce rose from 38 to 45 years for men and from 36 to 42 years for women (Milan, 2011). During this period, the divorce rates for those 50 and older increased from 4.02 to 5.17 per 1,000 married persons (Margolis et al., 2019).

The divorce rate among adults aged 50 and older is climbing, in part due to the aging of the Baby Boom cohort, who now make up the majority of this age group (Brown and Wright, 2017). As of 2023, the ages of Baby Boomers born between 1946 and 1964 ranges from 59 to 77 years. Baby Boomers were the first to experience the massive increase in marital disruption that took place in early adulthood (Margolis and Choi, 2020). The instability of their early marriages may also contribute to the rising divorce rate among adults over the age of 50 today, as remarriages tend to be less stable than first marriages (Sweeney, 2010). Moreover, the average life expectancy (at birth) of Canadians is approximately 84 years for females and 80 years for males (Statistics Canada, 2019e). As life expectancy increases, people in their 50s or later years may feel anxious about the possibility of being stuck in an unhappy marriage for another 20 to 30 or more years of life. If so, they may choose to divorce in middle or later life (Crowley, 2019).

Given these implications, today's older adults have more complex and diverse union and family trajectories than previous generations (Lin and Brown, 2020). Rich descriptions

encompassing the timing and sequencing of life course events, such as marital and cohabiting partnerships and parenthood, are critical to revealing patterns not usually available through more traditional demographic measures (of cohabitation, marriage and fertility). There is also a need to examine the impact of union formation (marriage/cohabitation) and fertility trajectories experienced in early adulthood on union outcomes in middle and later life. To date, however, Canadian researchers have not taken advantage of trajectory and sequence analysis approaches focused on entire trajectories to capture the rapidly changing and evolving dynamics of intimate relationships over the life course. This dissertation helps to fill this gap using the most recent data available.

Theoretical Frameworks

There are several theoretical frameworks that can be used to enhance our understanding of the nature and impact of cohabitation, non-marital childbearing, and partnership dissolution through separation and divorce. They include the Second Demographic Transition framework, the Diverging Destinies framework, and the Life Course framework. In this dissertation, the first two frameworks are primarily relevant to and used to guide analyses of the prevalence, correlates and stability of serial cohabitation (Chapter 2) and of pre-conception and post-conception marital and cohabiting unions (Chapter 3). Finally, the Life Course framework is drawn upon to help frame the analyses focusing on the role of union and family trajectories in shaping union outcomes in middle and later life (Chapter 4).

The Second Demographic Transition Framework

The Second Demographic Transition (SDT) has been described as the preferred conceptual and theoretical framework for explaining ongoing changes in family and fertility

patterns in the Western world (Zaidi and Morgan, 2017). An understanding of the Second Demographic Transition begins with a description of the First Demographic Transition (FDT). This transition began with a decline in mortality followed by a decline in fertility, leading to rapid population growth (Lesthaeghe, 2014; 2020). It originated in the early 19th century in more economically developed countries, especially in Western Europe (Lesthaeghe, 2014). It was said to be driven by industrialization together with social and economic development, which increased the survival possibilities of children and their cost to their parents (Zaidi and Morgan, 2017). These changes ultimately contributed to a reduction in family size. However, they did not destroy the close ties that existed between marriage and parenthood (Zaidi and Morgan, 2017).

According to Lesthaeghe (2014; 2020), one of the main proponents of the SDT framework, the FDT was expected to result in a stable population with replacement level fertility (i.e., a couple with just over two children on average), zero population growth, and an average life expectancy of over 70 years. However, this did not happen as expected. Instead, Western nations have witnessed continued declines in fertility along with “a multitude of living arrangements other than marriage, a disconnection between marriage and procreation, and no stationary population” (Lesthaeghe, 2014, p.18112). Therefore, a new theoretical framework was deemed necessary to explain the family and fertility changes, such as the postponement of marriage and increases in cohabitation, non-marital childbearing, and partnership dissolution, that were being observed from the mid-20th century on.

Proponents of the SDT argued that the main factor driving the substantial changes in marriage and family life in more recent years is a cultural shift toward post-modern attitudes and norms, such as individuality and self-actualization (Lesthaeghe, 2014; 2020). Lesthaeghe and van de Kaa (2001) built on Abraham Maslow’s (1954) concept regarding the hierarchy of needs,

beginning with basic needs for physical survival and safety, and ultimately leading to higher-order needs such as self-realization (Lesthaeghe, 2014). They argued that as a population becomes more affluent and better educated, people's attention is diverted away from needs related to ensuring basic survival and security. Instead, more emphasis is placed on values and preferences such as personal self-realization and self-fulfillment (Lesthaeghe, 2014). This, in turn, enhances people's freedom of choice in organizing their personal lives and following non-traditional family formation and fertility patterns. This change is seen to be closely related to substantial shifts in values related to marriage and family life.

In the original version of the SDT, highly educated individuals were considered to be the pioneers of the liberal values and behaviors associated with the transition (Sobotka and Toulemon, 2008). They usually showed a higher acceptance of non-traditional family forms to express their quest for higher-order needs. SDT proponents argued that non-traditional family formation and fertility patterns tend to spread from a small group of people who are younger, have higher socioeconomic status (education, wealth), and more progressive value orientations to the society as a whole (van de Kaa, 2001), thereby leading to increasing homogeneity over time. In a recent global update, Lesthaeghe (2020) argues that cohabitation is now spreading rapidly among all educational groups and, in this context, can begin both among the more educated and wealthier classes as well as among the less educated and poorer classes. As a consequence, in several countries, the overall rise in cohabitation tends to be much greater than educational differences (Lesthaeghe, 2020).

The SDT also suggests that new family patterns spread across countries through a diffusion process (Lesthaeghe, 2010). New family norms and behaviors associated with more progressive values were first adopted in Nordic countries and subsequently, by other European

and developed countries, such as the United States (Lesthaeghe and Neidert, 2006) and Canada (Wright, 2019). However, there is evidence of considerable heterogeneity in family patterns both across countries (Lesthaeghe, 2014; 2020; Zaidi and Morgan, 2017) and within Canada and other countries (Le Bourdais and Lapierre-Adamcyk, 2004; Lesthaeghe, 2014; 2020), raising the question of whether different types of changes in family and fertility patterns evident in Canada can be explained by the Second Demographic Transition. This dissertation therefore assesses the applicability of the SDT framework for an understanding of marital and cohabiting relationships as well as fertility behaviors in the contemporary Canadian context.

The Diverging Destinies Framework

Early arguments for new demographic and family behavior patterns originating in elite groups, as proposed by the SDT, were criticized, especially by American scholars (McLanahan, 2004; McLanahan and Jacobsen, 2014). Overall, they insisted that the changes in family behavior that have occurred over time are not as uniform as the SDT explanation implies, but rather, that trends in family behavior differ for those who are more economically advantaged compared to those who are more disadvantaged (McLanahan, 2004).

There are two main criticisms of the SDT. The first criticism focuses on the micro-level process, namely how different social groups respond to the SDT. For example, it has been noted that non-marital childbearing in the United States is more common among less educated women than among more educated women (Guzzo and Hayford, 2020). Similarly, Perelli-Harris and colleagues (2010) documented education gradients in family behaviors in eight European countries, and concluded that the relative risk of childbearing during cohabitation was greatest among the least educated women and lowest among the most educated women. This finding was consistent across all of the countries they studied except Italy, where women with the highest and

lowest levels of education had similar risks of having children during cohabitation (Perelli-Harris et al., 2010). As Edin and Kefalas (2005) observed, based on their extensive qualitative study, poorer women at the bottom of the social ladder appear more likely to use childbearing as a way to provide meaning in their lives, even when the pool of financially marriageable men available to them has diminished.

The second criticism focuses on the macro-level factors that are thought to drive family-related demographic changes. Critics assert that the SDT has paid too little attention to the impact of changing macroeconomic structural conditions marked by globalization, technological change, and institutional changes in the labor market (Sobotka, 2008). They argue that the rapid restructuring of society towards a market economy has led to a widening income gap and precarious working conditions, which affects the least educated segments of the population the most. Ever increasing income disparities and unstable working conditions are viewed as being incompatible with a stable nuclear family structure consisting of a married couple with children. Thus, it has been argued that cohabitation is not so much a modern lifestyle choice as it is a reaction to unfavorable life circumstances, such as job instability and unemployment for less-skilled workers (Perelli-Harris et al., 2010).

Synthesizing these two criticisms, McLanahan (2004; McLanahan and Jacobsen, 2014) proposed the Diverging Destinies (DD) framework in which she argued that the forces driving the SDT are leading to two very different family trajectories that, in turn, have a large impact on children, parents and the society as a whole. McLanahan (2004) analyzed data from the U.S. Census to investigate changes in the age and employment status of mothers, as well as the prevalence of single motherhood. The study revealed that both the average age and employment rate of mothers had increased over time, indicating an improvement in children's resources.

However, the increase was more substantial among more highly educated mothers compared to those with lower levels of education. In the case of single mothers, who typically experience a reduction in available resources for their children, the rise in age and employment was considerably smaller for those with higher levels of education, in contrast to those with lower levels of education.

In the wake of the increasing social class differences in family patterns, Manning and colleagues (2019) examined whether there is a social class gradient in the impact of marriage and cohabitation formation among single Millennials in the U.S. Their results showed that women from disadvantaged backgrounds have the lowest expectations of marriage, but there are no educational differences in expectations of cohabitation. Moreover, Rackin and Gibson-Davis (2018) examined the DD framework in terms of trends in family transitions by mother's educational attainment. Their findings showed that children born to women with low and moderate education experienced an increase in the number of family transitions due to the increase in cohabitation relationships. Children born to mothers with four-year university degrees did not experience an increase in transitions, and they primarily experienced stable parental marriages.

In addition to studying family changes in the United States, some researchers have examined the DD framework in other industrialized countries. One study (Härkönen and Dronkers, 2006) examined the risk of divorce among women in different educational groups and showed that among larger populations in European countries, the risk of divorce declined among more educated women relative to less educated women. Studies in Japan (Raymo et al., 2004) and Sweden (Kennedy and Thomson, 2010) also supported an educational gradient for divorce and cohabitation separation. Other researchers have investigated educational gradients for

children born out of wedlock. Perelli-Harris and colleagues (2010) found that in some European countries, the relative risk of cohabiting childbearing was greatest for women with the lowest educational attainment and smallest for those with the highest educational attainment.

A limited number of studies have been conducted to examine the applicability of the Diverging Destinies framework for an understanding of family behaviour patterns in Canada. Using data from the Luxembourg Income Study, McLanahan and Jacobsen (2014) documented educational gradients in family behavior in several Western countries, including Canada. Consistent with the U.S. data, Canadian mothers with higher education were found to be older, more likely to work outside the home, and less likely to raise children alone than mothers with less education. In addition, Wright (2019) examined the fertility behaviour and outcomes of first cohabiting unions in order to understand if the SDT or the DD framework was better suited to explaining these union and family trends in Canada. She reported finding support for both frameworks: “across birth cohorts, Canadians (were) increasingly likely to use cohabitation as an alternative to marriage and less likely to use cohabitation as a short-lived prelude to marriage” (p.151) as suggested by the SDT. However, findings indicating that “Canadians without a bachelor’s degree (were) far more likely to experience a birth within cohabitation and that their likelihood of transitioning to marriage has declined steeply across birth cohorts” (p. 151) also offered support for the DD framework.

There is a need to build on Wright’s work and assess cohabitation outcomes and fertility beyond the first cohabiting union as well as to address other aspects of the DD thesis. In this dissertation, I investigate whether differences in socioeconomic status exist across a variety of union and family behaviors (marital and cohabiting union formation and childbearing experiences of early adulthood) in Canada, as suggested by the Diverging Destinies framework.

The Life Course Framework

The Life Course framework (LCF) is also important for studying contemporary family patterns. Unlike the SDT and DD frameworks, it does not provide specific expectations regarding the nature, risk factors, and implications of cohabitation, non-marital childbearing, and partnership dissolution through separation and divorce. Instead, it draws attention to the dynamics of the life course, including the importance of time, context and process, for an understanding of such phenomena (Elder 1995:104). For example, from a LCF, we can see that families have different “life histories” and as these histories develop and change, how earlier life events affect later life outcomes. The LCF has four basic principles: 1) the interplay of human lives and historical times; 2) the timing of lives; 3) linked or interdependent lives; and 4) human agency in making choices (Elder 1994: 5).

According to the LCF, people’s life courses are shaped by the times in which they live - “when times change, lives change” (Elder et al. 2003:14). Demographic changes, economic uncertainty, and value shifts make it necessary to study different birth cohorts to see how they navigate and respond to new realities of life. Second, everyone goes through transitions or changes in role and status over the life course. Many transitions are related to family life: cohabitations, marriages, births, separation, divorces, and so on. Transitions are discrete life changes or events, whereas trajectories include long-term patterns of stability and change and may involve multiple transitions (Elder, 1994). For example, getting married is a transition, but a stable and long-term marriage or a marriage followed by divorce can both be conceptualized as trajectories. A LCF draws attention to the importance of the sequencing, timing and number (quantum) of these life course transitions (Billari et al., 2006). The same events will affect individuals and families differently depending on when they occur in the life course. For

example, having a non-marital birth at age 16 is different from having a married birth at age 30. Research has shown that teenage pregnancy is associated with higher school dropout rates, lower educational levels, and lower earning potential (Hao and Cherlin, 2004). Third, the life course perspective notes that people are interdependent, emphasizing the importance of family as well as other social ties. Thus, the life transitions of one person in a family can affect all members of the family, as well as the family itself. For example, children raised by teenage parents have been found to be more likely to live in poverty and to have more physical, cognitive and emotional problems than others (Wong et al., 2020). Finally, from a life course perspective, individuals are considered active agents who are capable of making decisions and constructing their own life course trajectories within socially structured opportunities and constraints.

As noted, the LCF recognizes that individual life course experiences are embedded in and shaped by historical time and place. As a result, union transitions and trajectories will vary across birth cohorts due to the presence of different opportunities and constraints in the environment. In contrast to previous birth cohorts, those born in the 1980s and 1990s (i.e., Millennials) grew up in an era of rapid demographic change that saw increases in cohabitation and relationship instability. Consequently, people born more recently were more likely to have cohabited more than once before marriage (i.e., “serial cohabitation”) than those in earlier birth cohorts (Eickmeyer and Manning, 2018; Lichter and Qian, 2008). Despite the growing importance of understanding the union transitions and experiences of this recent cohort, research in this area remains relatively limited. Existing studies have yet to provide comprehensive insights into the dynamics and implications of these unique union trajectories among the Millennial generation.

Furthermore, it is worth noting that previous research has primarily concentrated on examining singular transitions within relationship trajectories. For instance, the focus has often

been on the transition from being single to entering the first union or the transition from the dissolution of the first union to the formation of a subsequent union. Studies have primarily explored these individual transitions, rather than delving into the broader and more complex long-term trajectories of relationships (Wright, 2019; Wu and Schimmele, 2005). By focusing solely on single transitions, the broader dynamics and interconnectedness of various relationship stages and transitions have been overlooked. Consequently, the existing literature provides limited insights into the complexities and diverse pathways individuals follow in their union trajectories. To gain a comprehensive understanding of the evolving nature of relationships, it is crucial to explore and analyze longer-term trajectories that encompass multiple transitions and reflect the diverse experiences of individuals throughout their lives indicated by the LCF.

Given that family-changing behaviors, such as union formation and childbearing, tend to occur relatively early in adulthood, a large body of literature considers the SDT early in the life course (Fomby and Cherlin, 2007; Lesthaeghe, 2010; 2014; Sobotka, 2008). However, those at the forefront of family change, particularly Baby Boomers (born between 1946 and 1964), are now approaching or experiencing old age (Hughes and Waite, 2007). Compared to previous cohorts, Baby Boomers have tended to marry later, delay childbearing, and have children outside of traditional marriages (Hughes and Angela, 2005). Those who did marry are also more likely to have experienced divorce than their earlier cohorts (Raley and Sweeney, 2020). Therefore, Baby Boomers are more likely to experience more complex life course trajectories than earlier cohorts. According to Dannefer and Patterson (2007:214), “(a)s cohort members age, the complexity of their family and life course patterns is amplified... The result is a kaleidoscopic picture of family histories and relationships” for older adults. They further note that under these new conditions,

previous conclusions and generalizations about older adults' family structures and patterns of family and life course development seem increasingly anachronistic.

Research on aging families suggests that family structures and relationships are associated with multiple forms of well-being in later life (e.g., economic, psychological, health, and social - Carr and Utz, 2020). However, the well-being of older adults seems to depend not only on their current family situation, but also on their family history (Purol et al., 2021). Yet, much of the research in this area is based on the current experiences of older adults and does not consider their previous relationship history. As a result, it fails to capture the full impact of the SDT on the later years of the life course. One of the challenges to research on family and the life course is to track how the SDT unfolds in later life. To address these issues, this dissertation examines the impact of the marriage and family trajectories experienced in the younger years of life affect marital and cohabiting union dissolution in the middle and later years of life, as guided by the Life Course framework.

Summary and Research Objectives

This chapter began with an overview of the major demographic trends evident in union formation, fertility, and union dissolution over the life course, particularly in Canada. Although married couples continue to represent the majority of unions, cohabiting unions are becoming increasingly common in Canada. In this context, the process of union transition is also becoming increasingly diverse and complex. Demographers and sociologists are eager to understand and explain these new developments, including serial cohabitation, the decoupling of marriage and fertility, and the increasing dissolution of marriage in middle and later life. This dissertation puts the spotlight on these new developments. It also draws on three complementary theoretical

frameworks - the Second Demographic Transition, the Diverging Destinies, and the Life Course frameworks - to help inform an investigation of some of the dramatic changes that have occurred in Canadian family life over the past several decades.

To achieve these goals, this dissertation consists of three interrelated studies that explore the complexity and heterogeneity of union formation, pathways to parenthood, and union dissolution in Canada. All three studies draw on the same two large-scale nationally representative datasets (the 2011 and 2017 General Social Surveys) and rigorous statistical methods to address these issues. The first study examines serial cohabitation in Canada. It has three specific objectives. First, it provides estimates of the prevalence of serial cohabitation prior to a first marriage in Canada, focusing on how these patterns differ by gender, birth cohort, and region. Second, it examines the risk factors associated with the repeated occurrence of cohabitation for men and women respectively. Third, it estimates the joint risks of serial cohabitation and of transition into marriage among cohabitators.

The second study examines different relationship types (e.g., marriage, cohabitation) at the time of the first birth for Canadian women aged 15 to 45. Previous studies often focus on union status at the time of birth, but usually ignore union status during the period between conception and childbearing. This is the first Canadian study to track the transitions into and out of cohabiting or marital relationships among pregnant women. It has three research objectives: (1) to estimate the prevalence of pre-conception and post-conception cohabiting and marital unions at the time of women's first births; (2) to compare family and socio-demographic background characteristics associated with transitions into cohabitation or marriage for women in their childbearing years at the time of their first pregnancy; and (3) to estimate differences in the

stability of cohabiting and marital unions of women in their childbearing years at the time of the first birth.

The third study investigates the role of early adulthood union and childbearing trajectories in shaping union outcomes in middle and later life. Union formation and childbearing are jointly considered because these two life domains are highly connected and their intersections may have effects on union outcomes. It has two research objectives: First, it identifies the most common types of early family life course trajectories by combining partnerships and parenthood for men and women in Canada aged 15 - 50. Second, these typical family life courses trajectories are assessed as risk factors for subsequent union dissolution among men and women in Canada. Thus, my research design accounts for the combination of family events experienced during the earlier years of adulthood and examines their impact on union disruption in middle and later life.

The chapters that follow focus on each of the component studies and their implications. Chapter 2 discusses the first study: the prevalence, risk factors and stability of serial cohabitation in Canada. The relevant theoretical frameworks and empirical literature are reviewed. The study objectives, the research methods used, and the results obtained are also presented, and their implications for the research objectives are discussed. Chapters 3 and 4 provide similar information about the second and third studies. Chapter 3 examines different relationship types (e.g., marriage, cohabitation) at the time of the first birth for Canadian women aged 15 to 45. Chapter 4 identifies the most common types of early family life course trajectories for men and women in Canada and then assesses their roles in relation to subsequent union dissolution risks. Finally, Chapter 5 concludes with a discussion of the key findings, including their theoretical significance and implications for research, their limitations, overall policy implications and directions for future research.

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Chapter Two: Serial Cohabitation Prior to First Marriage

Introduction

In Canada, marriage is currently more likely to be delayed and even foregone altogether compared to previous decades. In 1991, nearly 53% of the population aged 15 and older was married. In 2011, that number dropped to 45% (Statistics Canada, 2022). It has since remained relatively stable (Statistics Canada, 2022). While many people remained married, a major change in Canadian family life is the increase in cohabitation. In just a few decades, cohabitation has gone from a marginal phenomenon to a more accepted living arrangement for couples in Canada (Wright, 2019). In 1991, just under 7% of the population aged 15 and older was cohabiting, a figure that increased to 12% in 2022 (Statistics Canada, 2022). According to the 2016 Canadian Census, more than one in five couples live in cohabitation, over three times the 1981 share (6.3%) (Statistics Canada, 2019a). In particular, an increasing number of Canadians are choosing cohabitation over marriage as their first partnership (Wright, 2016). Across Canada, Quebecers are the most likely to live in cohabitation, with 31% of people aged 25-64 living together, compared to 11% in British Columbia and 10% in Ontario, according to Statistics Canada's 2017 General Social Survey (Statistics Canada, 2019b).

In Canada, the average age at marriage has steadily increased in recent decades, from a low of 25.6 years in 1968 to a high of 35.3 years in 2019 (Statistics Canada, 2022). However, while the trend toward later marriage continues (Milan, 2013), the age at first union has not changed across Canadian birth cohorts once both marriage and cohabitation are taken into account (Wright, 2016). The increase in the age at first marriage, combined with the stability of the age at first union, has set the stage for an increase in premarital cohabitation relationships throughout adulthood. The increasing prevalence of cohabitation as a first union experience is

well-documented (Lamidi et al., 2019; Wright, 2016). However, the phenomenon of serial cohabitation (defined as entering and exiting more than one cohabitation prior to first marriage), has received little attention (Lichter et al., 2010). Recent studies on cohabitation (Lamidi et al., 2019; Wright, 2019) tend to focus only on the formation or dissolution of the first cohabiting union and do not take into account features inherent in long-term patterns, such as the number of multiple cohabitation transitions. Given the prevalence of cohabitation in Canada, this omission is noteworthy. There is a need for estimates of overall prevalence as well as for estimates across genders, birth cohorts, and regions.

The risk factors associated with serial cohabitation are also unclear. Research on this topic has primarily focused on women in the United States (Cohen and Manning, 2010; Eickmeyer and Manning, 2018; Lichter and Qian, 2008; Lichter et al. 2010), and there is a lack of information on other populations. Studies have shown that people with fewer socioeconomic resources are more likely to engage in multiple partnerships (Lichter and Qian, 2008; Lichter et al., 2010; Wu and Schimmele, 2005). Other risk factors that have been identified include being born in recent cohorts, being black or Hispanic, not having a religious affiliation, and having children born out of wedlock (Eickmeyer and Manning, 2018; Lichter and Qian, 2008). However, it is uncertain whether these findings can be applied to Canada, where cohabitation is more common and stable than in the United States, particularly in Quebec (Le Bourdais and Marcil-Gratton, 1996; Wu and Pollard, 2000). Additionally, it is unclear whether the risk factors for serial cohabitation among US women also apply to Canadian women and men, as this is an understudied area.

Finally, the likelihood of transitioning from serial cohabitation to marriage also warrants further study, particularly in the recent Canadian context. Research evidence suggests that female serial cohabitators are less likely to transition to marriage and more likely to dissolve their unions

compared to single instance female cohabitators in the U.S. (Cohen and Manning, 2010; Lichter and Qian, 2008). It also suggests that factors such as age, birth cohort, race/ethnicity, education, region and religion may play a significant role in influencing this transition (Lichter and Qian, 2008). For example, more recent cohorts (e.g., those born between 1978 and 1982) have shown a negative correlation between serial cohabitation and the intention to marry, whereas this association was not observed among older birth cohorts (born between 1958 and 1972) as reported by Vespa in 2014. In Canada, it has been found that men are more likely to form a second union than women (Wu and Schimmele, 2005). Furthermore, well-educated women have been found to have higher rates of second marriage formation, while for men, education increases cohabitation rates but does not significantly affect marriage (Wu and Schimmele, 2005).

This study addresses a number of gaps in our knowledge about serial cohabitation. It has three specific objectives. First, it estimates the prevalence of serial cohabitation prior to the first marriage among three different cohorts (Baby Boom, Generation X, and Millennial) using data from the 2011 and 2017 Canadian General Social Surveys. It also asks how these patterns differ in terms of gender, birth cohort, and region. Second, it examines risk factors for serial cohabitation, focusing on men and women separately. Third, it estimates the risk of transition to marriage among cohabitators. This seeks to answer the question of whether repeated instances of cohabitation have a detrimental effect on the transition to first marriage.

The study goes beyond prior research in three key ways. First, it draws on the Second Demographic Transition and Diverging Destinies frameworks to help frame analyses of the role of serial cohabitation in Canadian demography. Second, it uses data from the 2017 as well as the 2011 Canadian General Social Surveys so that I am able to include younger cohorts (those born

throughout the 1980s) in my analyses. Third, I focus on gender differences in serial cohabitation in the Canadian context, examining how cohabiting women and men compare with each other in terms of the prevalence of serial cohabitation and marriage outcomes. To date, relatively little research has been done to identify gender differences. Instead, the existing literature examining the transition from serial cohabitation to marriage in the United States only includes female respondents (Cohen and Manning; 2010; Lichter and Qian, 2008). As well, the most relevant Canadian study is strictly limited to second union choices and ignores higher-order union decisions (Wu and Schimmele, 2005). This study captures multiple cohabitations prior to first marriage and focuses on gender differences in the transition from serial cohabitation to marriage in Canada. Fourth, I broaden the cross-national evidence base by investigating serial cohabitation in Canada, with a particular focus on regional differences. This is based on recurrent evidence that Quebec and the rest of Canada have very different patterns of demographic behavior with respect to marriage and family life (Fostik and Le Bourdais, 2020).

Literature Review

Background in Theory

To address these issues, this study draws on two theoretical frameworks: 1) the Second Demographic Transition framework; and 2) the Diverging Destinies framework.

The Second Demographic Transition Framework

The First Demographic Transition was characterized by declines in mortality and fertility in some European populations beginning in the 18th century and continuing today in most developing countries (Lethaeghe, 2014). However, the FDT literature provides little information for understanding fertility changes in populations that are already low-fertility (Zaidi and

Morgan, 2017). The Second Demographic Transition framework was first introduced by Ron Lesthaeghe and Dirk van de Kaa in 1986, to address the interrelated changes in family life that had first been observed in many countries in Western and Northern Europe beginning in the late 1960s (Lesthaeghe, 2010). These included ongoing declines in fertility, the postponement of marriage, along with increases in cohabitation, non-marital childbearing, and union dissolution, as well as several other demographic changes.

A major stepping stone for the SDT framework is Abraham Maslow's (1954) theory of changing needs. As populations become wealthier and more educated, attention shifts away from needs related to survival, security, and solidarity. Instead, there is a greater emphasis on "higher order needs". Proponents of the SDT have argued that the main factor driving these changes in marriage and family life in more recent years was a cultural shift away from needs related to survival and security and toward post-modern attitudes and norms, such as individuality and self-actualization (Lesthaeghe, 2014; 2020). This, in turn, enhanced people's freedom of choice in organizing their personal lives and following non-traditional family formation and fertility patterns (Lesthaeghe, 2010).

With regard to cohabitation specifically, according to the SDT framework, cohabitation choices are the result of increasingly liberal attitudes toward family life and the growing social acceptance of informal relationships. They are also a response to the expansion of individualism, autonomy and the individual's concern for self-fulfillment in the pursuit of a professional career (Lesthaeghe, 2010). In early SDT discourse, younger cohorts and people with higher levels of education were said to be more likely to have ideational shifts and develop liberal values toward new partnership relationships compared to older cohorts and those with less education. The transition to adulthood for younger cohorts has become increasingly non-standardized, leading to

greater freedom of lifestyle choices (Billari and Liefbroer, 2010). Although the SDT does not speak explicitly about serial cohabitation, we can assume that serial cohabitation will also become more popular as a new type of partnership. Therefore, younger, more highly educated individuals should have a greater likelihood of choosing cohabitation as a first partnership or even, to experience a second or third cohabiting union. In an updated version of his thesis, Lesthaeghe (2020) accounts for the diffusion of cohabitation and argues that cohabitation is spreading rapidly among all educational groups, and that in the context of rising cohabitation, it can now start both among the more educated and among the poorer classes. As this occurs, Lesthaeghe (2020) concludes that the overall rise in cohabitation will tend to be much greater than educational differences.

The SDT also suggests that new family patterns, including cohabitation, will also spread across countries (Lesthaeghe, 2010, 2020). New family norms and behaviors associated with more progressive values were first adopted in Nordic countries and subsequently, by other European and developed countries, such as the United States (Lesthaeghe and Neidert, 2006) and Canada (Wright, 2019). In Canada, research evidence suggests that Quebec has different patterns of union behavior than the rest of Canada with respect to cohabitation (Pelletier, 2016). A much larger proportion of couples in Quebec choose to form cohabiting relationships and have children in these relationships than in other parts of Canada (Pelletier, 2016). Because cohabitation is so prevalent, it is believed that Quebec and the rest of Canada are at different stages when it comes to the diffusion of cohabitation (Le Bourdais and Lapierre-Adamcyk 2004).

Overall, the SDT framework and research based on it leads us to expect that, in Canada, serial cohabitation may be more common among those who were born more recently and those living in Quebec. Moreover, it suggests that the rise of cohabitation is the result of recent cultural

trends toward self-actualization, individualization, and a rejection of tradition (Lesthaeghe, 2010), which may suggest that people with higher levels of education, better socioeconomic backgrounds, less traditional cultural backgrounds, and weaker religious affiliations are more likely to engage in cohabitation, including serial cohabitation. However, with the growing popularity of cohabitation relationships implied by the SDT, the role of education and other socioeconomic factors in influencing them may also have weakened over time. Finally, the SDT framework does not specify how likely it is that serial cohabitators will transition to marriage. However, if cohabitation and serial cohabitation represent alternatives to marriage, it suggests that those most likely to engage in serial cohabitation would also be those least likely to transition to marriage, with the risk factors influencing such transitions being similar to those associated with the likelihood of serial cohabitation more generally (i.e., birth cohort, region, education, socioeconomic and cultural background).

The Diverging Destinies Framework

The SDT has often been criticized for underestimating the role of social inequality and economic conditions characterized by technological progress and economic globalization in shaping life trajectories (McLanahan, 2004; Zaidi and Morgan, 2017). The notion of Diverging Destinies comes from a large body of research documenting the growing socioeconomic differences in family behavior evident in the United States over the past 30-40 years (Raymo and Iwasawa, 2017). For example, using data from the U.S. Census, McLanahan (2004) examined trends in the age and employment of mothers, as well as the prevalence of single motherhood. McLanahan found that on average, all mothers were getting older and were more often employed, but the increases were greater for more highly educated mothers compared to those with less education. Additionally, the increases in age and employment for single mothers, who

typically had fewer economic and other resources, was much smaller for highly educated single mothers compared to those with less education. Therefore, she concluded that changing economic conditions were leading to two very different family trajectories that, in turn, have a significant impact on children, parents and the society as a whole.

With regard to cohabitation, including serial cohabitation, the DD framework appears to challenge the view that they are the result of increasingly liberal attitudes toward family life and the growing social acceptance of informal relationships. Instead, it suggests that family and household behaviors are increasingly likely to diverge, rather than converge over time (i.e., across cohorts) as implied by the SDT framework, and that this divergence is influenced by increasing levels of socioeconomic inequality. Therefore, it appears that economic constraints, rather than personal choice, are more likely to drive new forms of partnership for those with lower levels of education and/or fewer economic resources (Perelli-Harris and Gerber, 2011). As a result, those at the lower end of the socioeconomic spectrum are said to be increasingly likely to engage in family behaviors (including cohabitation/serial cohabitation, non-marital childbearing) that are associated with reductions in the level of socioeconomic resources available, whereas those at the upper end of the spectrum are engaging in family behaviors (including childbearing in stable marriages) that are associated with increased access to such resources (McLanahan, 2004; McLanahan and Percheski, 2008).

The Diverging Destinies framework also suggests that one's socioeconomic status might influence cohabitation outcomes. Despite the fact that couples from less advantaged backgrounds are more likely to engage in cohabiting unions, cohabiting couples from more advantaged backgrounds and those with higher education are more likely to have access to socioeconomic

resources and face fewer financial constraints, which in turn may lead to a greater probability of transition to marriage and a lower likelihood of separation (Dush et al., 2018).

To summarize, the Diverging Destinies framework suggests varying trends in partnership behaviors based on an individual's socioeconomic status, which is shaped by social stratification and structural constraints. Overall, it leads us to expect that serial cohabitation, like cohabitation more generally, will likely to be more prevalent among more recent cohorts, primarily as a result of growing socioeconomic inequality. It also suggests that, in Canada like the US, people with lower levels of education and poorer socioeconomic backgrounds more generally will be more likely to engage in cohabitation, including serial cohabitation, compared to those with higher levels of education and better socioeconomic backgrounds. As well, they will be less likely to see their unions transition into marriage and more likely to see their relationships dissolve. In contrast, those with higher education and from more advantaged backgrounds are more likely to have access to socioeconomic resources and face fewer financial constraints, which in turn, may lead to higher relationship stability and a lower likelihood of separation (Dush et al., 2018).

Background in Research

Trends in Cohabitation and Serial Cohabitation

In Canada, marriage was the norm and popular choice until the 1960s, when over 90% of the population married at some point in the life course (Le Bourdais and Lapierre-Adamecyk, 2004). Since then, marriage has gradually declined in prevalence and now just over half of Canadians are expected to marry (Fostik and Le Bourdais, 2020). At the same time, cohabiting relationships are becoming more common across the country, with a growing number of Canadians choosing cohabitation rather than marriage as a first partnership (Wright, 2016). In

1991, just under 7% of Canadians aged 15 and older were in cohabiting relationships. Over the years, this percentage steadily increased, reaching 11% by 2011. Since then, there has been a slight continuation of this upward trend, with the proportion of cohabiting individuals rising to 12% in 2022. According to the 2016 Canadian Census, 21.3% of couples were in cohabiting relationships at that time, more than three times as many as in 1981 (6.3%) (Statistics Canada, 2019a), the first year for which census data on cohabiting relationships were collected.

According to several researchers, the rise in cohabitation occurred in conjunction with a decrease in the significance and occurrence of marriage as a societal institution (Cherlin, 2010; Lichter et al., 2010). A trend toward later marriage also continues, but research evidence suggests that there is no change in the age of first union across Canadian birth cohorts when marriage and cohabitation are taken into account (Wright, 2016). Quebec, in particular, shows a more drastic change in the age at first marriage compared to the rest of Canada. Together, the increase in the age at first marriage, combined with the stability of the age at first union, has created the conditions for an increasing number of premarital cohabitation relationships throughout adulthood.

The weakening of the link between cohabitation and marriage also allows for more opportunities for serial cohabitation (Eickmeyer and Manning, 2018). In the United States, in the 1980s, cohabiting unions more often ended in marriage than union dissolution (Bumpass and Sweet, 1989). However, most cohabiting relationships now end with dissolution rather than transition to marriage (Guzzo, 2014; Lamidi et al., 2019). According to one study conducted in the United States, only 22% of recently cohabiting women aged 15-39 in 2006-2013 transitioned to marriage after five years, compared to 42% of women in the same age group in 1983-1988 (Lamidi et al., 2019). A similar trend appears to be evident in Canada: Wright (2019) found that

respondents born in the 1960s who formed a first cohabiting union were more likely to transition to marriage than those born in the 1970s.

Research on serial cohabitation is scarce, particularly among more recent cohorts. However, the available evidence suggests that it has increased significantly over recent decades in the U.S. Lichter and Qian (2008) found that only a small percentage (13.5%) of cohabiting women born during the later years of the Baby Boom (1957 to 1965) and followed from 1979 through 2000, had multiple relationships before marriage. However, Lichter et al. (2010) reported an increase of nearly 40% in the rates of serial cohabitation between 1995 and 2002. Similarly, research by Zeng et al. (2012) showed that the average number of cohabitations has risen sharply since the 1970s, with women in the early 2000s reporting an average of 1.15 and men reporting an average of 1.36 cohabiting partners (about 2.5 times as large as those in the 1970s). According to Eickmeyer and Manning's (2018) more recent study, 13% of Millennial women born between 1980 and 1984 cohabited with multiple partners after ending their first cohabiting relationship, which was twice the rate among late Baby Boomers born between 1960 and 1964.

Knowledge about the prevalence of serial cohabitation outside the U.S. is limited. Dommermuth and Wiik (2014) used data from a Norwegian survey of people over the age of 35 to show that the proportion of young adults with multiple cohabiting partners has increased across all cohorts and the increase was more pronounced among women than among men. This gender difference may be due to the fact that women tend to be younger than men when they first cohabit with their partners. More recently, Hiekel and Fulda (2018) analyzed cohabitation prior to first marriage in a West German birth cohort born in the early 1970s (i.e., Gen Xers). Among those who eventually entered their first marriage, 15% reported no prior cohabitation experience,

and the majority (71%) were married to their first cohabiting partner. Somewhat fewer were married to their second (13%) or third or later (2%) cohabiting partners, respectively. The researchers concluded that most of those in this cohort had only experienced cohabitation once, and only a small minority had multiple cohabiting partners.

In Canada, past work on second or higher-order unions is both sparse and somewhat dated. As a result, prevalence rates are unclear. Relatively speaking, cohabitation rates tend to be somewhat higher in Canada than in the United States (Statistics Canada, 2017a). Wu and Schimmele (2005) used data from the 1995 Canadian General Social Survey to demonstrate that first union type and exit status have a significant impact on second union choice. Focusing on Canadians aged 15-64 in 1995, they found that former cohabitators tended to engage in serial cohabitation, with 71% of them cohabiting as a second union and only 8% forming a second marriage. They also showed that cohabitation was the predominant form of second union in Canada, with 56% of women and 62% of men reporting having formed a second cohabiting relationship 20 years after the breakdown of their first union. In contrast, only 16% of women and 20% of men formed a second marital relationship after the breakdown of their first marriage. However, their study considered only the second union and did not examine higher-order unions. Moreover, their study was based on data from the 1995 Canadian General Social Survey, and these results may not reflect more recent trends in cohabitation in Canada.

Risk Factors for Serial Cohabitation

Several demographic, socioeconomic and other risk factors have been found to be associated with serial cohabitation. For example, as noted above, those born in more recent cohorts are also reported to be more likely to engage in serial cohabitation than those in earlier cohorts (Eickmeyer and Manning, 2018; Lichter and Qian, 2008; Mills, 2004; Wu and

Schimmele, 2005). In the Canadian context specifically, Mills (2004) compared partnership transitions among Canadian women born in early and late Baby Boom years (1946-50 and 1961-65) and found that younger cohort members were more likely than older cohort members to enter higher-order (second) cohabiting relationships. Similarly, in a somewhat more recent study, Du (2012) focused on non-Quebeckers born from 1960-1975 (Baby Boomers and Gen Xers) with at least two conjugal unions and found that 19.8% (including 16.9% of women and 22.9% of men) reported two or more cohabitations without marriage. However, there was no significant difference between the two birth cohorts.

Further, some evidence suggests that men are more likely than women to form second unions, including cohabiting unions (Du, 2012; Wu and Schimmele, 2004). To date, however, studies on serial cohabitation have primarily focused on the socio-economic characteristics of those who engage in this behavior. As a result, most studies have used individual-level economic status (e.g., educational attainment, employment, and income) or family background (e.g., family structure at a young age) as risk factors. Studies in the United States have found that serial cohabitation is disproportionately concentrated among less educated and more economically disadvantaged groups (Cohen and Manning, 2010; Eickmeyer and Manning, 2018; Lichter and Qian, 2008; Lichter et al., 2010). Compared to those who cohabit once, serial cohabitators also tend to be less educated, more likely to have grown up in a single-parent household, and more likely to experience early sexuality and adolescent childbearing (Cohen and Manning, 2010; Lichter et al., 2010; Rackin and Gibson-Davis, 2018).

Studies conducted in Europe have reported similar findings. For example, research on young British men has confirmed that those who engage in serial cohabitation tend to have a challenging employment history, often entering the labor market later or experiencing frequent

interruptions in their work history (Bukodi, 2012). One possible explanation for the negative association between socioeconomic resources and multiple partnerships is that entering into new partnerships following the dissolution of a previous union can help alleviate the negative economic consequences of that breakup. The rapid formation of a new cohabiting union following union dissolution may be particularly attractive to those who are not financially well-off (Dommermuth and Wiik, 2014). Furthermore, individuals with fewer socioeconomic resources may also tend to enter into these relationships at an earlier age, which could explain why they are more likely to engage in multiple cohabitation relationships (Lichter et al., 2010).

While studies conducted in the United States and the United Kingdom have indicated that individuals who engage in serial cohabitation are more likely to come from less educated and more economically disadvantaged backgrounds, research from Nordic countries suggests that individuals with higher levels of education are more likely to engage in this behavior (Dommermuth and Wiik, 2014). Similarly, in Canada, Wu and Schimmele (2005) found that more educated women had higher rates of second union formation, including subsequent cohabitations as well as marriages. For men, higher education was linked to an increase in serial cohabitation, but did not have a significant impact on second marriage formation. However, drawing on data from the 2006 Canadian General Social Survey, Du (2012) reported finding that those in a more favorable position (such as having a college degree) were more likely to follow a trajectory that involved marriage. In contrast, those on a serial cohabitation trajectory were less likely to have lived with both parents at age 15, more likely to have low or moderate levels of education, and more likely to have fathers with less than a high school diploma.

Other socioeconomic factors, such as urbanization, may also be related to the formation of cohabiting unions. Lesthaeghe and Neidert (2006) found that highly urbanized countries with a

large proportion of their population living in metropolitan areas tend to be more accepting of non-traditional forms of intimate relationships. However, as societies become more urbanized, rural areas are increasingly affected by shifts in attitudes and social norms, and traditional values and kinship patterns are waning while new social norms are emerging. Contrary to previous findings, research conducted in Canada suggests that the association between urbanization and cohabitation may not hold true. Statistics Canada (2022) reports that there are more couples living in common-law relationships in rural areas of the country than in urban areas.

These findings have, in part, been attributed to the fact that Canada's large urban centers tend to have relatively larger populations of immigrant and racialized groups where marriage is more prevalent. According to Lichter et al. (2010), foreign-born women are less likely to engage in serial cohabitation, comprising only 10.4% of serial cohabitators despite representing 15.2% of the population. Additionally, previous research suggests that religious affiliation is a strong predictor of union type, with those who attend church regularly and/or consider religion to be important being more conservative about family and sexuality, and therefore less likely to engage in behaviors such as premarital and serial cohabitation, non-marital childbearing, and divorce (Du, 2012; Eggebeen and Dew, 2009; Verona et al., 2015).

Finally, the impact of childbearing on serial cohabitation appears complex. On the one hand, there is evidence that individuals with no children are more likely to engage in serial cohabitation than those with children (Du, 2012). However, others note that cohabitation increases the risk of unintended pregnancy and childbirth, which can lead to relationship dissatisfaction, conflict, and even violence (Pallitto, Campbell, and O'Campo, 2005). This could potentially result in increased union dissolution and subsequent serial cohabitation (Lichter et al., 2010). On the other hand, other studies have shown that cohabiting partners who have children

together are more likely to transition to marriage (Musick, 2007). Moreover, Wu and Schimmele (2005) found significant gender differences in the relationship between the presence of young children and second union formation. For women, the presence of young children did not affect their likelihood of forming a second union (marital or cohabiting), but for men, having young children increased their chances of forming a second cohabitation (but not marital) relationship.

Transition from Serial Cohabitation to First Marriage

The literature on the relationship between serial cohabitation and subsequent marriage is underdeveloped (Lichter et al., 2010). Vespa (2014) found that cohabitators' marital intentions have decreased across birth cohorts, and serial cohabitators are less likely to have marriage plans compared to one-time cohabitators, especially among women born in the mid-1960s. Other research points to the importance of economic factors. According to proponents of the Diverging Destinies framework, cohabitators are a select group of people who are economically disadvantaged, less educated, and often dependent on public assistance (Sassler and Lichter, 2020), which in turn may negatively affect the likelihood of marriage and of long-term stable marriage (Lichter and Qian, 2008). Consistent with this view, Lichter and colleagues (2006) reported finding that marriage rates are low among disadvantaged couples, with less than one-third of poor cohabiting couples entering into marriage, and many of those marriages eventually dissolving, leading to the formation of new cohabiting relationships. Serial cohabitators were found to be less likely than single cohabitators to marry their partners because of double or triple selection on risk factors (e.g., low socioeconomic status and low marital commitment) (Lichter and Qian, 2008). Lichter and colleagues (2010) stated that most married women who have ever cohabited live only with the cohabiting partner they eventually married.

At the same time, others posit that cohabitation itself affects the likelihood of getting and staying married (Brown et al., 2006). For example, the everyday experience of being an unmarried couple may exacerbate unforeseen problems in the relationship, create new dissatisfaction, and reduce the likelihood of marriage (Brown, 2000). Cohabitation was found to significantly reduce the perceived costs and benefits of marriage, which in turn reduced the intention to get married, which would further negatively impact actual marriage entry (McGinnis, 2003). For serial cohabitators, the emotional costs associated with “breaking up” and starting over in a new relationship may decrease as the number of relationships increases. With each successive breakup, breaking up again may become easier, especially if the first-hand experience provides new lessons about how to be emotionally and financially self-sufficient. Thus, the psychological cost of dissolution may decrease with successive core relationships. As a result, the likelihood of transitioning to marriage is expected to decline with each successive cohabiting relationship. However, empirical research has not supported this argument.

Data and Method

Data Source and Sample

To address the prevalence, risk factors, and marital status transitions associated with serial cohabitation in Canada, data were drawn from the 2011 and 2017 General Social Survey (GSS) public use microdata files (PUMF). These analyses were performed during the COVID-19 pandemic, when the Statistics Canada Regional Data Centre (RDC) at the University of Victoria was closed. As a result, I was not able to analyze the confidential data files. The GSS is a nationally representative cross-sectional survey conducted by Statistics Canada of adults aged 15 years or older living in 10 Canadian provinces, excluding people living on reserves, in the

Northern Territory, and full-time residents of institutions. Interviews were conducted via computer-assisted telephone interviewing (CATI). The response rates for the GSS were 65.8% and 52.4% in 2011 and 2017, respectively. Further details on sampling procedures, methods and characteristics are available on the Statistics Canada website (Statistics Canada 2019c).

The GSS provides a unique opportunity to address our research questions by providing retrospective information about cohabitation and marriage histories, including information about the respondent's family background, education, and reproductive experiences. The 2011 and 2017 GSS surveys included a total sample of 43,037 respondents (22,435 in 2011 and 20,602 in 2017). In accordance with previous literature, only more recent birth cohorts were included, given that serial cohabitation is a relatively new type of intimate relationship (Eickmeyer and Manning, 2018). Thus, the analyses were restricted to respondents in three different birth cohorts (Baby Boom, Generation X, and Millennials) who were born between 1946 and 1989 ($N = 31,105$) and further restricted to respondents who were at least 28 years old at the time of the interview ($N = 29,958$). Eickmeyer and Manning (2018) used the same age limit which they argue ensured that all selected respondents had a certain amount of time to enter or leave a cohabiting relationship or marriage in adulthood. It should be noted, however, that many Millennial respondents were still young and therefore, the GSS did not have their full relationship histories. Rather, I documented how their union formation experiences were developing.

Respondents without a cohabiting or marital relationship by 28 years of age were also excluded, resulting in a sample size of 21,388. I also excluded respondents who cohabited or married before age 15, respondents with missing data on age at the start of a union but with values at union dissolution, and respondents with illogical union start and end dates (further

reducing the sample size to 21,086). Finally, cases in which any covariates had missing values were excluded (n=1,634, 7.7%), yielding a final study sample of 19,452 respondents. The excluded individuals' demographic characteristics (including birth cohort, region, education, family background, immigrant status, and religious affiliation) were compared to those included in the analyses, and the results showed that they were comparable. I utilized the *nanian* package in R (Tierney and Cook, 2023) to thoroughly investigate the patterns of missing values across variables. This package offers a comprehensive suite of tools for detailed exploration and visualization of missing data. By using functions `vis_miss()` for visualizing the missingness matrix and `n_miss_var_cor()` for generating a correlation matrix specifically for missing values, I was able to get valuable insights into the structure of the missing data. The visualizations helped me to identify clusters of missingness, indicating whether the data were missing completely at random (MCAR), missing at random (MAR), or missing not at random (MNAR). The missing values appeared to be random and lacked any discernible pattern.

Measurement

Cohabitation experiences were obtained from respondents' reports of their age at the beginning and end of each cohabitation experience (up to four): "Respondent's age at the start of current (first, second, third) common-law relationship," "Respondent's age at the start of common-law relationship prior to current (first, second, third) marriage," and "Respondent's age at separation from first (second, third) common-law relationship²." Marriage formation was measured based on the variable: "Respondent's age at the beginning of current (first) marriage."

² The responses to these questions were based on self-reports, and it should be noted that a considerable number of common-law relationships are relatively brief, lasting just a few months. Therefore, they are not solely limited to common-law relationships that extend beyond one year in duration, as suggested by Statistics Canada's (2019) formal definition.

To capture the date of the respondent's first union, I constructed the date of entry into cohabitation (if any) and chose the minimum of the age at first marriage and at first cohabitation as the age at formation of the first union.

Since I jointly modeled the two survival processes, I had two dependent variables. Cohabitation was defined as a recurrent event and marriage was defined as a terminal event. The event indicator of cohabitation was defined by the respondent's age at the onset of each different cohabitation. Exposure to the risk of first marriage was measured from age 15 until the age of first marriage. All respondents were considered at risk for a new cohabitation event as long as they were not married. Once respondents had experienced their first marriage, they were no longer considered at risk in my joint survival model.

The analyses included the following risk factors: gender, birth cohort, region of residence, childbearing, education, family background, place of residence, immigrant status, age at immigration, racial/visible minority status, and religious affiliation. Survey year was also included as a control variable. Gender was a categorical variable (1 = Men; 2 = Women). Birth cohort was a three-level categorical variable contrasting (1) Baby Boomers (born between 1946 and 1964), (2) Generation Xers (born between 1965 and 1980), and (3) Millennials (born between 1981 and 1989). In addition, region was a dummy variable comparing those living in the province of Quebec versus elsewhere in Canada (1 = Quebec; 0 = Rest of Canada). A time-varying measure of childbearing (fertility) was constructed to indicate whether and when respondents had any biological children (including up to seven children). Education was also a time-varying variable and coded as high school diploma or less before the age at which their education had been completed (1 = High school diploma or less; 2 = Some post-secondary; 3 =

Bachelor's degree or higher). Family background was measured using respondents' reports of whether or not they had lived with both parents until the age of 15 (1 = Yes; 0 = No).

The respondents' place of residence was measured by the GSS population center indicator, which included larger urban population centers, rural areas, and smaller population centers. According to Statistics Canada (2012), larger urban population centers included Census Metropolitan Area (CMA) and Census Agglomeration (CA): "A census metropolitan area must have a total population of at least 100,000 of which 50,000 or more live in the core. A census agglomeration must have a core population of at least 10,000." Those residing in larger urban population centers at the time of the survey were coded as 1, while those not residing in larger urban population centers were coded as 0.

Immigration status was captured by a dummy variable (0 = No; 1 = Yes). In addition, a categorical variable was used to measure respondents' experiences in Canada, with Canadian-born individuals and those who obtained landed immigrant status before age 15 grouped together in one category, and respondents who obtained landed immigrant status after age 15 grouped together in another. The correlation coefficient between the two variables is 0.683. To measure race, I used a dummy for those who identified as belonging to a visible minority group (coded as 1). Following the Employment Equity Act, the GSS defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour". The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean and Japanese. Non-visible minorities include single origin White, single origin Aboriginal, and multiple origin White/Latin American and White/Arab-West Asian, as per Census definition (Statistics Canada, 2016). More detailed ethnic-racial categories were not available in the GSS dataset for public use.

Finally, I also included two variables related to religion. A dummy variable indicated whether the respondent had any religious affiliation (0 = No; 1 = Yes). In addition, religiosity was measured based on the question: “How important is your religious spirituality to your lifestyle?” There were four response options: 1 = Not at all important; 2 = Not very important; 3 = Somewhat important; and 4 = Very important.

Analytical Approach

The analyses were conducted in two stages. First, I provided summary statistics for the percentage distribution of cohabitation order by gender, cohort, and region. In addition, I also compared the social and demographic characteristics of those who reported 0, 1, and 2+ cohabitations. These analyses were weighted using weight factors supplied by Statistics Canada and included as part of the survey data sets³ to account for the complex survey design of the GSS and to ensure that the estimates were nationally representative (Statistics Canada, 2019d). Next, I applied a joint frailty model of recurrent and terminal events (Liu et al., 2004; Rondeau et al., 2007) to examine the relationship between two survival processes: recurrent cohabitations and marriage. I generated respondents’ life histories starting at age 15, created sequences of cohabitation events, and followed all respondents until their first marriage or the end of the survey (if not married). Different risk factors, either time-varying or time-constant, were included in assessing the hazards of both recurrent events (cohabitation) and the terminal event (first marriage). At the same time, I explicitly estimated the association between these two survival processes.

³ To pool two cross-sectional datasets for analysis, I first combined them into a single dataset while retaining the weights for each observation. To ensure the weights were standardized, I created a new weight for each observation by dividing the original weight by the total weight for each dataset, and then multiplying by the total weight for the combined dataset.

The standard Cox model is designed to examine a single event of interest which can only be experienced once (Ezell, Land and Cohen, 2003). However, a person may experience the same type of event more than once (such as cohabitations), and experience multiple types of events during the life course (such as cohabitation and marriage). Therefore, I jointly modeled two endogenous survival processes since the outcome of one life event can influence the occurrence of another life event. Failure to consider recurrent events is tantamount to imposing an independent assumption about the occurrence of events, which often leads to biased estimates (Box-Steffensmeier and Jones, 2004).

I denote $i = 1, \dots, N$ the subject and by $j = 1, \dots, n_i$ the rank of the recurrent event. Let $r_o(.)$ and $\lambda_o(.)$ be the baseline hazard functions related to the recurrent and terminal events respectively. Let X_{Rij} and X_{Ti} be two vectors of covariates associated with the risk of the related events. Let β_R and β_T be constant effects of the covariates whereas $\beta_R(t)$ and $\beta_T(t)$ denote a time-varying effect. Finally, a frailty u_i is a random effect that links the two risk functions and follows a given distribution and α is a parameter allowing more flexibility. The hazard functions are defined as (Rondeau et al., 2007):

$$\begin{cases} r_{ij}(t|u_i) = u_i r_o(t) \exp(X_{Rij}^T \beta_R) = u_i r_{ij}(t) & \text{Cohabitation recurrences} \\ \lambda_i(t|u_i) = u_i^\alpha \lambda_o(t) \exp(X_{Ti}^T \beta_T) = u_i^\alpha \lambda_i(t) & \text{First marriage} \end{cases}$$

where frailty terms u_i follow Gamma distribution with unit mean and variance θ ($\theta > 0$). The important parameters α determines the direction of the association between the two survival processes. The positive (negative) values reflect a higher risk of cohabitation recurrence is associated with a higher (smaller) risk of first marriage.

The joint frailty models were estimated with the function `frailtyPenal` using the package `frailtypack` (Król et al., 2017). The survey-weighted estimates were generated using the survey

package in R (Lumley, 2020). All analyses were performed using R Statistical Software (v4.1.2, R Core Team 2021).

Results

The Prevalence of Serial Cohabitation Prior to First Marriage

Figure 2.1 reports the percentage of women and men who had cohabited 0, 1, or 2 or more times before their first marriage (if married). The results indicate that over half of the surveyed individuals did not cohabit before their first marriage (55.37% for women and 52.12% for men). Among those who did cohabit prior to marriage, a large majority did so only once (75.24% of women and 73.35% of men). Just over 11% of women and almost 13% of men cohabited more than once prior to their first marriage or at the time of the survey if they were not married. Overall, however, the trend was similar for women and men, with no significant differences evident.

Figure 2.2 shows the distribution of cohabitation before first marriage order by gender and birth cohort. Among Baby Boomers, 72.60% of women and 68.31% of men did not cohabit before their first marriage. Among Generation Xers, these percentages dropped by over half, to 35.48% for women and 33.59% for men. Among Millennials, these percentages dropped even further, to 24.01% for women and 23.62% for men. At the same time, the percentage of women and men who had one cohabitation experience prior to marriage increased significantly from one cohort to the next. Similarly, from Baby Boomers to Generation Xers, there was a nearly threefold increase in the percentage of women (from 5.56% to 18.39%) and men (from 7.96% to 20.40%) who cohabited two or more times before marriage. However, from Gen Xers to Millennials, there was little further increase in the prevalence of serial cohabitation for either

gender. Instead, for men at least, the proportion reporting two or more cohabitations prior to marriage declined somewhat from one cohort to the next (from 20.40% to 15.12%)

Next, we look at the distribution of cohabitation before first marriage order by gender and region (Figure 2.3). In Quebec, a large percentage of respondents reported having cohabited at least once before their first marriage (if married). For example, among women living in Quebec, 37.71% had cohabited once and 19.62% had cohabited twice or more. A similar trend was observed among men in Quebec (almost 40% had cohabited once and 23.48% had cohabited twice or more). Among respondents living elsewhere in Canada, 58.42% of women and 55.92% of men had no cohabitation experience. Among those who had cohabited, the majority had only one cohabitation experience (32.58% of women and 33.96% of men). Additionally, a small proportion of women (9.00%) and men (10.13%) had two or more cohabitation experiences. It is worth noting that both one-time cohabitation and serial cohabitation are more common in Quebec than in the rest of Canada.

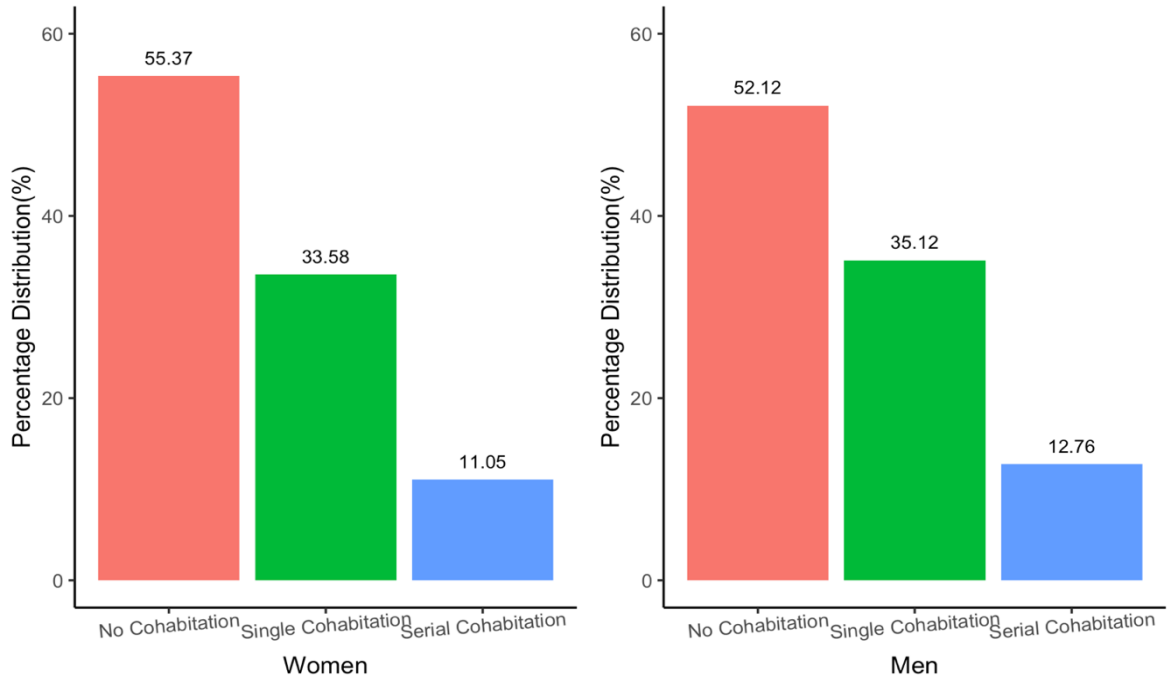


Figure 2.1 Percentage Distribution of Cohabitation before First Marriage Order by Gender

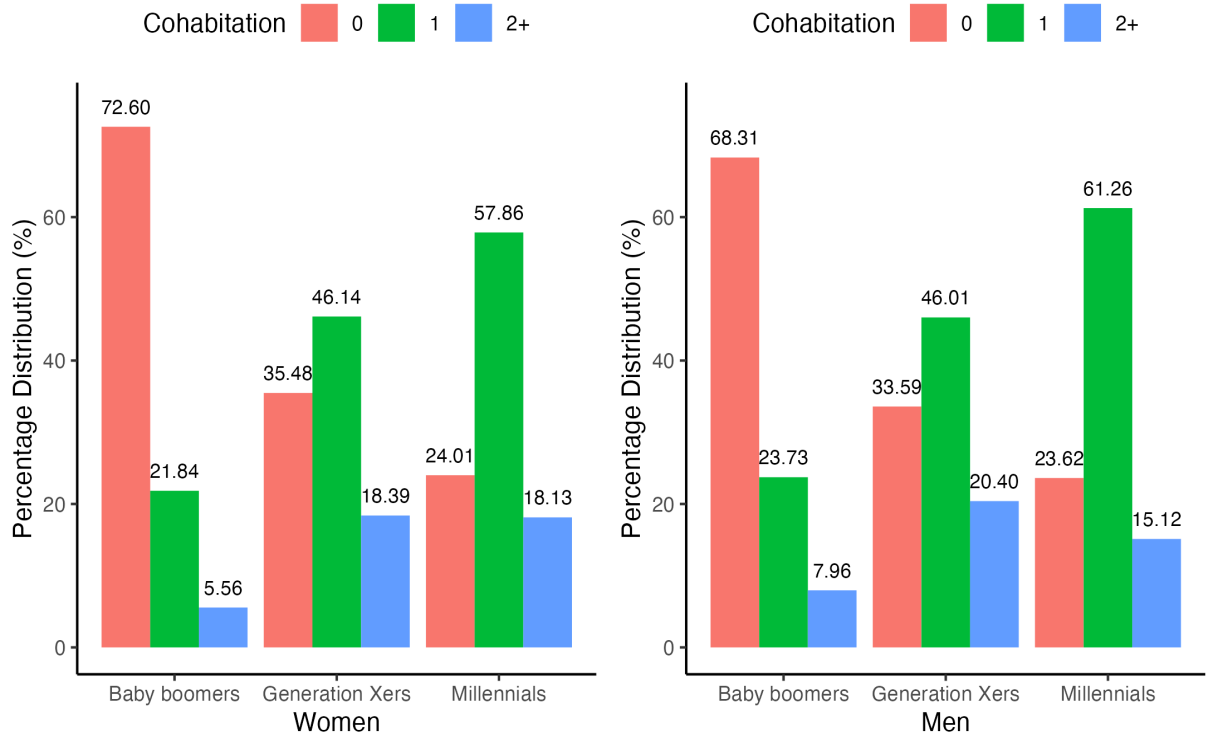


Figure 2.2 Percentage Distribution of Cohabitation before First Marriage Order by Gender and Cohort

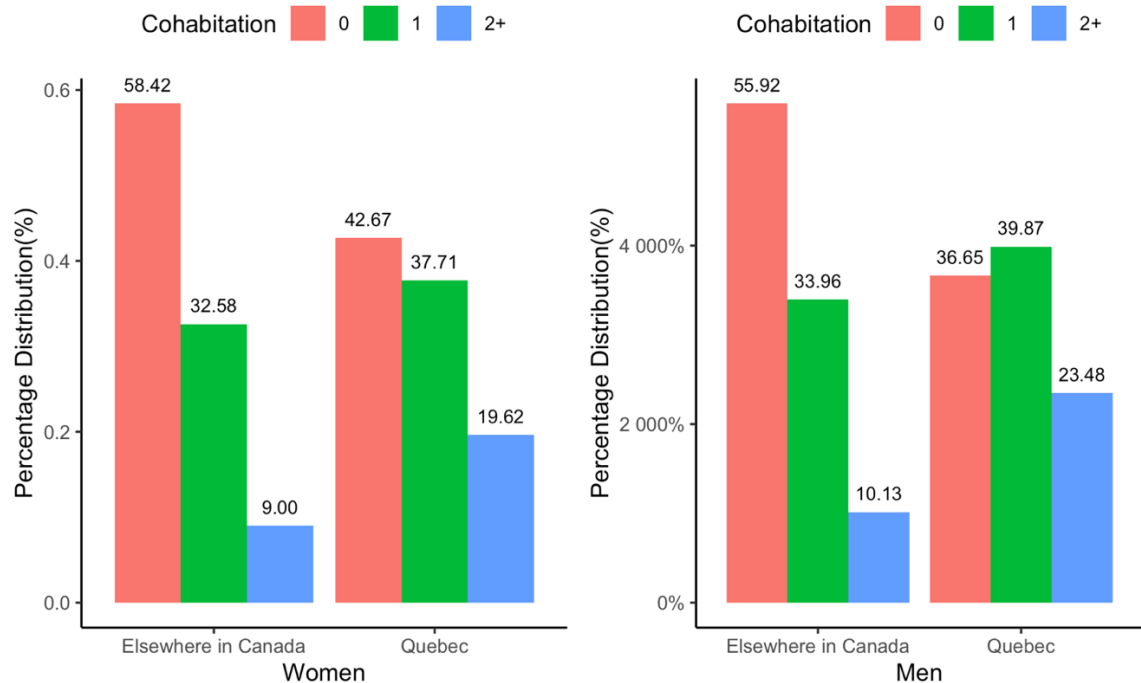


Figure 2.3 Percentage Distribution of Cohabitation before First Marriage Order by Gender and Region

Socio-demographic Profile by Cohabitation Order

Table 2.1 presents the social and demographic characteristics of women categorized by cohabitation order. Women who had cohabited two or more times entered their first union at an earlier age (mean age = 21.15) than those who had never cohabited (mean age = 21.95) or cohabited only once (mean age = 22.26). They also got married almost ten years later (mean age = 31.21), on average, than women who had not cohabited prior to marriage (mean age = 21.95) and almost six years later than women who had experienced cohabitation once prior to marriage (mean age = 25.39). In addition to birth cohort and regional differences (as discussed above), the presence of children is inversely linked with cohabitation order. The vast majority (88.05%) of women who had never cohabited before their first marriage reported having children. In comparison, somewhat fewer (75.17%) women with one cohabitation experience before their

first marriage had children and even fewer (59.76%) women with two or more cohabitation experiences before their first marriage had children.

With regard to socioeconomic factors, women who were serial cohabitators had somewhat higher levels of education than non-cohabitators or one time only cohabitators. For example, among women who did not cohabit before their first marriage, 35.21% had a high school diploma or less education, a figure that dropped to 22.69% among women who had two or more cohabitations. In contrast, 23.96% of women who did not cohabit had a bachelor's degree or higher, and this percentage increased to 30.12% for women who had two or more cohabitations before their first marriage. However, serial cohabitators were also more likely to report experiencing problematic family backgrounds. Nearly 90% of women who did not cohabit before their first marriage lived primarily with both parents until age 15; those with cohabitation experience were less likely to do so (e.g., 81.88% for one-time cohabitators and 75.02% for serial cohabitators).

The prevalence of cohabitation did not vary depending on urban residence. However, among cohabitators, especially serial cohabitators, Canadian-born and non-visible minority group members were over-represented: 94.62% of women reporting two or more cohabitations were born in Canada compared to 77.68% of those reporting no cohabitations, and 98.02% of those reporting two or more cohabitations did not belong to a visible minority group compared to 87.45% of those reporting no cohabitations. People with religious affiliations and beliefs were more likely to choose traditional forms of marriage over cohabitation and serial cohabitators were the least likely to report having a religious affiliation and the most likely to state that religion was either not at all or not very important. For example, 48.14% of those who had no cohabitation experience considered religion to be very important compared to 25.48% of those who reported one cohabitation, and 23.32% of those who reported two or more cohabitations before their first

marriage. Finally, women who participated in the 2017 GSS were significantly more likely to report serial cohabitation (53.04%) than those in the 2011 GSS (49.96%)⁴.

Table 2.2 shows the distribution of demographic and socioeconomic characteristics among men by cohabitation order. As was evident among women, men who cohabited two or more times started their unions at a younger age (mean age = 22.17) than men who only cohabited once (mean age = 23.31) or who had no cohabitation experiences prior to their first marriage (mean age = 23.45). At the same time, men without prior cohabitation experiences or with only one cohabitation tended to marry earlier than those who cohabited two or more times. Men who had more cohabitation experience were also less likely to have children, as was the case among women.

Turning to socioeconomic factors, in contrast to the findings evident among women, men who were serial cohabitators reported somewhat lower levels of education, particularly when compared with non-cohabitators. For men with no cohabitation experience, a relatively higher percentage had high school diplomas or less (36.56%). A somewhat lower percentage of serial cohabitators (30.82%) reported similarly low levels of education. In contrast, while a relatively lower percentage of those with no cohabitation had a Bachelor's degree or higher (26.02%), this was even lower among men with two or more cohabitations (22.90%). Conversely, like women cohabitators, men cohabitators were somewhat less likely to be living with both of their parents at age 15 (i.e., about 80% of serial cohabitators lived with both parents compared to about 91% of respondents with no cohabitation experiences prior to marriage).

⁴While the inclusion of this variable as a control was mainly driven by methodological considerations, specifically the need to combine data from two separate surveys, the findings also suggest the presence of period effects in relation to the occurrence of serial cohabitation.

In contrast with women, men living in large urban areas were significantly more likely to report serial cohabitation than those not living in such areas. Immigrant men and those belonging to visible minority groups were less likely to be one-time cohabitators or serial cohabitators compared to non-immigrants and those not belonging to a visible minority group. Among men reporting two or more cohabitations, approximately two thirds (68.98%) reported a religious affiliation compared to 85.12% of non-cohabitators. As well, over one-third (37.81%) of non-cohabitators stated that they thought religion was very important compared with just over 18% of both single and serial cohabitators.

Table 2.1 Distribution of Variables by Cohabitation Order (Women)

	Total	No Cohabitation	One Cohabitation	Two or More Cohabitations	ANOVA or Chi-square Test (p-value)
Age at first union (mean (SD))	21.96 (2.88)	21.95 (2.83)	22.26 (2.95)	21.15 (2.77)	<0.001
Age at first marriage (mean (SD))	23.55 (4.42)	21.95 (2.83)	25.39 (4.35)	31.21 (6.28)	<0.001
Cohort					<0.001
Baby Boomers	56.93%	74.65%	37.04%	28.62%	
Generation Xers	32.22%	20.64%	44.27%	53.60%	
Millennials	10.85%	4.70%	18.69%	17.79%	
Region					<0.001
Rest of Canada	80.63%	85.07%	78.24%	65.61%	
Quebec	19.37%	14.93%	21.76%	34.39%	
Childbearing					<0.001
No	19.40%	11.95%	24.83%	40.24%	
Yes	80.60%	88.05%	75.17%	59.76%	
Education					<0.001
High school diploma or less	30.41%	35.21%	25.04%	22.69%	
Some post-secondary	42.35%	40.83%	43.26%	47.19%	
Bachelor's degree or higher	27.24%	23.96%	31.70%	30.12%	
Family background					<0.001
Did not live with parents	14.43%	10.09%	18.12%	24.98%	
Lived with parents	85.57%	89.91%	81.88%	75.02%	
Place of residence					0.065
Not large urban	25.96%	26.80%	25.12%	24.35%	
Large urban	74.04%	73.20%	74.88%	75.65%	
Immigrant status					<0.001
No	83.96%	77.68%	90.81%	94.62%	
Yes	16.04%	22.32%	9.19%	5.38%	
Canadian experience					<0.001
Born in Canada or immigrated before age 15	88.88%	83.44%	95.03%	97.39%	
Immigrated after the age of 15	11.12%	16.56%	4.97%	2.61%	
Visible minority					<0.001
No	91.49%	87.45%	95.99%	98.02%	
Yes	8.51%	12.55%	4.01%	1.98%	
Religious affiliation					<0.001
No	49.72%	10.42%	23.37%	29.57%	
Yes	50.28%	89.58%	76.63%	70.43%	
Religion importance					<0.001
Not at all important	16.88%	7.81%	18.77%	23.48%	
Not very important	83.12%	10.29%	18.77%	20.24%	
Somewhat important	34.75%	33.76%	36.99%	32.96%	
Very important	37.79%	48.14%	25.48%	23.32%	
Survey year					<0.003
2011	51.05%	52.15%	50.60%	49.96%	
2017	48.95%	47.85%	49.40%	53.04%	
<i>N</i>	11,443	6,336	3,842	1,265	

Source: 2011 and 2017 GSS

Note: Table reports unweighted *N* and weighted means or percentages.

p-values are based on one-way ANOVA (continuous variables) or chi square tests (categorical variables) (2-tailed).

Table 2.2 Distribution of Variables by Cohabitation Order (Men)

	Total	No Cohabitation	One Cohabitation	Two or More Cohabitations	ANOVA or Chi-square Test (p-value)
Age at first union (mean (SD))	23.24 (2.65)	23.45 (2.50)	23.31 (2.73)	22.17 (2.77)	<0.001
Age at first marriage (mean (SD))	25.15 (4.40)	23.45 (2.50)	26.67 (4.12)	32.92 (6.55)	<0.001
Cohort					<0.001
Baby Boomers	56.61%	74.20%	38.25%	35.32%	
Generation Xers	32.08%	20.68%	42.02%	51.27%	
Millennials	11.31%	5.13%	19.73%	13.41%	
Region					
Rest of Canada	80.27%	86.13%	77.60%	63.70%	
Quebec	19.73%	13.87%	22.40%	36.30%	
Childbearing					<0.001
No	26.32%	15.31%	35.02%	47.36%	
Yes	73.68%	84.69%	64.98%	52.64%	
Education					<0.001
High school diploma or less	32.79%	36.56%	27.91%	30.82%	
Some post-secondary	41.22%	37.42%	45.01%	46.28%	
Bachelor's degree or higher	26.00%	26.02%	27.09%	22.90%	
Family background					<0.001
Did not live with parents	13.06%	9.20%	16.00%	20.74%	
Lived with parents	86.94%	90.80%	84.00%	79.26%	
Place of residence					0.002
Not large urban	26.99%	28.61%	25.56%	24.36%	
Large urban	73.01%	71.39%	74.44%	75.64%	
Immigrant status					<0.001
No	84.32%	78.17%	90.65%	91.98%	
Yes	15.68%	21.83%	9.35%	8.02%	
Canadian experience					<0.001
Born in Canada or immigrated before age 15	89.50%	83.83%	95.45%	96.28%	
Immigrated after age 15	10.50%	16.17%	4.55%	3.72%	
Visible minority					<0.001
No	91.91%	88.07%	95.56%	97.55%	
Yes	8.09%	11.93%	4.44%	2.45%	
Religious affiliation					<0.001
No	22.14%	14.88%	29.68%	31.02%	
Yes	77.86%	85.12%	70.32%	68.98%	
Religion importance					<0.001
Not at all important	22.40%	15.43%	29.43%	31.51%	
Not very important	18.18%	14.59%	21.93%	22.50%	
Somewhat important	30.84%	32.18%	30.11%	27.40%	
Very important	28.58%	37.81%	18.52%	18.59%	
Survey year					0.155
2011	50.46%	51.37%	49.91%	48.24%	
2017	49.54%	48.63%	50.09%	51.76%	
<i>N</i>	8,009	4,174	2,813	1,022	

Source: 2011 and 2017 GSS

Note: Table reports unweighted *N* and weighted means or percentages.

p-values are based on one-way ANOVA (continuous variables) or chi square tests (categorical variables) (2-tailed).

The Estimated Risks of Serial Cohabitation and Transition into Marriage among Cohabitors

Table 2.3 presents the joint frailty model estimating the risk factors associated with serial cohabitation and marriage among women. The findings reveal that birth cohort was a significant risk factor for serial cohabitation among women. Both Generation Xers and Millennials had significantly higher risks of serial cohabitation and lower risks of marriage relative to Baby Boomers. Women living in Quebec also had a greater risk of cohabitation recurrence compared to women living in other provinces in Canada and were also less likely to be married. However, women with children were less likely to engage in serial cohabitations or first marriages than those without children.

The risks of both serial cohabitation and first marriage were found to differ based on educational attainment and family background for women. Women with some post-secondary education had a lower risk of cohabitation recurrence as well as of marriage compared to women with only a high school diploma or less education. It is interesting to note, however, that women with a Bachelor's degree or higher level of education had both a higher risk of serial cohabitation and a higher risk of first marriage than women with lower education. In addition, women raised in two-parent households were more likely to report a first marriage and less likely to report serial cohabitation. Thus, those who reported not growing up in a two-parent household were more likely to have had multiple premarital cohabitations and less likely to report having a first marriage that was not preceded by cohabitation than women who lived mostly with a two-parent household until age 15.

With these and other risk factors taken into account, these analyses also show that women living in large urban areas were less likely to have formed serial cohabitations or marriages than respondents living in other areas. Moreover, immigrant women were more likely to marry than

Canadian-born women, but there were no significant differences in the risk of serial cohabitation between the two groups. Women who immigrated after age 15 and who were visible minorities were less likely to have multiple cohabitations prior to their first marriage compared to Canadian-born women and non-visible minorities. Finally, those who reported having a religious affiliation and higher levels of religiosity had a lower risk of serial cohabitation but a higher risk of marriage without prior cohabitation compared to those without religious affiliation or lower levels of religiosity.

The frailty variance θ was significant and the power term α for this frailty was positive and statistically significant as shown in the bottom panel of Table 2.3. This indicates a significant positive association between the cohabitation process and the risk of marriage, implying that a higher risk of cohabitation recurrence was associated with a higher risk of first marriage for women respondents. In other words, the results indicate that women who had a higher risk of experiencing multiple cohabitation relationships were also more likely to have a higher risk of entering their first marriage. This association between the cohabitation process and the risk of marriage suggests that there may be shared underlying factors or mechanisms that contribute to both serial cohabitation and the transition to marriage among women.

Table 2.4 shows the risk factors associated with serial cohabitation and marriage among men. As was evident among women, men in more recent cohorts (Generation Xers and Millennials) were more likely to experience serial cohabitation and less likely to be married than were men in the Baby Boom cohort. Also, similar to women, men in Quebec were more likely to cohabit multiple times and less likely to be married than men living in other Canadian provinces. However, in contrast with women, whereas men with more children were also less likely to form

serial cohabitations than men with no or fewer children, men with (or with more) children had a higher risk of marriage than men without (or with fewer) children.

With regard to socio-economic factors, men with some post-secondary education beyond high school were less likely to engage in serial cohabitations than those who had only completed high school or less. However, men with a university degree did not show any significant difference in their likelihood of engaging in serial cohabitation compared to those with low levels of education. However, men who had completed a bachelor's degree or higher level of education were also more likely to be married than those with lower levels of education. In addition, men were less likely to have had multiple cohabitation experiences but more likely to be married if they were raised in two-parent households until the age of 15.

The risk of marriage but not serial cohabitation was lower for men living in larger urban centers than other areas. Although immigrant status, on its own, was unrelated to the risk of both serial cohabitation and marriage, immigrants who obtained landed immigrant status after age 15 had a lower risk of serial cohabitation but similar risk of marriage compared to respondents born in Canada or who immigrated at a young age. The same was true with regard to men who belonged to a visible minority group. Finally, whereas men with a formal religious affiliation appeared to be at less risk of serial cohabitation and at a greater risk of first marriage, men with no formal religious affiliation had a greater propensity for serial cohabitation. In addition, those who reported at least some level of religious commitment had a lower risk of serial cohabitation prior to first marriage, but a significantly higher risk of first marriage compared to those who reported lower religious commitment.

Finally, from Table 2.4, we observe a negative α value from the joint frailty model for men. This indicates that a higher risk of serial cohabitation was associated with a lower risk of

first marriage among men. The variance of frailties was greater for women than for men, implying that the risk of recurrence was more variable in women. Even after adjusting for covariates, the risk of first marriage remained strongly dependent on a history of cohabiting recurrences (frailties variance θ and power term α were significantly different from 0).

Table 2.3 A Joint Model of the Cohabitation Recurrences and First Marriage (Women)

	Cohabitation Recurrences			Marriage		
	HR	95%CI	p-value	HR	95%CI	p-value
Cohort						
Baby Boomers (ref.)						
Generation Xers	1.41***	[1.35;1.47]	<0.001	0.45***	[0.43;0.48]	<0.001
Millennials	1.43***	[1.36;1.51]	<0.001	0.36***	[0.34;0.39]	<0.001
Region						
Rest of Canada (ref.)						
Quebec	1.14***	[1.09;1.19]	<0.001	0.58***	[0.55;0.62]	<0.001
Children (Time-varying)	0.59***	[0.54;0.63]	<0.001	0.82***	[0.77;0.88]	<0.001
Education (Time-varying)						
High school diploma or less (ref.)						
Some post-secondary	0.84***	[0.80;0.87]	<0.001	0.83***	[0.79;0.86]	<0.001
Bachelor's degree or higher	1.07*	[1.00;1.13]	0.042	1.28***	[1.20;1.37]	<0.001
Family background						
Did not live with parents (ref.)						
Lived with parents	0.82***	[0.78; 0.85]	<0.001	1.25***	[1.18;1.33]	<0.001
Place of residence						
Not large urban (ref.)						
Large urban	0.93***	[0.89;0.96]	<0.001	0.84***	[0.81;0.88]	<0.001
Immigrant status						
No (ref.)						
Yes	0.93	[0.84;1.03]	0.169	1.17***	[1.07;1.28]	<0.001
Canadian experience						
Canadian-born and immigrated before age 15 (ref.)						
Immigrated after age 15	0.62***	[0.53;0.72]	<0.001	1.09	[0.98;1.21]	0.121
Visible minority						
No (ref.)						
Yes	0.49***	[0.43;0.57]	<0.001	0.94	[0.86;1.03]	0.165
Religious affiliation						
No (ref.)						
Yes	0.80***	[0.77;0.84]	<0.001	1.03***	[0.95;1.12]	0.422
Religion importance						
Not at all important (ref.)						
Not very important	1.00	[0.95;1.06]	0.971	1.03	[0.95;1.12]	0.422
Somewhat important	0.93**	[0.88;0.98]	0.004	1.19***	[1.11;1.28]	<0.001
Very important	0.80***	[0.75;0.85]	<0.001	1.32***	[1.23;1.41]	<0.001
Survey year						
2011 (ref.)						
2017	1.00	[0.99;1.00]	0.231	0.99*	[0.99;1.00]	0.043
Parameters associated with frailties	θ (variance of frailties, w) = 0.247 (p < 0.001)					
	α (w^α for terminal event) = 3.164 (p < 0.001)					

Source: 2011 and 2017 GSS (weighted)

Note: HR=Hazard ratio

* p<.05; ** p<.01; ***p<.001

Table 2.4 A Joint Model of the Cohabitation Recurrences and First Marriage (Men)

	Cohabitation Recurrences			Marriage		
	HR	95%CI	p-value	HR	95%CI	p-value
Cohort						
Baby Boomers (ref.)						
Generation Xers	1.35***	[1.28;1.41]	<0.001	0.49***	[0.47;0.52]	<0.001
Millennials	1.42***	[1.34;1.51]	<0.001	0.42***	[0.38;0.46]	<0.001
Region						
Rest of Canada (ref.)						
Quebec	1.18***	[1.13;1.24]	<0.001	0.50***	[0.47;0.54]	<0.001
Children (Time-varying)	0.56***	[0.50;0.63]	<0.001	1.10*	[1.01;1.20]	0.028
Education (Time-varying)						
High school diploma or less (ref.)						
Some post-secondary	0.87***	[0.83;0.92]	<0.001	0.98	[0.92;1.03]	0.365
Bachelor's degree or higher	1.03	[0.96;1.11]	0.420	1.37***	[1.27;1.48]	<0.001
Family background						
Did not live with parents (ref.)						
Lived with parents	0.83***	[0.79;0.87]	<0.001	1.19***	[1.10;1.28]	<0.001
Place of residence						
Not large urban (ref.)						
Large urban	1.03	[0.96;1.11]	0.420	0.85***	[0.80;0.90]	<0.001
Immigrant status						
No (ref.)						
Yes	0.97	[0.88;1.08]	0.586	1.05	[0.94;1.17]	0.396
Canadian experience						
Canadian-born and immigrated before age 15 (ref.)						
Immigrated after age 15	0.63***	[0.53;0.75]	<0.001	1.18*	[1.04;1.35]	0.010
Visible minority						
No (ref.)						
Yes	0.57***	[0.48;0.66]	<0.001	0.96	[0.86;1.07]	0.415
Religious affiliation						
No (ref.)						
Yes	0.83***	[0.79;0.87]	<0.001	1.24***	[1.17;1.33]	<0.001
Religion importance						
Not at all important (ref.)						
Not very important	1.03	[0.97;1.09]	0.302	1.08	[0.99;1.17]	0.078
Somewhat important	0.98	[0.93;1.04]	0.520	1.19***	[1.10;1.28]	<0.001
Very important	0.86***	[0.80;0.92]	<0.001	1.31***	[1.22;1.41]	<0.001
Survey year						
2011 (ref.)						
2017	0.99	[0.98;1.00]	0.102	1.00	[0.99;1.00]	0.268
Parameters associated with frailties		θ (variance of frailties, w) = 0.157 ($p < 0.001$)				
		α (w^α for terminal event) = -2.983 ($p < 0.001$)				

Source: 2011 and 2017 GSS (weighted)

Note: HR=Hazard ratio

* $p < .05$; ** $p < .01$; *** $p < .001$

Discussion and Conclusions

Over the past few decades, family life in Canada has diversified as men and women have delayed marriage and are increasingly likely to live with non-marital cohabiting partners. This study examined recent trends in serial cohabitation and marriage formation among Baby Boomers, Gen Xers and Millennials. In doing so, it addressed several gaps in the literature: (a) providing the first estimates of the prevalence of serial cohabitation among Canadian women and men within these birth cohorts before their first marriage (if married) or up to the time of the survey (if not married); (b) examining their risk factors; and (c) assessing the likelihood of transition to serial cohabitation or marriage among cohabitators. Unlike most previous studies that have been conducted primarily in the United States and that have focused almost exclusively on women (Eickmeyer and Manning, 2018; Lichter and Qian, 2008), this study was conducted in the Canadian context and included both women and men in the analyses. Additionally, the study examined the sociodemographic characteristics associated with serial cohabitation before marriage and for the first time, explored the strength and direction of the joint association between the risk of serial cohabitation and the risk of first marriage among cohabiting couples.

With regard to the prevalence of serial cohabitation, the results indicate that approximately 11% of women and 13% of men who had experienced a conjugal relationship across the three birth cohorts studied experienced serial cohabitation before their first marriage (or at the end of the survey if they were not married). Another one-third or more of women (32.58%) and men (37.71%) cohabited once, either with their future spouse or someone else. Thus, the vast majority of women and men who experienced cohabitation had only one such relationship (75.24% for women and 73.35% for men). In general, the prevalence of serial cohabitation tends to be somewhat greater among men than women whereas a transition to a first

marriage tends to be somewhat more prevalent among women than men. These gender differences are consistent with those reported in previous studies (Wu and Schimmele, 2008). As well, the overall prevalence rates for serial cohabitation are in line with previous studies conducted in the U.S. (Eickmeyer and Manning, 2018; Lichter and Qian, 2008).

These results once again show that conjugal partnerships today are very different from those of the past, primarily due to the continuing retreat from early marriage and the rise in cohabitation in young adulthood. Cohabitation was a minority experience among Baby Boomers, but it has become more prevalent among Generation Xers and Millennials. The percentage of women and men who had one cohabitation experience was significantly higher among younger cohorts. From Baby Boomers to Generation Xers, for both women and men, we found a more than threefold increase in the prevalence of serial cohabitation. However, the increase from Generation Xers to Millennials was less pronounced, and it remains unclear if this trend will continue in the future, given the rapid rise in cohabitation among recent cohorts. It is possible that we may see a short-term stabilization of the trend towards serial cohabitation before first marriage. However, we should interpret these findings with caution, as our data only included those born during the early years of this cohort (1981-1989) and who were age 28 or older at the time of each survey. Millennials born in more recent years of the cohort may have been more likely to engage in multiple cohabitations.

We also observed notable regional differences in cohabitation experiences among our study participants. In Quebec, the majority of respondents reported cohabiting at least once before their first marriage, if there was one. Among women and men living in Quebec, approximately 40% had cohabited once and 20% had cohabited two or more times. Both one-time and serial cohabitation were more common in Quebec than in other provinces in Canada.

The unique cohabitation pattern in Quebec appears to be closely related to the province's family policies and institutionalization of cohabitation. Quebec's civil law tradition contrasts with the common law tradition in place in the rest of the country (Laplante and Fostik, 2016), leading to different definitions of cohabitation. Cohabitation under common law is largely seen as equivalent to marriage, while cohabitation under civil law is seen as a substitute for marriage, in which each party has no supportive obligations to the other (Laplante and Fostik, 2016). In Quebec, financially independent women tend to live in common-law relationships, while financially dependent women tend to be married (Laplante and Fostik, 2016). Moreover, Quebec also has very generous family policies, such as financial support for parents, childcare, and parental leave, which may be linked to the legal acceptance of cohabitation as an alternative family model (Beaujot et al., 2013).

Our analyses also estimated the risks of serial cohabitation and transition into marriage among female and male cohabitators. Most researchers in the United States have concluded that the phenomenon of serial cohabitation hinders marriage formation (Eickmeyer and Manning, 2018; Lichter and Qian, 2008). Interestingly, the findings of this study suggest that serial cohabitation may play a different role for men and women during partnership and family formation in Canada. Specifically, they revealed that while serial cohabitation was linked to a reduced likelihood of transition to marriage among men, the opposite was true for women. Serial female cohabitators were significantly more likely to transition to marriage than their male counterparts. This appears consistent with the idea that cohabiting women may view cohabitation, including serial cohabitation, as a precursor to marriage (Dommermuth and Wiik, 2014), while cohabiting men may be more likely to view cohabitation as an alternative to marriage.

The most common explanation given for men's lower risk of transitioning to marriage is that the number of financially stable young men is declining. Young men want to be financially prepared before they marry, and marriage is therefore considered a signal of economic independence (Smock et al., 2005). Over the past few decades, the demand for low-skilled labor has steadily declined, while the demand for highly educated labor has risen (Cherlin, 2014). As a result, the labor market has become bleaker among the less educated, especially among less educated men (Cherlin, 2014). Men with unstable jobs and unclear economic prospects may find it increasingly difficult to marry. Numerous studies have confirmed that men's unemployment, unstable work histories, and low wages are associated with later marriage (Gibson-Davis et al., 2005). At the same time, the educational advantage of women has increased dramatically in recent cohorts, which may help reduce women's incentives to marry men facing precarious employment and economic hardship (Ishizuka, 2018). Labor market volatility and insecurity create opportunities for more flexible relationships, such as cohabitation, for young adults and others who are unable to achieve financial independence (Manning, 2020). Thus, for some, cohabitation may be an adaptive strategy for coping with changing and volatile economic realities.

Our analyses of the risk factors linked to serial cohabitation and marriage among cohabitators revealed similarities and differences when comparing men and women. The common risk factors included birth cohort, region, family background, immigrant and visible minority status, and religion. Both men and women from Generation X and Millennial birth cohorts were found to have a higher risk of serial cohabitation and a lower risk of marriage relative to Baby Boomers. Those from Quebec also had a greater risk of cohabitation recurrence and a lower risk of marriage compared to those living in other parts of Canada. As well, both women and men

were less likely to cohabit multiple times and more likely to marry if they had lived with their biological or adoptive parents until the age of 15 than those in more fragile families.

The impact of immigrant status was also fairly similar. Immigration status was associated with an increased likelihood of marriage among women and among men who had immigrated after the age of 15. Similarly, among both women and men, those who immigrated after age 15 had a reduced risk of serial cohabitation prior to first marriage compared to Canadian-born individuals or those who immigrated as children. According to Canada's 2016 Census data, almost half (48.1%) of Canadian immigrants were born in Asia (including the Middle East), while a lower percentage (27.7%) was born in Europe (Statistics Canada, 2017b). Asian men and women tend to have more traditional family attitudes than people in Western countries (Ji, 2015). At the same time, cohabitation is traditionally considered rare and marginal (Ji, 2015). Non-marital cohabitation is far less institutionalized in Asian societies than in the West (Raymo et al., 2015). With immigrant status and other covariates taken into account, both women and men who belonged to visible minorities also had a lower risk of serial cohabitation than non-visible minorities, but there was no difference in the risk of marriage. Moreover, women and men with religious affiliations and who reported higher religiosity levels had a lower risk of serial cohabitation and a significantly higher risk of first marriage compared to those who reported no religious affiliation and those who reported lower levels of religiosity. Overall, these results are generally consistent with previous findings reported for U.S. women (Eickmeyer and Manning, 2018; Lichter et al., 2010).

However, other factors had somewhat different effects on serial cohabitation or marriage experiences for men and women. These included: the presence of children, education level and area of residence. Women with children were less likely to form serial cohabitations or enter into

a first marriage than women without children. However, the effect was slightly different for men. Whereas men with children were also less likely to form serial cohabitations than men without children, men with children had a higher risk of marriage than those without children. It is possible that women may quickly transition to a first marriage after having children with a cohabiting partner. However, if women have multiple cohabiting partners and children from previous partners, they may find it more challenging to transition to marriage. This is because children, particularly for mothers, place demands on their parents and may make it difficult to form or maintain relationships with potential partners (Lampard and Peggs, 1999). Regarding men, men who have children might prioritize their role as a parent and may be more inclined to establish stable and long-term relationships. Men with children may view marriage as a way to provide a stable environment for their children, ensuring their well-being.

There were also significant educational differences in the joint risks of serial cohabitation and marriage. On the one hand, among both women and men, having a university degree increased the risk of first marriage relative to those with the lowest levels of education. This finding is consistent with previous findings (McLanahan, 2004; Sassler and Lichter, 2020). This could be because education is linked to long-term economic stability, which is a crucial factor for contemporary marriage (Sassler and Goldscheider, 2004). Marriage is now viewed as a symbol of achieving economic stability, and individuals with higher education and better earnings are more likely to get married than those with less education. As a result, marriage has shifted from a normative rite of passage for most people to the equivalent of a luxury achieved primarily by the privileged (Sassler and Lichter, 2020). Similarly, for both women and men, those with intermediate levels of education (i.e., some post-secondary education) were less likely to have experienced serial cohabitation than those with lower levels of education. Conversely, however,

women with a university degree were more likely to report engaging in serial cohabitation than those with the least education, while for men this difference was not significant. These results differ from U.S. studies which have found that economically disadvantaged groups, particularly women with low educational attainment and low incomes, tend to be overrepresented among serial cohabitators (Lichter and Qian, 2008). Instead, our findings seem to suggest that for women in Canada, the risk of serial cohabitation rather than marriage is greater among those with comparatively low and high rather than moderate levels of education. As well, women with high levels of education appear more likely to engage in serial cohabitation than those with low levels of education. For men, the risk of serial cohabitation also appears greater among those with lower than moderate education levels; yet there is no significant difference between those with high and low levels of education.

In addition, regardless of education or other factors, women living in larger urban centres had a lower likelihood of both serial cohabitation and marriage compared to those living in other areas. Women in urban centers may experience greater opportunities for education, career advancement, and personal growth. This can lead to a higher level of independence and a focus on individual goals and aspirations. As a result, some women may prioritize their own development and delay or forgo marriage and serial cohabitation, as these traditional relationship structures may be seen as potential obstacles or distractions from their personal ambitions. In contrast, men residing in larger urban centers had a lower likelihood of marriage but not of serial cohabitation prior to marriage compared to those in other areas. The lower likelihood of marriage among men in larger urban centers compared to other areas can be attributed to similar factors such as personal goals and independence. However, men in these urban environments may be

more inclined to engage in serial cohabitation as a means of pursuing relationships without the legal and financial commitments associated with marriage.

Overall, these findings suggest that both the Second Demographic Transition and Diverging Destinies frameworks appear relevant to an understanding of people's partnership transitions. The overall patterns of family formation that emerged in this study are in line with the expectations of the SDT framework. These include the greater prevalence of cohabitation and serial cohabitation among more recent cohorts as well as among those living in Quebec, those from more traditional cultural backgrounds, those with no religious affiliation and those who do not consider religion important. However, the SDT framework does not appear to fully account for the differential impact of socioeconomic status factors on union formation. For example, findings indicating that people who lived with both parents before age 15 were less likely to engage in serial cohabitation and more likely to form a first marriage challenge the SDT view that those from more advantaged backgrounds will either be more likely to engage in less traditional unions as well as more recent SDT arguments suggesting that socioeconomic factors may no longer be important. The same is true with regard to findings indicating that both the most educated and the least educated were more likely to report serial cohabitation than the moderately educated. Whereas the former finding supports the SDT framework, the latter supports the DD framework. Findings pointing to the different pathways evident among people from different socioeconomic backgrounds is where the DD framework can complement the SDT framework. Overall, my findings reveal a pattern of socioeconomic differences that is more complex than that suggested by either the SDT or DD frameworks on their own.

Additional research is needed to address these complexities. For example, the findings of this study may suggest incomplete diffusion of alternative family trajectories within the Canadian

context, particularly regarding more highly educated individuals. Replicating the findings in other datasets or in different countries would also be crucial to validate the generalizability of the results. By examining diverse populations, researchers can assess whether the observed patterns are unique to the Canadian context or if they exist in other cultural and societal contexts as well. This comparative analysis can shed light on the potential cultural, social, and policy-specific factors that contribute to variations in cohabitation behaviors. Further research addressing potential differences between Quebec and other provinces in Canada is also important. It is possible that the roles of education and socioeconomic status (SES) in shaping cohabitation behaviors differ between Quebec and other regions. Exploring these variations can provide insights into the contextual factors that influence the relationship between education, other SES indicators, and cohabitation patterns. Future research could delve deeper into these regional disparities to better understand the unique dynamics and mechanisms at play. Moreover, it would be valuable to examine the complexity of the impact of education on cohabitation choices further. While the SDT theory may explain the increased prevalence and preference for cohabitation among highly educated individuals in Quebec, its applicability to other Canadian provinces may differ. Investigating the underlying reasons for these variations can contribute to a more nuanced understanding of the interplay between education, culture, and cohabitation decisions.

This study has some limitations that require that these results be interpreted with caution. First, we limited our sample to those aged 28 or older at the time of the surveys, which reduced the number of respondents representing the Millennial cohort, particularly in the 2011 GSS dataset. Repeating the analyses in the future with longer observation windows will further improve our understanding of the Millennial cohort's partnership behaviors. Second, although

we addressed the impact of having children on cohabiting partnership transitions, we limited our focus to biological children and therefore have not considered the impact of step- or adopted children on union transitions. Yet, non-biological children may play a distinct role in influencing their parents' union outcomes (Sweeney, 2010), and this aspect should be further examined. Third, we used education as a proxy for socio-economic background. Although widely used in other studies as well, further research may benefit from examining the impact of broader socioeconomic status on union transitions. In particular, it is also worth examining the impact of such indicators of socioeconomic background as one's occupational status, income or wealth as well as parents' education and household income and assets.

Despite these limitations, the findings of this study provide a starting point for examining cohabitators who move from one relationship to another prior to first marriage. The rise in cohabitation has led to a great deal of diversity in how couples form unions in Canada. Serial cohabitation has potentially important implications for marital union formation, multi-partner fertility, and the subsequent developmental trajectories of children and adolescents. As its prevalence increases, it will become increasingly important to consider the multiple partnership transitions experienced in adulthood and their cumulative impact on subsequent relationship dynamics and their consequences. There may be advantages and disadvantages associated with serial cohabitation that may affect the relational functioning of cohabitators and the well-being of the children and others involved (Eickmeyer and Manning, 2018). For example, having several cohabiting couple relationships may imply greater family instability. These relationships may have an increasing impact on children; since 2006, more than 60% of births in Quebec have occurred outside of marriage, mostly to cohabiting couples (Statistics Canada, 2021). Research has shown that children born out of wedlock face a greater risk of family instability during

childhood relative to children born to married parents (Brown et al., 2015). In turn, family instability has been shown to have a detrimental effect on children's development and well-being (Brown et al., 2015). Second, cohabitators become more heterogeneous over time in terms of marital intentions and relationship quality. Research has shown that serial cohabitators are less likely to have marital intentions than one-time cohabitators (Vespa, 2014). It may become increasingly important to consider multiple cohabitation partnerships experienced at a young age and their association with relationship dynamics. Third, serial cohabitation is more common among vulnerable populations with lower education, lower income, and unstable employment (Bukodi, 2012; Eickmeyer and Manning, 2018). Previous research has shown that union dissolution is associated with a variety of negative outcomes, such as increased psychological distress and economic deprivation (Amato, 2010). The transition from one cohabiting union to another may act as a mechanism for the transmission of inequality within and between generations.

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Chapter 3: The Prevalence, Correlates, and Stability of Pre- and Post-conception Marital and Cohabiting Relationships

Introduction

The family landscape has shifted dramatically over the past several decades in Canada as well as other countries. Families and living arrangements are more diverse than ever before, and include an increase in cohabitation, out-of-wedlock births, and dissolution of conjugal partnerships. According to the latest Canadian Census, marriage remains the dominant type of union. In 2021, over 77% of couples lived in a marital relationship and the remaining 23% lived in a cohabiting relationship (Statistics Canada, 2022a). In addition, the number of cohabiting couples increased by 447% from 1981 to 2021, much higher than the growth rate of married couples (26%) over the same period (Statistics Canada, 2022a). Over 50% of the first unions entered into by Canadians born in the 1970s were cohabiting unions (Le Bourdais and Lapierre-Adamcyk, 2004). As a result, Canada has the highest percentage of cohabiting couples (23%) among G7 countries, largely due to the popularity of this type of union in Quebec, where nearly 43% of Canadian cohabiting couples are found (Statistics Canada, 2022a).

Following the increase in cohabitation among young people, there has also been a dramatic rise in childbearing during cohabitation throughout North America (Guzzo and Hayford, 2020; Le Bourdais and Lapierre-Adamcyk, 2004; Wright, 2019) as well as in other countries (Billari and Liefbroer, 2010; Sobotka and Toulemon, 2008). From the early 1980s to the 2000s, the rate increased from approximately one out of every six births to around one out of every three births (Le Bourdais and Lapierre-Adamcyk, 2004). These non-marital births were largely attributed to cohabiting couples, and this trend continued until it reached a plateau in 2020 (Statistics Canada, 2022b). Yet, the extent to which these births occur in the context of

cohabiting relationships established before or after conception remains unclear. Similarly, the prevalence of births that currently occur in the context of pre- and post-conception marriages remains unclear.

Empirical literature points to the importance of several demographic, socioeconomic, and other factors in influencing the prevalence and stability of marital and cohabiting relationships, including those that involve childbearing. Among the most significant of these are cohort, education, and region of residence. Canadians are increasingly likely to cohabit across birth cohorts and to have children while doing so (Fostik and Le Bourdais, 2020; Le Bourdais and Lapierre-Adamcyk, 2004; Wright, 2019). Furthermore, it is observed that individuals without a university degree are more inclined to have children while cohabiting compared to those with higher levels of education (Wright, 2019). Finally, in contrast to other Canadian provinces, cohabitation in Quebec is reported to be an increasingly important environment for childbearing and childrearing (Le Bourdais et al., 2016).

However, what is missing from the Canadian literature is an analysis of the temporal ordering of union formation and conception. Studies typically focus on childbearing couples at the time of the birth but usually ignore union transitions associated with conception, particularly non-marital conception (Lichter et al., 2014; Rackin and Gibson-Davis, 2012). A simple categorization of a married or cohabiting union at birth loses sight of the multiplicity of union contexts in which women transition to motherhood. For example, some mothers give birth in a marital relationship formed prior to conception whereas other mothers form a marital relationship after conception. Similarly, some mothers enter into a cohabiting relationship after conception, while others give birth in a cohabiting relationship.

The timing of pregnancy may also affect the stability of a couple's relationship. As noted by Thorsen (2019), the pregnancy period may be a particularly fluid time for marital and non-marital couples to transition from one relationship status to another. For example, pregnancy may result in a live birth, which may facilitate relationship progression, from a non-coresidential relationship to a coresidential relationship (e.g., cohabitation or marriage) or from cohabitation to marriage. Alternatively, the high physical demands of childcare, increased financial pressure, and reduced leisure time can place a great deal of pressure on parents of newborns (Guzzo and Payne, 2012). Thus, pregnancy, especially unintended pregnancy, may increase the likelihood of relationship dissolution. Yet, a limited number of studies have examined how the timing of pregnancy is related to the stability of a marital or cohabiting relationship, particularly in Canada.

Competing theories have been proposed to explain the stability of marriage and cohabitation relationships after the birth of a child. The Second Demographic Transition framework argues that cohabitation relationships look more and more like marriages over time. This reflects the idea that births in cohabiting relationships should become more common and that the stability of married and cohabiting families should converge over time (Kiernan, 2000). An opposing view – the Diverging Destinies framework – posits diverging family patterns between high and low socioeconomic groups (McLanahan, 2004). Specifically, it suggests that women with higher levels of education are: (1) more likely to experience being married to someone; (2) less likely to have children born out of wedlock; and (3) less likely to be divorced than women with lower levels of education. In this context, the stability of married and cohabiting families should diverge over time. To date, no empirical work has directly assessed which theoretical framework is more applicable to Canada.

This study addresses several theoretical and empirical gaps in our knowledge regarding the prevalence, correlates, and stability of pre- and post-conception cohabiting and marital relationships. This includes whether the type of union (marriage/cohabitation) or the timing of union formation (pre-conception/post-conception) is more important in determining relationship stability. To address these gaps, I estimate the prevalence of five union types at the time of the first birth: (a) pre-conception marriages, (b) post-conception marriages, (c) pre-conception cohabitation with post-conception marriages, (d) pre-conception cohabitations, and (e) post-conception cohabitations. Second, I examine the demographic, socio-economic and other background characteristics associated with the different types of transitions to marriage and cohabitation among pregnant women. I am interested in understanding what accounts for variation in pre-conception and post-conception union transitions. Finally, I compare separation/divorce rates across all five types of marital and cohabiting unions following a first birth and assess their risk factors.

Literature Review

Background in Theory

To address these issues, this study draws on literature from two theoretical frameworks: (1) the Second Demographic Transition (SDT) framework and (2) the Diverging Destinies (DD) framework. Each leads to different expectations regarding the interactive effects of union transitions and fertility behaviour.

The Second Demographic Transition Framework

The Second Demographic Transition is a theoretical framework used to understand the major changes in demographic trends and family behaviors observed over the course of the

second half of the 20th century in North American, European and other Western industrialized nations (Lesthaeghe, 2010). Whereas the First Demographic Transition saw a decrease in fertility, the SDT not only saw further declines in fertility (to sub-replacement levels) but also, major changes in family life including increases in multiple new living arrangements in addition to marriage and the disconnection of marriage and fertility (Lesthaeghe, 2010, p. 211). Among the most significant of these changes was an increase in cohabitation accompanied by increasing childbearing among cohabitators: “more single persons start living alone or cohabiting before marriage, longterm cohabitation replaces marriage, and ultimately fertility outside marriage becomes much more frequent” (Lesthaeghe, 2014, p. 18113).

Proponents of the SDT argue that despite some variation in timing across countries, there is a fairly standard or uniform sequence of events that tends to take place during the transition: Phase I sees increasing divorce rates and declines in fertility along with contraceptive revolution and an end to the declining age at marriage; Phase II sees an increase in pre-marital cohabitation as well as in non-marital fertility; and Phase III sees divorce rates stabilize, remarriage rates decline, and fertility at older ages (i.e., age 30+) increase (Lesthaeghe, 1995).

With a focus on cohabitation, Kiernan (2000, 2001) argues that cohabitation goes through several developmental stages. Initially, cohabitation is marginalized and considered deviant behavior engaged in by a minority of the population, resulting in a low prevalence of cohabitation and the continued high prevalence of marriage. In the second stage, it gradually emerges as a prelude to marriage when cohabiting couples see cohabitation as an opportunity to assess whether they get along and test their relationship prior to marriage. At this stage, it is predominantly a childless phase or if a child is born, cohabiting couples quickly form legal marriages. In the third stage, cohabitation transitions from a short-lived and childless phase to a

much more stable arrangement in which having and raising children is increasingly commonplace. Finally, in the fourth stage, cohabitation and marriage become indistinguishable, with children being born and raised in both.

According to the SDT, these changes in demographic trends and family behaviors are primarily driven by the cultural and ideational changes (e.g., norms, attitudes, value orientations) associated with increasing economic prosperity and education, that have shifted the population's focus to the realization of higher-order needs, such as self-development and actualization (Lesthaeghe, 2010; 2014; Lesthaeghe and Esteve, 2016). The spread of new values is said to be linked to declining conformity with tradition and a greater emphasis on self-fulfillment and individualization (Lesthaeghe, 2010). Thus, as Lesthaeghe (2014) notes, "At the individual level, the choice for new types of households (premarital single living, cohabitation, and parenthood within cohabitation) are all linked to individualistic and nonconformist value orientations in a great variety of spheres" (p. 18114).

Demographic, socioeconomic and sociocultural factors such as birth cohort, education, region of residence, religion and so forth are therefore considered to be of key importance within the SDT framework. New ideas and behaviors are said to originate primarily among more recent cohorts as well as younger, more highly educated, and non-religious people who tend to live in larger urban settings (Laplante and Fostik, 2016; Vitali et al., 2015). SDT proponents argue that traditional family patterns tend to spread from a small group of people with more progressive value orientations and higher socioeconomic status to the whole society (van de Kaa, 2001). Thus, greater diversity in individual behaviors closely follows educational lines, with more highly educated individuals generally considered the forerunners of the liberal values and behaviors associated with the transition (Sobotka and Toulemon, 2008). They usually display

higher acceptance of non-traditional family forms as expressions of their pursuit of higher-order needs and independence from previous and traditional religious or moral codes (Lesterhaeghe and Esteve, 2016). Over time, however, the theory suggests that these alternative family forms will be diffused throughout the population (Perelli-Harris et al. 2010; Wright, 2019). In fact, in a more recent update of the SDT framework, Lesthaeghe (2020) argues that cohabitation is becoming increasingly popular across all social classes and educational backgrounds. As a result, the argument put forth by SDT that more highly educated individuals are the most likely to initiate cohabitation is gradually becoming less relevant.

The Second Demographic Transition leads to somewhat different expectations regarding marital (divorce) and cohabiting union dissolution. On the one hand, it points to the weakening of marriage as an institution, with divorce rates increasing and remarriage rates decreasing (Lesthaeghe, 2014; Zaidi and Morgan, 2017). The rise in divorce rates may be a manifestation of the SDT's emphasis on personal freedom and autonomy to choose a living arrangement that best suits one's needs (Lesthaeghe, 2010). The SDT is less clear about the risk of cohabiting union dissolution. However, drawing from the SDT, I would argue that the risk of cohabiting compared to marital union dissolution will likely depend on the stage of development of cohabitation relationships in a society. On the one hand, as cohabitation becomes more normative, distinctions between marital and cohabiting unions are expected to fade and thus, cohabiting unions should become increasingly similar to marital relationships (Kiernan, 2000; Musick and Michelmores, 2015). This has led some researchers to propose that cohabiting unions should become increasingly stable over time (Kiernan, 2000; Musick and Michelmores, 2015). On the other hand, in Canada beyond the province of Quebec, cohabitation appears to have effectively reached the second phase of Kiernan's partnership transition model (Le Bourdais and Lapierre-Adamcyk,

2004). It is now widely recognized as a type of committed relationship that serves as a preliminary or trial period to assess the durability of the partnership before marriage. However, it has not yet gained acceptance as a suitable setting for raising children. According to Lesthaeghe et al. (2016), to the extent that cohabitation remains a testing ground prior to marriage, as it does during the second stage identified by Kiernan (2000; 2001), the latter can still be expected to be more stable than cohabiting unions: “it is not so much that classic marriage leads to greater union stability..., but the reverse is likely to hold, i.e. it is tested and proven union success that leads to marriage” (p.104). In such cases, cohabitation carries a greater risk of dissolution than marriage.

Overall, therefore, the SDT framework leads us to expect that in Canada, as in other Western societies, cohabitation relationships will look more and more like marriages over time and thus, across birth cohorts. Thus, births in cohabiting relationships should also become more common and the stability of married and cohabiting families should also converge over time. Since younger, more highly educated and less religious individuals living in larger urban areas are, at least at the outset, seen as being the most accepting of non-traditional family forms, as pursuing higher-order needs, and being increasingly independent from previous and traditional religious or moral codes, the SDT framework suggests that such factors may also be important in influencing union stability.

The Diverging Destinies Framework

The initial proposal that new demographic and family behavior patterns originate in young and more educated groups, which is central to the SDT, has been criticized for its failure to account for the role of changes in macroeconomic structural conditions (including increasing income disparities and unstable working conditions) and the resulting deterioration in the living conditions of the poorer classes, in influencing individual and family behavior (Lesthaeghe,

2020; McLanahan, 2004; McLanahan and Jacobsen, 2015). Thus, critics argue that the SDT does not take into account the possibility that economic constraints have not only become more pronounced since the 1980s but also, have had the greatest impact on the behavior of those with the fewest skills and resources or “pattern of disadvantage” (Perelli-Harris et al., 2010).

Reflecting this view, McLanahan (2004; McLanahan and Jacobsen, 2014) has argued that the SDT has in fact led to two very different family trajectories, each with very different implications. Thus, the destinies of those with higher and lower socioeconomic status have diverged such that those at the lower end of the socioeconomic spectrum are increasingly engaging in family behaviors (such as cohabitation, non-marital childbearing, and high levels of union instability) that are associated with a reduction in the resources available to their children. In contrast, those at the upper end of the spectrum are engaging in family behaviors (such as childbearing in stable marriages) that are associated with increased resources (McLanahan, 2004).

According to the Diverging Destinies framework, there is also a negative association between education levels and union separation/divorce, such that less-educated people are more likely to see their unions, whether marital or cohabiting, dissolve. As noted by Furstenberg (2014) with regard to the US, for example:

“The overall outcome ... is a two tiered disparity according to social class: The upper, better educated third of the population enters cohabitation at later ages, considers this a testing ground for compatibility and quality, has more stable jobs and higher incomes, moves more frequently into marriage and stay more frequently married as well. They reap the fruits of union stability. The lower third, by contrast, enters into a partnership at younger ages, has more teenage pregnancies, experiences a less satisfactory life with a partner, partly because of job instability and low income, partly because of other factors (e.g. violence, crime), have prolonged cohabitation, more frequent partnership disruptions and multiple partnerships, and less entry into a stable marriage. The middle third, according to this view, would be sinking toward the lower third as the American “middle class” has greatly suffered from the crisis years since the turn of the Century.” (as cited in Lesthaeghe et al., 2016, p.105).

Overall, therefore, this line of theory and research suggests that there are important educational and other socioeconomic differences in the experiences associated with childbearing in marital and cohabiting families. In particular, it leads us to expect that people with higher levels of education and emerging from better socioeconomic conditions are more likely to have children after forming a stable marriage, while people from more disadvantaged backgrounds are more likely to have children out of wedlock, and they are more likely to do so in cohabiting relationships. At the same time, we expect that those who have better socioeconomic conditions also enjoy greater stability in marriage and cohabitation, while those who are less well-off are at higher risk of marriage and cohabiting union dissolution.

Background in Research

The Prevalence of Pre- and Post-conception Marital and Cohabiting Relationships

Married couples, with and without children, remain the most prevalent family structure in Canada. Recent (2021) Canadian census data show that 77% of all couples were married, with the remaining 23% living in a cohabiting union (Statistics Canada, 2022a). At the same time, as suggested by the SDT, the proportion of people living in cohabitation is increasing rapidly. From 1981 to 2021, the number of cohabiting couples increased by 447%, which is much faster than the growth rate of married couples (+26%) over the same period (Statistics Canada, 2022a). Among the provinces, Quebec has the largest percentage of cohabiting couples (43%), double that of Ontario, British Columbia, and the three prairie provinces (less than 20%) (Statistics Canada, 2022a).

As cohabitation has transformed from a marginal phenomenon to a more accepted and normative status, the formerly important distinction between marriage and cohabitation, namely

fertility behavior, appears to be blurring and fading (Raley, 2001). Researchers have reported that a growing proportion of births are to cohabiting couples throughout North America (Guzzo and Hayford, 2020; Le Bourdais and Lapierre-Adamcyk, 2004; Raley, 2001; Wright, 2019) as well as several other countries (Billari and Liefbroer, 2010; Sobotka and Toulemon, 2008). For example, in Canada, while the percentage of marital births has steadily decreased, the percentage of non-marital births has risen sharply over time, increasing from about one in six births to about one in three births between the early 1980s and 2000s (Le Bourdais and Lapierre-Adamcyk, 2004). Moreover, the majority of these non-marital births are occurring within cohabiting partnerships (Le Bourdais and Lapierre-Adamcyk, 2004) and have remained relatively stable through 2020 (Statistics Canada, 2022b). Notably, in the 2021 Canadian Census, cohabiting couples in Quebec were more likely to have children living at home (49%) than their married counterparts (45%) (Statistics Canada, 2022a).

For the most part, previous studies (Perelli-Harris et al., 2010; Vitali et al., 2015) have focused on childbearing among couples who were cohabiting at the time of birth, ignoring the distinction between cohabitations established before conception (i.e., pre-conception cohabitations) and those established during the period between conception and childbearing (i.e., post-conception cohabiting unions). Even the many studies of post-conception unions have generally focused on marriage and not cohabitation (Lichter et al., 2014). In Canada, in an early study, Pollard and Wu (1998) used the 1995 Canadian General Social Survey to conduct research leading them to conclude that, with premarital cohabitation controlled for, pregnancy had a positive effect on marriage in Quebec, but not in the other Canadian provinces. Research in the United States has found that so-called “shot-gun marriages” (post-conception marriages) have become less popular over time (Gibson-Davis et al., 2016). For example, according to U.S.

Census data, in the 1930s, nearly half of all unmarried pregnant women married before their child was born. In the second half of the 2000s, the percentage of unmarried pregnant women who married before giving birth dropped to 6% (Gibson-Davis et al., 2016). The extent to which these births are occurring in the context of both marital and cohabiting relationships established before or after conception remains less clear, particularly in the Canadian context.

The increasing popularity of cohabitation and the decreasing number of post-conception marriages over time suggest that increasingly, couples may be choosing to cohabit rather than marry after pregnancy. In fact, Rackin and Gibson-Davis (2012) found that contemporary adults in the U.S. who formed a relationship after conception were more likely to choose cohabitation over marriage. Lichter et al. (2014) reported that non-marital conception (18%) is a significant precursor to cohabitation, exceeding the transition to marriage (5%). Similarly, Gibson-Davis and Rackin (2014) found that the percentage of post-conception cohabitations has surpassed post-conception marriages over the past two decades in the United States. To my knowledge, no similar research has been conducted in Canada.

The overall proportion of couples living in cohabitation is higher in Canada than in the United States (Statistics Canada, 2017). Given the increased prevalence of cohabitation in Canada, it is not surprising to see that childbearing within cohabiting unions has also been increasing, especially in the province of Quebec (Laplane and Fostik, 2016; Wright, 2019). In 1971, 2% of Canadian children were born to cohabiting parents; by 1997, nearly 50% of children born in Quebec and 15% of children born in other provinces in Canada had cohabiting parents (Laplane and Fostik, 2015). Meanwhile, rates of non-marital childbearing are much higher in the United States. Kennedy and Bumpass (2008) reported that nearly 4 out of 10 non-marital births occurred to cohabiting couples in the early 1990s. From 2006 to 2008, this rate increased to 6 out

of 10 (Lichter, 2012). In 2011, 41% of children in the U.S. were born outside of marriage, compared to only 30% in Canada (Statistics Canada 2017). Post-conception cohabitation is apparently on the rise in the U.S. (Lichter et al., 2014), yet we know virtually nothing about the trajectories of these potentially pregnancy-induced unions in Canada.

The Correlates of Marital and Cohabiting Unions with Children

Research on the correlates of marital and cohabiting unions with children includes a focus on the role of demographic, socioeconomic and other factors. Consistent with the SDT, not only traditional pre-conception marriages but also, post-conception marriages have been declining across birth cohorts. For example, England et al. (2012) showed that the proportion of those marrying after conception declined rapidly from the 1925-1929 birth cohort to the 1955-1959 birth cohort in the United States. Similarly, analyzing administrative register data covering all Swedish women born between 1950 and 1977, Holland (2013) concluded that while pre-conception marriage has remained the dominant first marriage type across all cohorts, the proportion of post-conception marriages has steadily declined across cohorts. Conversely, pre-conception cohabitation is increasing across birth cohorts such that those in more recent cohorts are more likely to experience childbearing during cohabitation than are those in earlier cohorts in the United States and other Western countries (Schnor and Jalovaara, 2020; Trimarchi and Van Bavel, 2017b). Similar findings have been reported in Canada (Wright, 2019).

To date, much of the research on the correlates of marital and cohabiting unions with children has concentrated on socioeconomic factors (mainly using educational attainment as a proxy measure). A large body of American research has shown that socioeconomic disadvantage is closely associated with the likelihood of having a child out of wedlock, as suggested by the Diverging Destinies framework (Gibson-Davis and Rackin, 2014; Lichter et al., 2014; Trimarchi

and Van Bavel, 2017). Non-marital births are most common among women with lower levels of education (Lichter et al., 2014; Rackin and Gibson-Davis, 2012). Conversely, women with higher education levels appear more likely to have a child within marriage (Lichter et al., 2014; Rackin and Gibson-Davis, 2012). Similarly, Perelli-Harris et al. (2010) examined cohabiting fertility across European countries and concluded that the least educated had higher first birth rates within cohabitation and the most educated had higher first birth rates within marriage. Their study also suggested that couples with the most resources were able to marry around the time of the first birth, while those with the fewest resources encountered obstacles to marriage. In Canada as a whole, recent findings indicate that people with a bachelor's degree or higher education appear the least likely to have children during a first cohabitation, while people with some post-secondary education or those with a high school diploma or less education are more likely to have children during a first cohabitation (Wright, 2019).

In Canada, individuals in cohabiting unions with children tend to have lower levels of formal education compared to those who are married. This educational disparity is more noticeable in provinces outside of Quebec according to Kerr and colleagues (2006). When examining men with young children between the ages of 0 and 5, they found that 50.1% of cohabiting men had completed only a high school education, whereas among married men, the percentage dropped to 27.8% with a similar educational background. Similarly, among women, 47.6% of those in common-law unions had a high school education or less, while only 25.8% of married women fell into the same category. In Quebec, the educational contrast between cohabitators and married individuals with young children is somewhat less pronounced (Kerr et al., 2006). Among cohabiting individuals with young children in Quebec, 31.0% reported a high school education or less, whereas the percentage dropped slightly to 24.7% among married

women. These findings highlight the notable differences in educational attainment between individuals in cohabiting unions and those who are married, particularly among couples raising young children.

A related line of research considers the relationship between family background disadvantage and the risk and timing of conception and union transition. It has been established in the literature that growing up in a disadvantaged environment, such as one characterized by poverty and/or single parenthood, is associated with high rates of early childbearing and having children out of wedlock (Lichter et al., 2010; Lichter et al., 2012). This corresponds with arguments that greater family economic resources may reduce the risk of out-of-union births, as people are more likely to pursue better educational and employment opportunities, in conflict with early childbearing (Duncan et al., 1998). Conversely, young adults who grow up in a disadvantaged environment with little room for social and economic development may see no reason to delay having children regardless of marital status (Kearney and Levine, 2011; Sassler and Miller, 2017).

In addition, it is well established in the literature that Quebec and other parts of Canada follow somewhat different paths when it comes to union and family life (Le Bourdais and Lapierre-Adamcyk, 2004; Wright, 2019). Cohabitation has been reported to be a more important context for childbearing in Quebec than in other parts of Canada (Le Bourdais et al., 2016). For example, studies have shown that the proportion of children born to cohabiting parents is twice as high in Quebec as that observed in other Canadian provinces (Pelletier, 2016). This has lead researchers to conclude that outside of Quebec, cohabitation remains a childless phase of the family life course, and has not yet become an alternative setting in which to give birth and raise a child (Brauner-Otto 2016; Laplante and Fostik 2016; Le Bourdais et al., 2014; Pelletier 2016). In

contrast, within Quebec, cohabitation has become the family setting for an increasing number of children, and nearly half of all newborns in Quebec are born to cohabiting partners (Le Bourdais and Lapierre-Adamcyk, 2004; Le Bourdais et al, 2016). However, whether pre- versus post-conception childbearing during cohabitation differs in Quebec compared to other provinces is less clear.

There is also a lack of direct evidence for understanding urban/rural fertility behavior across relationship types, particularly in the Canadian context. Using longitudinal data from Finland, Kulu (2013) concluded that small towns and rural areas tend to have the highest fertility levels, whereas the capital city has the lowest fertility levels. Similar findings have been reported in the United States (Daniels et al., 2018). The overrepresentation of the married population in small towns and rural areas may explain the higher fertility rates there (Kulu, 2013). However, previous studies have only examined the fertility of women in pre-conception marital or cohabiting relationships; therefore, we do not know about urban-rural differences in post-conception marital or cohabiting relationships. The situation may also be different in Canada. The latest Canadian census showed that more cohabiting couples live in smaller urban centers or rural areas of the country than in larger urban areas (Statistics Canada, 2022b). Canada's large urban centers tended to have relatively large numbers of immigrants and racialized groups, and perhaps as a result, marriage is more common than cohabitation in these centers (Statistics Canada, 2022b).

Other potentially relevant factors have received somewhat less attention in the literature. For example, with regard to racial disparities, the number of children born out of wedlock has increased over time among both whites and blacks in the United States (England et al., 2012; Wu and Musick, 2008). Moreover, Rackin and Gibson-Davis (2012) found that black and Hispanic

couples with newborn infants were more likely than their white counterparts to cohabit after conception rather than marry before conception. As far as I know, there is a lack of information in Canada about different racialized groups. This is also evident with regard to the relationship between immigrant status and birth in the context of marriage and cohabitation. The literature lacks clarity regarding the association between immigrant status and birth within the context of marriage or cohabitation. Most Canadian studies primarily compare the fertility behaviors of recent or long-term immigrants with those of native-born Canadians (Woldemicael and Beaujot, 2012), or focus on fertility decisions made upon arrival (Adserà and Ferrer, 2013). Consequently, there is a notable gap in our understanding of this specific area.

Finally, religion has also been noted in the literature to be associated with marriage and fertility (Arocho and Kamp Dush, 2020). Non-marital fertility is very low among women who consider religion to be very important; conversely, the proportion of unintended births outside of marriage or in cohabiting unions is much higher among women who are the least religious (Hayford and Morgan, 2008). In Canada, the declines evident in religious identity and attendance indicate a declining role for religion in social life (Lee et al., 2017). According to these authors, there is no simple answer to the question of whether the social impact of religion on marriage has declined; rather, the role of religion in marriage appears to vary for different religious groups (Lee et al., 2017). Moreover, the different evolution of cohabitation and fertility in Quebec compared to the rest of Canada is said to be closely linked to the different religious and cultural backgrounds of the two societies (Le Bourdais and Lapierre-Adamcyk, 2004). Until the 1960s, the Catholic Church controlled most aspects of Quebecers' lives. As a result, Quebec residents maintained more traditional behaviors regarding fertility and family life. However, with the election of Jean Lesage and the Liberals in 1960, a growing conflict between the old guard and

the more liberal younger population erupted (Pollard and Wu, 1995). According to these authors, Quebec's "political, institutional, administrative and ideological structures" were no longer compatible with the values of the population (p.336). In the 1960s, a movement known as the "Quiet Revolution" touched every aspect of society, including the transformation of political, economic and educational infrastructures, driven by the need to keep up with the rest of modern North America (Pollard and Wu, 1995). There was a declining influence of the Catholic church on family life. At the same time, greater access to contraception, the women's movement, and more liberal divorce laws contributed to the decline in marriage and the growth of common-law unions in Quebec.

The Stability of Marital and Cohabiting Unions with Children

Both partnership type and timing have been found to be associated with the stability of unions with children (Guzzo, 2014; Rackin and Gibson-Davis, 2012). However, we lack an understanding of whether the type or the timing of union formation is more important in determining union stability. If union type is more important, then pre- and post-conception marriages should differ little in terms of union stability, and they should be more stable than pre- or post-conception cohabitating unions. Pre- and post-conception cohabiting unions should also differ relatively little from one another. However, if the timing of union formation is more important, then post-conception marriages and post-conception cohabitations should be similar and more unstable than pre-conception relationships.

There is some reason to believe that the type of union, rather than the timing of its formation, is more critical in determining relationship stability. For example, some studies report finding that couples who married before and after childbearing had similar levels of union stability, suggesting that both partners may have planned marriage and childbearing together

with little regard for which came first (Musick and Micheltmore, 2018). At the same time, the link between cohabitation and instability has been noted to be waning if marriage occurs at some point before or after the couple's first birth (Musick and Micheltmore, 2016). Conversely, a large body of literature shows that when cohabitation is decoupled from marriage, it remains a more unstable relationship than marriage, even after the birth of a child (Fostik and Le Bourdais, 2020; Manning et al., 2005; Musick and Micheltmore, 2018). This has been attributed in part to the lack of social and legal norms regarding cohabitation that make such unions easier and thus, more likely to dissolve (Cherlin, 2004).

It is also possible that the timing of the union, rather than the type of union, is more critical in determining relationship stability. Stanley et al. (2006) suggest that events like pregnancy may contribute to a "slide" into a more formal relationship without a shared decision being made to take such a step. And sliding through relationship transitions may put relationships at greater risk of dissolution, as individuals who are more unintentional in their choice of a partner report lower levels of personal effort and dedication and lower relationship quality (Owen et al., 2013). As a result, relationships formed after conception may also be more vulnerable, therefore more unstable, to the stresses and strains of caring for a new baby (Rackin and Gibson-Davis, 2012). If this hypothesis holds true, relationships formed after conception may end more quickly than relationships established before conception. This argument is supported by Lither and colleagues (2016), who found that couples who entered into cohabiting relationships after conception had particularly high rates of dissolution after birth compared to marital relationships. Less than a third of these couples were married, and the dissolution rate of these marriages was high.

In contrast, Rackin and Gibson-Davis (2012) found that among young adults experiencing a first birth in the US, both pre- and post-conception cohabiting unions had similar levels of union dissolution. However, having a marital rather than cohabiting union, rather than whether a relationship was formed before or after conception, was associated with greater union stability. They therefore conclude that “*when* the coresident union was formed was much less important than the *type* of that union” (p. 536). Whether this is also the case in the Canadian context remains unclear.

Differences in the impact of both the type and the timing of marriage and cohabitation relationships on union stability may also depend on demographic and socioeconomic factors. Cohabitors are likely to have lower levels of education, come from less favorable family backgrounds and to be younger at the time of their first birth (Gibson-Davis and Rackin, 2014; Lichter et al., 2014; Musick and Micheltore, 2018). These factors are also strongly associated with lower quality relationships and higher rates of union dissolution (Fostik and Le Bourdais, 2020; Smock and Greenland, 2010). In addition, cohorts of more recently born women have experienced higher odds of union disruption (divorce or cohabitation separation) at a younger age than earlier cohorts (Eickmeyer, 2019).

Region of residence is also significantly associated with the stability of the relationship. Cohabiting relationships are more common in Quebec, and they tend to last longer in that province than in the rest of Canada (Le Bourdais et al. 2014). However, cohabiting couples with or without children still face a higher risk of separation than married couples, whether in Quebec or in other provinces (Fostik and Le Bourdais, 2020). Unfortunately, to my knowledge, there are no studies in Canada that take racial/visible minority status or immigrant status into account when addressing the stability of cohabitation and marriage. However, many studies have

highlighted the role of religion in marital stability (Li et al., 2018; McClendon, 2016). Religious affiliation and religious participation are said to promote marital relationships and contribute to couples' well-being (Li et al., 2018; McClendon, 2016). Also, religion appears to contribute to the stability of cohabitation. Cohabiting couples who shared religious values have reported significantly higher relationship satisfaction than their counterparts; they have also reported expecting to marry their current partners more than other respondents (Henderson et al., 2018). In Canada, it has been reported that for married people, those who did not declare a religion faced a higher risk of dissolution than those who did (Pelletier, 2016). The effect of religion on cohabitation separation was less pronounced (Pelletier, 2016).

In summary, while a lot of studies have examined the impact of various demographic and socioeconomic factors on union stability, it is important to acknowledge that these studies did not specifically address their relevance in the context of pre- versus post-conception childbearing. Thus, a significant gap remains in our understanding of the specific role played by these factors in relation to the stability of unions during the pre- and post-conception phases of childbearing. This study aims to address this critical aspect that has been overlooked in previous research.

Data and Method

Data Source and Sample

In order to estimate the prevalence of marital and cohabiting relationships before and after conception as well as their correlates and stability, data were drawn from the 2011 and 2017 Canadian General Social Surveys on family life (GSS, Public Use Microdata Files). As the analysis was performed during the COVID-19 pandemic, the Statistics Canada Research Data Center at the University of Victoria was temporarily closed, which made it impossible to access

the confidential microdata files. Both are nationally representative cross-sectional surveys of non-institutionalized individuals aged 15 years and older living in Canada, excluding residents living on reserves and residents of the Yukon, Northwest Territories and Nunavut. In both surveys, interviews were conducted via computer-assisted telephone interviewing (CATI). The response rates were 65.8% (2011) and 52.4% (Statistics Canada, 2017). Further details about the survey topics, sampling procedures, and methodology are accessible on Statistics Canada's website (Statistics Canada, 2019).

To ensure an adequate sample size for the analyses, data from the 2011 and 2017 GSS surveys were pooled, resulting in a sample of 23,753 women aged 15 and over. However, the analytic sample was subsequently restricted to 15,436 women who had a first birth by age 35, as suggested by England et al. (2012). In the study sample, among women who gave birth for the first time, 95.38% did so before the age of 35. In this study, I am interested in initial family transitions as first co-residential marriage or cohabiting unions are conceptually distinct from higher-order unions (Thorsen, 2019). Moreover, the majority of Canadians only cohabit or marry once (Clark and Crompton, 2006). Thus, by focusing on first co-residential unions, I capture a more representative portrait of initial union transitions among young Canadian women. Also, I am concerned with conceptions that result in birth and not all conceptions; the GSS does not include any information about abortions or miscarriages. Therefore, pregnancies that ended in miscarriage or abortion were not included. Pregnancy to full term can lead to a number of choices between couples and may influence the decision to cohabit or marry (Gibson-Davis, 2011).

Individuals who entered a cohabiting or marital union at age 15 or younger were also excluded from the analytic sample ($N = 120$). This is consistent with existing literature on early

marriage and cohabitation and which focuses on women aged 15-19 (Manning and Cohen, 2015). Those who reported that they were married or cohabiting but lacked information needed to determine exactly when they first united were also excluded ($N = 254$), as were respondents who had not formed their first marriage or first cohabitation by the time their first child was born ($N=304$). Finally, cases with missing data on any of the independent variables included in this study ($N = 1,447$, 9.6% of eligible respondents) were also excluded. Thus, my final study sample included 13,311 women. The demographic characteristics of individuals who were excluded from the analyses (such as birth cohort, region, education, and family background) were compared to those included of individuals included in the study. The missing values were found to be randomly distributed without any noticeable pattern.

Measurement

The GSS family surveys collect a range of information on individual and household characteristics at the time of the survey, including conjugal history (marriages, common-law unions, separations and divorces) as well as fertility-related behaviour (including birth, adopted or stepchildren). Respondents were asked to record the history of all marriages (up to four marriages and four cohabitations) they had experienced. For each marriage and cohabitation relationship, respondents were also asked about their age at the time of relationship initiation and dissolution, and whether (and when) any children were born during the relationship.

To estimate the prevalence of cohabitation and marital unions before and after conception, I determined whether women in the study sample were married or cohabiting at the time of first conception and birth. More precisely, I analyzed their relationship status at two points in time: (a) at conception (with age at conception calculated by subtracting 7 months from age at birth – see Raley, 2001); and (b) at birth. By comparing their relationship status at these two points, I

was able to classify the respondents into five relationship types (Figure 3.1). First, pre-conception marriages include individuals who were married at the time of both conception and birth. Second, post-conception marriages include those individuals who were not married at conception but were married at the time of birth. Third, pre-conception cohabiting unions include those who were cohabiting prior to both conception and birth. Fourth, post-conception cohabitations refer to those who were not cohabiting at conception but were cohabiting at the time of birth. Fifth, pre-conception cohabitations with post-conception marriages include those individuals who were cohabitators at the time of conception but were married at the time of birth.⁵

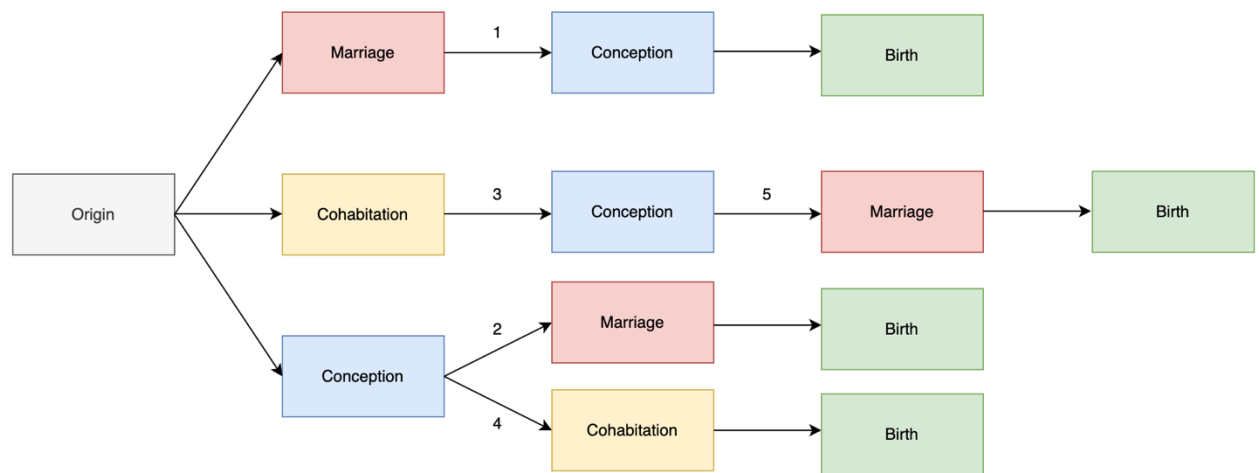


Figure 3.1 Relationship Type at the Time of First Birth

To compare the demographic, socioeconomic and other characteristics associated with the different relationship types, in accordance with existing literature (e.g., Lichter et al., 2014, 2016; Rackin and Gibson-Davis, 2012, 2018), I included the following variables in the analyses: age at first birth, age at first union, birth cohort, educational attainment, family background, region of

⁵ To ensure a specific emphasis on the transition from first unions, respondents who were married at the time of conception but cohabiting at the time of birth were to be excluded from the sample. However, there were none.

residence, place of residence, religion and religiosity, immigration status, and visible minority status. Education was a time-varying variable while all other variables were time-fixed. Survey year was also included as a control variable since two different data sets were merged.

Respondents' age at first birth was measured by the question "How old were you when your first child was born?". I used the younger of the respondent's age at first marriage or age at first cohabitation as a measure of age at first union. The age at first marriage was measured by the question "How old were you when you first married?" The age at first cohabitation was measured by the question "How old were you at the time of your current/first cohabitation?" or "How old were you when you started cohabiting before your current/first marriage?". To measure birth cohort, mothers' birth years were categorized into four groups: (a) pre-Baby Boomers (those born before 1945), (b) Baby Boomers (those born between 1945 and 1964), (c) Generation Xers (those born between 1965 and 1980), and (d) Millennials (those born after 1980). This is similar to cohort groupings used in previous literature (Canizares et al., 2016; Statistics Canada, 2022c).

Socioeconomic indicators included educational attainment and family background. As shown in the literature, maternal education is a widely used proxy for socioeconomic status (Gibson-Davis and Rackin, 2014; Rackin and Gibson-Davis, 2018; Trimarchi and Van Bavel, 2017). Educational attainment, a variable that changes over time, was updated to the highest educational attainment at the age at which respondents reported completing their education. I classified educational attainment into three categories: (a) high school diploma or less (low educational attainment); (b) some postsecondary education (moderate educational attainment); and (c) a bachelor's degree or higher (high educational attainment). Family background was

captured by a dummy variable that identified women who were raised or not raised (not raised = 0, raised = 1) by their biological or adoptive parents from birth to age 15.

Sociocultural factors were also included. Unfortunately, the GSS did not collect any information on these characteristics at the time of first union formation or dissolution. Therefore, all were measured at the time of the survey. To capture the divergence in cohabitation patterns frequently reported between Quebec and the rest of Canada, I included a dummy variable indicating whether respondents were living in Quebec or elsewhere at the time of the survey (Quebec = 1, other = 0). Respondents' place of residence was measured by the GSS population center indicator, which included larger urban population centers, rural areas, and smaller population centers. According to Statistics Canada (2012), larger urban population centers include Census Metropolitan Areas (CMA) and Census Agglomerations (CA): "A census metropolitan area must have a total population of at least 100,000 of which 50,000 or more live in the core. A census agglomeration must have a core population of at least 10,000." Those currently residing in larger urban population centers were coded as 1, while those not residing in larger urban population centers were coded as 0.

Given the long tradition of research establishing the importance of religion to fertility (Hayford and Morgan, 2008), variables were included that assessed whether respondents had any religious affiliation (1 = yes, 0 = no) and the importance of religion in their daily lives. Responses to the latter were coded as: (1) not important at all, (2) not very important, (3) somewhat important, and (4) very important. Immigration status was captured by a categorical variable that distinguished between (0) Canadian-born women, (1) foreign-born women who arrived in Canada at age 14 or younger, and (2) foreign-born women who arrived in Canada at age 15 and older. To measure race, I used a dummy indicator for those who identified as member

of a visible minority group (1 = visible minority, 0 = other). Visible minority status is a term used in Canada to distinguish those of non-Caucasian ethnicity or non-White skin color (i.e., South Asian, Chinese, and Black) (Statistics Canada, 2021b). More detailed ethno-racial categories were not available in the public use GSS datasets.

Analytical Approach

My analyses focused on relationship transitions and outcomes across five union types: (a) pre-conception marriages, (b) post-conception marriages, (c) pre-conception cohabitation with post-conception marriage, (d) pre-conception cohabitations, and (e) post-conception cohabitations. First, I estimated the prevalence of each of these pre-conception and post-conception unions by looking at the distribution of relationship types in which women were involved at the time of their first birth. Second, I compared the means or percentage distributions of socio-demographic and other background characteristics across the five relationship types using analysis of variance and chi square tests, as appropriate. Third, I utilized the multinom function from the nnet package to conduct multinomial logistic regression analyses. The purpose of these analyses was to identify the demographic, socioeconomic, and other background factors that were linked to the five relationship types.

The multinomial logistic model involves selecting a baseline response level among q levels, and then conducting logistic regression analyses to compare each of the remaining levels to that baseline (Fox and Weisberg, 2018). Suppose that we let $\eta_j(\mathbf{x})$ be the linear predictor for the comparison of category j to the baseline, $j = 2, \dots, q$;

$$\eta_j(\mathbf{x}) = \beta_{0j} + \beta_{1j}x_1 + \dots + \beta_{kj}x_k$$

Then for $j = 2, \dots, q$,

$$\log \left[\frac{\Pr(\text{response is level } j \mid \mathbf{x})}{\Pr(\text{response is level } 1 \mid \mathbf{x})} \right] = \eta_j(\mathbf{x})$$

In terms of probabilities, if $u_j(\mathbf{x}) = \Pr(\text{response is level } j \mid \mathbf{x})$

$$u_j(\mathbf{x}) = \frac{\exp [\eta_j(\mathbf{x})]}{1 + \sum_{l=2}^q \exp [\eta_l(\mathbf{x})]} \text{ for } j = 2, \dots, q$$

$$u_1(\mathbf{x}) = 1 - \sum_{l=2}^q u_l(\mathbf{x}) \text{ for } j = 1$$

The log-odds between any pair of response levels j and $j' \neq 1$ is

$$\begin{aligned} \log \frac{u_j(\mathbf{x})}{u_{j'}(\mathbf{x})} &= \log \left[\frac{\frac{u_j(\mathbf{x})}{u_1(\mathbf{x})}}{\frac{u_{j'}(\mathbf{x})}{u_1(\mathbf{x})}} \right] = \log \frac{u_j(\mathbf{x})}{u_1(\mathbf{x})} - \log \frac{u_{j'}(\mathbf{x})}{u_1(\mathbf{x})} = \eta_j(\mathbf{x}) - \eta_{j'}(\mathbf{x}) \\ &= (\beta_{0j} - \beta_{0j'}) + (\beta_{1j} - \beta_{1j'})x_1 + \dots + (\beta_{kj} - \beta_{kj'})x_k \end{aligned}$$

Differences in the corresponding parameters of the multinomial logit model provide the logistic-regression coefficients for the log-odds of belonging to level j as compared to level j' .

Finally, I applied Kaplan-Meier curves to assess the likelihood of separation/divorce among individuals in married and cohabiting unions before and after pregnancy. I employed the `coxph` function from the `survival` package to compute Cox proportional-hazards models to investigate the association between the survival time and one or more predictor variables. Two Cox models were estimated. The survival time was measured from the birth of the baby until the date of cohabitation/marital dissolution (if it occurred) or at the date of the survey (if the union remained intact). If the union ended in separation/divorce, the event indicator was coded as 1. The first model estimated the hazard ratio of separation after the birth of the first child based on the type of union in place at the time of the birth. The second model incorporated demographic,

socioeconomic and other background characteristics in the analysis. All results were weighted⁶ to be nationally representative using weights designed by the GSS using the survey package in R (Lumley, 2020). After fitting the Cox Proportional Hazards model, thorough model checking was conducted to ensure its validity and appropriateness for the data. Various diagnostic tests, including the assessment of Schoenfeld residuals and plotting of martingale residuals, were employed to test the proportional hazards assumption and to identify any potential outliers or influential observations. For goodness-of-fit, I employed the likelihood ratio test to compare the fitted model against a null model. I also examined the deviance residuals to assess the difference between the observed and expected number of events. I conducted a stratified Cox analysis, dividing the data by education and cohort. The results did not differ significantly from those obtained using a non-stratified Cox model when evaluating the effects of covariates common to all strata. These goodness-of-fit tests provide a comprehensive evaluation, allowing me to confidently interpret the reliability and suitability of the survival analysis results. All analyses were performed using R Statistical Software (v4.1.2; R Core Team 2021).

Results

The Prevalence of Pre-conception and Post-conception Marital and Cohabiting Unions

Figure 3.2 shows the distribution of relationship types among women at the time of their first birth. The results indicate that more than 87% of births occurred among married couples in Canada ($72.47\% + 10.25\% + 4.88\% = 87.60\%$). The proportion of births that took place in pre-conception marriages was the single largest category (72.47%), followed by the proportion of

⁶ To merge two cross-sectional datasets for analysis, I merge them into one dataset while preserving the weights for each observation. To standardize the weights, I calculate a new weight for each observation by dividing the original weight by the total weight for each dataset and then multiplying by the total weight for the merged dataset.

births that took place in post-conception marriages (10.25%). Less than 5% (4.88%) occurred among those who were cohabiting at the time of conception but were married at the time of birth (i.e., pre-conception cohabitation with post-conception marriage). As well, relatively few births occurred in cohabiting unions ($9.20\% + 3.20\% = 12.40\%$), with the majority being unions established pre-conception and birth. Overall, 13.45% ($10.25\% + 3.20\%$) of all first births occurred in post-conception relationships. Post-conception cohabitation relationships accounted for 3.2% of all births, almost a third of traditional post-conception marriages (10.25%). The proportion of pre-conception marriages (72.47%) was much higher than the proportion of pre-conception cohabitation relationships (9.20%).

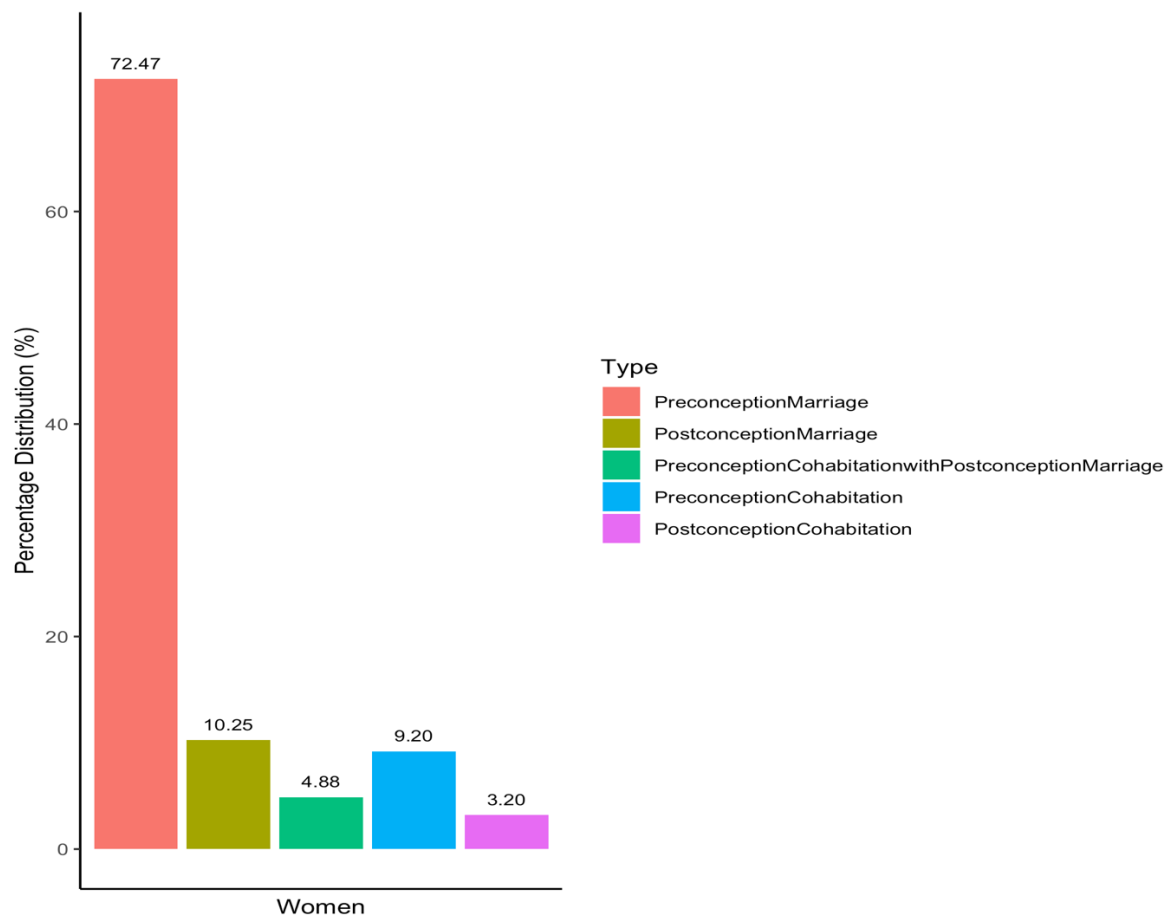


Figure 3.2 The Distribution of Relationship Type at the Time of First Birth

The Correlates of Pre-conception and Post-conception Marital and Cohabiting Unions

Table 3.1 presents descriptive information for all variables for the sample as a whole as well as for those in each of the five union types. The mean age at first birth for the sample as a whole was 24.46 years, but ranged from a low of 20.48 years (among post-conception marriages) to a high of 25.66 years (among pre-conception cohabitation unions). The two pre-conception groups and the post-conception cohabiting marriage group were significantly older than the two post-conception groups. Respondents in pre-conception cohabiting unions started their unions at significantly younger ages than did those in married unions. For example, the mean age at first union for women reporting pre-conception cohabitation was 21.60 years, compared to 22.38 years for women married before conception. Pre-Baby Boomers and Baby Boomers were more likely to marry before and after conception, while Generation Xers and Millennials were more likely to cohabit before and after conception or to marry cohabiting partners after conception. This reflects the growing influence of cohabitation among younger cohorts.

With regard to socioeconomic factors, over one-third (37.99%) of the women studied reported having a high school diploma or less education at the time of their first birth. In contrast, 39.50% reported some post-secondary education while 22.51% reported having a bachelor's degree or higher. Women in pre-conception marriages had the highest educational attainment and women in post-conception cohabiting relationships had the lowest educational attainment. Specifically, respondents in pre-conception marriages (25.52%) and pre-conception cohabiting relationships (22.35%) were significantly more likely to report having earned a bachelor's degree or higher level of education than were respondents in post-conception marriages (9.00%), post-conception cohabiting relationships (12.10%), as well as pre-conception cohabitation with post-conception marriages (18.23%).

While Table 3.1 compares levels of education at the time of the women's first birth across the five relationship types, Figure 3.3 shows the distribution of the type of union at the time of the women's first birth by educational status. The results show that women with a bachelor's degree or higher education level were more likely to have a marital birth, especially a pre-conception marital birth, and less likely to have a pre-conception or post-conception cohabiting birth than those with less education. Among women with a high school diploma or less, 69.25% of births were in pre-conception marriages. For women with higher education (those with a bachelor's degree or higher), this percentage rose to 80.94%. For women with a high school diploma or less, the percentage of post-conception marriages was 15.02%. This figure contrasts with the percentage of post-conception marriages for women with some post-secondary education (9.31%) and women with a bachelor's degree or higher (5.08%).

With regard to family background, the vast majority of women studied (86.68%) reported having been raised from birth to age 15 by biological or adoptive parents. Individuals in marital relationships were considerably more likely to have been raised by their biological or adoptive parents compared to individuals in cohabiting relationships. For example, only 10.67% of those in the pre-conception marriage group reported not having been raised by biological or adoptive parents compared to 29.30% of those in the post-conception cohabitation group.

Turning to other (e.g., sociocultural) factors, 18.52% of the women studied were living in Quebec. Women in Quebec were more likely to give birth in a cohabiting relationship than those living in other Canadian provinces, with more than half of those in pre-conception cohabiting relationships living in Quebec. In contrast, however, only 16.67% of those in post-conception cohabitation relationships and 20.49% of those in pre-conception cohabitation with post-conception marriages were living in Quebec. In comparison, only 16.67% and 10.80% of those in

pre- and post-conception marital relationships lived in Quebec. Overall, 81.48% of the women studied lived in provinces other than Quebec, including 83.33% and 89.20% of those in pre- and post-conception marital relationships.

Religion and religious affiliation also were strongly associated with the type of relationship at birth. Over one-half of those in each of the three marital categories (i.e., pre- and post-conception marriages and pre-conception cohabitation with post-conception marriage s) reported that they had a religious affiliation compared to somewhat less than half among those in cohabiting relationships, including both pre- and post-conception cohabitation relationships. Women who reported that religion was “very important” and “somewhat important” in their daily lives were more likely to give birth in a marital relationship than those who said religion was “not very important” and “not important at all”.

The vast majority (83.10%) of women in the study were born in Canada. Canadian-born women were somewhat less likely to report having given birth to their first child in the context of a marital relationship and therefore, more likely to have children in the context of cohabiting relationships than were immigrants. With regard to visible minority group differences, we observed that a higher proportion of non-white women gave birth in pre-conception marriages (9.42%) and post-conception marriages (8.70%) than in pre-conception cohabitations (3.02%), post-conception cohabitations (6.99%), or pre-conception cohabitation with post-conception marriages (1.56%). Finally, whereas women living in large urban areas were the most likely to give birth in pre-conception marriages (75.90%), those living in smaller urban or rural areas made up a larger percentage of those in the post-conception marriage (35.47%) and pre-conception cohabitation with post-conception marriage (31.77%) categories.

Table 3.1 Means and Distribution of Variables by Relationship Type

	Full Sample	Pre-conception Marriage	Post-conception Marriage	Pre-conception cohabitation with post-conception marriage	Pre-conception Cohabitation	Post-conception Cohabitation	p-value
Age at first birth	24.46 (4.32)	22.53 (4.01)	20.48 (3.41)	24.19 (4.18)	25.66 (4.22)	20.84 (3.91)	<0.001
Mean (SD)							
Age at first union	22.37 (3.86)	22.38 (3.28)	22.32 (5.10)	21.48 (3.41)	21.60 (3.37)	25.62 (8.24)	<0.001
Mean (SD)							
Cohort							<0.001
Pre-Baby Boomers	24.66%	30.25%	33.55%	3.30%	0.86%	2.69%	
Baby Boomers	43.69%	43.47%	50.96%	36.63%	18.79%	26.34%	
Generation Xers	23.22%	20.24%	12.55%	44.44%	51.30%	41.67%	
Millennials	8.43%	6.04%	2.94%	15.62%	29.05%	29.30%	
Education at first birth							<0.001
High school or less	37.99%	36.40%	53.30%	31.25%	28.83%	41.94%	
Some post-secondary	39.50%	38.09%	36.79%	50.52%	48.81%	45.97%	
Bachelor's degree or higher	22.51%	25.52%	9.00%	18.23%	22.35%	12.10%	
Region							<0.001
Rest of Canada	81.48%	83.33%	89.20%	79.51%	49.78%	83.33%	
Quebec	18.52%	16.67%	10.80%	20.49%	50.22%	16.67%	
Religious affiliation							0.004
No	52.60%	52.71%	55.34%	52.34%	47.73%	49.73%	
Yes	47.40%	47.29%	44.56%	47.57%	52.27%	50.27%	
Religion importance							<0.001
No at all important	9.67%	8.14%	6.54%	15.97%	22.03%	20.70%	
Not very important	12.12%	10.27%	9.84%	20.66%	25.70%	20.97%	
Somewhere important	33.41%	32.97%	34.21%	36.46%	33.26%	36.56%	
Very important	47.40%	48.63%	49.40%	26.91%	19.01%	21.77%	
Family background							<0.001
Did not lived with parents	13.32%	10.67%	14.05%	20.49%	27.32%	29.30%	
Lived with parents	86.68%	89.33%	85.95%	79.51%	72.68%	70.70%	
Immigrant							<0.001
Canadian-born	83.10%	89.59%	83.97%	93.92%	92.57%	93.01%	
Immigrated before age 15	9.81%	11.21%	8.82%	4.51%	2.81%	5.38%	
Immigrated after age 15	7.10%	8.20%	7.20%	1.56%	1.62%	1.61%	

Visible minority status							<0.001
White	91.57%	90.58%	91.30%	98.44%	96.98%	93.01%	
Non-white	8.43%	9.42%	8.70%	1.56%	3.02%	6.99%	
Place of residence							<0.001
Not large urban	26.45%	24.01%	35.47%	31.77%	29.05%	29.30%	
Large urban	73.55%	75.90%	64.53%	68.23%	70.95%	70.70%	
Survey year							0.016
2011	53.78%	53.54%	57.14%	55.90%	52.16%	50.27%	
2017	46.22%	46.66%	42.86%	44.10%	47.84%	49.73%	
<i>N</i>	13,311	9,646	1,364	650	1,225	426	

Source: 2011 and 2017 GSS

Note: Table reports unweighted *N* and weighted means or percentages.

p-values are based on one-way ANOVA (continuous variables) or chi square tests (categorical variables) (2-tailed).

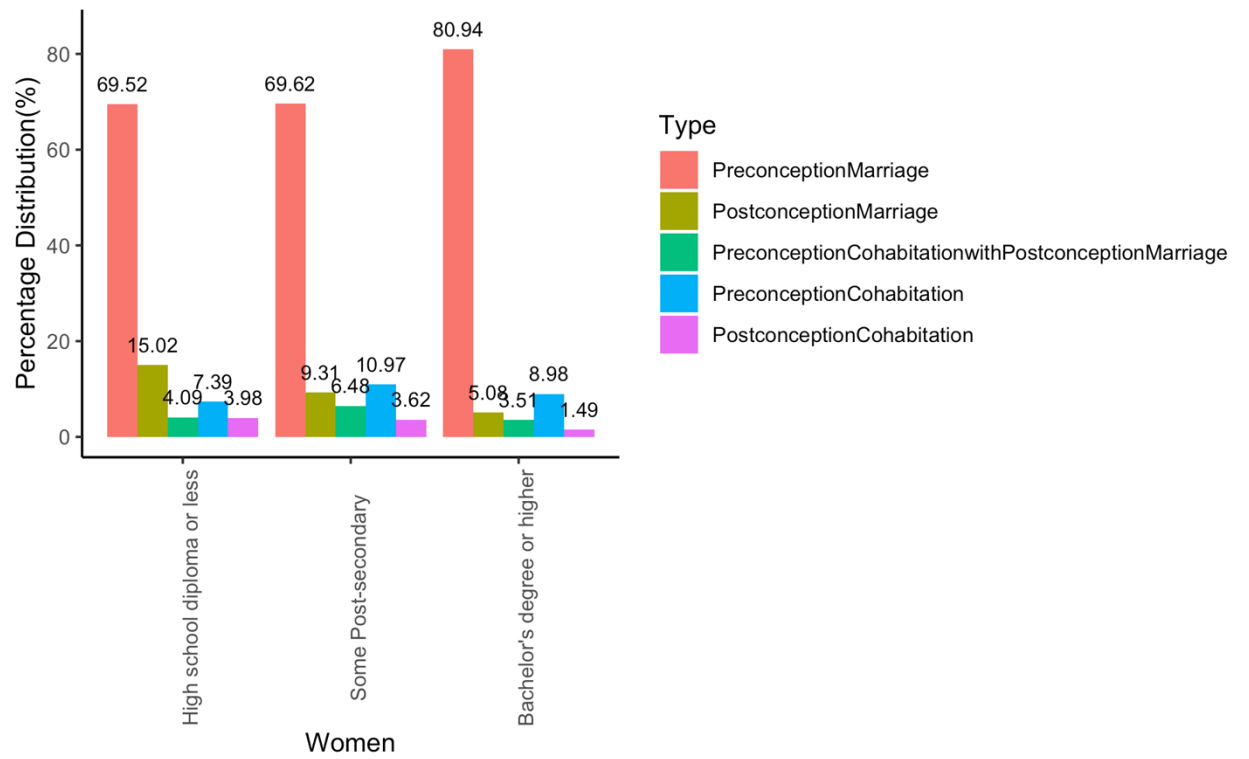


Figure 3.3 The Distribution of Relationship Type by Education

Multinomial Logistic Regression of Union Type on Covariates

To complement the bivariate analyses reported above, Table 3.2 reports the results of multinomial logistic regression analyses showing associations between relationship type and various demographic, socioeconomic and other covariates. Pre-conception marriage was used as the reference category. The results indicate that those in the Baby Boom cohort were significantly more likely than pre-Baby Boomers to be in post-conception marriages. In contrast, those with some post-secondary education or a bachelor's degree or higher level of education were less likely than those with lower education to be in post-conception marriages. So too were those living in Quebec (versus other provinces in Canada), those who had been raised by biological or adoptive parents from birth to age 15, immigrants, and large urban residents. In contrast, with these factors taken into account, non-white visible minority status was positively associated with post-conception marriage.

Compared to pre-Baby Boomers, those in the Baby Boom cohort were also more likely to be in pre- and post-conception cohabiting unions as well as pre-conception cohabitation with post-conception marriages. Respondents in pre-conception cohabitation with post-conception marriages, and pre-conception cohabiting relationships were also more likely to live in Quebec. However, they were also less likely: to report high levels of education, have been raised by biological or adoptive parents from birth to age 15, to be immigrants, to consider religion to be important in their lives, and to live in a large urban area. Being non-white was negatively associated with pre-conception cohabitation with post-conception marriage and pre-conception.

Table 3.2 Multinomial Logistic Regression of Relationship Type

Reference Category: Pre-conception Marriage	Post-conception Marriage RRR (SE)	Pre-conception Cohabitation with Post-conception Marriage RRR (SE)	Pre-conception Cohabitation RRR (SE)	Post-conception Cohabitation RRR (SE)
Cohort				
Pre-Baby Boomers (ref.)				
Baby Boomers	1.18*** (0.08)	8.06*** (2.11)	12.79*** (4.67)	6.81*** (2.39)
Generation Xers	0.73*** (0.07)	27.44*** (7.26)	114.74*** (41.69)	31.25*** (10.97)
Millennials	0.56*** (0.09)	30.59*** (8.65)	215.70*** (80.46)	63.69*** (23.14)
Education at first birth				
High school or less (ref.)				
Some post-secondary	0.66*** (0.04)	1.01 (0.11)	0.87 (0.08)	0.65*** (0.08)
Bachelor's degree or higher	0.30*** (0.03)	0.47*** (0.06)	0.44*** (0.05)	0.20*** (0.04)
Region				
Rest of Canada (ref.)				
Quebec	0.56*** (0.05)	1.36*** (0.15)	6.29*** (0.55)	1.14 (0.17)
Religion				
No (ref.)				
Yes	1.03 (0.09)	1.02 (0.12)	1.28** (0.13)	0.99 (0.14)
Religion importance				
Not at all important (ref.)				
Not very important	1.17 (0.16)	1.04 (0.16)	0.90 (0.12)	0.88 (0.16)
Somewhat important	1.17 (0.13)	0.66*** (0.09)	0.54*** (0.06)	0.59*** (0.09)
Very important	1.06 (0.12)	0.47*** (0.07)	0.38*** (0.05)	0.32*** (0.06)
Family background				
Did not live with parents (ref.)				
Lived with parents	0.75*** (0.06)	0.55*** (0.06)	0.38*** (0.04)	0.38*** (0.05)
Immigrant				
Canadian-born (ref.)				
Immigrated before age 15	0.81* (0.09)	0.65* (0.15)	0.32*** (0.08)	0.32*** (0.10)
Immigrated after age 15	0.80* (0.10)	0.36*** (0.12)	0.31*** (0.10)	0.20*** (0.09)
Visible minority status				
White (ref.)				
Non-white	1.81*** (0.22)	0.19*** (0.07)	0.49*** (0.13)	1.52 (0.43)
Place of residence				
Not large urban (ref.)				
Large urban	0.64*** (0.04)	0.76*** (0.07)	0.77*** (0.07)	0.86 (0.11)
Survey year				
2011 (ref.)				
2017	0.86 (0.08)	0.74** (0.09)	0.67*** (0.07)	0.83 (0.12)

Source: 2011 and 2017 GSS

Note: RRR refers to relative risk ratio

*p<0.05, **p<0.01, ***p<0.001

The Stability of Pre-conception and Post-conception Marital and Cohabiting Unions

Do pre- and post-conception marital and cohabitation relationships persist or dissolve after the birth of one's first child? Figure 3.3 shows Kaplan-Meier estimates of the probability of each union type that remained intact in the years following the first birth. Overall, marital relationships (indicated by the pink and dark green lines) were more likely to survive the birth of the first child (10 year survival probability = 0.906 for pre-conception marriages and 0.888 for post-conception marriages) than pre-conception cohabitation with post-conception marriages (orange line, 10 year survival probability = 0.781) and pre- and post-conception cohabiting relationships (indicated by the light green and blue lines (10 year survival probability = 0.526 for post-conception cohabitation and 0.520 for pre-conception cohabitation). Marriages formed after conception (indicated by the dark green line) faced a higher risk of instability than marriages formed before conception (indicated by the pink line) and the difference increased over time. There was little difference in dissolution rates between pre-conception cohabitations (indicated by the blue line) and post-conception cohabitations (indicated by the light green line).

If we use the log-rank test (Moore, 2016) to compare these survival curves, they are significantly different at $p < 0.0001$. The difference in dissolution rates between parents embedded in a cohabiting relationship and those embedded in marital relationships is striking. Both pre-conception and post-conception marriages have substantially higher chances of survival within 20 years of the birth of the first child than do pre-conception cohabitation with post-conception marriages, followed by pre-conception and post-conception cohabiting relationships.

Table 3.3 Union Dissolution Survival Probability by Relationship Type

	Pre-conception Marriage	Post-conception Marriage	Pre-conception Cohabitation with Post-conception Marriage	Pre-conception Cohabitation	Post-conception Cohabitation
5 Years	0.956	0.949	0.907	0.683	0.741
10 Years	0.906	0.888	0.781	0.520	0.526

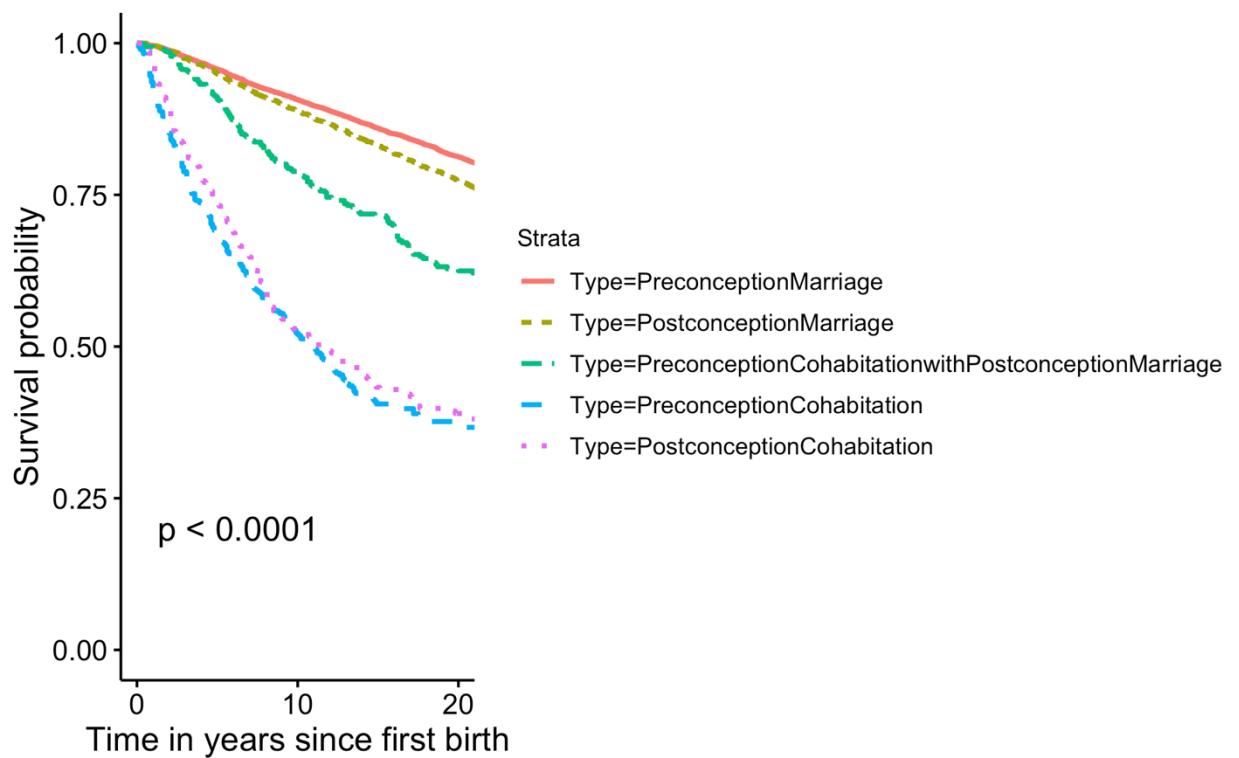


Figure 3.4 Kaplan-Meier Estimate of Union Stability by Relationship Type with Log-rank Test P-value

The Cox proportional hazards model can be used to model the hazard ratios of union dissolution at birth for each of the five relationship types. Table 3.4 presents the parameter estimates for the Cox proportional hazards model for union dissolution. Time to dissolution is clocked from childbirth to reflect our interest in the stability of couples who have had a child together. The results of Model 1 are consistent with the observed differences shown in the Kaplan-Meier analysis. The hazard ratio indicates the relative risk of separation following the birth compared to couples who were married at conception. The type of union at birth appears to be strongly associated with the risk of union dissolution. The results confirm that all cohabiting couple types have a higher risk of dissolution when compared to those in the reference category (i.e., pre-conception marriages). Those in post-conception marriages and in pre-conception cohabitation with post-conception marriages face a higher risk than those in pre-conception marriages. However, women who cohabited first and then became pregnant had a higher risk of dissolution than married women who became pregnant after marriage. Women who transitioned to cohabitation between conception and birth had a higher risk of union dissolution than women who were married before conception.

The greater risks associated with these union types remain evident when relevant demographic, socioeconomic and other covariates are taken into account (Model 2). Marital unions formed after conception and cohabitating unions formed both before and after conception remain significantly more likely to dissolve than marital unions formed before conception. It is also interesting to note that respondents who cohabited at conception but who were married at the time of childbirth also had a higher risk of union dissolution than those who were married at conception. In addition, Baby Boomers, Generation Xers, and Millennials all experienced

significantly greater risk of union dissolution relative to pre-Baby Boomers (the reference group).

Socioeconomic factors also emerge as significant correlates of union dissolution. A higher level of education is negatively associated with the risk of dissolution: women with some post-secondary education were significantly less likely to experience union dissolution relative to those with a high school diploma or less. Respondents who were raised by one or both parents from birth to age 15 had a significantly lower risk of union dissolution than did those who were not raised by one or both parents.

With regard to sociocultural and other factors, women living in larger urban areas had a significantly higher risk of union dissolution than did women living in smaller urban or rural areas. In addition, visible minority status was associated with a reduced risk of union dissolution, and the effect was statistically significant.

Table 3.4 Cox Proportional Hazards Model of Union Dissolution

	Model 1		Model 2	
	HR	S.E.	HR	S.E.
Relationship type				
Pre-conception marriage (ref.)				
Post-conception marriage	1.30***	0.06	1.35***	0.07
Pre-conception cohabitation with	2.20***	0.17	1.54***	0.12
post-conception marriage				
Pre-conception cohabitation	5.82***	0.35	3.86***	0.26
Post-conception cohabitation	4.99***	0.36	3.37***	0.25
Cohort				
Pre-Baby Boomers (ref.)				
Baby Boomers			2.29***	0.12
Generation Xers			2.80***	0.19
Millennials			3.52***	0.36
Education at first birth				
High school diploma or less (ref.)				
Some post-secondary			1.24***	0.05
Bachelor's degree or higher			1.01	0.05
Region				
Rest of Canada (ref.)				
Quebec			1.06	0.05
Religion affiliation				
No (ref.)				
Yes			1.08	0.06
Religion importance				
Not at all important (ref.)				
Not very important			0.74***	0.05
Somewhat important			0.78***	0.05
Very important			0.76***	0.05
Family background				
Did not live with parents (ref.)				
Lived with parents			0.75***	0.04
Immigrant				
Canadian-born (ref.)				
Immigrated before age 15			0.92	0.07
Immigrated after age 15			1.01	0.08
Visible minority status				
White (ref.)				
Non-white			0.69***	0.06
Place of residence				
Not large urban (ref.)				
Large urban			1.46***	0.06
Survey year				
2011 (ref.)				
2017			0.99	0.01
Wald test ⁷	1,088***		1,642***	

Source: 2011 and 2017 GSS

Note: HR refers to hazard ratio; *p<0.05, **p<0.01; ***p<0.001

Total number of events = 3,255

⁷ The Wald test is used to assess the significance of a set of covariates in the model, and a higher test statistic indicates stronger evidence against the null hypothesis of no effect. Since Model 2 has a larger Wald statistic than Model 1, it suggests that Model 2 is a better fit to the data than Model 1.

Discussion and Conclusions

This study was conducted in the context of changes evident in recent decades in conjugal relationships, including rising rates of cohabitation together with an increasing number of children born out of wedlock in cohabiting unions in Canada. It reveals the prevalence of union transitions that occur during conception and childbirth and is the first Canadian study to carefully examine the sequence and timing of conception and childbirth in relation to union formation and to examine differences in the stability of pre-conception and post-conception marital and cohabiting unions.

The study first examined the prevalence of pre-conception and post-conception marital and cohabiting unions in Canada. The results showed that, in Canada as a whole during the time period studied, the vast majority of first births occurred in the context of pre-conception marriages (72.47%), followed by post-conception marriages (10.25%). Just over twelve percent (12.40%) of first births were to cohabiting unions established either before conception (9.20%) or after conception (3.20%). Somewhat fewer were in pre-conception cohabitation with post-conception marriages (4.88%).

These findings differ somewhat from those previously reported for the United States. For example, Lichter et al. (2016) reported that the overall prevalence of post-conception cohabitation relationships (25%) in that country has surpassed that of post-conception marriages (14%) (Lichter et al., 2016). They also reported that 18% of all first births in unions were conceived prior to a transition to cohabitation or marriage, with about 9% transitioning to marriage and 9% to cohabitation (Lichter et al., 2016). In contrast, the current study suggests that in the Canadian context, although a similar proportion (18.33%) of first births were conceived prior to a transition to marriage or cohabitation, the proportion of post-conception marriages

(15.13%) was much higher than the proportion of post-conception cohabitations (3.20%).⁸ Thus, a higher percentage of pregnant women in Canada are transitioning to marriage than is the case in the United States. Consequently, Lichter et al.'s (2016) conclusion that their findings are “consistent with previous studies showing that shotgun cohabitations have now supplanted shotgun marriages (Gibson-Davis and Rackin 2014; Lichter et al. 2014)” (p.385) appears specific to the US context and not generalizable to Canada, at least not yet. Across Canada as a whole, cohabitation appears to remain a somewhat less common type of pre- and post-conception reproductive union.

Second, I examined the demographic, socio-economic and other background characteristics associated with transitions to marriage or cohabitation among pregnant women. Here, the findings conformed to hypotheses derived from both the SDT as well as the Diverging Destinies frameworks. As suggested by proponents of the SDT, we observed that pre- and post-conception cohabitations and pre-conception cohabitation with post-conception marriages tended to be more common among more recent cohorts. They also provide partial support for Wright's (2019) conclusion that “Cohabiting unions in Canada are increasingly likely to be used as an alternative to marriage across cohorts: they are longer-lasting, less likely to transition to marriage, and increasingly involve childbearing” (p. 165). At the same time, however, findings indicating that the vast majority of births continue to take place in marriages formed prior to conception and that post-conception cohabitation remains a less common reproductive union than post-conception marriage would seem to provide limited support for conclusions that

⁸ It should be noted that while Lichter et al. (2016) compared 4 categories (marriage and cohabitation before and after conception), our study also included a 5th category (pre-conception cohabitation with post-conception marriage). Therefore, in order to compare our results with theirs, the prevalence of this fifth category was added to the post-conception marriage category.

Canada as a whole is approaching or has reached the final stages of the SDT, where fertility differences in marriage and cohabitation have faded to such an extent that cohabitation has become an alternative to or substitute for marriage (Kiernan, 2000, 2001). It is worth mentioning that Quebec appears to be at a different phase compared to the rest of Canada (Le Bourdais and Lapierre-Adamcyk, 2004). The fact that women in Quebec are more likely to give birth while cohabiting than women in other provinces in Canada suggests that Quebec may well be moving towards the final stage of the SDT, where any fertility differences between marriage and cohabitation have been largely eliminated.

The SDT also implies that people with more traditional family values would place a greater emphasis on marital unions as an appropriate context for childbearing, while people with more liberal values would pursue more diverse intimate relationships and childbearing situations. Consistent with this view and prior Canadian findings indicating that religiosity is associated with more traditional attitudes toward marriage (Balakrishnan and Chen, 1990; Wu and Balakrishnan, 1992), our results showed that women who valued religion more in their daily lives were more likely to give birth in a marital relationship rather than in cohabiting unions. Similarly, immigrants were more likely to choose a traditional preconception marriage over other union types than Canadian-born individuals, regardless of whether they obtain landed immigrant status before or after age 15. Finally, those who identified as visible minorities were more likely to transition to a union once they found out they were pregnant, as they were more likely to choose post-conception marriage or post-conception cohabitation than women who were not visible minorities.

However, the findings obtained with regard to area of residence appear less consistent with the SDT. Despite assumptions regarding a link between urbanization and more liberal

values, our findings showed that, with other covariates taken into account, women living in large urban areas were more likely to give birth in the context of pre-conception marriages than those in smaller urban or rural areas. One possible explanation for this finding could be that the large urban population is changing as more recent immigrants who identify as visible minorities from Asia and who have more traditional marital attitudes choose to live in larger cities (Statistics Canada, 2018b). Yet, both immigrant status and visible minority status were taken into account in our analyses. Therefore, exactly what accounts for this relationship is unclear and warrants further study.

The SDT also leads us to expect to see a decline in the likelihood of marriage, including as a context for childbearing, among more highly educated women as they seek more self-development and self-fulfillment. However, the findings of this study run counter to this expectation. Instead, they suggest that marriage remains a dominant form of family favored by the most educated. The vast majority (80.94%) of women with a university degree had their first child after getting married (i.e., in traditional pre-conception marriages). In contrast, our findings, like those previously reported by researchers in Canada (Wright, 2019) as well as the US (Gibson-Davis and Rackin, 2014; Lichter et al., 2016), reveal that less educated women were somewhat less likely to do so and more likely to give birth during cohabitation.

Besides the educational gradient, our findings also revealed that women who were not raised by both parents were less likely to experience marriage before conception and more likely to engage in marriage after conception, cohabitation after conception, cohabitation before conception, and cohabitation after conception than women who were raised by both parents. These findings also appear less consistent with the Second Demographic Transition and more consistent with the Diverging Destinies framework, which is based on the idea that the resources

available to children will depend on whether they are born to a low- or high-educated mother. According to this framework, mothers with low levels of education are more likely to form non-marital partnerships and have a higher risk of union dissolution, leading to further resources loss (McLanahan, 2004). Conversely, highly educated mothers are said to have stable marriages that contribute to resource accumulation. This is the first Canadian study to explicitly distinguish between pre- and post-pregnancy marriage and cohabitation. We also include more cultural variables such as immigration, ethnicity, and urban residence than previous U.S. studies, and maternal education and family background are still significant and robust as predictors of union context at birth.

Findings of this nature would also appear to provide indirect support arguments suggesting that declining wages, labor market instability, and increased economic uncertainty, combined with the reduced stigma of having children out of wedlock, may reduce the likelihood of marriage among those with less education (Rackin and Gibson-Davis, 2018). Women with a bachelor's degree or more education generally have much higher wages and better labor market prospects, as do their partners, which may increase marriage entry. Education also increases the opportunity cost of childbearing and may lead more women to delay childbearing until they marry and build their careers (Lundberg et al., 2016).

Finally, my analyses also focused on the union outcomes of couples whose first births occurred in a cohabiting or marital relationship. Unions formed after conception had a significantly higher risk of dissolution compared to those formed before conception. The 10-year survival probabilities for pre-conception and post-conception marriages were 0.906 and 0.888. Surprisingly, post-conception cohabiting unions (0.526) had a similar probability of survival within 10 years of the first child as cohabiting unions formed before conception (0.520).

However, although significant, the differences in union survival probability when comparing pre- and post-conception marriages and especially, pre- and post-conception cohabiting unions, were relatively small, a finding similar to that reported in previous studies conducted in the US (Lichter et al., 2016; Musick and Micheltmore, 2015).

Overall, the type of union (cohabitation vs. marriage) appeared to have a greater effect on the risk of dissolution than the timing of union formation relative to childbearing (pre-conception vs. post-conception), with cohabiting unions considerably less stable than marital unions. That is, there was a considerably larger difference when comparing the stability of marital and cohabiting unions than there was when comparing pre- and post-conception marriages or pre- and post-conception cohabitations. This finding is also largely consistent with previous work comparing pre-conception versus post-conception unions in the United States (Lichter et al., 2016; Musick and Micheltmore, 2015; Rackin and Gibson-Davis, 2012) and suggests that Rackin and Gibson-Davis' (2012) conclusion that "*when* the coresident union was formed was much less important than the *type* of that union" (p. 53) is also true in the Canadian context.

However, my findings appeared somewhat less consistent with previous findings obtained in the US suggesting that when cohabitation is a precursor to marriage and childbirth, there is "no discernible risk to stability" (Musick and Micheltmore, 2015, p. 1480). Instead, they indicate that although those women who were cohabiting at the time of conception but married at the time of birth had a lower risk of union dissolution than those in pre- and post-conception cohabiting unions, they nevertheless faced a significantly greater risk of union dissolution than those who were married at the time of conception. According to Musick and Micheltmore (2015), "the increasing stability of trajectories involving cohabitation and the declining importance of marriage timing relative to parenthood suggests instead that many parents may be jointly

planning marriage and childbirth as the quality and commitment of their relationships grow, with little regard to which comes first. This is consistent with waning societal pressure to marry and the blurring of boundaries between marriage and cohabitation (e.g., Cherlin 2004; Van de Kaa, 1987)” as suggested by the SDT. Our findings suggest that this is not the case in the Canadian context as a whole, at least not yet. Whether it will be the case in the years to come is unclear and points to the need for ongoing research on this issue. Whether it is already the case in Quebec, a province considered to be at the forefront of the changes suggested by the SDT, and in which cohabitation has been acknowledged as a socially acceptable alternative to marriage as well as an alternative setting in which to give birth and raise children (Hamplova et al., 2014; Le Bourdais and Lapierre-Adamcyk, 2004), is also unclear and warrants investigation.

As anticipated by the SDT, women from more recent cohorts were at higher risk of union dissolution than earlier cohorts. However, in this study, women with lower socioeconomic status (e.g., low education, not raised by two parents) were more likely to experience marital/cohabitation union instability. This appears less consistent with the SDT and more in line with the Diverging Destinies framework, which suggests that women in the highest and lowest economic strata follow different trajectories of union type and stability. Similar results have been reported in the United States (Lichter et al., 2016; Musick and Micheltore, 2018).

With regard to other risk factors, previous studies have confirmed that couples in Quebec tend to have higher levels of relationship instability than couples in the rest of Canada (Ménard, 2011). My study adds to previous research, showing that Quebecers were more likely to dissolve their unions than people in other parts of Canada, even after having children. In addition, those who were more religious were less likely to separate from their unions while those identified as visible minorities and those living in larger urban areas were at higher risk of union dissolution

than others. As these factors have been rarely examined in previous Canadian literature, my findings fill a research gap and provided an update of knowledge on how these risk factors affect union dissolution. Interestingly, with these and other risk factors taken into account, those who obtained landed immigrant status before age 15 were at lower risk for marital union dissolution than those born in Canada, while those who obtained landed immigrant status after age 15 were at higher risk. Unfortunately, I could not find a plausible explanation for this finding in the relevant Canadian literature. This may be due to the relatively small number of women in these categories, but it is a finding that warrants further investigation.

Although the current study has informed our understanding of transitions to marriage or cohabitation in the context of childbearing as well as of marital and cohabiting union stability, there are several limitations that should be noted. First, the current study focused on the effects of pregnancy on women's first marital or cohabiting unions (including first cohabiting unions that transition to marriage with the same partner). Thus, the study did not capture the effects of pregnancy on the formation and stability of second or higher-order cohabiting unions or marriages. It should be noted, however, that although serial cohabitation increases over time, most women cohabit only once (Lichter et al., 2010). Therefore, focusing only on the relationship between pregnancy and the first cohabiting union likely captured the cohabitation experiences of most women. Nevertheless, future research should also examine how pregnancy affects the formation and stability of higher-order marriages.

Second, although cross-sectional in design, the GSS had the advantage of including retrospective data on union and fertility histories. However, insofar as the data were retrospective, problems of recall may also have been evident, particularly with regard to events that happened much earlier and with regard to more detailed information such as the timing of

specific transitions. The analyses were also limited by the small number of time-varying measures available on other transitions that occurred (e.g., variables such as income or employment) since conception. These would be useful predictors for modeling union transitions. Instead, this study relied on educational attainment as a proxy measure of socioeconomic status.

Third, I was unable to include measures of relationship quality because they were not included in the GSS. I also failed to include measures of individual attitudes that might reflect women's own predispositions toward forming and maintaining particular types of marriages. Thus, more work is needed to unpack the processes that may increase the risk of union instability after conception. Finally, unintended childbirth has been found to be associated with the risk of parental union dissolution (Guzzo and Hayford, 2020). No measures of pregnancy-intended births were included in the 2017 GSS. Future studies would benefit from including longitudinal information on birth intentions and directly assessing the contribution of unintended births to union dissolution.

To conclude, the Canadian family system is changing, in part because of changing patterns of fertility among cohabiting couples. My findings highlight the importance of taking both the Second Demographic Transition and the Diverging Destinies frameworks into account when we try to understand the changing relationship between cohabitation and childbearing, especially as the lines between cohabitation and marriage blur and are reshaped by growing educational and other forms of inequality. My research underscores the fact that cohabitation and marriage are still not interchangeable, even after the birth of a child. While cohabitation and marriage may look very similar, cohabitation remains a more fragile form of conjugal union than marriage. Research evidence suggests that children born to cohabiting parents are more likely to be exposed to complex family forms, to live in poverty, and to have negative educational and

psychological outcomes (Guzzo and Hayford, 2020). Because the negative effects appear to be increasingly borne by more socially and economically disadvantaged children, growing gaps in transition may portend greater inequality in the future, a trend that should be of concern to policymakers and others committed to addressing inequities in our society.

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Chapter 4: The Family Life Course and Union Dissolution in Middle and Later Life

Introduction

Contemporary life courses are becoming more complex, unstable, and unpredictable than those of earlier years (Walsh, 2012). Like the United States and other European countries, Canada has experienced an increasing marriage postponement as well as increases in cohabitation, out-of-wedlock births, divorce, and remarriage in recent years (Milan, 2011; Le Bourdais et al., 2016; Wright, 2019). An increase in the number and diversity of family events and states that individuals experience over the course of their earlier years of life leads to more complex family trajectories in middle and later life.

Demographic shifts have created a context in which aging families today differ markedly from those of earlier generations. Among them, cohabitation rates have increased among middle-aged and older adults, growing more rapidly among these than among younger age groups in recent years (Brown and Wright, 2017; Milan et al., 2014). While little is known regarding cohabiting union dissolution, the phenomenon of gray divorce, most commonly used to refer to any marital split in people over the age of 50 (Brown and Lin, 2012), has attracted the attention of researchers. In the United States, divorce rates among young adults remained stable from 1990-2010 (Kennedy and Ruggles, 2014). However, the divorce rate among Americans aged 50 and older rose sharply over the years - doubling from 4.87 to 10.05 per 1,000 married persons between 1990 and 2010 (Brown and Lin, 2012). Compared to the U.S., little research has been conducted in this area in Canada. However, Margolis et al. (2019) found a smaller increase in Canada over the same period - from 4.02 to 5.17 divorces per 1,000 married persons.

Despite the significance of the changes in union outcomes observed among older adults, the impact of earlier life course experiences in shaping those evident in later life remain unclear. For example, while the determinants of union dissolution through separation and divorce have been well-studied among younger adults, limited attention has been directed to such processes in middle and later life (Brown and Lin, 2012; Wu and Penning, 2018). In the few studies that have touched on the issue, a life course approach focusing on union biography (e.g., marriage order and duration) and family biography (children born inside/outside the union) has been considered integral (Lin et al., 2016; Wu and Penning, 2018). However, previous research examining union history have often looked at timing, duration, and order of events in a piecemeal manner, focusing on only one or two of these factors at a time (Lin et al., 2016; Wu and Penning, 2018). Yet, a life course perspective entails that we should aim to preserve the integrity of individual trajectories as much as possible. It is also crucial to jointly consider union and fertility transitions over the life course as they are highly interdependent. Studying them separately obscures the heterogeneous pathways through which people negotiate and navigate their life course.

This study seeks to go beyond the limitations of most published studies, holistically examining how the order, timing and duration of both union and parenting (childbearing) transitions experienced during the years from adolescence through early to middle adulthood are linked to the risk of union dissolution in the later years of life. It considers cumulative and dynamic trajectories rather than short-term transitions and static events. Also, in contrast to previous studies that tend to focus only on the risk of marital union dissolution (Bianchi et al., 2012; Lin et al., 2018), these analyses address both marital and cohabiting union dissolution. This not only allows one to conceptualize later life union transitions more accurately but to

assess whether the family trajectories evident in early and middle life as well as other relevant risk factors influence marital and cohabiting unions differently.

To accomplish these objectives, this study begins by identifying the most common types of family life course trajectories experienced during the years from adolescence through adulthood (15-50) among men and women in Canada and who enter their later years in a union. To do so, I make use of sequence analysis, which has been identified as one of the most appropriate methodological frameworks for such work, allowing researchers to move beyond specific events and adopt a more holistic vision of trajectories comprising several events that cut across different life domains (Billari and Liefbroer, 2010). A sequence complexity index, that not only incorporates the number of life course transitions states in the life course but also, the proportion of respondents in different states the degree of unpredictability evident within sequences across individual trajectories (Gabadinho et al., 2011), is also calculated. Next, these typical family trajectories and complexity are assessed as risk factors for marital separation/divorce or cohabitation separation in middle and later life. Overall, the analyses enhance our understanding of the importance and implications of changing family trajectories in shaping union dissolution in later life. In doing so, they also shed light on possible future trends.

Literature Review

Background in Theory

The current investigation is guided by the Second Demographic Transition and Life Course theoretical frameworks. The former provides a macro-level theoretical background for our research objectives while the latter guides the methodological approach we use to address these objectives.

The Second Demographic Transition Framework

The Second Demographic Transition provides a framework for understanding the changes to family trajectories that have occurred since the second half of the 20th century. These include declining rates of marriage and fertility; increased rates of cohabitation, divorce and remarriage; the decoupling of marriage and fertility; and the growth in one-person households (Lesthaeghe, 2010). The SDT framework links these changes in the family life course to shifting cultural attitudes and values in the direction of greater individual freedom and self-actualization (Lesthaeghe, 2014; 2020; Zaidi and Morgan, 2017), arguing that as a population becomes more affluent and better educated, people's attention is gradually diverted away from material needs related to survival and security. Instead, greater emphasis is placed on post-material values and preferences such as personal self-realization and self-fulfillment (Lesthaeghe, 2014). This, in turn, enhances people's freedom of choice in organizing their personal lives and following less traditional family formation and fertility patterns.

The weakening of marriage as an institution, as evident in rising divorce rates, is a central feature of the SDT. Lesthaeghe (2011) argued that early signs of the SDT emerged in the 1950s: divorce rates were rising, especially in the United States and Scandinavia. The logic of a "good divorce is better than a bad marriage" (p. 180) was increasingly considered a reason for leaving lifelong commitments, with individual autonomy emphasized possibly in opposition to the church and state-mandated moral order. Unlike the FDT, in the SDT, divorce often no longer tends to be followed by remarriage but rather, by cohabitation (Lesthaeghe, 2011; 2014).

As noted, in the original version of the SDT, these shifts were linked to the increases in education and affluence evident among more recent birth cohorts, as well as to the expansion of labor market opportunities for women, changes in gender role expectations, and the declining

influence of traditional religious and moral values (Lesthaeghe, 2010). Proponents argued that newer, less traditional family patterns tend to occur first among those who are younger and have higher socioeconomic status (education, wealth) and more progressive value orientations and, over time, spread (diffuse) to the society as a whole (van de Kaa, 2001). A recent update by Lesthaeghe (2020) notes that cohabitation has now spread rapidly to all segments of society in many countries and that in the process, educational and other socioeconomic differences have become less evident. In Canada, there is some evidence to support this argument. According to Laplante and Fostik (2016), the overall rise in cohabitation among younger adults observed from 1986 to 2006 was much greater than any educational differences.

According to the SDT, these changes have generally led to an increase in family heterogeneity and complexity (Zaidi and Morgan, 2017). Researchers investigating these phenomena have focused primarily on young adulthood, when family changes such as delayed marriage and parenthood, cohabitation, and divorce tend to occur more frequently (Hughes and Waite, 2007). However, Baby Boomers (i.e., those born between 1946 and 1964) are often noted to be at the forefront of family change, and they are now approaching or have entered old age. Compared to pre-Baby Boomers, Baby Boomers have tended to marry later, to delay childbearing, and to be more likely to have children outside of traditional marriages (Hughes and Angela, 2004). As well, those who did marry were more likely than those in earlier cohorts to divorce (Raley and Sweeney, 2020).

Overall, the SDT framework leads us to expect that not only will diverse and complex family life course trajectories be evident among younger as well as middle-aged and older adults but that Baby Boomers are more likely to experience diverse family trajectories (including more and different transitions) than earlier cohorts. These include trajectories involving cohabitation,

non-marital births, and so on. How various family trajectories experienced in the earlier stages of the adult life course will influence union outcomes in later life is less clear. However, given SDT arguments regarding increases in divorce rates among more recent birth cohorts, Baby Boomers might also be expected to be more likely to experience marital union dissolution in their later years of life than pre-Baby Boomers. The same might be true with regard to cohabiting union dissolution. Unfortunately, the SDT framework does not explicitly address how education will affect union outcomes in middle and later life. However, based on the view that particularly among Baby Boomers, those with higher education are considered to have been at the forefront of the SDT changes in family life, one might also expect to find that those with higher education will be among those most likely to dissolve their unions, whether marital or cohabiting, in later life.

The Life Course Framework

The life course framework also helps guide analyses of family trajectories and their implications, including union dissolution in middle and later life. From this perspective, an individual's life course transitions are shaped by previous transitions, including the timing, duration, and sequencing of important life events such as marriage and childbirth (Elder et al., 2003). The life course framework places significant importance on trajectories, which can be defined as sequences of linked states (e.g., marriage, cohabitation, childbirth) rather than on individual states at a single point in time (Giele and Elder, 1998, p. 22). An individual's experiences in later life cannot be fully understood without considering his or her unique life course biography (Settersten, 2003). For example, Baby Boomers' early experiences of marital disruption point to the possibility of considerable growth in re-partnering and elevated risk of divorce in later life (Brown and Wright, 2017). Moreover, Baby Boomers' experiences with

cohabitation in young adulthood might contribute to an increase in the likelihood of cohabitation in the later years of life (Brown et al., 2012).

Standard analyses do not take into account when transitions occur (timing), how many there are (quantum) and in what order they happen (ordering). However, transitions that occur in different periods of life may have different effects on the risk of union dissolution. For instance, one's age at the first union may be associated with union outcomes. Some studies show that individuals who marry at a younger age have a higher risk of marital dissolution than those who marry at an older age (Raley and Sweeney, 2020). Second, trajectories may be very different in terms of complexity. For example, serial cohabitation, defined as having multiple cohabiting relationships, has been found to present a more serious challenge to a stable marriage than single-instance cohabiting unions among women aged 35 to 43 in the United States. According to Lichter and Qian (2008), serial cohabitators were less likely than single instance cohabitators to transition to marriage rather than to dissolve their unions. However, if serial cohabitators did get married, their divorce rates tended to be higher compared with those who cohabited only with their subsequent partners. Third, the sequence of events is relevant to the study of the family life course. For example, Lichter et al. (2016) compared the long-term stability of cohabiting and marital unions that began with pregnancy to those in which conceptions came after living together. Their results showed that post-conception unions, especially post-conception cohabiting unions, were likely to face elevated rates of union dissolution. Couples moving in together following pregnancy were much more likely to break up than to marry (Lichter et al., 2016).

A key tenet of the life course perspective is that people's experiences are cumulative, in that people's options at a given point in time are often contingent upon prior events and experiences (Elder, 1998). By this line of reasoning, we expect the families of current and future

older adults will show many continuities with the families they formed earlier in their life course. The sheer size of the Baby Boom cohort, their projected longevity, and the complexity of their life course patterns combine to pose new challenges to understanding and anticipating the nature and consequences of their movement into and beyond late middle age.

Overall, the LCF leads us to expect that the family life course trajectories experienced in earlier years of the life course will have an impact on what happens in later years. Consistent with this framework as well as the SDT, we can also speculate that Baby Boomers may be at significantly higher risks of marriage and cohabitation union dissolution in middle and later life than pre-Baby Boomers because of their more diverse and complex union histories in the early and middle adult years.

Background in Research

Family Life Course Complexity

The complexity of the family life course has gained increasing attention in recent studies (Elzinga and Liefbroer, 2007). According to life course researchers, complexity results when the number of transitions and distinct states experienced across the life course increases (Van Winkle and Fasang, 2021). For example, a woman who was only married once and who had one child within the marriage is conceptualized as having a less complex life course than another woman who was married and divorced twice, had the first child before marriage, and had another child within a second marriage. Experiencing a new state (e.g., being separated after marriage) or repeating an already experienced state (e.g., being in a second marriage) can increase life course complexity.

Additionally, life course researchers emphasize that more diverse and complex lives entail increasing unpredictability and uncertainty, which in turn are thought to have a negative impact on the individual (Beck, 2000; Van Winkle and Fasang, 2021). For example, children who experienced more living arrangement transitions during childhood are considered more likely to experience complex partnership trajectories once they grow up (Hiekel and Vidal, 2020). As well, experiencing more partnership transitions is noted to be associated with poorer health and other negative outcomes in midlife (Barban, 2013).

Based on this definition, complexity has often been operationalized using a simple count measure of the number of life course states or transitions experienced across individuals' lives. However, complexity is not only influenced by the number of different states experienced but also, by changes in the duration of states. A complexity indicator - entropy- incorporates both the distinct state appearing in the sequence and variation coming from the changing duration of states (Gabadinho et al., 2011). Entropy is maximal when there is a maximum number of transitions, and each state has an equal duration. Entropy is minimal when there is only one single state in a sequence (Van Winkle, 2020).

Although many studies have applied sequence and trajectory analysis to examine family dynamics, a limited number of studies have incorporated the complexity of family trajectories in their analyses. Elzinga and Liefbroer (2007) is an exception. They examined the family trajectories of women in early adulthood (from ages 18-30) in four Baby Boom birth cohorts (1945-1949, 1950-1954, 1955-1959, and 1960-1964) and in 19 different countries. They found that family trajectories have become increasingly different and diverse across cohorts in Canada and the United States. In Canada and many other countries, the sequence of family life transitions (i.e., cohabitation, marriage, and childbearing) was found to be less predictable, and

differences in the time spent in different states (duration) were found to be increasing over time. However, this study was limited to women in early adulthood. They did not consider men nor address the impact of early adulthood trajectories on subsequent family behaviours and outcomes.

Union Dissolution in Middle and Later Life

Union dissolution patterns in middle and later life have experienced dramatic changes in the past several decades. For example, the divorce rate among those aged 50 and older doubled from 4.87 to 10.05 per 1,000 married persons between 1990 and 2010 in the United States (Brown and Lin, 2012). In 1990, 10 percent of divorces in the United States occurred among couples aged 50 or older. By 2010, that percentage had increased to more than 25 percent (Brown and Lin, 2012). However, since then, the divorce rate has changed relatively little among middle-aged adults (aged 50-64) but has continued to increase among those aged 65 and older (Brown and Lin, 2022). In Canada, although divorce rates tend to be considerably lower than in the US, the overall trend is similar. Margolis and colleagues (2019) documented increases in divorce rates among middle-aged and older adults from the 1990s to 2008 (from 4.02 to 5.17 divorces per 1,000 married persons), followed by flat divorce rates for these individuals through 2016. In addition, Statistics Canada (2022) reports that since the mid-2000s, age-specific divorce rates have been declining among younger adults while remaining stable, albeit at a lower rate, among those aged 50 and over. From 2010 to 2019, they report a decline from 7.2 to 6.9 divorces per 1,000 married persons among those aged 50-64 along with a slight increase from 1.5 to 1.6 divorces per 1,000 married persons among those aged 65 and older.

However, these studies only focus on divorce. We still have a knowledge gap with regard to the dissolution of cohabiting unions among couple adults. Yet, as divorce rates have increased,

cohabitation has become increasingly commonplace among middle-aged and older adults, growing more rapidly among these than among younger age groups in recent years (Brown and Wright, 2017; Milan et al., 2014). While data on changes over time in rates of cohabiting union dissolution among older adults are lacking, research on younger samples suggests that cohabiting unions appear less stable than marital unions (Wu and Hart, 2003), with dissolution rates also increasing over time (Guzzo, 2014; Wu and Balakrishnan, 1995). Yet, there are indications that this may be less true among older than younger cohabitators (Brown et al., 2012). Cohabitation among younger adults tends to be viewed as a prelude to marriage or as an alternative to singlehood, culminating in either marriage or separation within the first year or two (Brown and Wright, 2017). In contrast, researchers have suggested that cohabitation among older adults appears distinctive, more often serving as a long-term alternative to marriage (Brown et al., 2012; Brown and Wright, 2017; King and Scott, 2005; Wu and Penning, 2018). Supporting this view, Wu and Penning (2018) found that, in Canada, those in cohabiting unions at age 45 had already been in these unions for an average of 10 years. Similarly, researchers report an average duration of nearly ten years among older cohabitators in the US (Brown et al., 2012; Brown and Kawamura, 2010).

How various family trajectories experienced in the earlier stages of the adult life course influence union outcomes in later life is not well understood. However, there is some evidence that selected aspects of union and parenting biographies are integral to understanding the risk of later life divorce, often leading to conclusions that the same factors that are associated with divorce earlier in the adult life course are also relevant when it comes to the later years (Brown and Wright, 2017). This includes evidence indicating that those in marriages of shorter duration and/or in higher-order marriages face a greater risk of later life divorce (Brown and Lin, 2012;

2022; Brown and Wright, 2017; Lin et al., 2018; Wu and Penning, 2018). Although a growing number of older adults are in higher-order marriages, often as a result of divorce experienced in earlier stages of the life course, the divorce rate among those aged 50 and older in the US is approximately two times greater for remarriages than for first marriages (Brown and Lin, 2022). There is also evidence indicating that those who cohabit prior to marriage are more likely to experience divorce in later life (Wu and Penning, 2018). Moreover, while childless unions are more likely to dissolve than those with children in earlier stages of the adult life course (Brown et al., 2021; Kalmijn and Leopold, 2021), Wu and Penning (2018) report finding that those with more children born within the union were less likely to see their marital unions dissolve in later adulthood.

Research addressing the impact of union and family transitions experienced in early stages of the life course on transitions out of cohabitation in later life is extremely limited (Brown et al., 2012). However, some researchers caution that the factors associated with relationship transitions, including cohabitation, are likely to vary over the life course and one should not generalize the findings obtained from studies focusing on union dissolution in earlier stages of the life course to later adulthood (Vespa, 2013). What evidence is available suggests that while cohabitation appears to fairly stable and serve as a long-term alternative to marriage in middle and later life (Brown et al., 2012), those in cohabiting unions still appear to face a significantly greater risk of union dissolution than those who are married (Wu and Penning, 2018). These researchers also found that once other correlates were taken into account, union duration but not union history (prior marital or cohabiting relationships), was significantly related to union dissolution in later life. Those in longer duration unions prior to age 45 were less likely to see these unions dissolve in the later years of life. Finally, when it comes to the impact of family

biography on cohabiting union stability, findings appear mixed. While Vespa (2013) found family size (number of children and siblings) to be inversely related to cohabiting union dissolution among older men (but not women), Wu and Penning (2018) found the number of children born (either within or outside the union) to be unrelated to cohabiting union dissolution in later life.

Data and Method

Data Source and Sample

This study pooled public use microdata files (PUMF) from the 2011 and 2017 General Social Surveys – Family (GSS Cycles 25 and 31) conducted by Statistics Canada (2019). Once again, these analyses were performed during the COVID-19 pandemic, when the Statistics Canada Regional Data Centre (RDC) at the University of Victoria was closed. As a result, I was not able to analyze the confidential data files. The data sets were pooled in order to increase the size of the study sample.

The GSS program is an annual, cross-sectional survey that collects data on social trends at the individual and household levels, monitors the living conditions and well-being of Canadians, and provides information related to selected policy issues. Each cycle has a specific thematic focus – the GSS family cycle monitors changes in Canadian families and therefore include information on conjugal and parental history (chronology of marriages, common-law unions and children) and other relevant factors. The target population of both surveys consists of non-institutionalized individuals aged 15 and older in Canada, excluding those living on reserves and residents of the Yukon, Northwest Territories, and Nunavut. In both surveys, data were collected through computer-assisted telephone interviews conducted in French or English.

Response rates were 65.8% (2011) and 52.4% (2017). Further details about survey methodology are available on Statistics Canada's website (Statistics Canada, 2019).

To examine union disruption in middle and later life, the study sample was limited to respondents who were in a marital or cohabiting union at age 50 and therefore at risk of dissolving their marriage or cohabitation in subsequent years (N=17, 969). Both men and women were included in the study, a contribution to the literature given that many other studies focus only on women (Barban, 2013; Kleinepier and de Valk, 2016). Our analyses focused on whether respondents' unions at age 50 ended in separation/divorce or remained intact at the time of each survey. Respondents who were widowed at or after age 50 (N=3,422) were not included in the analyses. Thus, the final study sample (N=14,547) included 12,978 (89.21%) individuals who were married at age 50 and 1,569 (10.79%) who were in a cohabiting relationship. Of these, 511 (3.94%) were in a marital relationship and 244 (15.55%) were in a cohabiting relationship that was later dissolved (through separation or divorce) by the time of each survey.

Measurement

GSS data are well-suited to exploring respondents' partnership outcomes because they include detailed information about union (both marriage and cohabitation) and childbearing histories. To address the impact of different family trajectories on union dissolution in middle and later life, a dummy variable was used to indicate whether the union in place at age 50 resulted in (1) separation/divorce or (0) remained intact at the time of the survey. Given our primary interest in addressing union dissolution outcomes, cohabiting unions that led to marriage to the same person were considered as having remained intact.

To measure family trajectories, we focused on the sequence of successive union (i.e., marriage or cohabiting) and childbearing transitions observed for each individual from age 15 to

age 50. Each trajectory consisted of several consecutive states (single, single with children, cohabiting, cohabiting with children, married, married with children). Each represented the state a person was in at a specific age. Age at the time of marriage was derived from the question: “What was your age at the time of your current/first/second/third marriage?” Similar questions were used to determine the respondent’s age at the dissolution of each marriage, cohabitation (common-law) union formation, and the dissolution of cohabitation. Childbearing was measured by asking respondents to indicate their age at the birth of their first biological child. Therefore, non-biological (step- or adopted) children were not included. Also, although the surveys included information on the respondents’ ages for up to seven children, to keep the analyses manageable, only first births were included.

To address the impact of union and family biographies on union dissolution, risk factors previously found to be associated with union dissolution such as gender, birth cohort, education, and region of residence were also included as controls (Brown and Lin, 2012, 2022; Lyngstad and Jalovaara, 2010; Raley and Sweeney, 2020; Wu and Penning, 2018). Each was measured at the time of the survey. Gender was coded as 1 for women and 0 for men (reference category). Birth cohort was coded dichotomously and compared pre-Baby Boomers (born from 1931-1945, coded as 0) and Baby Boomers (born from 1946-1964, coded as 1). Education was measured using the highest level of education reported by respondents (1 = high school diploma or less; 2 = some post-secondary education; 3 = bachelor’s degree or higher). To capture different marriage and cohabitation trends in Quebec and the rest of Canada (Wright, 2019; Wu and Penning, 2018), a dummy variable indicated whether the respondent lived in Quebec (1) or the rest of Canada (0, the reference category) at the time of the survey. Finally, because the study combined 2011 and 2017 GSS data, it also controlled for survey year.

Analytical Strategy

Sequence analysis has become an established method for studying the complexity of the family life course (Aisenbrey and Fasang, 2010; Pelletier et al., 2020). Here, sequence analysis was used to describe the quantum (what and how many transitions occurred) and the timing (at what age different life course transitions occurred) of interrelated events as well as their sequence (the order in which transitions occurred) (Di Giulio et al., 2019). Thus, each trajectory was treated as a sequence, by aligning the order of individual life course states (unions and births) according to age. By focusing our analyses on the broader trajectory rather than the occurrence of a single event, sequence analysis overcomes the limitations of event history and other forms of analysis and takes into account the interdependence between multiple events (Barban and Sironi, 2019).

I first performed sequence analysis using the optimal matching (OM) algorithm (Gabadinho et al., 2011), followed by a hierarchical cluster analysis and logistic regression. The analysis was conducted in four steps. First, the early life course trajectory was represented by the configuration of union and family statuses reported between the ages of 15 and 50. Extending the life course to age 50 allows for an examination of family development through adolescence, young adulthood, and middle age. In the combined states, subsequent births were ignored to keep the number of possible state sequences manageable. The sequence was designed to take six values, combining union and childbearing histories: Single (S), Single with children (SC), Cohabiting (C), Cohabiting with children (CC), Married (M), and Married with children (MC). If there was more than one cohabitation or marriage, the state was considered as Single (S) for separation or divorce in between states. Also, if a cohabitation transitioned into a marriage with the same person, the sequence was coded as shifting from Cohabiting (C) to Married (M). Thus,

every trajectory was composed of a string of 35 values (for each year from age 15 to 50). The number of possible combinations is large.

Life course sequences can be represented in several ways. One common approach is to use the Spell form (SPELL) to code the sequence (Gabadinho et al., 2011). Each record specifies the start and end time of the spell. The following example is an excerpt from the sample data.

The respondent (ID = 1) was single at age 15, cohabited at age 22, and then separated at age 23.

The respondent was married at age 27 and then had his or her first child at age 30. The respondent then remained in this state until age 50.

ID	Index	From	To	State
1	1	15	21	Single
1	2	22	22	Cohabiting
1	3	23	26	Single
1	4	27	29	Married
1	5	30	50	Married with children

Second, I computed the dissimilarity matrix, OM, between pairs of sequences. It measures pairwise dissimilarities between trajectories, defined as the minimum number of operations required to transform one sequence into another (Abbott, 1995). The different operations are insertion/deletion (indel) and substitution. I obtained the optimal matching distances by utilizing the `seqdist()` function from the TraMineR package, with the method parameter set to OM. Two required parameters are an insertion/deletion (indel) cost and a substitution-cost matrix. We selected the default indel cost of 1, and for the substitution costs, I opted to use transition rates, as suggested by Gabadinho et al. (2011). The transition rate between state i and state j is the probability of observing state j at time $t + 1$ given that the state i has been observed at time t . For $i \neq j$, the substitution cost is equal to $2 - p(i|j) - p(j|i)$ where $p(i|j)$ is the transition rate between state i and state j . The concept behind this is to assign a higher cost to rare changes between i and j and a lower cost to frequent changes (Gabadinho et al., 2011). This emphasizes

the dissimilarity in the duration and order of states in different sequences, which is attractive for comparison purposes (Gabadinho et al., 2011). The OM distances between individual sequences were calculated to create a difference matrix (211, 615, 219 elements).

Third, the sequences were grouped into clusters using a hierarchical clustering algorithm (Gabadinho et al., 2011) which helps to reduce complexity by grouping similar sequences into clusters or subgroups, while preserving the differences in timing, tempo, and event ordering between these clusters (Di Giulio et al., 2019). The algorithm begins by treating each object as its own cluster, and then combines the most similar clusters into a new cluster with similarity measured by an OM distance metric. The process is iterative, with the outcome being a set of discrete clusters of sequences that share comparable patterns. The *agnes* function from the R package *cluster* was used to perform hierarchical clustering using the Ward's minimum within-cluster variance method.

In addition, an entropy-based complexity index was introduced to quantify the variety of states within a specific sequence, which I then utilized as a key covariate in the logistic regression analysis. In previous studies, complexity tends to be assessed using the number of life course transitions or distinct states experienced across the life course (Van Winkle, 2018). However, complexity seems to be influenced not only by the number of different states experienced, but also by the distribution of respondents in the different states as well as by changes in the duration of these states. A complexity indicator, entropy, includes both the different states/transitions that appear in a sequence as well as variation in the duration of these states (Gabadinho et al., 2011). In this study, I used the function *seqient* () from the *TraMineR* package that compute the Shannon entropies of each sequence in the dataset. Letting S be the number of states and using p_i to denote the proportion of the respondents in state i , the entropy

is $E = -\sum_{i=1}^S p_i \log(p_i)$. If all respondents are in a single state, entropy will be equal to 0 ($\log 1=0$). If the same proportion of respondents are in each state, the entropy value will reach a maximum value (Gabadinho et al., 2011). For example, we have a total of six states. If we have 1/6 respondents in each state, then we can reach the maximum entropy value (Gabadinho et al., 2011).

Fourth, to examine the relationship between the earlier union and family trajectories (ages 15 to 50) and union outcomes in middle and later life (post age 50), separate logistic regression models were estimated for marital separation/divorce and cohabitation separation using trajectory characteristics (i.e., trajectory type and complexity) as independent variables. Separate analyses were conducted for different types of union (marriages vs. cohabitations) because previous research has shown that the mechanisms behind union dissolution differ significantly between marriage and cohabitation (Wu and Penning, 2018). First, a model with no control variables was estimated to assess the overall impact of different family trajectories and trajectory complexity levels on union outcomes. I then tested whether and how the impact of trajectories changed once control variables were added to the model.

Sequence analysis was performed in R using the TraMineR package (Gahadinho et al., 2011). Missing data ($n=1,387$) were imputed using the MICE package in R (Van Buuren and Groothuis-Oudshoorn, 2011). Logistic regression was implemented using the glm function in base R. Each missing variable was imputed in a separate model (linear regression for continuous missing variables and logistic regression for categorical missing variables) (Van Buuren and Groothuis-Oudshoorn, 2011). The survey package in R was used to adjust for survey design

effects (Lumley, 2010). Survey weights⁹ were applied to ensure that our analyses are representative of all persons in the target population. All analyses were performed using R Statistical Software (v4.1.2; R Core Team 2021).

Results

Family Trajectories in the Earlier Stages of the Adult Life Course

My primary focus is on the life course sequence, and I have organized them into clusters in this analysis. Figure 4.1 presents a sequence index plot showing the union and parental statuses of all individuals in each cluster from when they were 15 to 50 years of age. In total, four union and childbearing history clusters were identified. Cluster algorithms with five or more clusters were disregarded because they would lead to a small number of cases per cluster, thus limiting the statistical power of the analyses. The four clusters are labeled according to the most dominant partnership status and presence or absence of birth children in the trajectory: (1) ‘Married with children’; (2) ‘Cohabiting with children’; (3) ‘Single or cohabiting without children’; and (4) ‘Married without children’. Figure 4.2 shows the mean number of years spent in each state for each cluster.

⁹ To merge two cross-sectional datasets and analyze them together, I begin by merging them into a single dataset while preserving the weights assigned to each observation. In order to make sure that the weights are uniform, I generate a new weight for each observation by dividing its original weight by the total weight of the respective dataset, and then multiplying it by the total weight of the combined dataset. In order to incorporate weights, I assign them to the state sequence objects using the `weighted = TRUE` option. This enables the TraMineR functions to automatically take the weights into account and generate results that are weighted.

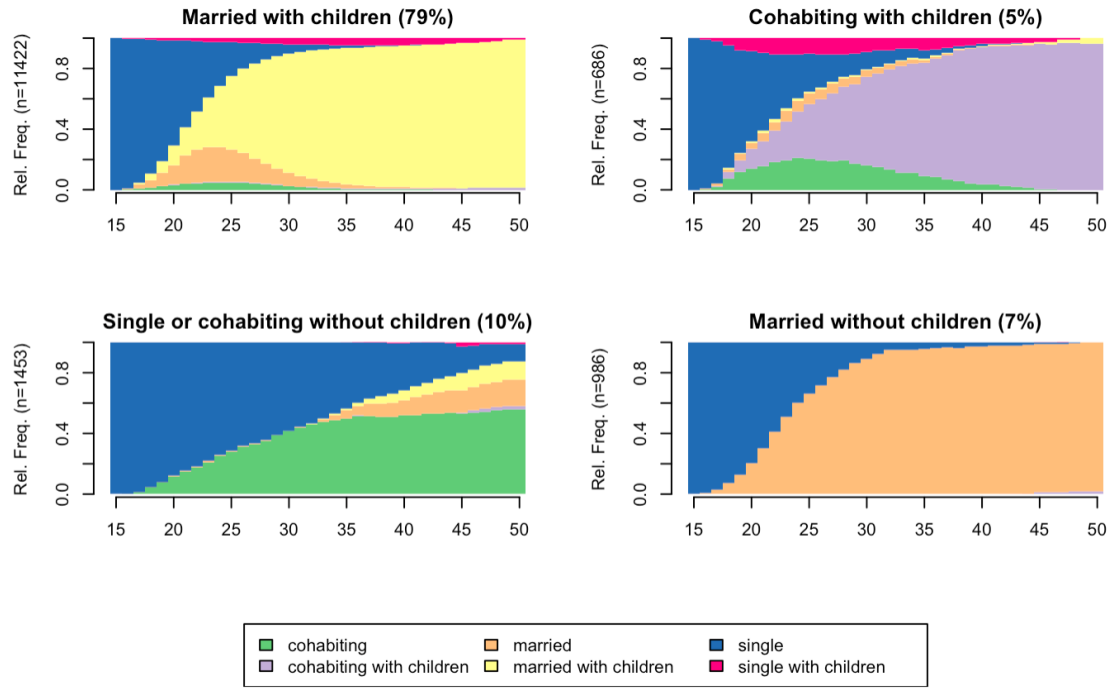


Figure 4.1 State Distribution by Cluster

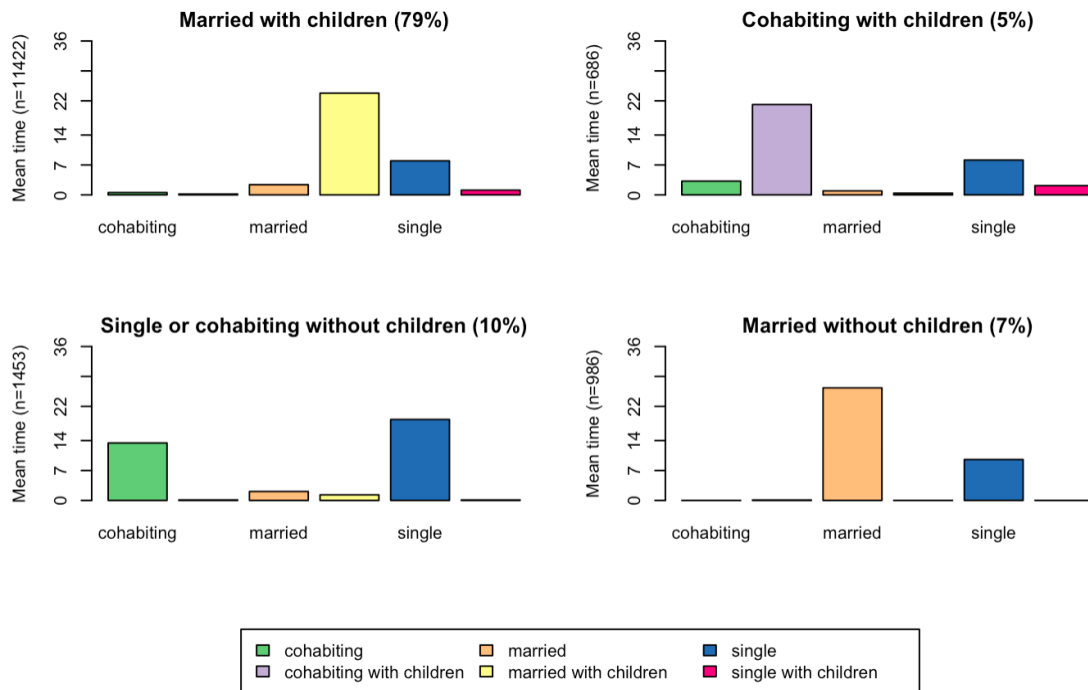


Figure 4.2 Mean Time Spent in Each State by Cluster

Table 4.1 compares union and family characteristics across these four family trajectory clusters. The most prevalent trajectory in the study sample was the ‘Married with children’ cluster, which accounted for just under 79% of the respondents. Individuals in this cluster were in a marriage with children for an average of almost 23.80 years (of the maximum 35 year period studied) before age 50. Additional analyses (not reported here) show 88.10% reporting only one marriage and 79.69% reporting no cohabiting relationships during this period. The remaining years were generally spent being single ($\bar{x}$ =7.96 years) or in a childless marriage ($\bar{x}$ =2.39 years). The ‘Single or cohabiting without children’ cluster was the second largest group (nearly 10%). Respondents in this cluster had been single for an average of 18.93 years and cohabiting for an average of 13.44 years before the age of 50 (with 45.56% reporting only one cohabiting relationship and 51.69% reporting no marital relationships during this period). The ‘Married without children’ cluster was slightly less prevalent (nearly 7%). However, these respondents were in marital relationships for the longest period of time of any clusters (average length of 26.33 years) before age 50 without having children (with 83.37% reporting only one marriage and 84.99% reporting no cohabiting relationships). The rest of the years were generally spent single ($\bar{x}$ =9.57 years). Finally, less than five percent of the respondents fell into the ‘Cohabiting with children’ cluster. This cluster was characterized by having and raising children in cohabiting unions established for an average of 21.14 years before age 50 (with 57.14% reporting only one cohabiting relationship and 41.69% reporting no marital relationships). In general, the remaining years were spent being single with ($\bar{x}$ =2.16 years) or without ($\bar{x}$ =8.15 years) children or cohabiting without children ($\bar{x}$ =3.22 years). Overall, considering the number, sequencing and duration of the relationships involved, the ‘Cohabiting with children’ ($E = 0.47$) cluster emerged as the most complex, followed by the ‘Married with children’ ($E = 0.42$) cluster. Both were

significantly more complex than the ‘Single and cohabiting without children’ ($E=0.31$) and ‘Married without children’ ($E=0.31$) clusters.

Table 4.1 Union and Family Characteristics by Type and Family Trajectory

	Full sample	Married with children	Cohabiting with children	Single or cohabiting without children	Married without children	p-value
Years in a given state (average)						<0.001
Single	9.18	7.96	8.15	18.93	9.57	
Single with children	0.98	1.11	2.16	0.11	0.02	
Cohabiting	1.93	0.55	3.22	13.44	0.01	
Cohabiting with children	1.17	0.20	21.14	0.12	0.10	
Married	3.91	2.39	0.93	2.09	26.33	
Married with children	18.83	23.80	0.40	1.30	0.01	
Complexity (standardized entropy)	0.41	0.42	0.47	0.31	0.31	<0.001
Marriage ended in separation/divorce for individuals who were married at the age of 50	3.94%	3.90%	5.07%	5.91%	3.54%	<0.001
Cohabitation ended in separation for individuals who were cohabiting at the age of 50	15.55%	9.97%	22.68%	12.58%	12.20%	<0.001
Unweighted <i>N</i>	14,547	11,422	686	1,453	986	

Source: 2011 and 2017 GSS

Note: Table reports unweighted *N* and weighted means and percentages.

p-values are based on t-tests and chi square tests (2-tailed), as appropriate

Table 4.2 reports the characteristics of individuals included in the study sample and compares them across family trajectory types. Women were overrepresented in the ‘Married with children’ (52.64%) and ‘Cohabiting with children’ (53.35%) clusters whereas men were overrepresented in the two clusters without children. Baby Boomers accounted for 70.31% of the entire study sample and about two-thirds of the members of both the ‘Married with children’ (67.57%) and ‘Married without children’ (66.18%) clusters. In contrast, they were more heavily represented in the ‘Cohabiting with children’ (92.80%) and ‘Single and cohabiting without children’ (85.66%) clusters compared to the pre-Baby Boomers. In contrast, pre-Baby Boomers were more heavily represented in the ‘Married with children’ (32.43%) and ‘Married without children’ (33.82%) clusters than in the ‘Cohabiting with children’ (7.20%) and ‘Cohabiting without children’ (14.34%) clusters.

The proportion of individuals in different union and family trajectories also varied by education and region. Respondents with the highest level of education (i.e., a bachelor’s degree or higher) represented only 22.71% of those in the overall sample but 32.16% of those in the ‘Single and cohabiting without children’ cluster. In contrast, they represented a much smaller proportion (13.86%) of those in the ‘Cohabiting with children’ cluster. Their prevalence in the other two clusters (22.20% in the ‘Marriage with children’ cluster and 21.08% in the ‘Marriage without children’ cluster) was similar to their representation in the overall sample. Conversely, almost half (48.08%) of those in the ‘Cohabiting with children’ cluster were in the least educated group, compared to 33.36% of the ‘Cohabiting without children’ cluster. Regional differences were also apparent, with Quebec residents standing out in terms of the proportion in cohabiting relationships with children: almost one-third (32.22%) of individuals in the ‘Cohabiting with

children' cluster were Quebec residents, compared to less than twenty percent of those in each of the other three clusters.

Table 4.2 Descriptive Statistics for Full Sample and by Type of Family Trajectory

	Full sample	Married with children	Cohabiting with children	Single or cohabiting without children	Married without children	p-value
Gender						<0.001
Men	48.41%	47.36%	46.65%	54.71%	52.43%	
Women	51.59%	52.64%	53.35%	45.29%	47.57%	
Birth cohort						<0.001
pre-Baby Boomers	29.69%	32.43%	7.20%	14.34%	33.82%	
Baby Boomers	70.31%	67.57%	92.80%	85.66%	66.18%	
Education						<0.001
High school diploma or less	40.70%	40.81%	48.08%	33.36%	44.96%	
Some post-secondary	36.59%	36.99%	38.05%	34.49%	33.96%	
Bachelor's degree or higher	22.71%	22.20%	13.86%	32.16%	21.08%	
Region						<0.001
Rest of Canada	83.31%	84.32%	67.78%	80.11%	87.12%	
Quebec	16.69%	15.68%	32.22%	19.89%	12.88%	
Survey year						<0.001
2011	50.99%	52.10%	42.57%	43.01%	55.78%	
2017	49.01%	47.90%	57.43%	56.99%	44.22%	
Unweighted N	14,547	11,422	686	1,453	986	

Source: 2011 and 2017 GSS

Note: Table reports unweighted N and weighted percentages.

p-values are based on chi square tests (2-tailed).

Family Trajectories in Early Adulthood and Union Dissolution in Middle and Later Life

As reported in Table 4.1, among those who were married at age 50, a minority (3.90%) of those whose prior family trajectories fell within the 'Married with children' cluster or the 'Marriage without children' cluster (3.54%) saw their marriages subsequently dissolve. In comparison, 5.07% of those who were married at age 50 but whose prior union and parenting transitions reflected a 'Cohabitation with children' trajectory and 5.91% in those in the 'Single and cohabiting without children' trajectory also saw their marriages dissolve after age 50. For those who were cohabiting at age 50, the proportions ending in separation were considerably higher but also differed significantly across trajectories, ranging from a low of 9.97% among

those in the ‘Marriage with children’ trajectory, to a high of 22.68% among those in the ‘Cohabitation with children’ (22.68%) cluster. The proportions ending in separation were intermediate among those in the ‘Marriage without children’ (12.20%) and ‘Single and cohabitation’ (12.58%) clusters.

The study focused on a particular subset of individuals who were either married or cohabiting at the age of 50, making them susceptible to the possibility of relationship dissolution in the future. Among the participants, 12,978 individuals were married at the age of 50. Table 4.3 reports the results of logistic regression analyses focusing on the impact of the family trajectories experienced during earlier years of adulthood (aged 15-50) on marital separation/divorce experienced after age 50. In Model 1, trajectory clusters and the complexity indicator (entropy) were used to predict the probability of subsequent marital separation/divorce. The results indicate that respondents in the ‘Single or cohabiting without children’ cluster (i.e., those who spent the majority of their time in cohabiting unions without children but who were married by age 50) were more likely to report having experienced separation/divorce after age 50 than those in the ‘Marriage with children’ cluster. There is no significant difference in the odds of marital union dissolution when comparing respondents in the ‘Cohabitation with children’ or ‘Marriage without children’ clusters to the ‘Marriage with children’ cluster. Union and family complexity (entropy) is also significantly associated with the odds of separation/divorce when trajectory clusters are taken into account. Among those who were married at age 50, respondents with a more complex union and childbearing histories were substantially more likely to experience subsequent separation/divorce.

When gender, birth cohort, education, region of residence, and period of study were added as control variables in Model 2 predicting the likelihood of marital separation/divorce, family

trajectory clusters and complexity remained significant predictors. Thus, respondents in the ‘Single or cohabiting without children’ cluster and those with more complex trajectories were still found to have higher odds of experiencing marital separation/divorce in the later years of life. In addition, women had significantly higher odds than did men of experiencing marital union dissolution in middle or later life. Similarly, Baby Boomers were significantly more likely to experience marital disruption than pre-Baby Boomers. However, there was no difference in the likelihood of marital union dissolution in later life when comparing those who had some post-secondary education or a bachelor’s degree or higher to those who had a high school diploma or less education. In contrast, respondents living in Quebec had higher odds of separation/divorce than those living in the rest of Canada.

I also included Nagelkerke R^2 as a measure of goodness-of-fit for the logistic regression model. Nagelkerke R^2 ranges from 0 to 1 and indicates the proportion of variance explained by the model relative to the total variance of the dependent variable. We observed a higher Nagelkerke R^2 value (0.02) in the Model 2, where additional independent variables were included, compared to the Model 1 (0.01). This indicates a better fit of the model with more independent variables.

Among the individuals included in our sample, there were 1,569 individuals who were in a cohabiting relationship at the age of 50. This indicates that they were potentially at risk of experiencing a dissolution of their cohabitation. Table 4.4 reports the results of analyses focusing on cohabiting union dissolution after age 50. In both models, the odds ratios obtained for family trajectory show that respondents in the ‘Married with children’ trajectory prior to age 50 but who were cohabiting by the age of 50 had significantly higher odds of experiencing cohabiting union dissolution after age 50 than did respondents in the ‘Single or cohabiting without children’

trajectory (reference). Further, unlike the findings obtained with regard to marital union dissolution, those with more complex trajectories did not appear to differ from those with less complex trajectories in their odds of experiencing cohabiting union separation in the later years of life. As well, no significant differences were evident between men and women in terms of the odds of experiencing cohabiting union dissolution after age 50. In contrast, the odds of cohabitation separation in later life were also higher for well-educated respondents than for those with less education. However, neither birth cohort nor region of residence emerged as significant in this case.

For the purpose of performing a sensitivity analysis, we utilized two Cox models, with time to divorce and time to cohabitation separation as the respective outcomes of interest. The same subjects included in the logistic regression were also included in these models. The results of our analysis showed that the coefficients and p-values derived from the Cox models closely aligned with those obtained from the logistic regression models (see Appendix A). This consistency between the two types of models suggests agreement and reinforces the reliability of our findings.

Table 4.3 Logistic Regression of Marriage Separation / Divorce after Age 50 (N = 12, 978)

	OR	p	95% CI	OR	p	95% CI
Family trajectory (ref. Married with children)						
Cohabiting with children	1.25		(0.73, 2.12)	1.46		(0.85, 2.50)
Single or cohabiting without children	1.65	***	(1.29, 2.26)	2.02	***	(1.46, 2.79)
Married without children	1.07		(0.73, 1.56)	1.15		(0.78, 1.69)
Complexity (entropy)	4.10	***	(1.83, 9.17)	5.75	***	(2.44, 13.57)
Women (ref. Men)				1.23	*	(1.03, 1.48)
Birth cohort (ref. pre-Baby Boomers)						
Baby Boomers				1.60	***	(1.49, 1.72)
Education (ref. High school diploma or less)						
Some post-secondary				1.21		(0.98, 1.49)
Bachelor's degree or higher				1.19		(0.93, 1.51)
Quebec (ref. Rest of Canada)				1.52	***	(1.21, 1.90)
Survey Year 2017 (ref. 2011)				1.07	***	(1.03, 1.10)
<i>Nagelkerke R²</i>		0.01			0.02	

Source: 2011 and 2017 GSS

Note: OR = Odds Ratios; CI = 95% Confidence Interval

Total number of events = 511

*p<0.05, **p<0.01; ***p<0.001

Table 4.4 Logistic Regression of Cohabitation Separation after Age 50 (N = 1,569)

	OR	p	95% CI	OR	p	95%
Family trajectory (ref. Single or cohabiting without children)						
Married with children	2.04	***	(1.34, 3.10)	2.30	***	(1.35, 3.61)
Cohabiting with children	0.68		(0.42, 1.11)	0.76		(0.46, 1.26)
Married without children	0.97		(0.47, 1.97)	0.96		(0.47, 1.99)
Complexity (entropy)	1.00		(0.29, 3.50)	0.67		(0.18, 2.48)
Women (ref. Men)				1.32		(0.99, 1.76)
Birth cohort (ref. pre-Baby Boomers)						
Baby Boomers				1.02		(0.67, 1.54)
Education (ref. High school diploma or less)						
Some post-secondary				1.68	***	(1.20, 2.34)
Bachelor's degree or higher				1.86	***	(1.25, 2.77)
Quebec (ref. Rest of Canada)				1.25		(1.46, 0.14)
Survey Year 2017 (ref. 2011)				1.06	***	(1.11, 2.33)
<i>Nagelkerke R²</i>		0.04			0.06	

Source: 2011 and 2017 GSS

Note: OR = Odds Ratios; CI = 95% Confidence Interval

Total number of events = 244

*p<0.05, **p<0.01; ***p<0.001

Discussion and Conclusions

This study adds to the small but growing body of theoretical and empirical literature on union and family trajectories and union dissolution in middle and later life within the Second Demographic Transition framework. A dynamic and holistic life course approach was adopted, acknowledging the need to focus on the order, timing, and duration of prior union formation and childbearing events for an understanding of union dissolution outcomes in middle and later life. It therefore considered cumulative and dynamic longer-term trajectories rather than static events as well as the fact that individuals' choices with regard to both union and childbearing transitions are interconnected and interdependent. Family trajectory types were derived based on the number, timing and duration of conjugal partnerships and childbearing events experienced between ages 15 and 50. This typology, together with an indicator of its complexity, was then used to predict differences in marriage and cohabiting union dissolution risks among a national sample of Canadians aged 50 and over who participated in the 2011 and 2017 Canadian General Social Surveys.

Our analyses revealed several significant findings. First, using sequence analysis to group union and childbearing histories similar in occurrence, timing, and sequencing of events, four main trajectories were found to characterize the family life course of respondents when they were aged 15 - 50. On the one hand, these trajectories highlight the heterogeneity of family pathways evident in the earlier stages of the life course for the cohorts (Baby Boom and pre-Baby Boom) included in this study. However, on the other, they also point to the continued dominance of the traditional 'Married with children' trajectory during the earlier stages of the adult life course for these cohorts. Almost 80% of those in our sample of individuals who were in a union at age 50 were in a family trajectory cluster dominated by early long-term marital unions. They were in a

marriage with children for an average of 23.80 years prior to age 50. Thus, individuals in this cluster had and raised children, most often in a single marriage, for most of their adult years prior to age 50.

However, despite the dominance of the ‘Married with children’ trajectory in the earlier stages of their life course, a substantial minority also reported experiencing less traditional family trajectories in their earlier adult years. Almost fifteen percent (14.70%) of those aged 50 and over in the study experienced family trajectories in which cohabiting unions were a significant component. As part of this group, the ‘Single or cohabiting without children’ cluster (9.99%) included individuals who were single or in cohabitation arrangements for many of their adult years before age 50. In addition, just under five percent (4.72%) of the respondents exemplified a ‘Cohabiting with children’ trajectory. This cluster was characterized by giving birth to and rearing children in cohabiting unions for an average of 21.14 years prior to age 50.

Findings of this nature seem to suggest that in earlier years of the life courses of those aged 50 and older, cohabiting unions with children, like marital unions with children, tend to be stable longer-term unions. This, in turn, would appear to contradict claims regarding the generalized instability and short duration of cohabiting unions (Manning, 2020). Importantly, however, the number of unions typically involved in these family trajectories differed. Whereas the vast majority (88.10%) of those in the ‘Married with children’ cluster reported only one marriage and no cohabiting unions during early adulthood, somewhat fewer (57.14%) of those in the ‘Cohabiting with children’ cluster reported only one cohabiting relationship and less than half reported no marriages during this period. Still, for individuals in this latter group, ‘Cohabiting with children’ would seem to represent a long-term and stable alternative to the more traditional ‘Marriage with children’ trajectory. For others, in contrast, this trajectory included time spent in

more than one somewhat shorter-term cohabiting and/or marital relationships (with or without children). In this regard, this latter subgroup appears more similar to those in the ‘Single or cohabiting without children’ trajectory. Overall, these findings point to the diversity that exists within this broader trajectory, a conclusion that is further supported by findings that the trajectory had the highest level of complexity/diversity (entropy) among the four trajectory types identified within the study.

Consistent with the SDT, Baby Boomers were more heavily represented in the ‘cohabiting with children’ and ‘single or cohabiting without children’ trajectories, and their marriage and family histories were significantly more complex than those of pre-Baby Boomers, who were overrepresented in the ‘married with children’ and ‘married without children’ trajectories. In addition, Baby Boomers were more likely to experience marital breakdown than pre-Baby Boomers, a finding consistent with the SDT hypothesis that divorce rates are likely to be higher among more recent birth cohorts.

However, in contrast to the SDT, we still find significant educational differences in the prevalence of different marriage and family trajectories. The findings of the study indicate that individuals with higher levels of education, specifically those with a bachelor’s degree or higher, were more likely to be found in the ‘Single and cohabiting without children’ cluster compared to the other clusters. However, their representation in the ‘Cohabiting with children’ cluster was significantly lower. In contrast, nearly half of the individuals in the ‘Cohabiting with children’ cluster belonged to the least educated group, whereas a lower proportion of the ‘Cohabiting without children’ cluster consisted of individuals from this group. These findings suggest that higher education may play a role in individuals opting for single or cohabiting lifestyles without children, while lower education levels may be linked to cohabitation with children. As well, there

was no difference in the likelihood of marital union dissolution in later life when comparing those who had moderate or higher levels of education to those who lower levels of education while the odds of cohabitation separation in later life were higher for better educated respondents than for those with less education.

In line with the life course framework, our results also underscore the fact that the family life course trajectories experienced earlier in the adult life course, matter for union dissolution in middle and later life. Moreover, their impact on marital and cohabiting unions differs. For example, among those who were married at 50, those whose earlier family trajectories generally fell within the 'Single or cohabiting without children' cluster faced a heightened risk of seeing these marriages dissolve in later life. How do we account for these findings? It is possible that the findings reflect selection effects, with those who are less willing to commit to a relationship being drawn to short-term and transitory unions that do not include parenthood. Consequently, if and when they do marry, they may also be less committed to these relationships and more likely to see these unions subsequently dissolve as well. Alternatively, perhaps it is easier for those whose prior family relationships fall into this cluster to dissolve their unions in later life, having experienced the dissolution of prior cohabiting unions. They are more likely to be familiar with the process involved and also, are potentially less willing to endure an unhappy marriage.

In contrast, when it came to cohabiting union dissolution in later life, it was those who were in the 'Married with children' cluster in earlier adulthood but who were cohabiting by age 50, who were at greater risk of seeing these cohabiting unions subsequently dissolve. This is somewhat surprising if one assumes that those involved in more traditional long-term marital unions in their early adult years would be less likely to dissolve any subsequent unions, whether marital or cohabiting. However, those who were married and had children may find there is a gap

between cohabitation and their view of an ideal conjugal relationship. Research evidence suggests that those who have been through one divorce are more likely to divorce again (Brown and Wright, 2017). This may also apply to subsequent cohabiting unions. Further, it may be that those whose prior family trajectory fell within the ‘Married with children’ cluster were more likely to experience problems associated with bringing stepchildren into the union, thereby leading to subsequent union dissolution (Brown and Wright, 2017).

Previous life course research suggests that more complex and unstable life courses involving frequently changing family situations are likely to have a negative impact on the lives of those involved (Van Winkle and Fasang, 2021). With marital union dissolution conceptualized as a negative outcome, our findings appear consistent with this argument. Even with the type of family life course trajectory taken into account, its complexity was found to be positively related to marital union dissolution in later life: those with more complex trajectories had significantly heightened risks of marital union dissolution in middle and later life compared to those with less complex histories. This is consistent with expectations, based on prior research, that those in more non-standardized and turbulent family life trajectories (that include more states as well as changes in the duration of these states) in earlier adulthood should face an increased risk of union dissolution in later life. This includes evidence indicating that those in marriages of shorter duration and/or in higher-order marriages face a greater risk of later life divorce (Brown and Lin, 2012; 2022; Brown and Wright, 2017; Lin et al., 2018; Wu and Penning, 2018). Importantly, however, this was not the case for cohabiting union dissolution, suggesting that whether complexity has a negative impact varies depending on the context within which it occurs. Perhaps those in cohabiting unions in later life are more used to and therefore, are also less bothered by, shifts in the number and/or duration of previous union and parenting experiences.

Finally, although not the central focus of our study but of interest given the lack of previous research, with union and childbearing trajectories and complexity taken into account, several covariates also emerged as significant correlates of subsequent union dissolution in middle or later life. In some cases, these findings are consistent with those reported in previous studies. These include findings indicating that regardless of the type of trajectory they had experienced during the earlier stages of adulthood, women who were in a marital union at age 50 faced significantly heightened odds of later life divorce compared to men (Brown and Lin, 2012; 2022; Carr, 2019). Yet, this was not the case with regard to cohabiting union dissolution. According to Vespa (2013), this may well reflect the fact that traditionally, marriage tends to favor men, including older men, in ways that cohabitation may not. This includes, for example, differential norms and expectations regarding the provision of support and caregiving throughout life.

Our results also showed that, once the type and complexity of family trajectories experienced in earlier adulthood were taken into account, those in the Baby Boom cohort who were in a union at age 50 were more likely than pre-Baby Boomers to experience marital but not cohabiting union dissolution in subsequent years. Evidence regarding their greater likelihood of divorce appear consistent with previous findings reported by Brown and Lin (2012; 2022) in the US. They and others suggest that such findings may be unique to Baby Boomers, reflecting the high divorce rates that they experienced throughout the adult life course after they “came of age during the rapid acceleration of divorce and remarriage during the 1970s and 1980s” (Brown and Lin, 2012, p. 733). Conversely, our findings would seem to be less consistent with previous findings obtained in the Canadian context indicating that later life divorce as well as cohabiting union dissolution (women only) were less likely among those born in the latter years of the Baby

Boom (1955-1962) than among those born earlier (Wu and Penning, 2018). Differences in our findings could reflect methodological or other factors, including how the cohorts were defined. Additional longitudinal studies are required to address these discrepancies and validate the findings.

The implications of education levels for the risk of union dissolution in later life also remain unclear. For the most part, the risk of divorce appeared to decline with increasing education for the adult population more generally (Lyngstad and Jalovaara, 2010; Teachman, 2002). Studies focusing on late life divorce in the US report similar findings (Brown and Lin, 2012; 2022). Our finding that education was not a significant correlate of marital union dissolution would seem to contradict this. Yet, it appears that the impact of education may vary across countries, potentially reflecting differences in selection processes, the prevalence and acceptability of divorce, as well as the resources required to dissolve a marriage in these different national contexts. For example, a study from the Netherlands reported a positive effect of the wife's higher education on the risk of divorce (Poortman and Kalmijn, 2002). Similarly, in Canada, Wu and Penning (2018) found higher education increased the risk of divorce in later adulthood, but only among older women. They note that, in their study, education could be serving as a proxy for access to economic and other resources that facilitate union dissolution in the context of unsatisfactory unions, suggesting that one reason that more highly educated women are more likely to divorce in later life is that they tend to have the resources required to do so. Thus, since our findings do not address interactions between gender and education, this may be masking its differential implications for marital union dissolution among older women and men.

With regarding to cohabiting union dissolution, although limited in number, previous studies tend to report findings indicating that education, along with other economic resources, tends to be either unrelated to older cohabitators' union outcomes (Brown et al., 2012; Moustgaard and Martikainen, 2009) or evident only within specific age/gender subgroups (Vespa, 2013; Wu and Penning, 2018). Conversely, our findings indicated that those with higher levels of education had significantly higher odds of seeing their cohabiting unions dissolve in later life. The reasons for the differences between our findings and those previously reported could be methodological (e.g., perhaps reflecting differences in the other covariates included in the models). Yet, they appear consistent with the second demographic transition arguments. That is, those with higher education tend to be at the forefront of changes in family life and, in pursuing self-actualization and exercising autonomy, may not only be more likely to explore cohabiting unions but also, to exit from them if and when they fail to meet their needs. Further, to the extent that more highly educated individuals also tend to enjoy better economic, health and social circumstances, these exits may also be easier for them.

Finally, our results confirm previous findings indicating that while Quebec residents are more likely to experience marital union dissolution in later life than are people from other Canadian provinces, this is not the case when it comes to cohabiting unions (Wu and Penning, 2018). The greater stability of cohabiting than marital unions in Quebec has also been reported in previous studies focusing on earlier stages of the life course (Le Bourdais and Lapierre-Adamcyk, 2004; Ménard, 2011). The difference between Quebec and other regions of the country has been attributed to the fact that over time, cohabiting unions have become the norm and an alternative to marriage in Quebec but remain more marginal and more often, a prelude to marriage in other provinces (Le Bourdais and Lapierre-Adamcyk, 2004). According to these

authors, “as direct marriage becomes increasingly unusual, it no longer provides a guarantee of stability and as cohabitation becomes more widespread, it becomes more stable” (pp. 937-8).

In addition, this study also contributes methodologically to research in this area. Sequence analysis outperforms other methodological approaches in life course sociology as it reduces complexity in two ways. First, sequence analysis identifies common life course pathways within a large number of trajectories. Second, sequence analysis allows researchers to analyze life sequences holistically, rather than individually for many events, such as age at first cohabitation, age at first birth, age at first divorce, etc. Thereafter, we can have a better understanding of how previous life events would shape future decision making and how cumulative advantages and disadvantages unfold. European researchers are actively applying this method to identify family life course patterns and how they vary across countries and birth cohorts (Van Winkle, 2018). These studies demonstrate that the transition to adulthood and family formation has shifted from an early and simple pattern to a late and more complex pattern in a number of countries (Billari and Liefbroer, 2010). To our knowledge, this is the first Canadian study to employ these methods and holistically examine family life course patterns and relate them to union outcomes in later life. By including clusters of union histories that emerged from sequence analysis as independent variables in regression models, this study has assessed which combinations of characteristics that tend to appear together matter for union dissolution. As such, sequence analysis serves as an important complement to a more traditional regression approach, which only assesses the importance of each characteristic in isolation or single union transition.

Despite its contributions, several limitations are also noted. For example, while the sample was large and data from two national surveys were pooled to increase overall sample size, small cell sizes also limited the specificity with which certain variables, including family

trajectories, could be measured. With regard to measurement, union and parenting histories were self-reported in the Canadian General Social Surveys, potentially invoking problems of recall error and the under-reporting of family life course events, particularly events of shorter duration or those embedded in more complex partnership histories. Such under-reporting is reportedly most severe among older respondents (Chaloupková and Hašková, 2020; Elzinga and Liefbroer, 2007). Although the transition into parenting in early adulthood was considered, subsequent births were not taken into account in order to keep the number of sequences manageable. Further, only children born into the unions studied were taken into account. Thus, the implications of adoption and/or step-parenting were not considered. As well, this study focused only on respondents and their partnership and fertility histories. Retrospective partner information was lacking in our data sets; yet it would also appear important to examine the role of partner characteristics (e.g., prior unions, children, educational homophily, economic resources, health status) in influencing union dissolution. In addition, because we had to rely on retrospective information, we were not able to control for a number of factors (such as other social, health and economic conditions) experienced earlier in the life course, and that could have had an important impact on subsequent union dissolution in middle and later life.

A final caveat concerns our methodological approach. Whereas sequence analysis enables one to consider the life course more holistically, it does not allow the researcher to examine the impact of each union formation and dissolution event separately. This prevents one from being able to compare some of the results to those reported in other studies. However, there is already a rich literature addressing some of these separate union transitions, while studies that provide a holistic description of the life course trajectories that emerge from these transitions have been scarce and indeed, non-existent when it comes to the later stages of the adult life course. Also,

while clustering various sequences of events together was necessary in order to ensure adequate statistical power for the analyses, the level of diversity and complexity evident in the family life course trajectories that we were able to study was somewhat reduced. Finally, it should be noted that while our analyses addressed the impact of early adulthood family trajectories on later life union dissolution, they did not include these later life union and parenting transitions within the trajectories themselves.

Further research is needed to address the limitations of this study and enhance our knowledge regarding the nature and implications of family life course patterns. Divorce is an increasingly common event in middle and later life and one that will likely impact a growing number of people in the coming years. Given the sheer size of the Baby Boom and older cohorts as well as their increased longevity, even if the divorce rate remains steady, we will witness an increasingly large population undergoing divorce in middle and later life (Brown and Wright, 2017). Cohabitation is also increasing in the later years of life and although such unions currently appear more stable than similar unions established earlier in the life course, our results suggest they may be less stable among those previously married with children. Union dissolution, whether through divorce or separation from a cohabiting union, has important and wide-ranging implications for individuals' economic well-being, physical and mental health, living arrangements, access to care, and need for health and social services in later life (Brown et al., 2020; Lin and Brown, 2021; Margolis et al., 2019; Vespa, 2013). Not all implications will be negative (Manning, 2020) and some social groups will be more vulnerable than others (Tach and Eads, 2015). By continuing to explore how what is happening in earlier stages of the life course – including the increasing diversity and complexity of family trajectories - influence the later years

of life should allow us to better position ourselves to address these needs both currently and in the future.

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Appendix A

Table A1. Cox Model of Marital Separation/Divorce after Age 50

	HR	95% CI	HR	95% CI
Family trajectory (ref. Married with children)				
Cohabiting with children	1.48	[0.88, 2.48]	1.56	[0.93, 2.63]
Single or cohabiting without children	1.93***	[1.42, 2.62]	2.12***	[1.55, 2.89]
Married without children	1.08	[0.75, 1.57]	1.14	[0.78, 1.66]
Complexity (entropy)	5.33***	[2.41, 6.79]	5.98***	[2.59, 6.81]
Women (ref. Men)			1.24*	[1.04, 1.49]
Birth cohort (ref. Pre-Baby boomers)				
Baby boomers			1.75**	[1.62, 1.90]
Education (ref. High school diploma or less)				
Some post-secondary			1.23*	[1.01, 1.51]
Bachelor's degree or higher			1.20	[0.95, 1.52]
Quebec (ref. Rest of Canada)			1.47***	[1.18, 1.82]
Survey Year 2017 (ref. 2011)			1.04**	[1.01, 1.07]

Data Sources: 2011 and 2017 Canadian General Social Surveys – Family

HR = Hazard Ratio; CI = 95% Confidence Interval

*p<0.05, **p<0.01; ***p<0.001

Table A2. Cox Model of Cohabitation Separation after Age 50

	HR	95% CI	HR	95% CI
Family trajectory (ref. Single or cohabiting without children)				
Married with children	1.76**	[1.21, 2.57]	2.08***	[1.39, 3.11]
Cohabiting with children	0.72	[0.46, 1.13]	0.78	[0.49, 1.25]
Married without children	0.91	[0.46, 1.77]	0.96	[0.49, 1.88]
Complexity (entropy)	1.33	[0.42, 4.23]	0.80	[0.24, 2.66]
Women (ref. Men)			1.29	[0.99, 1.68]
Birth cohort (ref. Pre-Baby boomers)				
Baby boomers			1.38	[0.99, 1.99]
Education (ref. High school diploma or less)				
Some post-secondary			1.70***	[1.26, 2.30]
Bachelor's degree or higher			1.82**	[1.27, 2.59]
Quebec (ref. Rest of Canada)			1.19	[0.91, 1.55]
Survey Year 2017 (ref. 2011)			1.01	[0.97, 1.06]

Data Sources: 2011 and 2017 Canadian General Social Surveys – Family

HR = Hazard Ratio; CI = 95% Confidence Interval

*p<0.05, **p<0.01; ***p<0.001

Chapter 5: Summary and Conclusions

Summary of the Results

The study of union and family life today is much more complex than in the past due to unprecedented changes in the timing, duration, and sequencing of intimate relationships. Previously, most people married and formed lifelong families. However, today, other family life trajectories have become more common, including those that involve serial cohabitation, children born out of wedlock, and union dissolution. This dissertation places a spotlight on recent patterns and trends in union and parenting transitions over the life course in Canada. It sheds a light on their prevalence, correlates (including gender, birth cohort, regional, educational, and other factors) and implications in Canada. To address these issues, three interrelated sets of analyses were conducted. All three drew on data from the 2011 and 2017 Canadian General Social Surveys.

The first set of analyses focused on the prevalence of serial cohabitation, its correlates and risk factors, and its impact on first marriage formation in Canada. Over the past few decades, Canada has seen a remarkable increase in cohabitations, especially among young adults in their first unions (Wright, 2019). However, cohabitation has a higher likelihood of separation than marriage (Guzzo, 2014), leading to a significant increase in the overall prevalence of union dissolution. As a result, today's young adults (e.g., Millennials) are more likely to engage in serial cohabitation than earlier cohorts, such as Baby Boomers, prior to their first marriage (Eickmeyer and Manning, 2018).

In Chapter 2, the study presented the first estimates of serial cohabitation prior to first marriage for Canadian women and men in three successive age cohorts (Baby Boomers, Generation Xers, Millennials). The results showed that over half of Canadian women and men in

these cohorts had not experienced cohabitation before marriage and the majority of those who had experienced cohabitation had done so only once. Overall, more than one in ten men (13%) and women (11%) had engaged in serial cohabitation before their first marriage (or at the end of the survey if they were not married). For Baby Boomers, cohabitation was not a prevalent experience. In contrast, for Generation Xers and Millennials, cohabitation gained popularity, with most individuals in these cohorts reporting at least one cohabitation experience. The study found that there was a more than threefold increase in the prevalence of serial cohabitation for both men and women from Baby Boomers to Generation Xers. Overall, just over 18% of women and 20% of men in Generation X reported cohabiting two or more times before marriage. However, there was no notable increase in serial cohabitation from Generation Xers to Millennials.

Both one-time and serial cohabitation were more common in Quebec than in other Canadian provinces, with just under 40% of women and men living in Quebec having cohabited once and about 20% having cohabited twice or more. Our research also revealed that women and men cohabitators born in more recent birth cohorts and living in Quebec were more likely to engage in serial cohabitation. In contrast, those who had lived with their biological or adoptive parents until the age of 15 and those with stronger religious affiliations had a lower propensity for serial cohabitation and were at significantly higher risk of first marriage. This study also showed that the presence of children acted as a barrier for women entering either cohabitation or marriage, whereas for men, it was a barrier to cohabitation but increased the likelihood of marriage, presumably with the mother of the child. The impact of education on union formation also differed between men and women. Cohabitators with a university degree had a higher risk of first marriage in both groups, but women (though not men) with a university degree were also

more likely to engage in serial cohabitation than those with a high school diploma or less education. For both women and men, those with moderate education levels were less likely to engage in serial cohabitation than those with lower levels of education. As well, when considering the effects of immigration, we found that immigrant women were more likely to be married than Canadian-born women, while for men, there were no significant differences in serial cohabitation and marriage between immigrants and Canadian-born individuals.

Finally, when I estimated the joint risks of serial cohabitation and marriage among cohabitators, I found compelling gender variations in the likelihood of serial cohabitation and first marriage. In particular, the findings indicated that women who engaged in multiple cohabiting relationships, also known as serial cohabitators, had a higher probability of transitioning into marriage. Conversely, for men, the relationship was the opposite, with serial cohabitators being less likely to marry.

Chapter 3 turned the focus to issues of childbirth during cohabitation and marriage, focusing on the prevalence, correlates and stability of marital and cohabiting relationships established before and after conception. As the number of young people who are cohabiting has increased, the phenomenon of childbirth during cohabitation has also been on the rise. This indicates a growing acceptance of cohabitation as a suitable setting for childbearing and parenting. However, previous studies have typically focused on couples at the time of birth but have ignored the union transitions that occur between conception and childbearing as well as those associated with non-marital conception. The pregnancy period may be a special time for couples transitioning from one relationship status to another (e.g., from a non-coresidential relationship to a coresidential relationship or from cohabitation to marriage).

The study estimated the prevalence of five types of relationships that women have when giving birth for the first time. These relationships included: (a) pre-conception cohabitations, (b) post-conception cohabitations, (c) pre-conception marriages, (d) post-conception marriages, and (e) pre-conception cohabitation with post-conception marriages. The results showed that Canadian women still tend to have children within the context of marriage. The majority of first births (over 70%) occurred in traditional pre-conception marriages, while approximately 10% of first births occurred in post-conception marriages, and just under 5% occurred among those who were cohabiting at the time of conception but were married at the time of birth. Just over 12% of first births occurred among cohabiting couples, including pre-conception (9.2%) and post-conception (3.2%) cohabitations.

I also investigated the association between relationship type and demographic, socioeconomic and other characteristics. The study showed that compared to those in pre-conception marriages, those in post-conception marriages, those who cohabited before and after conception, and those in pre-conception cohabitation with post-conception marriages were more likely to belong to more recent cohorts. They were also more likely to live in Quebec rather than elsewhere in Canada, to be less well educated, less likely to have been raised by a biological or adoptive parent from birth to age 15, less likely to consider religion important, less likely to be immigrants, and less likely to live in large urban areas.

Next, I examined union outcomes for women who had their first child in a cohabiting or marital relationship, with a focus on the relative importance of timing and partnership type. The results showed that marital unions tended to be more stable, that unions formed after conception had a higher risk of dissolution than those formed before conception, and that this was true for both marital and cohabiting relationships. Moreover, among those in unions at the time of birth,

union type (cohabitation versus marriage) appeared to have a greater impact on the risk of dissolution than the timing of union formation (pre-conception versus post-conception). Other factors that contributed to union dissolution included: belonging to a more recent birth cohort, Quebec residence, lower education, not having lived with both parents as a child, lower religiosity, being white rather than a member of a visible minority, and residence in a large urban centre.

Finally, chapter 4 focused on the implications of the family (union and childbearing) trajectories experienced during the earlier years of the adult life course for union outcomes in the later years of life. Cohabitation and fertility decisions not only have a profound impact on young adulthood, but also on middle-aged and older adults. The term ‘gray divorce’ has been used to refer to divorces that occur among people aged 50 and older (Brown and Lin, 2012). In the past, divorce rates among older adults were comparatively low (Brown and Lin, 2012; Margolis et al., 2019). However, the divorce rate for those aged 50 and older rose dramatically since the early 1990s not only in the US (Brown and Lin, 2012), but also in Canada (Margolis et al., 2019; Statistics Canada, 2022). Research has yet to determine whether similar or different trends are evident with regard to cohabiting union dissolution in later life.

To address gaps in our knowledge regarding the impact of earlier life course transitions (union and childbearing) on union outcomes in the later years of life, I first identified four main union and family trajectories for respondents aged 50 and over. Almost 80% of those in the study sample were grouped into a predominantly long-term marital union and parenting (the ‘Marriage with children’) trajectory. Those in this trajectory had children and raised them in stable marriages for most of their adult lives until age 50. One in ten respondents had been single or cohabiting without children for most of their lives until age 50 (the ‘Cohabitation without

children' trajectory). The 'Marriage without children' trajectory, which primarily consisted of married couples without children, accounted for 7% of the sample. A small proportion of the respondents (5%) belonged to the 'Cohabitation with children' trajectory.

These trajectories varied depending on gender, birth cohort, education and region. As well, those in the 'Single or cohabiting without children' trajectory and those with more complex family trajectories in the earlier years of adulthood were at significantly higher risk of marital union dissolution in middle and later life compared to those who were 'Married with children' in early adulthood, and those with less complex family histories. Gender, cohort and regional differences were also evident with women, Baby Boomers, and Quebecers being more likely to experience later life separation/divorce. Interestingly, however, none of these factors contributed to the likelihood of cohabiting union dissolution in later life. Instead, the findings pointed to the importance of having been married with children prior to age 50 and education levels: those who belonged to the 'Married with children' trajectory for most of their earlier adult years but who were cohabiting by age 50 as well as those with higher levels of education were more likely to report cohabiting union dissolution in later life.

Theoretical Implications

This dissertation drew on three theoretical frameworks to inform the analyses: the Second Demographic Transition, Diverging Destinies, and the Life Course frameworks. Whereas the SDT and DD frameworks were used to guide analyses of the prevalence, correlates and stability of serial cohabitation (Chapter 2) and of pre-conception and post-conception marital and cohabiting unions (Chapter 3), the Second Demographic Transition and Life Course frameworks were used to help frame analyses focusing on the role of union and family trajectories in shaping

union outcomes in middle and later life (Chapter 4). All three contributed to an understanding of recent trends in union and family life in Canada.

The SDT framework provides a lens with which to understand the changes occurring in family dynamics and structures in recent years. It emphasizes the shift away from what were once traditional family forms characterized by early marriage, high fertility, and stable unions, towards non-traditional forms characterized by delayed marriage, lower fertility, increased cohabitation, and higher rates of union dissolution (Lesthaeghe, 2010). Some of the research findings obtained in the three studies reported here align with key concepts and trends identified in the SDT framework. For example, evidence of declining marriage rates, increasing cohabitation and serial cohabitation rates, and higher rates of out-of-wedlock births across cohorts are consistent with the framework's prediction that individuals are increasingly postponing or forgoing marriage in favor of cohabitation due to a greater emphasis on personal autonomy, individual choice, and alternative family arrangements. Moreover, the findings of pre- and post-conception cohabitations and pre-conception cohabitation followed by post-conception marriages among recent cohorts illustrate changing patterns of family formation. They suggest a growing acceptance and normalization of cohabitation as a viable option for starting a family, even in cases where couples eventually transition to marriage. The findings also highlight the long-term consequences of these family dynamics. The more complex family life trajectories experienced by Baby Boomers compared to pre-Baby Boomers, which include a higher likelihood of cohabiting and marital union dissolution, demonstrate the enduring impact of these demographic shifts across the life course. This reinforces the framework's emphasis on the dynamic nature of family structures and the potential implications for relationship stability and outcomes later in life.

In contrast to the SDT framework, which emphasizes the importance of cultural and ideational factors, the DD framework places a stronger focus on economic inequality as a driving force behind recent changes in family life. Rather than attributing these changes solely to shifting values and attitudes, the DD framework highlights the role of economic disparities. According to McLanahan (2004), the DD framework suggests that stable partnerships and higher levels of relationship quality will be more common among families with higher education and relative affluence. On the other hand, working-class and poor families tend to experience higher levels of family instability, single-parent households, and lower relationship quality. As a result, the DD framework posits that marriage, fertility within marriage, and union stability are more prevalent among those who are better off economically. In contrast, cohabitation, non-marital fertility, and union instability are considered more common among those who are less well off.

Several of my research findings support the DD framework. For example, findings indicating that more highly educated individuals are more inclined to enter into marriage rather than cohabitation aligns with the DD framework's emphasis on the role of education in shaping family transitions. Education tends to be positively associated with better economic status, and the preference for marriage over cohabitation among the more highly educated reflects the theory's notion that individuals with greater economic resources may prioritize more formal commitments. In addition, the finding that more highly educated women tend to opt for single or cohabiting trajectories without children but also, have a greater tendency to marry before giving birth aligns with the DD framework's emphasis on economic disparities. Higher education often corresponds with better economic opportunities and resources, enabling individuals to establish stable partnerships before giving birth. The lower rates of out-of-wedlock birth among more highly educated women, despite an overall increase across all education levels, reflect the DD

framework's attention to socioeconomic factors. Similarly, findings indicating that younger women with lower socioeconomic status (e.g., low education, not raised by two parents) are more likely to experience marital/cohabitation union instability also appear consistent with the Diverging Destinies framework.

The finding that education does not significantly impact the likelihood of divorce after the age of 50 suggests that the DD framework may be more relevant in explaining the influence of education on fertility and union transitions in earlier life stages. This highlights the importance of considering the life course perspective and the evolving role of economic factors across different stages of family life. My findings also support the utility of the Life Course framework for investigating the transition from cohabitation or possible serial cohabitation to first marriage and for exploring how early and middle-age family and union experiences may affect future union outcomes. The Life Course framework emphasizes the importance of time, context, and process in understanding individual and collective phenomena. It suggests that family life course trajectories are influenced by the timing, sequencing, and number of family transitions, as well as the historical period in which they occur. The findings obtained in this research highlight the significance of early adulthood family paths for an understanding of the dissolution of unions later in life. What occurs in later life is connected to earlier experiences in adulthood, rather than solely determined by union type (marital or cohabiting) or the presence of children as independent factors. Despite extensive research on these individual transitions, there is a scarcity of studies that take a comprehensive approach to life course trajectories, particularly in the later stages of adulthood. By examining them separately, previous studies have concluded that cohabitation, for instance, increases the risk of union dissolution in later life, without considering whether it was part of a longer-term trajectory dominated by marriage and children, cohabitation

with children, or multiple cohabiting relationships without children. However, my research suggests that the association between cohabitation (or marriage) and late life union dissolution varies based on the preceding family trajectory (in terms of unions and parenting) and the type of union (marital or cohabiting) in later life.

Overall, my findings suggest that each of the three frameworks appears relevant for an understanding of people's union and family transitions. However, despite their support for specific aspects of each framework, there are also several findings that appear less supportive. These include findings indicating that those who lived with both parents before age 15 were less likely to engage in serial cohabitation and more likely to form a first marriage, challenging the SDT view that those from more advantaged backgrounds will be more likely to engage in less traditional unions as well as more recent SDT arguments suggesting that socioeconomic factors may no longer be important. The same is true with regard to findings indicating that whereas the most highly educated women were more likely to engage in serial cohabitation as well as a first marriage than those with the least education, those with moderate education levels had a significantly lower risk of both compared to women with lower education. Although men with intermediate levels of education (post-secondary) were also less likely to engage in serial cohabitation (although not marriage) than those with lower education, men with a university degree did not differ in their likelihood of engaging in serial cohabitation compared to those with low levels of education. Findings such as these suggest a more complex relationship between SES factors and union outcomes than that suggested by either the SDT or DD frameworks on their own. They also suggest the gendered nature of these relationships and therefore, the need to address how gender and education (and/or other socioeconomic factors) intersect to influence union and family transitions.

We should embrace a more intersectional approach that considers the intersections of social categories such as gender, race and ethnicity, and socioeconomic. This can shed light on how diverse social identities and inequalities intersect with demographic behavior, family formation, and life course trajectories. In addition, conducting comparative studies across various socio-cultural contexts can offer valuable insights into the extent to which demographic patterns and processes exhibit universality or context-specificity. Studying the Canadian context allows us to uncover insights that may not be captured by broader international studies. Canada's multiculturalism, diverse population, regional variations, and distinct policy landscapes create a unique social environment that requires tailored examination. Investigating the applicability and relevance of existing theories within the Canadian context will not only enhance our understanding of Canadian society but also contribute to the broader theoretical development by adding a new perspective and expanding the empirical base of knowledge.

Study Limitations

The limitations specific to each study have been discussed in each chapter. However, there are also a number of limitations that are common to all three studies. First, I made use of a large overall sample by pooling data from two national surveys. However, I also encountered small cell sizes in some instances, which reduced my confidence in the results pertaining to specific subgroups within the larger sample. For example, the findings regarding serial cohabiting immigrants may be somewhat unreliable due to a small sample size in that subgroup, thereby impacting the generalizability of the findings to specific subgroups.

Second, in terms of data quality, union histories are self-reported in the General Social Survey, which raises issues of recall errors and under-reporting. Some participants may have

forgotten or deliberately omitted certain aspects of their relationship histories, leading to a potential under-representation of more complex partnership trajectories. Furthermore, recall errors may be more pronounced for individuals with more complex, short-term cohabitation histories, especially if these relationships occurred many years prior to the surveys being conducted. This could result in an incomplete or inaccurate account of their relationship history, which could limit the validity and reliability of our findings. It is important to acknowledge the limitations of the data used in this research and to interpret the results with caution, especially when it comes to more complex partnership trajectories and relationships that occurred further in the past.

Third, although cross-sectional in design, the GSS has the advantage of including retrospective data on union history and fertility. However, it is also limited by the fact that it includes a relatively small number of time-varying measures, such as income or employment trajectories. These variables are likely to be important determinants of the outcomes studied, such as union transitions, and would be useful predictors for modeling these transitions more accurately. Furthermore, a cross-sectional design does not allow one to establish causal relationships between variables, as one cannot determine the order in which events occurred or the direction of causality. Therefore, we acknowledge the importance of obtaining longitudinal data in the future to help establish valid causal relationships between variables. Overall, while the cross-sectional design of the GSS provided valuable data on retrospective union histories, it has its limitations in terms of capturing the complexity of individuals' lives and the factors that influence their partnership trajectories.

Finally, the General Social Survey has limited information available regarding the characteristics of the marital and cohabiting partners of the survey respondents. While I was able

to control for certain factors, such as the respondents' own education, immigration status, and union history, I was unable to account for the potential influence of their partners' characteristics on union transitions and fertility decisions. For example, the education and income levels of an individual's partner may play a significant role in their decisions regarding union transitions and childbearing. Additionally, the immigration status and union history of a partner could also be important factors in determining the trajectory of a relationship. Without this information, the ability to fully understand the complexities of partnership trajectories is limited. While the GSS is a valuable resource for studying these issues, the lack of detailed information regarding partners' characteristics is a significant limitation that should be taken into account when interpreting our findings.

Policy Implications

Although this dissertation has some limitations and further research is necessary, its findings have significant policy implications. Decisions regarding union formation, dissolution, and fertility are usually made at the individual or couple level, but social policies surrounding these issues can have different effects on individuals from different social backgrounds. For example, policymakers have often assumed that marriage is the solution to problems related to union instability and/or single parenthood. However, this ignores the difficulties that less advantaged people may face in forming stable and satisfying intimate relationships. Nowadays, marriage often requires a solid economic foundation, which, in turn, depends on receiving a good education and obtaining a stable job. Higher education can lead to better employment opportunities, so instead of implementing policies to encourage less advantaged people to marry

instead of cohabiting, increasing funding for post-secondary education and labor market training would be a better alternative. This will better equip economically disadvantaged people, including women, with the necessary skills to lift themselves out of poverty, rather than relying on a marital union to provide economic stability. In short, policymakers should focus on creating policies that will increase economic opportunities and reduce inequality, rather than promoting marriage as the solution to social problems.

Our findings in Chapter 2 suggest that cohabitation, including serial cohabitation, is becoming increasingly common. However, legislation has not kept up with this trend. In Canada, when married couples divorce, assets accumulated during the marriage are divided equally. Unfortunately, this is not the case for common-law/cohabiting couples in most parts of the country. As a result, people who live in such unions often have to go through expensive and lengthy legal proceedings to obtain their fair share of the property (CBC News, 2022). Only a few provinces and territories (such as British Columbia, Saskatchewan, Manitoba, Nunavut, and the Northwest Territories) have changed their laws to provide common-law/cohabiting couples with the same property rights as married couples in the event of relationship dissolution (Raymer, 2019). The discrepancy in legal rights between common-law/cohabiting and married couples is an important issue that needs to be addressed. It is essential for provincial governments to make progress in amending legislation to ensure that cohabiting couples are treated fairly.

Moreover, while cohabitation can provide individuals with a means to test their compatibility before committing to marriage, serial cohabitation has been linked to higher risks of relationship instability and lower levels of relationship quality. Policymakers could focus on developing interventions and programs that promote healthy and stable relationships among

individuals who engage in serial cohabitation. This could include relationship education and counseling, which could help individuals develop stronger communication and conflict resolution skills. However, it is also important that policies targeting serial cohabitation be carefully designed and implemented in a manner that is sensitive to the needs and preferences of diverse individuals and families.

Non-marital fertility has become increasingly common in Canada as suggested by Chapter 3 and this trend has significant policy implications, particularly in terms of providing adequate support and resources for economically disadvantaged parents and their children. One potential policy solution is to provide greater access to affordable childcare and early childhood education, which can help support parents who may face challenges balancing work and childcare responsibilities. Additionally, policies that provide financial support to low-income parents, such as tax credits and child benefits, can help alleviate the financial burden of raising a child. Furthermore, policies aimed at increasing access to education and employment opportunities, particularly for women, can provide individuals with the resources and skills necessary to achieve economic stability and make informed decisions about family formation and childbearing.

Finally, as outlined in Chapter 4, divorce is an increasingly common event in middle and later life and one that will likely impact a growing number of people in the coming years. Cohabitation is also increasing in the later years of life. Union dissolution, whether it be through divorce or separation from a cohabiting union, has important and wide-ranging implications for individuals' economic well-being, physical and mental health, living arrangements, access to care, and need for health and social services in later life (Brown et al., 2020; Lin and Brown, 2021; Margolis et al., 2019; Vespa, 2013). Policymakers need to ensure that older adults who

divorce have adequate financial resources to support themselves in retirement. This may involve increasing access to retirement savings plans, pension benefits, and other forms of financial assistance for older adults who have experienced a divorce later in life. In addition, policymakers should also address the healthcare needs of older adults who divorce. It is essential to provide older adults who have experienced divorce or cohabitation union dissolution with affordable healthcare services, including mental health services, as they may have higher rates of chronic health conditions and mental health problems. This can help to ensure that they receive the necessary support to manage their health and well-being effectively.

Future Research

Suggested directions for future research specific to each study have been discussed in each chapter. In addition, however, this dissertation not only expands our understanding of conjugal partnerships, fertility, and union stability across the life course in Canada, but also leads to other important research questions that should be addressed in future research. For example, serial cohabitation is an emerging trend that requires further investigation in Canada. In the future, it would be beneficial for research to delve into the underlying factors that lead to serial cohabitation and how this pattern of behavior affects individuals and their families across different socioeconomic strata and in different contexts. For example, further research comparing the implications of education and other socioeconomic factors on serial cohabitation across cohorts in Quebec versus other Canadian provinces would be helpful. Future studies could also explore the link between serial cohabitation and the stability of subsequent relationships, as well as the impact of this behavior on mental health and well-being. Additionally, researchers could investigate the role of social and cultural factors in shaping attitudes towards serial cohabitation

and how they may vary across different demographic groups. By addressing these questions, we can gain a better understanding of the phenomenon of serial cohabitation and develop effective policies and interventions to support individuals and families in navigating this aspect of contemporary partnership dynamics.

In the future, there is also a need for ongoing research to explore the union transitions that occur between conception and childbearing in Canada, particularly among Millennials. This is an important area of study as it will help us to better understand the complexities of fertility decision-making and how it is influenced by the formation and dissolution of intimate relationships. Research in this area could investigate factors that influence the timing and type of union transitions, such as the age and education of the individuals involved, their relationship quality and duration, as well as socio-cultural and economic factors. This research could also explore the impact of union transitions on fertility outcomes, such as the likelihood of having a child, the timing of childbearing, and the number of children born. Understanding these dynamics is critical for developing effective policies and programs aimed at supporting individuals and couples in their family formation decisions.

In the future, more research is also needed to better understand the factors that contribute to union dissolution in middle and later life in Canada. While some studies have explored the role of individual and couple-level factors such as health, financial strain, and relationship satisfaction, there is a need to examine the larger social and cultural contexts that may shape these decisions. For example, research could investigate the role of changing social norms and expectations around marriage and relationships in middle and later life, as well as the impact of family support and intergenerational relationships on union dissolution outcomes. Furthermore, studies could explore the potential long-term consequences of union dissolution on older adults'

well-being, including their economic security, social connectedness, and physical and mental health. Understanding these complex issues is essential for developing policies and interventions that support older adults going through union dissolution and promote their overall well-being.

The three analytical chapters presented in this dissertation offer valuable insights into adult and family transitions over the past few decades and underscore the significance of examining cohort effects. However, period effects also need to be addressed. It is worth noting that the data used for this analysis were collected before the onset of the COVID-19 pandemic. However, the pandemic has had a significant impact on various aspects of social life, including through increased unemployment rates, financial distress, social isolation, and heightened uncertainty about the future. Evidence suggests that the impact of the pandemic is not evenly distributed, with more marginalized groups experiencing the most severe health, social, and economic repercussions (Kantamneni, 2020). Given the widespread economic uncertainty and prolonged social isolation resulting from the pandemic, it is plausible that union formation and dissolution patterns as well as fertility behaviors among adults may change as a result, albeit the mechanisms underlying these changes are unclear. Hence, future research needs to consider this crucial period effect to track how family dynamics evolve in response to the crisis.

The COVID-19 pandemic has brought about increased uncertainty and instability in the labor market, which has been linked to delays in childbearing (Aassve et al., 2020; Comolli and Vignoli, 2021; Matysiak et al., 2021). Prior to the pandemic, it was observed that individuals who experienced unemployment tended to postpone having children in several European countries (Alderotti et al., 2019). This is likely due to the loss of income and heightened uncertainty about future job opportunities, especially among men. Recent research from Statistics Canada (2021) has shown that the fertility rate in Canada has declined to a record low of 1.40

children per woman in 2020, down from 1.47 in 2019. If the fertility rate continues to decrease, it may exacerbate population aging in Canada, leading to increased pressure on public healthcare, the labor market, and pension systems. Further research is necessary to understand how individuals' fertility plans have changed due to the pandemic, the sociodemographic characteristics of those who have altered their fertility intentions, and the potential long-term consequences of the pandemic on fertility rates.

The COVID-19 pandemic has also put an enormous amount of stress on families, which may have increased the likelihood of union dissolution. Studies conducted prior to the pandemic have shown a strong correlation between economic recessions and the probability of couples getting divorced (Cohen, 2014). Economic hardship can create stress within a marriage, leading to an increased risk of marital conflict and ultimately, divorce (Hardie and Lucas, 2010). However, job loss can also make divorce costly in terms of legal fees, housing, and childcare, among other things. This can result in financial barriers that make it difficult for some people to consider divorce during a recession (Cohen, 2014). The pandemic's impact on couples' relationships is an important area for future research, particularly in understanding the effects of economic stress and job loss on union dissolution.

The pandemic lockdowns and social distancing measures led to couples spending more time together at home and shifting to remote work. However, studies have shown that although men spent more time at home, there was only a slight increase in their participation in additional housework and childcare tasks (Sevilla and Smith, 2020). As a result, women have had to shoulder the majority of these responsibilities, which is consistent with pre-pandemic gender norms (Dunatchik et al., 2021). Such an increasingly unequal distribution of household tasks is

likely to be associated with depression, marital dissatisfaction, and an increased risk of divorce (Ruppanner et al., 2018).

The full extent of the pandemic's impact on union dissolution is only now beginning to emerge, as it takes time for individuals to decide to separate, and there is a one-year separation requirement before filing for divorce. There are no official records on separation, and divorce statistics are the only available annual statistics on marital dissolution. In 2020, there was a significant decline in divorces in Canada, with 42,933 recorded, compared to 56,937 in 2019 (Statistics Canada, 2022). Difficulties in accessing court services during the pandemic lockdown may have contributed to this decline (Statistics Canada, 2022). While there were fewer divorces during the initial pandemic months, it remains uncertain whether these divorces were merely postponed or if they will never occur. Thus, it is too early to determine the overall impact of the pandemic on separation and divorce rates in Canada, and further research is greatly needed.

Conclusion

In summary, this PhD dissertation has provided valuable insights into the changing dynamics of family transitions and their consequences in Canada over the past few decades, focusing specifically on union transitions, dissolution, and the impact of fertility on these trends. However, there is still a need for ongoing research to track the emergence of new forms of intimate relationships and their implications for different subgroups. Overall, this dissertation contributes to our understanding of family transitions in Canada and provides essential guidance for policymakers in navigating periods of transformation and uncertainty.

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