

LIVING APART TOGETHER IN CANADA: A NATIONAL PORTRAIT

by

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BA, University of Winnipeg, 2013

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Abstract

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Living apart together (LATs) refers to individuals (couples) who are in intimate relationships and do not share the same household. Over the last two decades, LATs have become a new emerging family form in Western societies. Previous research on LATs is generally limited to small-scale surveys and qualitative studies. There are virtually no national studies on this topic using representative data. In this study, I document the incidence and trends of LATs, and provide a national profile of the individual-level characteristics that are associated with those who live in LAT relationships, as well as examine how people from a LAT union differ from those who are married, cohabiting or single. Data from the Canadian General Social Survey (Cycle 25), conducted by Statistics Canada in 2011 is used. The regression results show that LATs are not an alternative to co-residential relationships nor to singlehood. The rate of LATs is associated with age, presence of children, income, main activity, education, place of residence, religiosity and religious affiliation. The implications of these finding are discussed in the context of future families.

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Chapter One

1 Introduction

1.1 Background to this Study

The ways in which we structure our intimate relationships have changed and diversified across developed countries in the later 20th century. Although marriage was considered the dominant partnership for the majority of the 20th century, due to the Second Demographic Transition, new patterns have been emerging, characterized by a decline in lifelong marriage, increases in sexual intercourse outside of marriage, increases in divorce rates and in the prevalence of unmarried cohabitation (Bumpass & Lu, 2000; Lesthaeghe, 1995; Kiernan, 2004; van de Kaa, 1987). Cohabitation has become a preferred route toward marriage for many but can occur at any point in the life course (Bumpass & Lu, 2000). In Canada (Quebec excluded), the percentage of people cohabiting had more than doubled from approximately 6% in 1981 to about 12% in 2001 (Le Bourdais & Lapierre-Adamcyk, 2004). Other Western countries also reported similar percentages including the United States (Bumpass & Lu, 2000), Britain (Berrington, 2001), and European countries such as West Germany and the Netherlands (Kiernan, 2004). Furthermore, in some developed countries, more people have started to engage in serial cohabitation (Cohen & Manning, 2010; Lichter et al., 2010; Vespa, 2014). As cohabitation has become morally accepted (Duncan, Barlow, & James, 2005; Jamieson et al., 2002; Lewis, 2001) and almost completely normalized (Ermisch & Francesconi, 2000), theories have been developed to help explain the choice between marriage and cohabitation, and the varied definitions of cohabitation (Bianchi & Casper, 2000; Heuveline & Timberlake, 2004; Klijzing, 1992; Manning & Smock, 2005; Rindfuss & VandenHeuvel, 1990). These early studies depict cohabitation

several ways: as an alternative to marriage, a temporary stage in the marriage process, a trial marriage or an alternative to singlehood.

Until more recent years, family demographers and sociologists have paid little attention to so called LATs, that is, two individuals who are in an intimate relationship but live in separate households (Strohm et al., 2009). These relationships are sometimes referred to as non-residential partnerships (Castro-Martin, Dominquez-Folgueras, & Martin-Garcia, 2008). This new form of partnership has challenged the traditional assumption of Western demographic research that two individuals must live together in order to be considered a couple (Strohm, et al., 2009). Strohm et al. (2009) state that sharing a household is likely to mean that two individuals are willing to make a commitment, share living expenses and foster intimacy. Consequently, LATs appear to be part of the Second Demographic Transition that marks the change of how couple relationships are defined (Lesthaeghe, 1995; van de Kaa, 1987). Nevertheless, being in a LAT relationship does not mean that individuals are rejecting partnerships; instead they are seeking intimate relationships that do not involve sharing the same household (Strohm et al., 2009).

Moreover, LAT relationships raise many questions that were similar to those asked when researchers began studying cohabitation a few decades ago (Haskey & Lewis, 2006; Reimondos, Evans, & Gray, 2011). Whether people choose a LAT relationship as a short-term transitional stage towards marriage or cohabitation (e.g. due to working or studying locations) or as a long-term new living strategy (e.g. independence or autonomy), has become one of the most debated issues surrounding LAT relationships (De Jong Gierveld, 2008; Duncan et al, 2013; Haskey & Lewis, 2006; Levin & Trost, 1999; Roseneil, 2006). Additionally, much of the growing body of research on LATs is devoted to defining LATs, as well as the demographic, socioeconomic and

cultural characteristics of people in LATs (Ermisch & Seidler, 2009; Haskey, 2005; Haskey & Lewis, 2006; Levin, 2004; Levin & Trost, 1999; Roseneil, 2006). As LATs have become a recognized and emergent living arrangement in most Western countries, it is important for demographers to identify these new family forms, because living in separate households while remaining in an intimate relationship may have implications for individual well-being as well as social policies.

1.2 Objective of the Study

Studies on LATs have been conducted in countries such as Sweden (Levin & Trost, 1999), Denmark (Levin, 2004), Great Britain (Duncan & Phillips, 2008), Australia (Reimeidos, Evans, & Gray, 2011), and the United States (Strohm, Seltzer, Cochran, & Mays, 2009). As yet, little is known about the prevalence of LATs in Canada, and about the characteristics of individuals in LATs. This thesis aims to provide insight into the phenomenon of LATs by addressing the following two questions: First, what demographic, socioeconomic and cultural characteristics are associated with individuals in LAT relationships. Second, how do those who are in LATs differ from those who are married, cohabiting or single? To answer these two questions, I draw upon data from the 2011 Canadian General Social Survey (GSS-25) conducted by Statistics Canada. These data feature a representative and unique sample that provides insight into individuals' responses on LAT relationships in Canada.

1.3 Contributions

This thesis contributes to the literature in two important respects. First, previous research on LATs is generally limited to small-scale surveys and qualitative studies. To my knowledge, this thesis is one of the very few studies on LATs in Canada using nationally representative data and

thus it will add to our understanding of partnerships. Second, unlike most previous studies on LATs (Castro-Marin, Dominguez-Folguers, & Martin-Garcia, 2008; Regnier-Lollier, Beaujouan, & Villeneuve-Gokalp, 2009), I not only compare them to co-residential relationships such as marriage or cohabitation, but I also compare LATs to people who are unmarried (also see Strohm et al., 2009; Liefbroer et al., 2015). By comparing the profiles of LATs with married and cohabiting as well as single individuals, it may allow me to observe whether LATs are an alternative to a co-residential union or an alternative to singlehood (Rindfuss & VandenHeuvel, 1990).

1.4 Summary

The thesis includes seven chapters in total. Following the introduction, chapter 2 reviews existing research findings on LAT relationships. In the third chapter, I provide theoretical frameworks for analyzing LAT relationships and present relevant hypotheses. Chapter 4 outlines the data and methods used in the study. Chapter 5 presents the results based on statistical analysis while in the chapter 6, I discuss the findings. Chapter 7 concludes with a discussion on the limitations of the analysis.

Chapter Two: Review of Literature

2 Introduction

There are several pertinent bodies of literature when exploring Living Apart Together (LAT) relationships. More specifically, this review of the literature includes the following sections: 1) the origin of LATs; 2) defining and measuring LATs; 3) demographic, socioeconomic and cultural characteristics; 4) distance between homes, frequency of meetings and union duration; 5) sexual orientation; 6) reasons for not living together; 7) criticism of LATs; 8) attitudes toward partnering and commitment; 9) attitudes toward family conventionality and liberalism; 10) intentions to live together, and finally; 11) summary of empirical findings.

2.1 The Origin of LATs

The term Living Apart Together (LAT) was derived from the Netherlands in 1970s (Levin & Trost, 1999; 2004). A Dutch journalist loved a woman very much; they tried to spend as much time as they could under the circumstance in which they could not move in together. The journalist realized that the living arrangement he had experienced was not common so he decided to write an article about it. While he was trying to find a term to describe the relationship, one of the editors suggested the term Living Apart Together. Once a term is given a name or a label, it then becomes easy to recognize and accept (Strauss, 1959; Stryker, 1980) and this is precisely what happened to LATs. The value attached to the term increased since the phenomenon was no longer referred to as odd or unusual. Therefore, people not only started to recognize the term of Living Apart Together, but also evaluated the term positively (Strauss, 1959; Stryker, 1980).

2.2 Defining and Measuring LATs

To date, it has been a difficult task to provide a standard definition for LAT relationships since most scholars define and measure LATs differently. Therefore, it is challenging to compare study results directly (Upton-Davis, 2012).

Levin and Trost (1999) included both married and non-married couples in the definition of LATs and defined LATs as “a couple which does not share the same household; both of them live in their own households, in which other persons might also live; they define themselves as a couple; and they perceive that their close social network also does so” (p.281). Additionally, they define a Living Apart Together relationship as constituted by either same sex couples or opposite sex couples.

According to Levin and Trost (1999), married couples could be in a LAT-like relationship. During the 1970s, so-called commuter marriage or Living Together Apart rose dramatically and at that time considered a temporary form of living arrangement in most Western countries (Gerstel & Gross, 1984; Winfield, 1985). Living apart was normally caused by external constraints, mostly work related reasons. It often occurred that one of the partners was unable or unwilling to move with their spouse to a new work location (Gerstel & Gross, 1984; Winfield, 1985). Nowadays, commuter marriage or Living Together Apart is rare, with about 3% of married couples living in this kind of arrangement in the U.S. (U.S. Bureau of the Census, 2006). Similarly, in Canada, less than 1% of people aged 20 and above are in a commuter marriage, which accounts for about 240,000 Canadians (Turcotte, 2013). Couples in commuter marriage or Living Together Apart are more likely to end in marital dissolution (Rindfuss & Stephen, 1990).

In 2003, Milan and Peters (2003) redefined LATs by excluding people who were either married or cohabiting, “couples live in separate residences while maintaining intimate

relationship” (p. 2). Previously, this kind of living arrangement was regarded as part of the “going steady” process. It was a temporary and earlier stage towards co-residential relationships (Milan & Peters, 2003). Nowadays, LATs are considered a more permanent partnership for individuals who do not want to or are unable to share the same household (Milan & Peters, 2003).

In addition to Milan and Peters (2003), Haskey (2005) also argued that the previous definition cannot accurately measure the prevalence of LATs due to the fact that individuals answer the questions regarding LATs subjectively. Based on previous studies, a substantial amount of LAT couples are young students who are the children of the Household Reference Person (Haskey, 2005; Levin & Trost, 2004). Since most of young students regard LATs as a temporary stage towards cohabitation, Haskey (2005) therefore excludes these individuals from LAT couples. Although, as Levin and Trost (1999; 2004) suggested above, some married couples also prefer to be in this kind of partnership, however, LATs by nature are used to describe individuals who are neither married nor cohabiting. Therefore, married people are also excluded from LAT couples. Furthermore, LATs are not intended to portray people who are married but there is a possibility that a person is single who considers himself/herself in a LAT relationship when his/her partner is either married or cohabiting with another person. Based on the empirical evidence in Britain, about 15% of men and 9% of women who are in LATs are in this kind of relationship, which is also known as having an affair (Johnson et al., 2001).

After considerable debate on how to define and measure LATs, researchers generally agree on the following definition, “LAT unions are intimate relationship between unmarried partners who live in separate households but identify themselves as part of a couple” (Strohm et al., 2009, p.181). This is the definition I will be using in my thesis. Furthermore, LAT unions may also be

referred to as non-residential partnerships (Castro-Martin et al., 2008).

2.3 Demographic, Socioeconomic and Cultural Characteristics

2.3.1 How Many LAT Relationships are there?

A sizeable amount of research has been conducted on LAT relationships in countries such as Sweden (Karlsson & Borell, 2002; Levin & Trost, 1999), Norway (Noack & Seierstad, 2003), Germany (Schneider, 1996), Belgium (Bawin-Legros & Gauthier, 2001), France (Caradec, 1996; Régnier-Loilier, Beaujouan, & Villeneuve-Gokalp, 2009; Villeneuve-Gokalp, 1997), Canada (Milan & Peters, 2003; Turcotte, 2013), the United States (Binstock & Thornton, 2003; Rindfuss & Stephen, 1990; Strohm et al., 2009; Liefbroer, Poortman, & Seltzer, 2015); Australia (Borell & Ghazanfaraeeon Karlsson, 2003; Glezer, 1997) and Britain (Duncan & Phillips, 2010; Haskey, 2005).

Sweden was one of the first countries to study LAT relationships (Levin & Trost, 1999). According to the 1993 Omnibus Survey in Sweden, approximately 4% of adult respondents claimed that they were in LAT relationships (Levin & Trost, 1999). However, due to the limitation of the definition of LATs and the unfamiliarity with the term by the respondents, the number of people in LAT relationships was actually less than 4%, accounting for approximately 60,000 couples in Sweden (Levin & Trost, 1999). More specifically, some respondents considered themselves to be in a LAT relationship if their partner was hospitalized long-term. Similarly, respondents also regarded themselves in a LAT relationship if one of the partners was in the military and only came home on weekends. Moreover, it was often found that people in commuter marriages or Living Together Apart thought they were in LAT relationships. Based on a clearer definition of the term, according to the 2001 Swedish Opinion Research Survey, about

14% of the adult respondents who were neither married nor cohabiting were in LAT relationships (Levin & Torst, 2004).

LAT studies have also been conducted in other European countries. According to the Family and Fertility Survey (FFS) in the 1990s, about 33% of the adult respondents in EU who were neither married nor cohabiting were in LAT relationships (Gonzalez-Lopez & Solsona-Pairo, 2000). More specifically, in Italy, approximately 46% of people between the ages of 20 and 34 who were not married or cohabiting were in LATs, followed by 37% of people in the same age group in Spain, and 32% of those in former West Germany. In France, a 1994 study reported that about 6% of the adult respondents were in LAT relationships (Caradec, 1996). In German, Schneider (1996) conducted a study in 1994 and found that approximately 9% of total population between the ages of 18 and 61 were in LATs. Similarly, according to the 2006 General Social Survey in Germany, about 6% of the adult respondents were in LAT relationships (Reuschke, 2010). In Norway, Levin and Torst (1999; 2004) suggested that in 1996 approximately 8% of the adult population were in LAT relationships. According to the 2002 Omnibus Survey in Britain, approximately 25% of individuals aged 16 to 59, were neither married nor cohabiting and were not the children of the household reference person, but were in LAT relationships (Haskey, 2005). Similarly, based on the 2006 BSAS, about 10% of the British population were in LAT relationships which accounted for 25% of those were neither married nor cohabiting (Duncan & Phillips, 2010).

LAT relationships have also been studied in North America. In Canada, according to the 2001 General Social Survey, approximately 8% of the adult population who were neither married nor cohabiting were in LAT relationships (Milan & Peter, 2003). By 2011, the number of people in LAT relationships decreased slightly by 1%, accounting for 1.9 million Canadians (Turcotte,

2013). In the United States, the 1996 and 1998 General Social Survey showed that approximately 7% of adult women and 6% of adult men were in LAT relationships, meaning that overall, 35% of U.S. adults who were neither married nor cohabiting were in LAT relationships (Strohm et al., 2009).

Regarding the incidence of LAT couples in Australia, the 2005 Household, Income and Labour Dynamics wave 5 showed that 9% of the adult population were in LAT relationships which accounted for 24% of those who were neither married nor cohabiting (Reimondos, Evans & Gray, 2010).

2.3.2 Age

LATs as a social phenomenon are more prevalent among young individuals (Milan & Peters, 2003; Turcotte, 2013). Based on a 2001 Canadian survey, about 56% of LAT couples are between the ages of 20 and 29 (Milan & Peters, 2003), the proportion decreased to 48% in 2011 contributed to the fact that more young people decided to remain single (Turcotte, 2013). In addition, in Britain, about 47% of individuals under the age of 25 are in LAT relationships, followed by 35% of those between the ages of 25 and 34 and 27% of those above the age of 35. However, if we exclude individuals who are either the children of the Household Reference Person or full time students, the number of people in a LAT relationship under the age of 25 would be reduced from 47% to 15% (Haskey, 2005).

Similar high percentages are also reported in France with approximately 72% of men and 68% of women under the age of 25 reporting that they are in LAT relationships, followed by 38% of men and 33% of women between the ages of 25 and 29 and 12% of men and 13% of women between the age of 30 and 39 (Régnier-Loilier et al., 2009). More specifically, 99% of those under the age of 25 have no co-residential experiences nor any children (Régnier-Loilier et

al., 2009). Women are more predominate in this category because they often start their conjugal lives earlier than men (Régnier-Loilier et al., 2009). Due to the age of people in this category, in 75% of these couples, at least one of the partners is a student (Régnier-Loilier et al., 2009).

Nevertheless, Living Apart Together among elderly individuals is not uncommon (De Jong Gierveld, 2004; Davidson & Fennell, 2002; Duncan & Phillips, 2010; Karlsson & Borell, 2002; Turcotte, 2013). In the Netherlands, according to the Living Arrangements and Social Networks Survey in 1992, which focused on the partnership among older people after divorce or widowhood, approximately 24% of those aged between 55 and 89 were in LAT relationships (De Jong Gierveld, 2004). In Britain, 13% of respondents between the age of 55 and 64 are in LAT relationships (Duncan & Phillips, 2008). However, the Canadian General Social Survey in 2011 reported that only 2% of the adult population who were 60 years of age and older were in LAT relationship, which had increased slightly compared 2001 (Turcotte, 2013).

2.3.3 Financial Environment

Given the fact that it is more expensive to maintain two households, those who are financially affluent maybe more likely to be in LAT relationships (Milan & Peters, 2003). In addition, people in a good financial situation may be better able to keep a long distance LATs working since this requires certain travel and telephone expenses (Levin & Trost, 1999; 2004). However, according to Canadian data, LATs could be a living arrangement for people with varying financial statuses (Milan & Peters, 2003). More specifically, 40% of those in a LAT relationship have personal income below \$20,000, followed by 34% having a personal income between \$20,000 and \$40,000, 16% have personal income between \$40,000 and \$60,000, while only 10% of those in a LAT relationship have a personal income above \$60,000.

2.3.4 Employment

Along with financial status, employment is also an important factor for people in LAT relationships. Haskey and Levin (2006) and Reimondos et al. (2010) stress that regardless of gender, people in LAT relationships are more likely to be employed than other co-residential relationships. In addition, LATs are more likely to hold managerial and intermediate occupations than are those in a co-residential relationship. Similarly, the proportion of people in LAT relationships who are in manual labor and unemployed are much less likely than those who are either in a cohabiting or marital relationship. Therefore, individuals in LAT relationships are more likely to be employed and to have higher socioeconomic status occupations.

2.3.5 Education

LATs also seem to select individuals who are more educated (Castro-Martin et al., 2008; Duncan & Phillips, 2010; Haskey & Levin, 2006; Ermisch & Seidler, 2009; Reimondos, Evans & Gray, 2011). In Britain, Haskey and Levin (2006) suggest that individuals in LAT relationships who are between 25 and 44 year of age, spend a full year longer in secondary school than their counterparts who are in cohabitation. In the United States, Strohm et al. (2009) suggest that both men and women who are in LAT relationships are more likely to have a college degree than those in cohabitating relationships (33% vs. 18% for women; 29% vs. 16% for men). In Australia, people in LAT relationships are less likely to have lower than 11 years of education (Reimondos et al., 2010). Lieffbroer et al., (2015) found that people with higher education are more likely to be in LAT relationships compared to any other co-residential relationship whereas other socioeconomic factors were associated more with co-residential relationships.

2.3.6 Ethnicity

Among LAT individuals in the US, women are more ethnically diverse than those in either marriage or cohabitation (Strohm et al., 2009). More specifically, 58% of American women in LAT relationships identify themselves as white compared to 85% of those who are married and 80% of those who are cohabiting, whereas 75% of American men in LAT relationships identify themselves as white.

2.3.7 Religious Attendance

Regardless of gender, widowed people are most likely to be religious. Based on the 2006 BSAS in Britain, about 18% of widowed people attended church services at least once per week, followed by 15% of married people, 12% of single people, 8% of LAT individuals and 1% of those in cohabitating unions (Duncan & Phillips, 2010).

2.3.8 Marital History and Presence of Children

LATs are more prominent among individuals who have experienced co-residential partnerships (Castro-Martín et al., 2008). In France, only 8% of men and women who are in LAT relationships have no co-residential relationship history compared to 19% of men and women who have experienced co-residential unions with no children, and compared to 19% of men and 25% of women who have experienced marriage with children and to 26% of men and 29% of women who have experienced cohabitation with children.

Among women, there is little difference regarding the union status and the presence of children (Strohm et al., 2009). That is, 45% of women in LAT relationships are living with children compared to 50% of those in marriage and 52% of those in cohabitation, whereas only

9% of men in LATs are living with children compared to 49% of those in marriage and 39% of those in cohabitation. However, according to the 2005 HILDA in Australia, people in LAT relationships were less likely to have children compared to those who were married or cohabiting (Reimondos et al., 2011).

2.3.9 Additional Details

LAT couples are more likely to live in urban areas than those who are in a married union (Strohm et al., 2009). There are similarities between people in LATs and other marital statuses. On the one hand, people in LAT relationships are similar to cohabitators who are less likely to grow up in a home with both parents (Strohm, et al., 2009). On the other hand, LAT individuals resemble people who have never been either married or cohabiting. That is, they are similar in average age, education and racial composition (Strohm et al., 2009).

2.4 Distance between Homes, Frequency of Meetings, and Union Duration

2.4.1 Distance between Homes

In terms of the distance between LAT couples, a recent study in France found that for approximately 40% of couples, the distance between the two homes is less than a 15 minute drive, while for 26% the distance is between 15 minutes to 1 hour, 15% live a distance of between 1 to 2 hours and 18% live a distance of 2 hours or more (Régner-Loilier et al., 2009). Similarly, according to the 1994 Family Survey in Germany, the majority of LAT couples lived close each other (Reuschke, 2010). More specifically, only 10%-20% of LAT couples were more than a one hour's drive apart. Another study in Australia shows that about 25% of LAT couples live less than 10 minutes drive from one another with the median time being 20 minutes. In

Canada, about 45% of LAT couples live in the same neighborhood, followed by 34% of those between 30 and 60 minute drive and 20% have at least one hour drive (Turcotte, 2013). In Australia, about 75% of people in LAT relationships live in the same city with their partners compared to 15% who live in different cities in the same state, 2% who live in different states and 5% who live overseas (Reimondos et al., 2010).

2.4.2 Frequency of Meetings

In addition to distance between residences, some studies also focus on frequency of meetings. In France, nearly half of LAT couples are able to see each other at least three times a week whereas 17% can only see each other once per week (Régnier-Loilier et al., 2009). About 33% of young adults are able to see their partners daily, which is likely a result of the majority being students who attend the same school as their LAT partners (Régnier-Loilier et al., 2009).

Similarly, according to Australia data, although LAT couples do not share the same household, most see each other frequently. About 75% of LAT couples meet at least three times per week and many of them meet daily. In addition, the frequency of contact is related to age (Reimondos et al., 2011). That is, LAT individuals age 35 and younger years of age meet their partners most frequently. A possible contributing factor is that most of these LAT people work at the same place or go to the same school (Reimondos et al., 2011). On the contrary, people over 35 years of age meet up with their LAT partners less frequently. This might be due to the presence of children and therefore the desire and need to spend a significant amount of time caring for them. Nevertheless, people aged above 35 meet their LAT partners on a weekly basis (Reimondos et al., 2011).

2.4.3 Union Duration

In general, the duration of a LAT relationship is short (Reimondos et al., 2011; Turcotte, 2013). As Reimondos et al (2011) note, at the time of the survey about 40% of people in LAT relationships had only been in a relationship for one year compared to 28% of those who had been in a relationship for 3 or more years. In addition, Reimondos et al (2011) suggest that people commonly make some transitions after being in a LAT relationship for one or two years, either ending their LAT relationships or moving in a co-residential relationship.

Moreover, the duration of a LAT relationship often varies with different age groups (Ermisch & Siedler, 2009; Turcotte, 2013). Ermisch and Siedler (2009) proposed that those over age 35 normally have longer duration of LAT relationships than their younger cohort. More specifically, about 50% of LAT couple over 35 often have relationships that last about 5 years and 25% of those last up to 10 years. Similarly, Turcotte (2013) notes that the duration of a LAT relationship normally is shorter for young people. Specifically, the duration of a LAT relationship on average is 2.3 years among those between 20 and 29 years of age, compared with 3.8 years among those between 40 and 49 years old and 7.5 years among those aged 60 and over.

The duration of a LAT relationship not only depends on the age of LAT individuals, it also varies depending upon the attitudes toward co-residential relationships (Régnier-Loilier et al., 2009). Among LAT couples between 25 and 54, the average duration is 43 months if at least one of the partners list being independent as a reason for living in separate households, followed by 30 months if the separation is due to external constraints and 25 months if at least one of the partners mention not being ready as the reason for separation.

2.5 Sexual Orientation

To my knowledge, there is only one study that systematically investigates LATs among gay men and lesbian women. In the United States, a 2003 study showed that about half of the American adult population held attitudes of “mostly unfavourable” or “very unfavourable” towards lesbians and gay men (Pew Research Center, 2003). Within this type of social context, it makes LATs more prevalent among same-sex couples. First of all, LATs can provide privacy regarding sexuality for same-sex relationships (Peplau & Cochran 1990; Strohm et al., 2009; Weston, 1997). Additionally, it would be easier to raise children in this kind of living environment since childbearing and rearing are controversial among same-sex couples (Black, Sanders, & Taylor, 2007). Based on the 2003 California LGBT Tobacco Survey, about 18% of lesbian women and gay men are in LAT relationships (Carpenter & Gates, 2008). The average duration of same-sex couples in LATs is shorter than those in co-residential unions, especially for women. Furthermore, lesbian couples in LATs are much younger than those in either co-residential relationships or single (Carpenter & Gates, 2008). In addition, among same-sex couples, there is also an association between education and whether they live with their partners or not (Carpenter & Gates, 2008). Lesbian LAT couples are less likely to complete college than co-residential couples, however, there is no correlation between education and union status among gay men.

In 2004-05 California Quality of Life Survey I (Cochran & Mays, 2007), 15% of lesbian women and 17% of gay men were in LAT relationships (Strohm et al., 2009). Compared to same-sex LAT couples, the proportion of heterosexual LAT couples was lower, with about 12% of women and 13% of men in LAT relationships (Strohm et al., 2009).

2.6 Reasons for Not Living Together

Based on the empirical evidence, the meaning of LATs and the reasons behind being in a LAT relationship are largely dependent on the specific stage in the life course (Régnier-Loilier et al., 2009; Strohm et al., 2010).

2.6.1 Minor Children at Home and/or Care for Elders

2.6.1.1 Minor Children at Home

The presence of minor children in a household has a significant influence on the decision-making for people in LATs (De Jong Gierveld, 2002; Levin & Trost, 1999; 2004; Liefbroer et al., 2015; Milan & Peters, 2003; Haskey & Levin, 2006). It often happens that one or both of the partners in a LAT couple has their own children living with them. In order to provide a safe and loving living environment for the child(ren), parents often decide not to live together with their LAT partners (Levin & Trost, 1999; 2004). In most cases, women are more likely to be a single parent or the one with custody of the children after union dissolution (Statistic Canada, 2002). Based on 2001 Canadian data, 23% of women who were in LAT relationships lived with children in one household whereas only 5% of men did so (Statistic Canada, 2002). However, even if a parent does not have custody of the children, he/she may still not move in with their LAT partner, because living together with a person who is not the biological parent of the child(ren) can be considered a form of betrayal for the child(ren) (Levin & Trost, 1999). Additionally, the fear of losing financial compensation for the children from a previous partner also is a contributing factor for single mothers to regard LAT relationships as an ideal living arrangement (Liefbroer et al., 2015). Studies that have proposed this argument include De Jong Gierveld & Latten, 2008 and Régnier-Lollier, Beaujouan & Villeneuve-Gokalp, 2009.

2.6.1.2 Care for Elders

Responsibility for elders is another contributing factor that makes LATs a more favored living arrangement than marriage or/and cohabitation (Levin & Trost, 1999; 2004; Milan & Peters, 2003; Tai et al., 2014). According to the 2001 General Social Survey in Canada, 36% of Canadian adult population lived with their parents (38% of men and 34% of women) (Statistic Canada, 2002). More specifically, young adults might live with their parents to save expenses whereas middle age individuals might also live with elderly parents and are thus more likely to provide care to their parents. Frederick and Fast (1999) proposed that the eldercare responsibility has been shifted from the institutions to the families. In 1996, about 2.1 million Canadians took care of their family members who mostly aged between 30 and 59. Levin and Trost (2004) found that couples who live apart have the opportunity to care for their elderly parents within the same household as most of the interviewees expressed that it is the “right” or moral thing to do and to not do so would create guilt. To an extent, taking care of elderly parents could also be regarded as a way of “repaying” parents for all their efforts in raising them (Levin & Trost, 2004). For others, living with parents may include receiving assistance with their own children (Levin & Trost, 2004). Moreover, this kind of living arrangement allows LAT couples to maintain a relationship with both parents and partners since they do not have to choose one over the other (Levin & Trost, 1999).

In sum, many LAT couples are not looking for a new partnership to replace the relationships that have been built up with their children, parents and friends. Rather, they desire an intimate partnership on the one hand while keeping the existing relationships on the other hand (Levin & Trost, 2004). For these LAT couples, their family ties and social networks should not be threatened by any other type of relationship.

2.6.2 Work or Study in Different Places

Living Apart Together is preferable for people who live in separate households due to employment location (Duncan & Phillips, 2010; Liefbroer et al., 2015; Tai et al., 2014). In France, regardless of gender, about 40% of respondents cite occupational reasons such as the geographic difference of the working location as the main reason to live in separate households (Régnier-Loilier et al., 2009). However, women more frequently stress financial or housing as the reason for staying in LATs whereas men more frequently mention work related or personal reasons (Régnier-Loilier et al., 2009). In addition, a substantial amount of young adults who attend school also choose LATs as their ideal temporary living arrangement (Castro-Martín, et al., 2008; Levin & Trost, 1999). These students live apart from their partners because of different study locations. Many of them claim that they would relocate to the same city where their LAT partners live once one of them finishes their studies (Levin & Trost, 1999).

2.6.3 Do not Want to Repeat Same Mistakes

For some, choosing LATs as a living arrangement is largely related to the fact that they do not want to repeat the same mistakes they made from a previous relationship (De Jong Gierveld; 2002; Duncan & Phillips, 2011; Levin, 2004; Levin & Trost, 1999; Poortman, 2007; Roseneil, 2006). Levin and Trost (1999) report that of the LAT couples they interviewed, all had previously experienced either marriage or cohabitation, but ended in either divorce or separation. They believed that living together changes the way one relates to the other, and those changes could potentially threaten the survival of couple relationships, something they did not want to do. Living Apart Together allows individuals to keep their own households and avoid potential separation compared to co-residential relationships (Levin & Trost, 1999).

2.6.4 Household Labour and Autonomy

2.6.4.1 Avoid the Gendered Division of Labor

It has been argued that men gain more benefits in a marriage compared to women (Dempsey, 2002). That is, women in general take care of 90% of domestic work in a household, along with 80% of childcare work. Whereas men normally take care of 75% of outside tasks, these jobs only take half the time of that spent on the inside work performed by women (Dempsey, 2002). As a result, it is not surprising that 78% of women agreed that men gain the most benefits from a marriage, mainly due to men taking very little responsibility for housework and childcare work and men also are also frequently taken care of by women (Dempsey, 2002).

In addition, as Ghazanfareeon Karlsson and colleagues (2007) suggest, when women are in need of care, they are more likely to receive help from home and children than from their partners whereas when men are in need of care, their wives play the majority role of caregiving. Therefore, women are more likely to choose to live apart from their partners mainly because they want to avoid the gendered division of labour supported and reinforced by society (Ghazanfareeon Karlsson et al., 2007).

For elderly individuals, Living Apart Together relationships are an alternative living arrangement to cohabitation and remarriage (Karlsson & Borell, 2002; Duncan & Phillips, 2010). Unlike younger people in LAT relationships, largely due to external constraints such as different working or studying locations or financial difficulties, retired people are able to make a conscious choice regarding LAT partnerships since they do not need to worry about jobs and most likely have sufficient financial resources (Haskey & Levin, 2006). Their main goal is to foster gender equality, meaning they are trying to avoid the gendered the division of labour (Haskey & Levin, 2006).

Although remarriage among older people has increased to a certain degree recently, it is still unusual in most Western countries (Burch, 1990; Steitz & Welker, 1991). This is mainly due to the following: On the one hand, elderly people are not as common as young people in the dating pools, especially older women (Karlsson & Borell, 2002). On the other hand, older women do not want to risk being a “nurse” for their potential partners. As one interviewee expressed, “we each do our own cleaning in our own homes. I can moan at him a little and say that he should clean the windows or do other things, but I would never do them for him” (Karlsson & Borell, 2002, p. 19).

Nevertheless, it does not mean that an intimate relationship is not desirable to those older women (Lopata, 1996). Based on empirical research, more and more older single people are looking for a new partnership in which they can acquire long-term intimacy without necessarily moving in with their partner (Bulcroft & Bulcroft, 1991; Bulcroft & O’ Connor, 1986; Talbott, 1998; Wilson, 1995).

2.6.4.2 Autonomy

LATs allow people to have autonomy; they can possess and maintain their own household and still have an intimate relationship (Levin & Trost, 1999; Liefbroer et al., 2015; Karlsson & Borell, 2002; Milan & Peters, 2003). Moving in with a LAT partner leads to the challenging decision-making processes regarding whose furniture to use and whose house to live in (Levin & Trost, 1999; 2004). Likely living in a one-person household for a significant long time, peoples’ possessions are memories of early experiences and persons that should not be abandoned. The possessions are social objects that are very important for people’s well-being as human and social beings (Levin & Trost, 1999; 2004). Having separate households leads to having separate finances (Karlsson & Borell, 2002). Unlike married couples, who normally possess joint

financial and other resources. LAT partners have their own financial resources and very few couples have joint resources (Karlsson & Borell, 2002). Furthermore, many interviewees elected to not cohabit as they could not adapt to their partners' habits such as one partner being a heavy smoker whereas the other is allergic to smoke (Karlsson & Borell, 2002).

2.7 Criticism of LAT Relationships

LAT relationships have been criticized as lacking intimacy and commitment compared to marriage or cohabitation (Karlsson & Borell, 2002; Roeneil, 2006). LATs have challenged the co-residential assumption that two individuals must live in the same household in order to be considered a couple (Ariza & de Oliveira, 2001). That is, traditionally, a couple sharing a co-residential living space signals making a commitment, sharing daily living experiences and sexual intimacy. However, Karlsson and Borell (2002); Haskey (2005); Bawin-Legros and Gauthier (2001) stress that people in LATs are as intimate as other types of relationship, but are more focused on giving and receiving emotional support. In addition, Haskey (2005) argues that LAT relationships are similar to cohabitation in nature, meaning LATs are viewed as a monogamous partnership rather than a temporary or casual relationship. In Britain, about 74% of people in LAT relationships between the ages of 16 and 44 agreed that having sex outside of LATs is wrong (Duncan & Phillips, 2010). Nevertheless, Asendeorpf (2008) suggests that LATs are considered a temporary living arrangement in Germany, and the stability of LAT relationships are weaker than both married and cohabiting couples.

2.8 Attitudes toward Partnering and Commitment

A substantial amount of research has focused on the attitudes toward partnering and commitment among LAT couples. According to the 2006 Britain Social Attitudes (BSAS),

approximately 54% of respondents agreed that “A couple do not need to live together to have a strong relationship”, only 25% of individuals did not agree (Duncan & Phillips, 2008). More specifically, over 70% of LAT couples agreed with this statement compared to 62% of those who were single, 57% of those who were cohabiting and 46% of those who were married. In 2000, the National Survey of Sexual Attitudes and Lifestyle showed that 21% of respondents chose “one regular partner but not living together” as the “ideal relationship” compared to 18% of respondents who chose unmarried cohabitation, although the majority of the sample still chose exclusive married as the “ideal relationship” (Erens et al., 2003). In addition, in the 2006 Normative Consensus in Britain, about 75% of adults agreed that “relationships are much stronger when both partners have the independence to follow their own careers and friendship” and only about 25% of respondents agreed that “partners who have too much independence from each other put their relationship at risk” (Duncan & Phillips, 2010). Furthermore, over 75% of LAT couples agreed that “social independence strengthens relationship”, followed by 66% of those who were cohabiting, 63% of those were single and 60% of those were married (Duncan & Phillips, 2010; 2011). What is more, over 50% of people in LAT relationships agreed that relatives are more reliable in the long-term than partners compared to 50% of those were single, 37% of those were cohabiting and 34% of those were married (Duncan & Phillips, 2010; 2011).

2.9 Attitudes toward Family Conventionality and Liberalism

Overall, both LAT and cohabiting couples show more liberal attitudes toward homosexuality (Duncan & Phillips, 2010; 2011). Over 60% of both LAT and cohabiting respondents disagreed that “homosexual relations are always or mostly wrong”, followed by 56% of people who were single and 48% of those married. Similarly, about 50% of LAT and cohabiting individuals agreed that “gay men could be just as capable parents as heterosexual couples” followed by 42% of

those were single and 23% of those were married.

2.10 Intentions to Live Together

A substantial number of LAT individuals express the willingness to move in with their LAT partners in the near future, although there is a certain degree of variation (Reimondos et al., 2011). In Australia, about 75% of young adults plan to move in with their partners within three years compared to 32% of older adults. Similarly, in Canada, approximately 80% of young adults in LAT relationships express the willingness to move in with their LAT partners one day (Turcotte, 2013). In another study, 70% of LAT couples report a willingness of moving in together within three years (Régnier-Loilier et al., 2009). More specifically, 84% of young adults who are primarily students would like to move in with their partners within three years, followed by 71% of individuals who are no longer dependent on their families, 61% of those who are single parents and 28% of those who are seniors. In addition, electing to be in a LAT relationship is also dependent on the perceptions of LATs. Eighty-one percent of couples who choose LATs due to external constraints are willing to move in together within three years, followed by 62% of those who choose LATs because they are not ready for cohabitation or marriage, and 49% of those who are in LATs as a personal choice (Régnier-Loilier et al., 2009).

2.11 Summary

It is important to investigate LAT relationships in Canada, as this is a little-explored area with crucial potential implications for social policies. Unlike marriages where couples can rely on well-established norms and expected behavior (Cherlin, 2004), couples in LAT relationships have few guidelines to navigate their roles and responsibilities. Additionally, unlike marriage and cohabitation, LATs have no obligations and responsibilities imposed by law (Duncan, 2013).

People can more easily begin and end a LAT relationship; however, it is also more difficult to determine what rights those in LAT relationships should be able to claim. These ambiguities can create problems for couples managing their LAT relationship as well as their bonds with other family members. The following chapter outlines the theoretical framework and hypotheses that are used to explore and explain incidence of people in LAT relationships.

Chapter Three: Theoretical Framework and Hypotheses

3 Introduction

The study's theoretical framework incorporates two major theories on relationship formations, as a means of testing their relevance and applicability to the topic. As no sociological theories have yet been developed to explicitly address heterosexual LAT relationships, this study explores existing theories on partnership deemed most relevant. These theories were designed primarily to focus on marriage formation, and so the intent is to explore whether they are applicable to non-coresidential relationships, and specifically, to LAT relationships. This chapter outlines the two theories through two key categories: 1) Economic theory: Becker's (1973; 1974; 1981) economic theory of gains to marriage; and 2) Sociological theory: ideational theory (Lesthaeghe, 1980; 1983).

3.1 Economic theory: Becker's Economic Theory of Marriage

Many economists have attempted to use economic theory to explain non-monetary related social behaviours (Becker, 1974). Consequently, other social scientists, especially family sociologists and demographers, have employed their economic theoretical frameworks to address issues related to the family, such as fertility or women's participation in the labour force (Becker, 1974). The rationale behind using economic theory to study behaviours outside of monetary sectors is that it provides a united framework for behaviours that are associated with scarce resources- market as well as nonmarket, monetary as well as nonmonetary (Becker, 1974).

Becker (1974) argued that marriage with no exception can be analyzed based upon theoretical framework of modern economic theory. The gain to marriage is the essence of Becker's (1974) economic theory to study marriage formation. He extends his theory to explore

how women's participation in the labour market affects family formation. However, some scholars criticize Becker's (1974) economic theory as too dated to study marital behavior in the industrialized societies (Cherlin, 1992; Espenshade, 1985; Goldscheider & Waite, 1986; Preston & Richards, 1975; Schoen & Wooldredge, 1989; Waite & Spitze, 1981). Thus, this section introduces the gains to marriage and women's economic independence hypotheses, as well as provides a critique of Becker's (1974) economic theory of marriage.

3.1.1 The Gains to Marriage

The theoretical framework of gains to marriage was derived from Gary Becker (1973; 1974; 1981), an American economist. The theory stresses the principle of comparative advantage based upon international trade theory. Becker (1973; 1974; 1981) illustrated this framework by providing a simple example. Imagine there are two countries (England and Portugal) where each country can only produce two kinds of goods: wine and wool. Under the same circumstances, if England is more efficient in wool production compared to Portugal and Portugal is more efficient in wine production compared to England, then each country can maximize their productions of wool and wine by engaging in specialization and exchange. As such, we would suggest that England has a comparative advantage compared to Portugal in wool production whereas Portugal possesses a comparative advantage over England in wine production. There will be no gains from trade if neither country has a comparative advantage over the other.

The theory of gains to marriage can also be applied to marriage formation (Becker, 1973; 1974; 1981; Becker et al., 1977). Both single men and women are considered trading partners; they will marry only if the gains to marriage are positive (Becker, 1974). Specifically, individuals expect to maximize their gains from marriage (Becker, 1973; 1974; 1981; Becker et al., 1977). According to Becker, in order to achieve this, husbands and wives complement to each other by

specialization in the market and nonmarket sectors (also see Espenshade, 1985; Goode, 1963; Winch, 1967). In the past, husbands were expected to specialize in the market whereas wives were expected to focus on domestic work. In this case, women are said to have a comparative advantage over men in the household, whereas men possess a comparative advantage compared to women in the area of labour market work. Women then trade part of their housework for men's income and men simultaneously trade part of their incomes for domestic services provided by wives. In this case, both men and women maximize gains from marriage. Thus, individuals' decision for marriage is largely based upon this sort of rational choice and calculation about benefits marriage brings in compared to what would be if individuals remained single (Goldstein & Kenney, 2001).

Following this logic, both men and women expect to fully develop their comparative advantages in the marriage market. In the past (e.g., before 1960s), the sexual division of labour fulfilled a crucial role in the pattern of marriage formation. This meant that individuals could maximize their gains through specialization and trading in marriage (Becker, 1973; 1974; 1981). Nowadays, as the role of traditional gender division of labour has faded over time, marriage becomes less appealing.

3.1.2 Women's Economic Independence Hypothesis

Differentiated gender roles have been proposed as one of most crucial pieces of social science literature on marriage as a social institution (Oppenheimer, 1994; 1997). During the early postwar period, this idea was raised by Talcott Parsons (1949). He suggested that sex-role segregation was extremely important to the stability of marriage as well as the functioning of society itself (also see Becker, 1973; 1974; 1981; Oppenheimer, 1988; Sorensen & McLanahan, 1987). The rationale behind sex-role segregation is a very effective mechanism to prevent market

and domestic competitions between spouses (Parson, 1949).

However, since World War II, a sizeable number of married women became involved in the labour force (Goldin, 1991; 2013; Hakim, 1995; Semyonov, 1980). Before 1940s, besides the prevalence of the traditional gender division of labour, various policies also existed to constrain married women's participation in the labour market. But when a husband left for the war, it often led his family to be financially disadvantaged. Consequently, women were forced to perform in the (low) paid employment in order to make a living (Goldin, 1991; 1993). Moreover, the war caused a large number of demands on labour in general (Goldin, 1991). Since the majority men went to war, employers assumed that women could perform the jobs that were previously occupied by men (Goldin, 1991). Consequently, women were encouraged to continue education and to participate in job training in order to meet the requirements of employment. Therefore, the financial needs of households and the great demands of labour in the market during the wartime period combined to increase married women's participation in the labour force (Goldin, 1991; 2013).

By the end of the war, the trend of married women's participation in the labour market continued for women who had experienced years of education during the wartime period (Goldin, 2006; 2013). Becker (1981) suggests the postwar changes in family formation were greatly influenced by women's participation in the labour force during the wartime. Specifically, the major gain to marriage is mutual dependence of partners based on specialization and exchange of different skills. However, as women increasingly engage in paid employment, they become more like men in terms of market skills and activities (Espenshade, 1985; Oppenheimer, 1997). As a result, women became less specialized but more economically independent which resulted in their fewer gains in marriage. Additionally, Becker (1981) and Goldscheider and

Waite (1986) suggested that social welfare systems also provide means for women to increase their economic independence. In other words, with increased social welfare as well as increased women's participation in labour market, marriage becomes less attractive to women as a living arrangement.

In sum, increased women's labour participation is a crucial determinant to the gains to marriage that has been recorded in earlier demographic literature by economists and sociologists (Cherlin, 1992; Espenshade 1985; Goldscheider & Waite, 1986; Oppenheimer, 1988; Preston & Richards, 1975; Vapnek, 2009; Waite & Spitze, 1981). As Becker (1981) suggested, "the gain from marriage is reduced by a rise in the earnings and labour force participation of women and by a fall in fertility because a gender division of labour becomes less advantageous" (p. 248).

3.1.3 Oppenheimer's Critique

Although the argument of women's economic independence has been widely recognized by sociologists as well as economists as one of the main theories to explain marital behaviour and family trends, not all scholars completely agree with Becker's (1981) ideas that the sexual division of labour increases the gains to marriage (Oppenheimer, 1994; 1997). First of all, although aggregate-level studies suggest women's participation in the labour market causes fewer gains to marriage which have leads to less incentive to marriage (Cherlin, 1992; Goldscheider & Waite, 1986; Goldstein & Kenney, 2001), more recent research has showed that women's education attainment, participation in labour force and income actually have little or no effect, or more often have positive effect on marital formation (Oppenheimer, 1994; 1997; Oppenheimer et al., 1997). It has been argued that aggregate-level analyses are not well suited to study micro-level behaviours as it creates misleading results as well as an "ecological fallacy" (Achen & Shively, 1995; Oppenheimer, 1994; 1997; Preston & Richards, 1975; Robinson, 1950).

Second, although many studies have applied Becker's (1973; 1974; 1981) women's economic independence hypothesis to explain women's delayed marriage (Oppenheimer et al., 1997), Oppenheimer (1994; 1997) has argued that women's economic condition is actually a crucial determinant that is used to illustrate why individuals marry. Specifically, Becker's (1981) hypothesis attempts to demonstrate the idea that women's increased labour participation facilitates their potential earning capacity which reduces sexual specialization and leads to fewer gains to marriage. In other words, his theory is designed to explain whether individuals choose to marry rather than when (Oppenheimer, 1994; 1997). There are certain associations between delayed marriage and nonmarriage, as delay in marriage itself may increase the probability of nonmarriage, especially for older women, as their positions in the marriage market deteriorate as they age (Oppenheimer, 1994; 1997), however, it is a different phenomenon.

Third, the empirical evidence provided is inadequate regarding Becker's (1981) economic theory (Oppenheimer, 1994; 1997). That is, Becker's theory promotes the principle of specialization and exchange between partners based upon idealized family environment (Oppenheimer, 1994; 1997). However, in reality, this principle of extreme sexual role segregation can be risky and inflexible to independent nuclear families in terms of keeping family economic well-being over time (Oppenheimer, 1994; 1997; Oppenheimer et al., 1997). For instance, a temporary or permanent loss of one family specialist in a family might negatively relate to the other specialist's well-being (Oppenheimer, 1994; 1997). A husband/father could die or become disabled which would likely mean a job loss, leading to dysfunction of specialization and exchange (Oppenheimer, 1994; 1997). Consequently, women's participation in the labour force can be considered a significant alternative for minimizing the risk of putting the family into a financially disadvantaged position (Oppenheimer, 1994; 1997). Thus, increased women's

participation in the labour market promotes gains to marriage in industrialized society (Oppenheimer, 1994; 1997).

Fourth and finally, Oppenheimer (1988; 1994) argued that the increasing attention paid to women's economic behaviour cannot be regarded as the only explanation for the changes to marriage formation. Although women have been experiencing greater involvement in the labour force, we cannot ignore the fact that men simultaneously suffer substantial difficulties related to career development (Oppenheimer, 1988; 1994). As such, men very likely spend more time on meeting the prerequisites of marriage, such as setting up an established household before marriage (Oppenheimer, 1988; 1994). Thus, men's changing economic condition should also be taken into consideration when studying the changes of marriage formation (Oppenheimer, 1988; 1994).

As a result, Oppenheimer (1994; 1997) shifted her attention to men's economic position in the market while investigating marriage formation. Men's economic condition has historically been included to study family formation, and it will continue to be in present-day society (Goldscheider & Waite, 1986; Oppenheimer, 1994; 1997; 2003).

3.2 Sociological Theories on Marriage Formation

Although economic theory has been widely and traditionally used to explain marriage formation (Becker, 1973; 1974; 1981; Becker et al., 1977), a substantial amount of literature has increasingly used sociological theories to explain massive social changes in marriage behaviour in modern societies as a household's utility is not only restricted to material contributions (Bianchi & Spain, 1996; Lesthaeghe, 1983; Lesthaeghe & Moors, 2002; Oppenheimer, 1994; Thornton, 1989). Specifically, marriage was found in almost every culture and nearly all societies (Cherlin, 1992; Hastings & Robinson; Goldstein & Kenney, 2001). In the United States,

during the 1980s, over 90% of women from each birth cohort were married at some point during the life course (Cherlin, 1992; Hastings & Robinso, 1973; Goldstein & Kenney, 2001). Although there have been social changes related to the economy, nothing has changed the prevalence of marriage as a social institution (Cherlin, 1992; Hastings & Robinson, 1973; Goldstein & Kenney, 2001). If that is the case, then how do we explain the recent decline in marriage across Western European countries?

3.2.1 Modernization

The Western decline in marriage has been regarded as the consequence of industrialization and growth of the post-war economy that occurs during the process of modernization (Lesthaeghe, 1980; 1998; Lesthaeghe & Moors, 2002). Modernization stresses the growth of individual-orientated behaviour rather than subordinating individuals' needs to societally imposed norms (Westoff, 1983; Wu & Balakrishman, 1992). Along with other social structural changes, including the fading role of Western tradition and religion, increasing urbanization and individualization, rising women's socioeconomic independence and growth of consumerism, people start to rely less on the family for economic and emotional support than they did in traditional society (Espenshade, 1985). Consequently, people not only start to have less traditional attitudes, but also have a higher tolerance for others' different lifestyles (Bianchi & Spain, 1996; Lesthaeghe & Moors, 2000).

Attitudes toward marriage have become more focused on self-fulfillment due to the following point: the growth of post-war economy slowly but significantly fosters the transformation of material inspiration from "irreducible needs" to "higher order needs" (Lesthaeghe & Meekers, 1986; Lesthaeghe & Neidert, 2006; Wu & Balakrishman, 1992). Specifically, the "irreducible needs" include mainly physiological and physical needs whereas

“higher order needs” include nonmaterial needs such as love and companionship that manifest “self-fulfillment, emancipation, personal recognition and individual ethical autonomy” (Lesthaeghe & Moors, 1994, p.3). Similarly, Inglehart (1977) also defined this shift from “materialism” to “post-materialism”, proposing that individually-oriented goals and satisfaction are the primary considerations of post-materialists in a relationship, which is crucial for marriage formation (Lesthaeghe & Moors, 1994). As changes in material inspirations bring new attitudes and ideas about family life, when those new attitudes and ideas start to be recognized and accepted by people in the social group, it will threaten and break the traditional patterns of family behaviors. Consequently, new norms emerge (Wu & Balakrishnan, 1992).

3.2.2 Ideational Theory and the Decline in Fertility Rates across European Countries

The explorations regarding changing attitudes towards family and marriage have been largely inspired by fertility studies, especially the Princeton European Fertility Project (EFP) (Balakrishnan & Wu, 1992; Coale & Watkins, 1986; Wu & Baer, 1996). The European Fertility Project was introduced to test the demographic transition theory on fertility patterns across European countries. Although the demographic transition theory was initially accepted to be the most promising approach to study European regional variations in fertility behaviour, empirical evidence was often inconsistent with the theoretical explanations (Coale & Watkins, 1986). So the primary goal of EFP was to explain the regional variations in terms of the decline in European fertility rates.

According to the European Fertility Project (EFP), although socioeconomic factors are relevant to the decline in European fertility rates, they are not sufficient enough to illustrate the rationale behind the phenomenon. Additionally, Lesthaeghe and Wilson (1986) proposed that in order to explain European fertility behavior, cultural indicators need to be included since factors

such as ethnicity; language and religion greatly reflect regional boundaries across Europe that could be relevant to patterns of fertility behavior. Specifically, fertility behavior differs from one geographic region to another, as different regions often have more diverse cultural backgrounds that effect their attitudes about family as well as various degrees of contraceptive knowledge (Coale, 1973; also see Balakrishman & Wu, 1992).

Ideational theory effectively incorporates culture into demographic behavior through social value systems (Lesthaeghe, 1980; 1983; 1998, Lesthaeghe & Meekers, 1986; Lesthaeghe & Surkyn, 1988). Societies pass certain rules and norms for social actions that will be rewarded if they benefit others. In contrast, if a social act deteriorates benefits, then the act will be punished (Preston, 1986). Different sets of values attached to social acts form societal value systems which eventually determines people's chances to access societal resources and is reflected in institutional regulation. These values are maintained through a process of "homeostasis" (Lesthaeghe, 1980; Preston, 1986). For instance, childrearing is a social act in which society traditionally places a series of institutional arrangements to regulate the procreating process for the sake of maximizing the welfare benefits in the long run (Lesthaeghe, 1983).

According to the ideational theory, both value systems and systems of social control are responsible for massive family changes (Lesthaeghe, 1980; 1983; 1998). Although socioeconomic shifts, urbanization and industrialization facilitate the erosion of old systems of control, values systems, especially moral values, are becoming more tolerant and individual-oriented, which foster numerous changes in family behavior. Specifically, as the value system becomes more diverse, it simultaneously becomes problematic due to a lack of public acceptance and enforcement (Lesthaeghe, 1980; 1983; 1998; Wu & Baer, 1996). Consequently, when individuals see that a system is not working properly, they will adjust their own behaviors

accordingly. In response to these divergent behaviors, certain society members will eventually begin the process of cultural innovation (Livi-Bacci, 1986; Wu & Baer, 1996). Those members are so called “forerunners”, typically intellectual elites who can decode the ideational system and through criticism find ways to update and/or replace the existing system (Bourdieu, 1979; van de Kaa, 1987). Eventually, others will adopt the new patterns of behavior through observation and imitation (Lesthaeghe, 1998; Lesthaeghe & Surkyn, 1988).

In sum, changes in the ideational system can make great contributions to the changes in family formation (Lesthaeghe, 1980; 1983). Specifically, the changes in family structure and formation under the influence of modernization push individuals to define their own goals and find means to achieve their goals by adapting the new ideational system and leaving behind the old moral codes and the forms of control (Lesthaeghe, 1980; 1983; van de Kaa, 1987).

3.2.3 Regional Variations in Family Behaviour

The substantial social changes associated with regional fertility and nuptiality can be explained from a cultural perspective that was already formed during the modernization stage (Lesthaeghe, 1983). According to Lesthaeghe (1983), economic rational calculation (Becker, 1973; 1974; 1981) has been historically documented and applied to evaluations of costs and benefits of individual choices that are greatly operated by ideational system. If that is the case, then it makes sense that the ideational system will change over time and will vary across individuals and societies (Lesthaeghe, 1983). As a result, we cannot only rely on an economic strategy to precede the decision making process, rather, we should concern ourselves with cultural markers such as religion for making individual choices (Lesthaeghe, 1983).

Culture is everywhere within social life and social conduct: “Culture is not simply a summation of individual preferences or overlapping values; it is an underlying framework for

these individual characteristics” (Taylor, 1985, p.36-40; see also Fricke, 1997). As a result, culture may be related to regional variations and determine demographic behavior (Pollard & Wu, 1998). More specifically, culture provides a social context that facilitates the emergence and spread of new behaviors without intervening in other socioeconomic indicators (Pollard & Wu, 1998). Additionally, demographic behavior tends to be more homogenous within a region than across regions as regional boundaries play a crucial role of “firebreaks which temporarily confine” the spread of new norms and values (Coale, 1973). In this case, socioeconomic conditions among different regions are less pronounced than culture-related indicators (Pollards & Wu, 1998). Consequently, cultural indicators may play a greater effect on demographic and marital behavior than socioeconomic factors (Bongaarts & Watkins, 1996; Montgomery & Casterline, 1993; Watkins, 1986).

3.3 Hypotheses

Keeping Oppenheimer’s (1988; 1994; 1997) critiques in mind, I test Becker’s (1973; 1974; 1981) economic theory of marriage by exploring determinants for being in LAT relationships. According to women’s economic independence hypothesis, women’s increased participation in labour market causes fewer gains from marriage, or even cohabitation. Additionally, women’s education has had a negative effect on incentives to marriage since education is considered an investment for market productivities rather than for domestic productivities (Wu & Hart, 2001). I hypothesize:

H1: Women’s higher education, income and employment status are positively associated with the probability of being in LAT relationships than any co-residential partnership. It is unknown how women’s socioeconomic factors are related to the likelihoods of choosing LATs versus single.

Oppenheimer (1994; 1997; 1998) suggests that men’s socioeconomic condition should also

be taken into consideration in marriage formation. Normally, men are expected to be financially stable before marriage as it requires financial resources to set up a household. Therefore, men's socioeconomic status has a positive effect on marriage as well as cohabitation. I hypothesize:

H2: Higher education, income and employment status for men is negatively associated the likelihood of being LATs compared to other co-residential relationships. It is unknown how men's socioeconomic factors correlate with the likelihoods of choosing LATs versus single.

Research has suggested that children born within a union increases the gains to marriage for both partners since children are considered union specific capital (Waite & Lillard, 1991; Wu, 1995; Wu & Hart, 2001) whereas children born from previous unions have mixed results (Wu, 2000). Specifically, the presence of children from previous unions increases the likelihood of separation for women since her partner may not consider the children as marital capital, which decreases his gains from marriage. However, the presence of children from a previous union decreases the odds of separation for men as they might opt for a more traditional parenting environment whereby men gain more from having a female partner. Due to the limitations of the dataset, I am not able to distinguish whether children were born within the current union or from a previous one. I hypothesize:

H3: The presence of children is associated with likelihood of being in a LAT relationship across gender, but the direction in comparison with marriage, cohabitation and single are unknown.

Previous research has shown that religious affiliation affects family formations (Preston & Richards, 1975; Thornton, Axinn, & Hill, 1992). Specifically, Catholics tend to marry later compared to others, in large extent due to the fact that Catholicism claims that marriage is sacred and having sexual intercourse outside of a married union should be sanctioned, remarriage after divorce and artificial means of contraception should be forbidden (Thornton et al., 1992).

Consequently, Catholics normally spend a longer time searching for their potential lifelong partners because of the high costs of making a poor choice (Michael & Tuma, 1985).

Nevertheless, I expect that it does not affect their decision-making regarding marriage.

Additionally, Balakrishnan et al. (1988) and Coale (1969) proposed that Catholics traditionally are more conservative compared to Protestants. Therefore, I hypothesize:

H4: Compared to Protestants, Catholics are less likely to be in a LAT compared to a co-residential relationship. In addition, compared to Protestants, Catholics are less likely to be in a LAT relationship compared to being single.

Along with religious affiliation, I hypothesize:

H5: People who participate in religious activities more frequently, are less likely to be in LATs compared to co-residential unions. In addition, participating in religious activities more frequently will be negatively associated with the likelihood of being LATs compared to being single.

Ideational theory provides an effective tool to study regional variations of LATs in Canada. The social and ideological differences between French Quebec and English Canada are greater than differences between English provinces in Canada (Ornstein, 1986). Wu and Baer (1996) examined how English and French Canadians differed on attitudes toward family; they found that French Canadians are less committed to marriage compared to English Canadians. The results are consistent with the trends regarding the decrease in marriage rates and the increase in cohabitation rates in Quebec compared to the rest of the Canadian provinces (Dumas & Peron, 1992). As the dualism of Quebec and Non-Quebec continues to be the most significant demographic and cultural features in Canada (Pollard & Wu, 1998), I hypothesize:

H6: People residing in Quebec are more likely to be in LATs than other co-residential

relationships. It is unknown how region difference affects the union choice between LATs and singlehood.

3.4 Summary

This chapter outlined the theoretical framework for this study, and listed the hypotheses implied from each pertinent theory. First, it described an economic perspective, which included Becker's gains to marriage theory. Next, it outlined a sociological perspective, which includes ideational theory on partnership, and hypothesized how they may apply to LAT relationships specifically. In the following chapter, the process whereby these hypotheses will be tested is delineated.

Chapter Four: Data and Methodology

4 Introduction

In this chapter, I outline the data and methodology used to investigate the prevalence of LAT relationships in Canada. It is comprised of the following sections: 1) data source; 2) study sample; 3) variables; 4) statistical analyses; and finally, 5) a summary.

4.1 Data source

To investigate the prevalence of LATs in Canada, I used data from the Canadian General Social Survey, Cycle 25 (GSS-25), conducted by Statistics Canada. The GSS program collects individual and household level information on Canadian adults to monitor social changes and people's well-being (Statistics Canada, 2011). Each cycle of the GSS addresses a unique and specific theme. The GSS-25 focuses on family; providing standard demographic and socioeconomic data as well as detailed information on intentions and reasons for forming a union, fertility intentions and child custody.

The target population of the GSS-25 includes Canadians aged 15 and over living in all ten provinces, excluding individuals living in the northern territories (remote areas) and full-time residents of institutions. The data were collected through telephone interviews by using the random digit dialing (RDD) method. Therefore, households without telephone services were excluded and were estimated at 1.1% (Residential Telephone Services Survey (RTSS), 2010). In addition, households with cellular services only were also excluded, representing 13% of Canadian households (Residential Telephone Services Survey (RTSS), 2010). Although I did not find any Canadian studies addressing bias in terms of the traditional RDD method, Blumberg and Luke (2009) report that in 2007, 13.5% of American households only had cellular service,

particularly common among young adults and low-income households. Given my study population is between 18-64 years of age, it is possible my regression results might be biased due to the exclusion of households without landlines.

4.2 Study Sample

The GSS-25 includes a nationally representative sample of 22,435 Canadians aged 15 and over, with an overall response rate of 65.8%. To study LAT relationships, I restricted my study sample to respondents who were between 18 and 64 years of age. I chose this particular age range because studying older, retired individuals in LAT relationships can be problematic when including variables such as education and income. With this restriction, the original sample was reduced to 16,143, representing 7,270 males and 8,873 females.

One issue I encountered was missing data. Respondents reporting “don’t know” for various independent variables (e.g., highest level of education, religious affiliation, religiosity, annual personal income and main activity) ranged from 0.26% to 11.58%. Rather than lose these cases, I employed multiple imputation to deal with missing data because dropping these cases would likely introduce bias regarding the coefficients and standard errors (Acock, 2005; Allison, 2002; Little & Rubin, 2002; Royston, 2004). Kornich, Brines and Leupp (2012) suggested that “multiple imputation uses correlations between variables in an analysis to generate replacement values for missing values, adding in an error term and generating multiple estimates to capture the variability” (p.33). Using the multivariate normal model through the *mi* estimate command in the statistical software program Stata 12, I generated 10 imputations as less than 5 imputations are normally considered inefficient (Graham, Olchowski & Gilreath, 2007).

4.3 Variables

The dependent variable for my analysis is a four-level categorical variable, indicating respondents' union status: married, cohabiting, LATs and unmarried. The dependent variable is created from responses to the question in GSS-25. The respondents were initially asked their marital status, choosing from married, living common-law, widowed, separated, divorced, single (never married). Those who chosen married or living as common law were excluded from the following question regarding LAT relationships because people in a co-residential relationship cannot simultaneously in LATs. The rest of the respondents were asked the next question *Are you currently in an intimate couple relationship with someone you are not living with?* Whoever answered *yes* was considered to be in a LAT relationship. All other responses were eventually combined into a new category called unmarried. Both heterosexual and homosexual couples were included in LATs.

I included several independent variables of theoretical interest that are commonly included when studying union formation (Brown et al., 2006; Vespa, 2012; Wu & Schimmele, 2005). My selection of covariates was limited due to the availability of the data in the GSS-25. As a result, in addition to sex, I chose a set of 8 independent variables. Table 1 presents the definitions and descriptive statistics for the selected independent variables.

Table1: Descriptive Statistics of the Selected Independent Variables Used in the Regression Models:
 Canadians (Age 18-64), 2011

Variables	Women		Men		<i>p</i> -value ^a
	M or %	S.D.	M or %	S.D.	
Demographic variables					
Age (18, 19,..., 63, 64)	41.233	13.859	40.821	12.626	0.139
Number of children (0=0, ..., 4=4 or more)	0.906	1.138	0.842	1.025	0.005
Socioeconomic variables					
Annual personal income (1= no Income or less, ..., 12= \$100,000 or more)	6.180	3.247	7.865	2.862	0.000
Main activity					0.000
Working (ref.)	62.27%	-	76.49%	-	
Going to school	11.55%	-	10.77%	-	
Retired	6.31%	-	5.13%	-	
Others	19.87%	-	7.61%	-	
Highest level of education (1= some/secondary/no schooling, ..., 10= doctorate/master's degree)	6.546	2.724	6.240	2.519	0.000
Cultural variables					
Religious affiliation					0.287
Roman Catholic (ref.)	39.85%	-	37.01%	-	
Protestant	26.07%	-	23.23%	-	
No religion	21.16%	-	26.05%	-	
Others	12.92%	-	13.70%	-	
Religiosity (1= not at all, ..., 5= at least once a week)	2.439	1.580	2.303	1.400	0.000
Quebec (1=yes)	23.11%	-	23.42%	-	0.712
<i>N</i>	8873		7270		

^a Significance tests of differences between women and men.

Note: Weighted means or percentages, unweighted *N*.

Source: The 2011 Canadian General Social Survey.

I selected two demographic variables. First, age is a continuous variable measured by single year of age. Table 1 shows that the mean age is 41.233 for women and 40.821 for men. The mean age reported here cannot be represented as an average age in the Canadian population as I only selected people between the ages of 18 and 64 in my study. There is no statistically significant age difference by gender ($p = 0.139$). Second, number of children is a five level ordinal variable (0 = 0, ..., 4 = 4 or more) treated as a continuous variable. Table 1 shows that number of children do differ significantly by gender ($p < 0.01$), although the mean number of children is 0.906 for women and is 0.842 for men.

In addition, I included three socioeconomic variables. First, annual personal income is a 12 level ordinal variable, ranging from no income or less to \$100,000 or more, which I treated as a continuous variable. I observed that men on average receive significant more annual personal income than women ($p < 0.001$). Specifically, the mean level of annual personal income is 6.180 (\$20,000 to \$29,999) for women and 7.865 (\$30,000 to \$39,999) for men. Second, respondents' main activity is a four categorical variable (1 = working, ..., 4 = others). In general, there is a statistically significant gender difference in terms of main activity ($p < 0.001$). More specifically, Table 1 shows that more women than men are going to school (women: 11.55% vs. men: 10.77%) and are retired (women: 6.31% vs. men: 5.13%) whereas more men than women are working - 76.49% for men and 62.27% for women. Third, the variable highest level of education is a 10 level ordinal variable, ranging from some/secondary/no schooling to doctorate/master's degree. It is treated as a continuous variable. The mean level of education for both men (6.240) and women (6.546) is in the category 6 (some university), although women in general have slightly higher average education level than men. There is a statistically significant difference in highest level of education by gender ($p < 0.001$).

Furthermore, I also considered three cultural variables. First, religious affiliation is a four-categorical variable. There is no statistically significant gender difference regarding religion ($p = 0.287$). Although more women than men are Roman Catholics (women: 39.85% vs. men: 37.01%) and are Protestants (women: 26.07% vs. men: 23.23%), more men than women have no religion (men: 26.05% vs. women: 21.16%). Second, religiosity is a five level ordinal variable treated as a continuous variable. A higher score indicates the respondent attends religious activity more frequently. I observe that the mean level of religious attendance for both men and women are between the category 2 and 3 (attending religious services at least once a year), but there is a statistically significant gender difference in terms of religiosity ($p < 0.001$). Third, region is reported as a dichotomous variable and coded 1 if a respondent resides in Quebec. Table 1 shows that approximately 23% of men and women live in Quebec. There is no statistically significant region difference by gender ($p = 0.721$).

4.4 Statistical Analyses

4.4.1 Multinomial Logistic Regression

To test my hypotheses, I used multinomial logistic regression to estimate the effect of each independent variable on the log odds of both men's and women's union statuses. Multinomial logistic regression is an appropriate statistical approach when the dependent variable is nominal with more than two categories while the independent variables can be either dichotomous or continuous (Hosmer, et al., 2013). Using the maximum likelihood method, multinomial logistic regression estimates the probability associated with each category of the dependent variable. In the study, my goal was to estimate the likelihoods of being married, cohabiting, unmarried (separated, divorced, widowed, and never married) and LATs.

Since we have four categories in the dependent variable (Y), I code it as 0 (LATs), 1 (married), 2 (cohabiting) and 3 (unmarried). As one of the categories has to be the reference group (Y=0), I eventually have three logit functions. I could write the three logit functions as:

$$g_1(x) = \ln \left[\frac{\Pr(\text{Married}=1|x)}{\Pr(\text{LATs}=0|x)} \right]$$

$$= \beta_{10} + \beta_{11}\text{Age} + \beta_{12}\text{Age}^2 + \beta_{13}\text{Number of Children} + \dots + \beta_{19}\text{Quebec} \quad (1)$$

$$g_2(x) = \ln \left[\frac{\Pr(\text{Cohabiting}=2|x)}{\Pr(\text{LATs}=0|x)} \right]$$

$$= \beta_{20} + \beta_{21}\text{Age} + \beta_{22}\text{Age}^2 + \beta_{23}\text{Number of Children} + \dots + \beta_{29}\text{Quebec} \quad (2)$$

$$g_3(x) = \ln \left[\frac{\Pr(\text{Unmarried}=3|x)}{\Pr(\text{LATs}=0|x)} \right]$$

$$= \beta_{30} + \beta_{31}\text{Age} + \beta_{32}\text{Age}^2 + \beta_{33}\text{Number of Children} + \dots + \beta_{39}\text{Quebec} \quad (3)$$

It follows that the probability for each category in the dependent variable is given as

$$P_r(\text{LATs} = 0|X) = \frac{1}{1+e^{g_1(x)}+e^{g_2(x)}+e^{g_3(x)}} \quad (4)$$

$$P_r(\text{Married} = 1|X) = \frac{e^{g_1(x)}}{1+e^{g_1(x)}+e^{g_2(x)}+e^{g_3(x)}} \quad (5)$$

$$P_r(\text{Cohabiting} = 2|X) = \frac{e^{g_2(x)}}{1+e^{g_1(x)}+e^{g_2(x)}+e^{g_3(x)}} \quad (6)$$

$$P_r(\text{Unmarried} = 3|X) = \frac{e^{g_3(x)}}{1+e^{g_1(x)}+e^{g_2(x)}+e^{g_3(x)}} \quad (7)$$

In the empirical analyses, I estimated a series of multinomial logistic models of union statuses, controlling for a number of demographic, socioeconomic and cultural variables as noted in the previous section. I also assessed and tested the robustness of the model.

4.4.2 Modeling Strategy

First, descriptive information on the distribution of union status (married, cohabiting, LATs and unmarried) were presented, providing the prevalence rates of respondents in the four

different union statuses on selected independent variables. Then descriptive information on LATs only, by age group and gender, was displayed. In addition, I included descriptive information by age group and gender for each union status, as it is insightful to note these differences.

After descriptive analysis, I employed multinomial logistic regression to separately assess the correlates of men and women in different union statuses. I ran the whole model but presented the results by each union status, compared to LATs. In models predicting men's union status, I started comparison between married and LATs by estimating three models: the first model included basic demographic covariates. In the second model, I added socioeconomic covariates along with basic demographic covariates. In the final model, I added cultural variables along with basic demographic and socioeconomic covariates. I also made comparisons between cohabiting and LATs, and between unmarried and LATs, generating three models for each pair of comparison. Following the same logic, I estimated 9 models for women, comparing LATs with, married, cohabitators, and unmarried.

Finally, I computed predicted probabilities of each union status for men and women separately. I showed the predicted probabilities of being in different union status with each independent variable individually, while holding all other variables at their sample mean (see Appendix). By holding all the variables at their sample mean, except the variable being assessed, the results showed how that particular variable affected the probabilities of people in different union statuses. For ease of interpretation, the predicted probabilities were expressed in percentages. Furthermore, I computed predicted probabilities of men and women for covariates that interact.

4.5 Summary

The 2011 Canadian General Social Survey is the latest national survey that provides

demographic information regarding LAT relationships. It allowed me to investigate the prevalence of LATs in Canada. The following chapter presents the results of the statistical analyses and Chapter 6 provides a more in-depth discussion of the results.

Chapter Five: Findings

5 Introduction

This chapter presents the findings of the models described previously in the following sections: 1) descriptive statistics; 2) multivariate results; 3) predicted probabilities; 4) robustness; and 5) summary. The first section provides descriptive statistics for selected independent variables by union status, for LATs only by age and gender, and for union status by gender across age group. The second section explores the multinomial models to assess how the independent variables contribute to the likelihood of being married, cohabiting, unmarried or in a LAT union. The third section presents the predicted probabilities of being in one of the four union statuses by each independent variable; two additional interaction terms are also included. The fourth section addresses the robustness of my findings and the final section summarizes the results of the analysis.

5.1 Descriptive Statistics

Using data from the GSS-25, three cross-tabulations are generated. Table 2 gives means (%) and standard deviations of the independent variables used in this study by union status. Comparing union status by men and women, slightly more men than women are unmarried (51.12%) and cohabiting (50.55%), with 48.74% of men in LATs. In terms of age, the mean age for married is higher than for any other union status. Specifically, the mean for married is 45.948, followed by cohabiting is 39.123, unmarried is 35.652, and LATs is 29.890. With respect to number of children, married people on average have more than one child, followed by cohabiting (0.906), unmarried (0.269), and LATs (0.200) who all on average have less than one child.

The middle panel of Table 2 shows how socioeconomic variables are distributed for each

union status. First, the mean annual personal income level is higher for respondents who are in a co-residential union. Specifically, the lowest is 5.708 (\$15,000 to \$29,999) for people who are unmarried and 5.882 (\$15,000 to \$29,999) for those in LATs, while the highest personal income is 7.746 (\$30,000 to \$39,999) for people who are married and 7.535 (\$30,000 to \$39,999) for people who are cohabiting. The second socioeconomic variable shows the distribution of individuals' main activity in each union status. Working is the activity performed the most by people in each union status. The percentage of respondents working ranges from 54.78% for unmarried people to 77.97% for cohabiting people. Going to school is the activity engaged in most by unmarried people (26.32%) and LATs (32.55%). However, going to school is rare for married people, accounting for only 1.89%. Retirement is a more common activity for married people (7.80%). Third, those who are unmarried have on average some college (level 5), people from other union statuses all have on average some university (level 6) while married people on average have the highest level of education (level 6.702).

The bottom panel of Table 2 shows how cultural variables are distributed across union status. Roman Catholic is the most common religious affiliation across all union status types, ranging from 35.43% for unmarried people to 52.15% for those cohabiting. Comparing Protestant affiliation across marital status groups reveals that 28.08% of married people identify as such, followed by unmarried people (24.10%), LATs (22.72%) and cohabiting people (14.18%). In addition, only 18.51% of married people reported to have no religion whereas about 29% respondents who are unmarried, cohabiting and LATs did so.

The second cultural value, religiosity, reveals that cohabiting people on average reporting the highest percentage of "not at all" on religiosity, people in all other union statuses reported "at least once a year", although married people are the ones who on average participate in religious

activities most frequently, relatively. Third, almost 50 percentage (48.38%) of those who are cohabiting live in Quebec, followed by 23.44% of those who are unmarried, 21.61% of those who are LATs and 16.73% of those who are married.

Table 2: Descriptive Statistics on Selected Independent Variables, by Union Status: Canadians (18-64), 2011

	Unmarried		Married		Cohabiting		LATs		Total	
	M or %	S.D.	M or %	S.D.	M or %	S.D.	M or %	S.D.	M or %	S.D.
Demographic variables										
Men (1=yes)	51.12%	-	49.93%	-	50.55%	-	48.74%	-	50.18%	-
Age	35.652	15.513	45.948	10.605	39.123	10.967	29.890	11.783	41.026	13.263
Number of children	0.269	0.721	1.258	1.112	0.906	0.997	0.200	0.593	0.874	1.083
Socioeconomic variables										
Annual personal income	5.708	3.090	7.746	3.200	7.535	2.461	5.882	2.790	7.035	3.169
Main activity										
Working (ref.)	54.78%	-	75.64%	-	77.97%	-	59.03%	-	69.42%	-
Going to school	26.32%	-	1.89%	-	5.73%	-	32.55%	-	11.16%	-
Retired	4.04%	-	7.80%	-	3.64%	-	1.53%	-	5.72%	-
Others	14.86%	-	14.68%	-	12.66%	-	6.89%	-	13.70%	-
Highest level of education	5.831	2.688	6.702	2.634	6.258	2.504	6.305	2.362	6.393	2.631
Cultural variables										
Religious affiliation										
Roman Catholic (ref.)	35.43%	-	36.03%	-	52.15%	-	38.46%	-	38.42%	-
Protestant	24.10%	-	28.08%	-	14.18%	-	22.72%	-	24.65%	-
No religion	29.01%	-	18.51%	-	29.29%	-	29.99%	-	23.62%	-
Others	11.46%	-	17.38%	-	4.38%	-	8.82%	-	13.31%	-
Religiosity	2.229	1.451	2.621	1.555	1.780	1.101	2.105	1.308	2.365	1.486
Quebec (1=yes)	23.44%	-	16.73%	-	48.38%	-	21.61%	-	23.27%	-

Note: Weighted means or percentages.

Source: The 2011 Canadian General Social Survey.

Table 3 displays basic descriptive information for those in a LAT relationship, by gender and age group. For both men and women, LAT relationships are most common among young respondents, with over 50% being between 20 and 29 years of age, followed by those between 18 and 19 years of age (men: 13.13%, women: 11.91%), between 30 and 39 years of age (men: 10.68%, women: 11.94%), between 40 and 49 years of age (men: 9.46%, women: 12.56%) between 50 and 59 years of age (men: 8.85%, women: 7.51%), and between 60 and 64 years of age (men: 3.36%, women: 1.70%). These findings are generally consistent with other Western data on the prevalence of LATs (Castro-Martin et al., 2008; Haskey, 2005; Regnier-Loilier et al., 2009). Nevertheless, similar to other developed countries, older respondents in LATs are not uncommon (De Jong Gierveld, 2004; Davidson & Fennell, 2002; Duncan & Phillips, 2010; Karlsson & Borell, 2002; Turcotte, 2013). Approximately 10% of all LATs are made up of men and women between ages 50 and 64.

Table 3: Basic Descriptive Statistics on LATs by age group and gender (18-64), 2011

	18-19	20-29	30-39	40-49	50-59	60-64	Total
Male	13.13%	54.51%	10.68%	9.46%	8.85%	3.36%	100.00%
Female	11.91%	54.38%	11.94%	12.56%	7.51%	1.70%	100.00%

Note: Weighted percentages.

Source: The 2011 Canadian General Social Survey.

Table 4 gives an overview of the prevalence of union status across different age groups. For women, Age group between 18 and 19 and between 20 and 29 are the age groups in which most women are represented (58.02% and 35.09%) in unmarried, followed by those who are LATs (34.66% and 24.94%). Whereas age group between 40 and 49, between 50 and 59, and between 60 and 64 are the age groups in which most women are represented (64.80%, 65.88%, and 66.17%) in married, followed by those who are unmarried (16.91%, 20.29%, and 25.57%). The bottom panel of the table shows the distribution of union statuses among men across different age groups. The patterns are similar to what we found for women, except more men in the age group between 40 and 49 are cohabiting than staying single. Table 4 also reveals some valuable gender differences in the distribution of other union statuses. Specifically, younger women tend to be represented less in the unmarried category than men do. In particular, 58% of women aged between 18 and 19 are unmarried, compared with 67% of men in the same age group, and 35.09% of women aged between 20 and 29 are unmarried, compared with 49% of men in the same age group. The reverse gender gap exists for older respondents. Specifically, older women tend to be represented more in the unmarried category than men do. In particular, about 20% of women aged between 50 -59 are unmarried compared with 15% of men in the same age group, and 26% of women aged between 60-64 are unmarried compared with 14% of men in the same age group.

Table 4: Descriptive Statistics of Union Status across Gender by Age Groups: Canadians
(18-64), 2011

	18-19	20-29	30-39	40-49	50-59	60-64
Women						
Unmarried	58.02%	35.09%	14.93%	16.91%	20.29%	25.57%
Married	0.49%	20.25%	61.60%	64.80%	65.88%	66.17%
Cohabiting	6.84%	19.72%	17.90%	12.96%	10.62%	6.48%
LATs	34.66%	24.94%	5.57%	5.32%	3.21%	1.77%
Total	100%	100%	100%	100%	100%	100%
Men						
Unmarried	67.41%	49.27%	15.07%	14.02%	15.12%	13.94%
Married	0.43%	13.64%	59.48%	66.93%	69.26%	73.67%
Cohabiting	1.12%	14.05%	20.70%	15.28%	11.96%	8.92%
LATs	31.04%	23.04%	4.75%	3.76%	3.66%	3.48%
Total	100%	100%	100%	100%	100%	100%

Note: Weighted percentages.

Source: The 2011 Canadian General Social Survey.

5.2 Multivariate Results

To examine the prevalence of LAT relationships in Canada, I now turn to the results from the regression analysis. I estimated the effects separately by gender because it allows me to compare the size of the union status coefficients, and it also reduces the bias introduced by the assumption that all the independent variables have the same effect by gender (Sprague, 2005). In addition, age square is included for the purpose of fitting the quadratic function of time (Allison, 1984). Table 5 summarizes the results of a multinomial logistic regression of men's demographic, socioeconomic and cultural characteristics on married versus LATs. The table presents the log odds of men being married rather than being in a LAT relationship. Model 1 serves as a baseline model and suggests how demographic characteristics are associated with the likelihood of men being married versus LATs. More specifically, it indicates that age is significantly associated with being married. When tested, the age square is found to be significant ($p < 0.001$), suggesting a curvilinear, inverted U-shaped relationship between age and the likelihood of being married. In other words, the chance of men being married compared to being LATs initially increases with age until it reaches a maximum then starts to decrease with age ($b = -0.003$). In addition, a higher number of children is associated with a higher probability of being married compared to being in a LAT.

Model 2 adds in socioeconomic characteristics, as shown in Table 5, there is no statistically significant association between education and being married compared to being LATs. Moreover, in comparison to working, men who are going to school are less likely to be married compared to being in a LAT. Nevertheless, in comparison to working, men who are retired are more likely to be married versus LATs. Additionally, a higher level of annual personal income is associated with a higher likelihood of being married.

The last two columns of Table 5 present the full model, adding in both demographic and socioeconomic characteristics as well as cultural characteristics. In the presence of all the covariates, in comparison to Roman Catholics, men who are either Protestants or have no religion are more likely to be married. In addition, a higher level of religiosity is positively associated with the chance of men being married compared to being LATs. Finally, region has no statistically significant association with the log odds of being married.

Models in Table 5 address the hypotheses related to men's socioeconomic characteristics, which predict that higher education, income and employment status are negatively associated with the likelihood of being LATs compared to being married. As expected, the results confirm that men with higher level of annual personal income are positively associated with the likelihood of being in a married union. In addition, the results also confirm that compared to men attending school, those who are working are more likely to be married rather being in a LAT relationship. Nevertheless, compared to men who are retired, men who are working are less likely to be married compared to be in LATs. Moreover, the results fail to support the hypothesis that a higher level of education is associated with a greater likelihood of being married than to be LATs.

The results in Table 5 also address hypothesis related to men's demographic characteristics. The result confirms that number of children is positively associated with being married, as number of children increases, so too does the likelihood of marriage.

Models in Table 5 also address the hypothesis related to men's cultural characteristics. The result fails to support the hypothesis that compared to Protestants, Roman Catholics are more likely to be married than be in a LAT relationship. Similarly, the result also fails to support the hypothesis that people residing in Quebec have a greatly likelihood of being LATs compared to

being married. However, the results confirm the hypothesis that people who attend religious activities more frequently are more likely to be married compared to being LATs.

Table 5: Multinomial Logistic Regression of Selected Independent Variables for Married vs. LATs
(Men) Canadian: 18-64

	Model 1		Model 2		Model 3	
	b	s.e.	b	s.e.	b	s.e.
Demographic variables						
Age	0.311 ***	0.030	0.308 ***	0.036	0.322 ***	0.037
Age Square	-0.003 ***	0.000	-0.003 ***	0.000	-0.003 ***	0.000
Number of children	1.704 ***	0.174	1.657 ***	0.176	1.603 ***	0.174
Socioeconomic variables						
Annual personal income			0.079 *	0.031	0.090 **	0.031
Main activity						
Working (ref.)						
Going to school			-0.523 *	0.293	-0.693 *	0.290
Retired			0.648 *	0.272	0.742 **	0.264
Others			-0.291	0.258	-0.354	0.079
Highest level of education			0.010	0.027	-0.004	0.027
Cultural variables						
Religious affiliation						
Roman Catholic (ref.)						
Protestant					0.457 *	0.183
No religion					0.472 **	0.180
Others					0.940 ***	0.250
Religiosity					0.220 ***	0.054
Quebec (1=yes)					-0.307	0.172
Intercept	-6.867 ***	0.547	-7.265 ***	0.676	-8.317 ***	0.723

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tail test)

Note: Weighted coefficients and standard errors.

Source: The 2011 Canadian General Social Survey.

Table 6 summarizes the results of a multinomial logistic regression of women's demographic, socioeconomic and cultural characteristics for married versus LATs. The table shows the log odds for the likelihood of women being married rather than in a LAT relationship. Model 1 includes demographic characteristics, specifically it indicates that age is significantly associated with being married. Since the coefficient of age square is statistically significant ($p < 0.001$), the likelihood of women being married relative to LATs initially increases until reaching the maximum and then starts to decrease with age ($b = -0.002$). In other words, the association of age to the likelihood of being married is not linear. In addition, a higher number of children is positively associated the likelihood of being married compared to being LATs. At this stage, there are no gender differences in terms of how demographic characteristics affect the likelihood of being married versus LATs.

Model 2 adds in socioeconomic characteristics, as shown in Table 6. A higher level of annual personal income is negatively associated with the likelihood of being married. However, a higher level of education is positively associated with the likelihood of being married. Moreover, in comparison to going to school, women who are working for pay are more likely to be married. However, compared to being retired, women who work are less likely to be married than in a LAT union. At this stage, it can be observed that there are gender differences regarding how socioeconomic characteristics are associated with the probability of being married compared to LATs, particularly for income and education.

The last two columns of Table 6 present the full model, adding in cultural characteristics. In the presence of all the covariates, compared to Roman Catholics, Protestant women are not significantly different in the likelihood of being married versus LATs. However, a high level of religiosity is positively associated with the chance of being in a marriage. Moreover, region is

not significantly associated with the log odds of being married. Comparing Table 5 and 6, we can see gender differences in terms of how cultural characteristics are associated with the chance of being married, particularly in regard to religious affiliation.

Models in Table 6 address the hypotheses related to women's socioeconomic characteristics, which predict that higher education, income and employment status will have a greater likelihood of being LATs compared to being married. The results fail to support the hypothesis that women with higher education are positively associated with the chance of being LATs compared to being married. However, the results support the hypothesis that women with higher level of personal income are positively associated with the chance of being LATs compared to being married. In addition, the results confirm that compared to women who are going to school, women work are more likely to be married rather than be in a LAT relationship. However, compared to women who are retired, women who work are less likely to be married compared to in a LAT union.

The results in Table 6 also address hypotheses related to women's demographic characteristics and confirm that the presence of children is associated with the likelihood of being married. In fact, a higher number of children is positively associated with the likelihood of being married compared to being in a LAT union. With regard to the hypothesis related to women's cultural characteristics, the result fails to support the hypothesis that compared to Protestants, being Roman Catholic is positively associated with the likelihood of being married rather than being in a LAT relationship. Similarly, people residing in Quebec are not more likely to be in LATs compared to being married, contrary to my hypothesis. However, the results confirm the hypothesis that people who attend religious activities more frequently have a greater likelihood of being married compared to being LATs.

Table 6: Multinomial Logistic Regression of Selected Independent Variables for Married vs. LATs
(Women) Canadian: 18-64

	Model 1		Model 2		Model 3	
	b	s.e.	b	s.e.	b	s.e.
Demographic variables						
Age	0.263 ***	0.029	0.256 ***	0.035	0.272 ***	0.036
Age Square	-0.002 ***	0.000	-0.002 ***	0.000	-0.002 ***	0.000
Number of children	0.972 ***	0.077	0.878 ***	0.076	0.851 ***	0.077
Socioeconomic variables						
Annual personal income			-0.052 *	0.026	-0.056 *	0.026
Main activity						
Working (ref.)						
Going to school			-1.252 ***	0.236	-1.504 ***	0.225
Retired			0.877 ***	0.245	0.843 ***	0.247
Others			0.551 **	0.184	0.476 *	0.187
Highest level of education			0.056 *	0.025	0.047	0.025
Cultural variables						
Religious affiliation						
Roman Catholic (ref.)						
Protestant					0.045	0.160
No religion					0.016	0.166
Others					0.956 ***	0.236
Religiosity					0.174 ***	0.050
Quebec (1=yes)					-0.208	0.154
Intercept	-5.924 ***	0.518	-5.572 ***	0.653	-6.235 ***	0.679

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tail test)

Note: Weighted coefficients and standard errors.

Source: The 2011 Canadian General Social Survey.

Table 7 presents the results of men's demographic, socioeconomic and cultural characteristics for cohabiting versus being in a LAT relationship. The table presents the log odds for the likelihood of men cohabiting versus LATs. Model 1 serves as a baseline model and shows that age is significantly associated with cohabitation. Since the age square is statistically significant ($p < 0.001$), it suggests that middle age men are more likely to cohabit than be in a LAT, the likelihood increases with age until reaching the maximum and then starts to decrease ($b = -0.003$). In other words, the association of age to the likelihood of cohabiting is not linear. In addition, number of children is positively associated with the likelihood of cohabiting compared to being LATs.

Model 2 adds socioeconomic characteristics to the existing model. There is no statistically significant association between personal income for cohabiting versus LATs. In addition, compared to attending school, men who work are more likely to be in cohabitation than a LAT union. There is no significant association when comparing men who are retired to those who work on the likelihood of cohabiting. Moreover, education is negatively associated with the likelihood of being in a cohabitation compared to being LATs.

The last two columns of Table 7 present the full model, adding in both demographic and socioeconomic characteristics as well as cultural characteristics. In the presence of all the covariates, compared to Roman Catholic men, Protestants have no statistically significant association on the log odds of cohabiting versus LATs. This is the same for those who have no religion. In addition, a high level of religiosity is negatively associated with the chance of cohabiting. Finally, men who reside in Quebec have a greater likelihood of cohabiting compared to being LATs.

Models in Table 7 address the hypotheses related to men's socioeconomic characteristics,

which predict that higher education, income and employment status are positively associated with the likelihood of cohabiting compared to being LATs. As expected, the results confirm that men who are attending school are less likely to cohabit than men who work. However, the results fail to support the hypotheses that men with a higher level of personal income and higher level of education are more likely to cohabit rather than be in LATs.

The results in Table 7 also address the hypotheses related to men's demographic characteristics. The result confirms that the presence of children is correlated with the likelihood of cohabiting versus LATs. In fact, as the number of children increases, it is positively associated with the chance of cohabiting compared to being LATs.

Models in Table 7 also address the hypotheses related to men's cultural characteristics. The results fail to support the hypothesis that compared to Protestants, Roman Catholics are more likely to cohabit. In addition, people residing in Quebec are more likely to be in a LAT union compared to cohabiting. Men who attend religious activities more frequently are more likely to be in a cohabiting union compared to being LATs.

Table 7: Multinomial Logistic Regression of Selected Independent Variables for Cohabiting vs. LATs
(Men) Canadian: 18-64

	Model 1		Model 2		Model 3	
	b	s.e.	b	s.e.	b	s.e.
Demographic variables						
Age	0.291 ***	0.034	0.295 ***	0.040	0.290 ***	0.041
Age Square	-0.003 ***	0.000	-0.003 ***	0.000	-0.003 ***	0.001
Number of children	1.304 ***	0.175	1.281 ***	0.177	1.258 ***	0.176
Socioeconomic variables						
Annual personal income			0.036	0.030	0.040	0.033
Main activity						
Working (ref.)						
Going to school			-0.665 *	0.310	-0.681 *	0.318
Retired			0.594	0.321	0.596	0.332
Others			-0.291	0.279	-0.222	0.286
Highest level of education			-0.078 **	0.029	-0.074 *	0.030
Cultural variables						
Religious affiliation						
Roman Catholic (ref.)						
Protestant					-0.168	0.207
No religion					0.170	0.186
Others					-0.218	0.305
Religiosity						
Quebec (1=yes)					1.101 ***	0.170
Intercept	-6.100 ***	0.609	-5.716 ***	0.735	-5.631 ***	0.777

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tail test)

Note: Weighted coefficients and standard errors.

Source: The 2011 Canadian General Social Survey.

Table 8 summarizes the results of women's demographic, socioeconomic and cultural characteristics associated with cohabiting versus being in a LAT relationship. The table shows the log odds of the likelihood of women cohabiting. Model 1 indicates that age square is statistically significant meaning that as age increases women are more likely to cohabit than be in a LAT until reaching the maximum and then starts to decrease ($b = -0.002$). In other words, the association of age with the likelihood of cohabiting is not linear. In addition, number of children is positively associated with the likelihood of cohabiting. At this stage, there are no gender differences on how demographic characteristics are associated with the likelihood of cohabiting versus being LATs.

When socioeconomic characteristics are added in for Model 2, neither personal income nor highest level of education is significantly associated with women cohabiting versus LATs. Moreover, in comparison to attending school, women who working are more likely to cohabit. At this stage, there are gender differences in how age and highest level of education are associated with the likelihood of cohabiting compared to being LATs.

The last two columns of Table 8 present the full model, adding in both demographic and socioeconomic characteristics as well as cultural characteristics. In the presence of all the covariates, religious affiliation has no statistically significant associations to the likelihood of cohabiting versus LATs. In addition, a high level of religiosity is negatively associated with the chance of cohabiting compared to LATs. Finally, women who reside in Quebec are more likely to be cohabiting compared to being in a LAT relationship. At this stage, there are no gender differences in how cultural characteristics are associated with the likelihood of cohabiting versus being LATs.

Models in Table 8 address the hypotheses related to women's socioeconomic characteristics,

which predict that higher education, income and employment status will be positively associated with the likelihood of being in a LAT union compared to cohabiting. As expected, results confirm that compared to attending school, women who work are more likely to cohabit than be in a LAT union. In addition, the results fail to support the hypotheses that women with higher level of annual personal income and higher level of education are more likely to be LATs compared to cohabiting.

The results in Table 8 also address the hypotheses related to women's demographic characteristics. The result confirms that the presence of children correlated is with the likelihood of cohabiting. In fact, as number of children increase, the likelihood of being in a cohabiting union increases compared to being in a LAT union.

Models in Table 8 also address the hypotheses related to women's cultural characteristics. The results fail to support the hypotheses that compared to Protestants, Roman Catholic religious affiliation is positively associated with the likelihood of cohabiting rather than being in a LAT relationship. Quebec residence is positively associated with the likelihood of being LATs and women who attend religious activities more frequently are more likely to cohabit rather than be in a LAT union.

Table 8: Multinomial Logistic Regression of Selected Independent Variables for Cohabiting vs. LATs
(Women) Canadian: 18-64

	Model 1		Model 2		Model 3	
	b	s.e.	b	s.e.	b	s.e.
Demographic variables						
Age	0.188 ***	0.033	0.138 ***	0.039	0.127 **	0.041
Age Square	-0.002 ***	0.000	-0.001 **	0.000	-0.001 *	0.000
Number of children	0.638 ***	0.083	0.567 ***	0.083	0.562 ***	0.085
Socioeconomic variables						
Annual personal income			0.030	0.028	0.024	0.028
Main activity						
Working (ref.)						
Going to school			-0.877 ***	0.236	-0.977 ***	0.244
Retired			0.709 *	0.303	0.578	0.309
Others			0.505 *	0.200	0.552 **	0.202
Highest level of education			-0.023	0.027	-0.025	0.028
Cultural variables						
Religious affiliation						
Roman Catholic (ref.)						
Protestant					-0.170	0.188
No religion					0.137	0.180
Others					-0.327	0.277
Religiosity					-0.163 **	0.057
Quebec (1=yes)					1.124 ***	0.162
Intercept	-4.032 ***	0.576	-2.798 ***	0.703	-2.530 ***	0.752

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tail test)

Note: Weighted coefficients and standard errors.

Source: The 2011 Canadian General Social Survey.

Table 9 summarizes the results of multinomial logistic regression of men's demographic, socioeconomic and cultural characteristics associated with unmarried versus LATs. The table shows the log odds for men being unmarried (including those currently single, divorced, separated and widowed) rather than being in a LAT relationship. Model 1 examines the demographic characteristics. More specifically, it indicates that age has not statistically significant association with the log odds of being unmarried. Additionally, there is no statistically significant association between number of children and being unmarried.

When socioeconomic characteristics were added, age square is statistically significant meaning that as age increases men are more likely to be unmarried than be in a LAT until reaching the maximum and then starts to decrease ($b = -0.002$). In other words, the association of age with the likelihood of cohabiting is not linear. In addition, as personal income increases for men, the likelihood of being unmarried compared to being in a LAT relationship decreases. Similarly, a higher level of education is negatively associated with the chance of men being unmarried compared to being LATs. Furthermore, none of main activities are significantly associated with the log odds of being unmarried compared to being LATs ($p > 0.05$).

In the presence of the full model, none of the cultural variables are significantly associated with the log odds of being unmarried versus LATs, except religious affiliation. More specifically, compared to men who are Roman Catholics, men who have no religion are more likely to be unmarried compared to being LAT union.

Models in Table 9 address the Hypothesis related to men's cultural characteristics. The results fail to support the hypotheses that compared to Protestants, Roman Catholics are more likely to be single rather than being in a LAT relationship.

Table 9: Multinomial Logistic Regression of Selected Independent Variables for Unmarried vs. LATs
(Men) Canadian: 18-64

	Model 1		Model 2		Model 3	
	b	s.e.	b	s.e.	b	s.e.
Demographic variables						
Age	0.039	0.031	0.153 ***	0.036	0.154 ***	0.037
Age Square	-0.000	0.000	-0.002 ***	0.000	-0.002 ***	0.000
Number of children	-0.033	0.194	-0.000	0.197	0.001	0.196
Socioeconomic variables						
Annual personal income			-0.096 **	0.030	-0.098 **	0.031
Main activity						
Working (ref.)						
Going to school			0.418	0.217	0.390	0.222
Retired			0.244	0.287	0.227	0.291
Others			0.471	0.249	0.423	0.253
Highest level of education			-0.093 ***	0.028	-0.092 ***	0.028
Cultural variables						
Religious affiliation						
Roman Catholic (ref.)						
Protestant					0.267	0.191
No religion					0.410 *	0.175
Others					0.441	0.261
Religiosity					0.023	0.056
Quebec (1=yes)					0.218	0.164
Intercept	0.052	0.530	-1.046	0.645	-1.402 *	0.674

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tail test)

Note: Weighted coefficients and standard errors.

Source: The 2011 Canadian General Social Survey.

Table 10 summarizes the results of a multinomial logistic regression of women's demographic, socioeconomic and cultural characteristics associated with being unmarried versus LATs. The table shows the log odds for the likelihood of women being unmarried rather than being in a LAT relationship. Model 1 indicates that the association between age and age square with unmarried versus LATs is weak ($p > 0.05$). In other words, age has not statistically significant association with the log odds of being unmarried. In addition, number of children is positively associated with the likelihood of being unmarried compared to being LATs. At this stage, there are gender differences in terms of how number of children is associated with the likelihood of being unmarried compared to LATs.

Model 2 added in socioeconomic characteristics, and as shown in Table 10, number of children has not statistically significant association with the log odds of being unmarried. Similarly, there is no statistically significant association between personal income and education on the log odds of being unmarried or LATs ($p > 0.05$). Additionally, in comparison to working, women who are either going to school or retired have no greater likelihood of being unmarried versus LATs. At this stage, there are gender differences regarding how socioeconomic characteristics are associated with the likelihood of being unmarried compared to LATs, particularly income and education.

Adding in cultural characteristics, we can see that a high level of religiosity is positively associated with the chance of women being unmarried compared to being LATs. In the presence of all the covariates, there is no religious affiliation difference on the log odds of being unmarried versus LATs. Finally, no statistically significant regional association is observed. At this stage, there are gender differences in terms of how cultural characteristics are associated the likelihood of being unmarried versus LATs, particularly when it comes to religiosity.

Models in Table 10 address the hypothesis related to women's cultural characteristics. The results fail to support the hypotheses that compared to Protestants, Roman Catholics are positively associated with the likelihood of being single rather than being in a LAT relationship.

Table 10: Multinomial Logistic Regression of Selected Independent Variables for Unmarried vs. LATs
(Women) Canadian: 18-64

	Model 1		Model 2		Model 3	
	b	s.e.	b	s.e.	b	s.e.
Demographic variables						
Age	0.003	0.030	0.029	0.037	0.036	0.037
Age Square	0.001	0.000	0.000	0.000	0.000	0.000
Number of children	0.230 **	0.082	0.146	0.082	0.139	0.083
Socioeconomic variables						
Annual personal income			-0.010	0.027	-0.011	0.027
Main activity						
Working (ref.)						
Going to school			0.189	0.200	0.120	0.203
Retired			0.210	0.255	0.186	0.256
Others			0.546 **	0.191	0.518 **	0.196
Highest level of education			-0.027	0.026	-0.031	0.027
Cultural variables						
Religious affiliation						
Roman Catholic (ref.)						
Protestant					0.110	0.170
No religion					0.226	0.178
Others					0.465	0.246
Religiosity					0.114 *	0.053
Quebec (1=yes)					0.168	0.160
Intercept	-0.013	0.529	-0.330	0.659	-0.827	0.686

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tail test)

Note: Weighted coefficients and standard errors.

Source: The 2011 Canadian General Social Survey.

5.3 Predicted Probabilities

To illustrate how the associations of demographic, socioeconomic and cultural characteristics are distributed across union status, I calculated predicted probabilities for selected independent variables for married, cohabiting, LATs and unmarried, while holding all other variables at their sample means.

The two panels in Figure 1 graph the predicted probabilities of union status by gender and across number of children. The top panel reports the results for men, and the bottom panel reports the results for women. For men, the predicted probability of being in a LAT when he has no children is 14 percent but decreases to 5 percent for those who have one child and to 1 percent for those who have two children. Similarly, the predicted probability of being childless and unmarried is 38 percent but decreases to percent for those who have one child and to 3 percent for those who have two children. The predicted probability of being married, meanwhile, starts at 35 percent for those who have no children and increases to 65 percent for those who have one child and to 81 percent for those who have two children. However, the predicted probabilities of men cohabiting by number of children is more complicated. Specifically, the predicted probability of men cohabiting is 13 percent for those who have no children, then increases to 17 percent for those who have one child, and decreases to 15 percent for those who have two children.

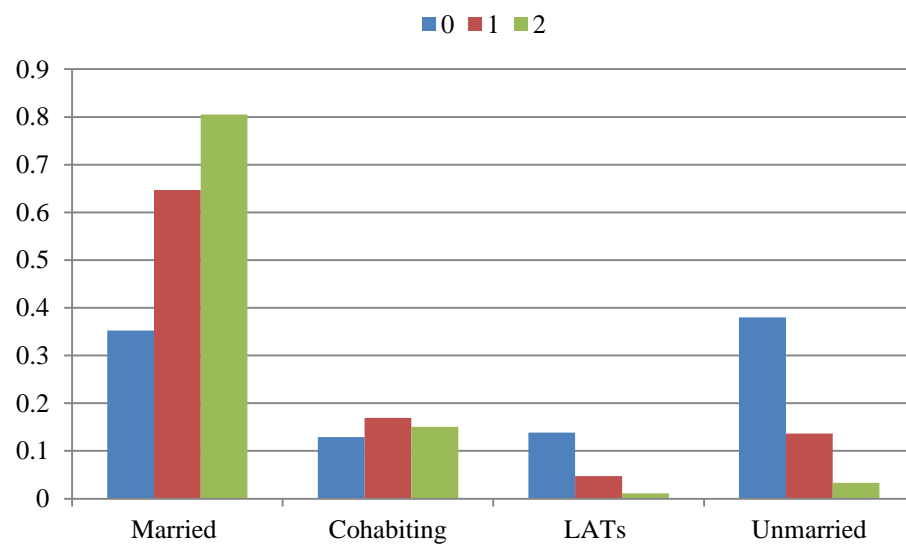
For women, the predicted probability of being in a LAT union is 11 percent for those who have no children and decreases to 6 percent for one child and to 3 percent for those with two children. Similarly, the predicted probability of being unmarried decreases with number of children, from 36 percent for those with no children to 25 percent for one child and to 15 percent for those who have two children. The predicted probability of being married is 40 percent for

those who have no children and increases to 56 percent for one child and to 70 percent for two children. However, number of children does not seem to affect the predicted probability of women cohabiting; the predicted probability of cohabiting is 13 percent for those who have no children, 13 percent for those with one child and 12 percent for those with two children.

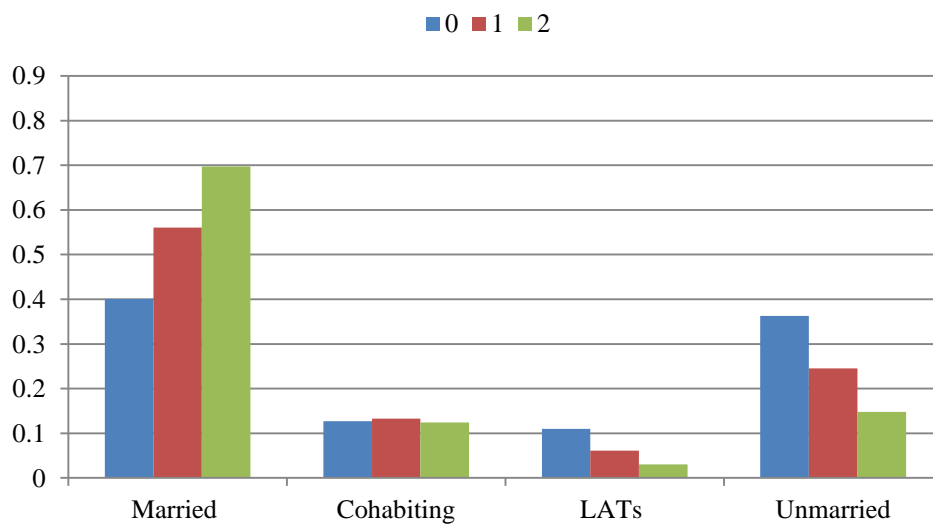
Overall, the trends of how number of children associated the predicted probabilities across union statuses by gender are similar.

Figure 1 The predicted probabilities in different union statuses by number of children

A. Men



B. Women



Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

The two panels in Figure 2 graph the predicted probabilities of union statuses by gender and across annual personal income. Again, the top panel reports the results for men, and the bottom panel reports the results for women. For men, the predicted probability of being in a LAT union is 7 percent for those who make \$5,000 to \$9,999 and decreases to 6 percent for those who make \$20,000 to \$29,999 to 5 percent for those who make \$50,000 to \$59,999, and to 4 percent for those who make more than \$100,000. Similarly, the predicted probability of men being unmarried decreases from 32 percent for those who have an annual personal income of \$5,000 to \$9,999 to 22 percent for those making \$20,000 to \$29,999, to 14 percent for income of \$50,000 to \$59,999, and to 9 percent for those whose income is \$100,000 or more. In contrast, the predicted probability of being married increases from 45 percent for those who have an annual personal income of \$5,000 to \$9,999 to 55 percent for income of \$20,000 to \$29,999, to 64 percent for those who make \$50,000 to \$59,999, and to 71 percent for those whose income is \$100,000 or more. Interestingly, the predicted probability of cohabiting does not differ by annual personal income, indicating the predicted probability of men cohabiting is approximately 16 percent regardless how much income is reported (e.g. \$5,000 to \$9,999, \$20,000 to \$29,999, \$50,000 to \$59,999, \$100,000 or more).

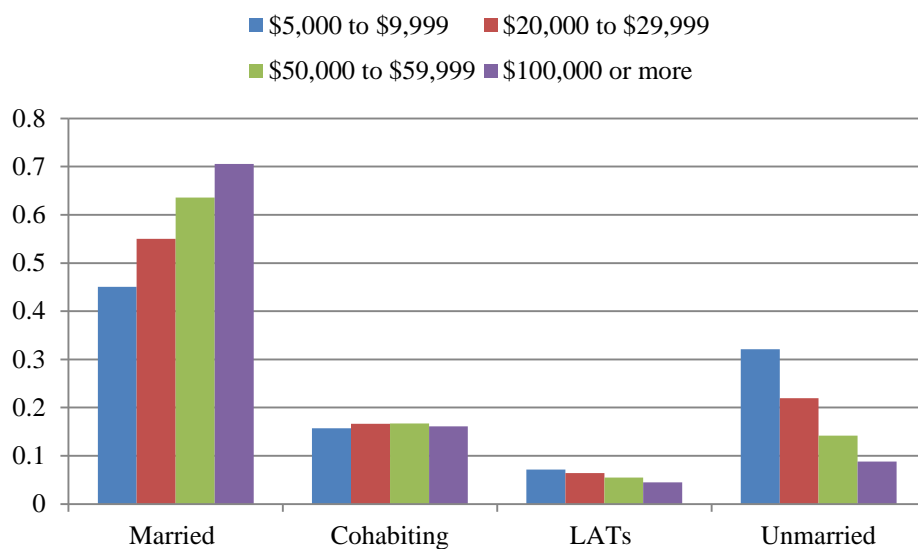
For women, annual personal income does not influence the predicted probability of being in a LAT union; the predicted probability for is approximately 7 percent regardless how much personal income is reported (e.g. \$5,000 to \$9,999, \$20,000 to \$29,999, \$50,000 to \$59,999, \$100,000 or more). For unmarried women, the predicted probability is 24 percent for those who have an annual personal income of \$5,000 to \$9,999 and this increases to 26 percent for those whose income of \$20,000 to \$29,999, to 27 percent for those who report \$50,000 to \$59,999 in personal income, and to 28 percent for those who make \$100,000 or more. Similarly, the

predicted probability of cohabiting increases from 11 percent for those who make \$5,000 to \$9,999 to 13 percent for those who make \$20,000 to \$29,999, to 15 percent for those who make \$50,000 to \$59,999, and to 18 percent for those who make \$100,000 or more. However, the predicted probability of being married decreases as income increases, from 59 percent for those with an income of \$5,000 to \$9,999 to 55 percent for those with an income of \$20,000 to \$29,999, to 51 percent for those making \$50,000 to \$59,999, and to 47 percent for those who report an annual income of \$100,000 or more.

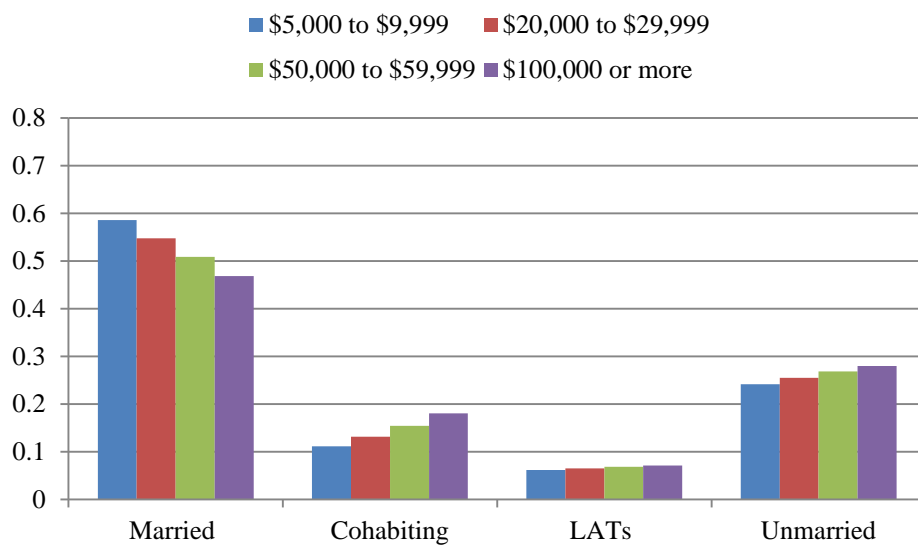
Overall, there are clear gender differences in the association between annual personal income and union status, particularly on how it affects the predicted probabilities of being married, cohabiting and unmarried.

Figure 2 The predicted probabilities in different union statuses by annual personal income

A. Men



B. Women



Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

Figure 3 graphs the predicted probabilities of union statuses by gender, across highest level of education. The top panel reports the results for men, and the bottom panel reports the results for women. For men, the predicted probability of being in a LAT union does not differ by level of education, holding at approximately 6 percent regardless the highest level of education (e.g., high school diploma, some university, and bachelor's degree). Additionally, the predicted probability of men being married is 55 percent for those who have a high school diploma, increases to 60 percent for those who have some university background and to 65 percent for those who have a bachelor's degree. Whereas the predicted probability of cohabiting decreases from 19 percent for those who have a high school diploma to 17 percent for those who have some university education and to 15 percent for those who have a bachelor's degree. Similarly, the predicted probability of being unmarried decreases from 20 percent for those who have a high school diploma to 17 percent for those who have some university background, and to 14 percent for those who have a bachelor's degree.

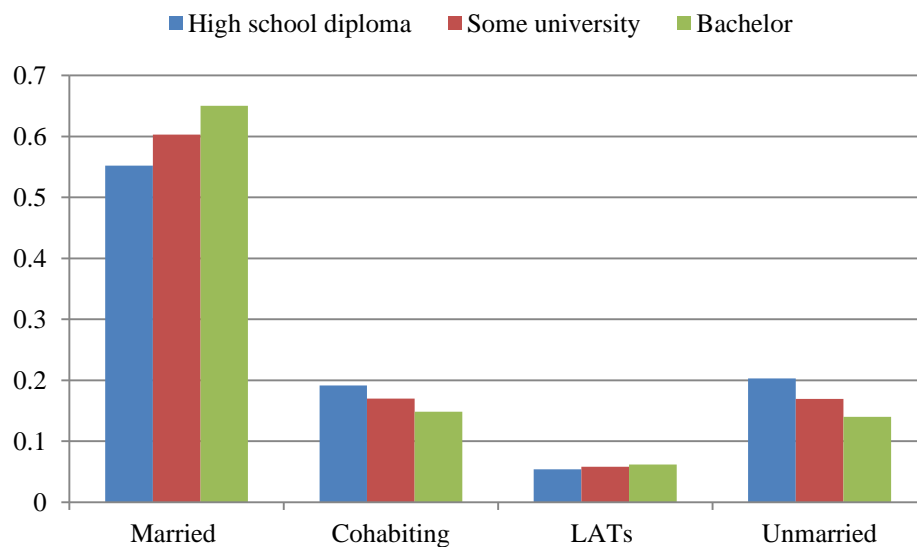
For women, level of education does not greatly affect the predicted probability of being LATs, at approximately 7 percent regardless of the level of education (e.g., high school diploma, some university, and bachelor's degree). The predicted probability of being married increases from 48 percent for those who have high school diploma to 54 percent for those who have some university and to 59 percent for those who have a bachelor's degree. Conversely, the predicted probability of being unmarried decreases from 30 percent for those who have a high school diploma to 26 percent for those who have some university background, and to 23 percent for those who have a bachelor's degree. Similarly, the predicted probability of cohabiting is 15 percent for those who have a high school diploma and slightly decreases to 14 percent for those

who have some university, and to 12 percent for those who have a bachelor's degree.

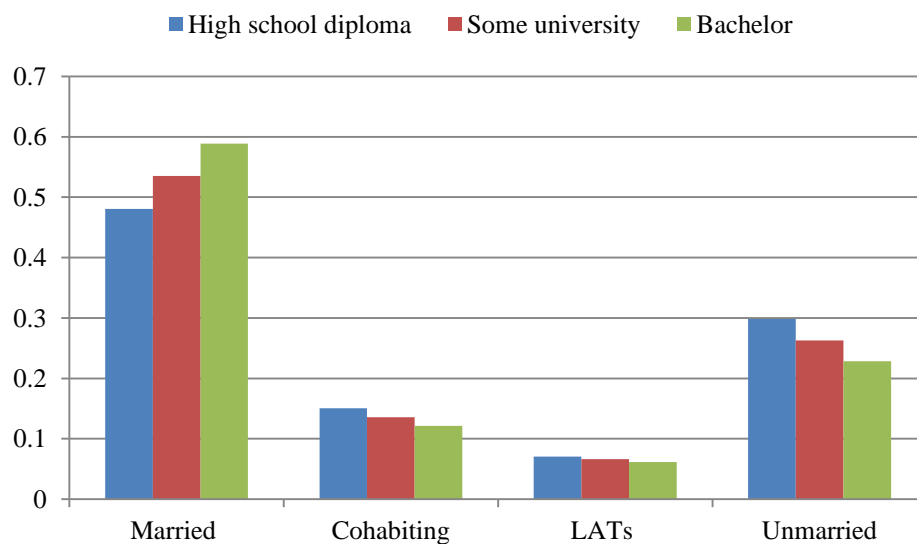
Overall, the trends of how level of education is associated the predicted probabilities across union status by gender are similar.

Figure 3 The predicted probabilities in different union statuses by highest level of education

A. Men



B. Women



Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

Figure 4 graphs the predicted probabilities of union status by gender and across main activity with the top panel reporting results for men, and the bottom panel reporting results for women. There are clear gender differences in the association between main activities and union status. For men, the predicted percentage of being in a LAT union is slightly lower for those who are working (5%) and are retired (3%) than for those who are going to school (10%). Whereas for women, the predicted probability of being in a LAT union is much higher for those who are going to school (15%) than for those who are working (7%) or retired (4%).

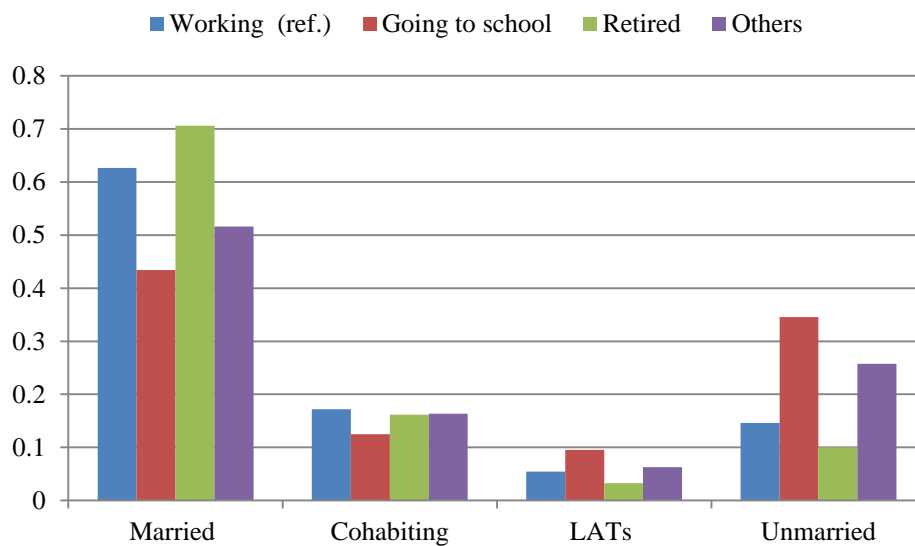
For men, the predicted percentage of being married is lower for those who are going to school (43%) than for those who are occupied by other activities (52%), are working outside of the home (63%), and are retired (71%). Whereas for women, the predicted probability of being married is much lower for those who are going to school (23%) than for those who are working (57%), are occupied by other activities (58%), and are retired (70%).

For men, the predicted probability of being unmarried is higher for those who are occupied by other activities (26%) and are going to school (35%) than for those who are working outside of the home (15%) and are retired (10%). Whereas for women, the predicted probability of being unmarried is much higher for those who are going to school (53%) than for those who are occupied by other activities (24%), are working (23%) and are retired (14%).

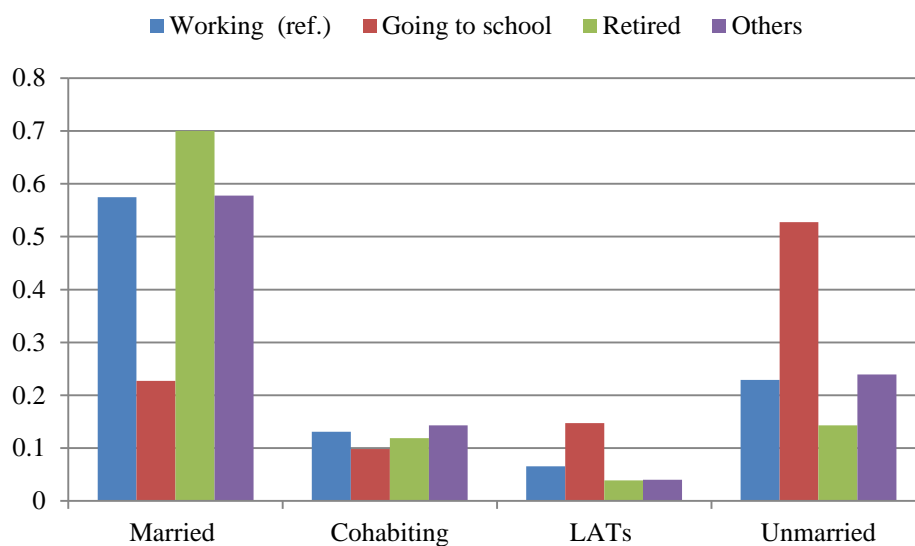
Nevertheless, for both men and women, the predicted percentage cohabiting is lower for those who are going to school (men: 12%, women: 10%) than for those who are working outside of home (men: 17%, women: 13%), are retired (men: 16%, women: 12%).

Figure 4 The predicted probabilities in different union statuses by main activity

A. Men



B. Women



Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

The two panels in Figure 5 graph the predicted probabilities of union statuses by gender and across religious affiliation. Again we see clear gender differences in the association between religious affiliation and union status. For men, the predicted percentage of being in a LAT union is slightly higher for those who are Roman Catholics (7%) than for those who are Protestants (6%), for those who have no religion (5%) and for those who hold other religious beliefs (4%). Whereas for women, the predicted probability of being in a LAT union is the same (7%) for those who are Roman Catholics, Protestants and for those who have no religion, although the predicted probability is lower for those who hold other religious beliefs (4%).

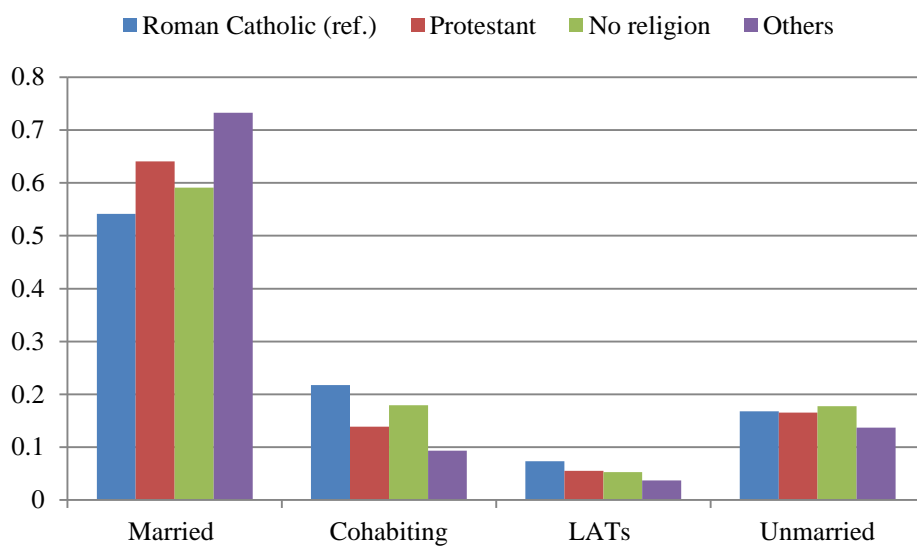
For men, the predicted probability of being married is higher for those who hold other religious beliefs (74%) followed by those who are Protestants (64%), have no religion (59%) and are Roman Catholics (54%). Whereas for women, the predicted probability of being married is higher for those hold other religious beliefs (71%) followed by those who are Protestants (54%), are Roman Catholics (52%) and have no religion (48%).

For men, the predicted percentage of being unmarried is higher for those who are Roman Catholics (17%), are Protestants (17%) and have no religion than those who hold other religious beliefs (14%). Whereas for women, the predicted probability of being unmarried is much higher for those who are Roman Catholics (25%), are Protestants (27%) and have no religion (28%) than those who hold other religious beliefs (20%).

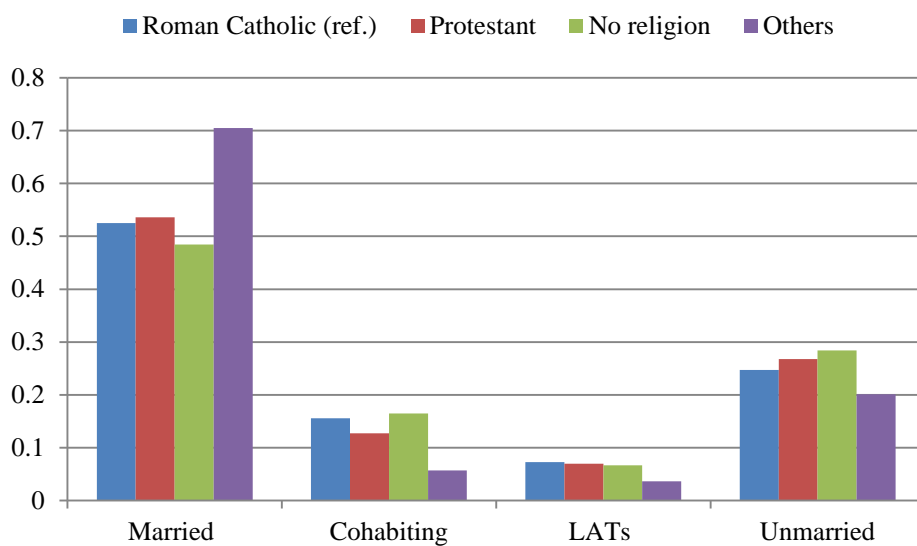
For men, the predicted probability of cohabiting is higher for those who are Roman Catholics (22%) and have no religion (18%) than those who are Protestants (14%) and hold other religious beliefs (9%). Whereas for women, the predicted probability of cohabiting is higher for those who are Roman Catholics (53%), Protestants (54%), and have no religion (48%) than those who hold other religious beliefs (6%).

Figure 5 The predicted probabilities in different union statuses by religion affiliation

A. Men



B. Women



Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

Figure 6 graphs the predicted probabilities of union statuses by gender and across religiosity. For men, the predicted probability of being in a LAT union decreases from 6 percent for those who do not participate in religious activities to 5 percent for those who participate in religious activities a few times a year, and to 4 percent for those who participate in religious activities at least once a week. Similar patterns are shown for people who are either cohabiting or unmarried. Specifically, the predicted probability of cohabiting decreases from 24 percent for those who do not participate in religious activities to 14 percent for those who participate in religious activities a few times a year, down to 7 percent for those who participate in religious activities at least once a week. The predicted probability of being unmarried decreases from 18 percent for those who do not participate in religious activities to 16 percent for those who participate a few times a year, to 13 percent for those who participate in religious activities at least once a week. However, the predicted probability of being married increases is 51 percent for those who do not participate in religious activities and increases to 65 percent for those who participate a few times a year, to 76 percent for those who participate at least once a week.

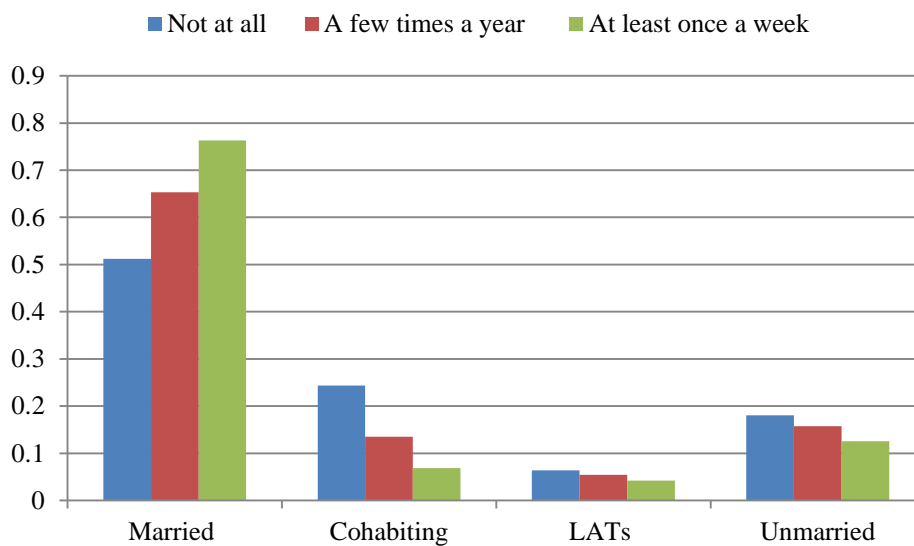
For women, there is a 7 percent probability of being in a LAT union for those who do not participate in religious activities and this decreases to 6 percent for those who participate a few times a year, and to 5 percent for those who participate at least once a week. Similar patterns are shown for women who are cohabiting. Specifically, the predicted probability of cohabiting decreases from 19 percent for those who do not participate in religious activities to 11 percent for those who participate a few times a year, to 7 percent for those who participate at least once a week. However, the predicted probability of being married increases from 49 percent for those who do not participate in religious activities to 57 percent for those who participate a few times a

year, to 63 percent for those who participate at least once a week. Furthermore, religious attendance does not seem to affect the predicted probability of women being unmarried, stable at approximately 26 percent regardless of frequency in religious services attendance.

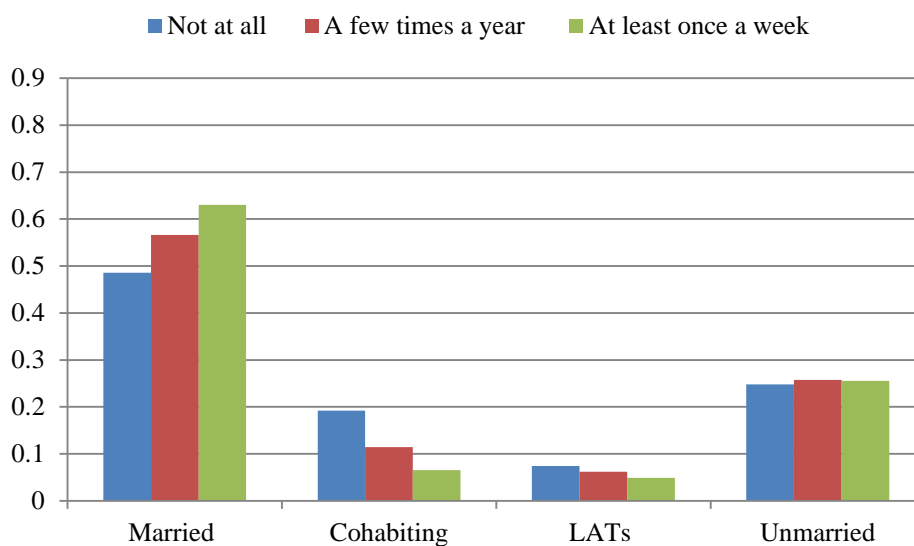
Overall, the trends of how religious attendance is associated with the predicted probabilities across union status by gender are similar, except the effects of religiosity on the predicted percentage of being unmarried.

Figure 6 The predicted probabilities in different union statuses by religiosity

A. Men



B. Women



Note: Weighted probabilities.

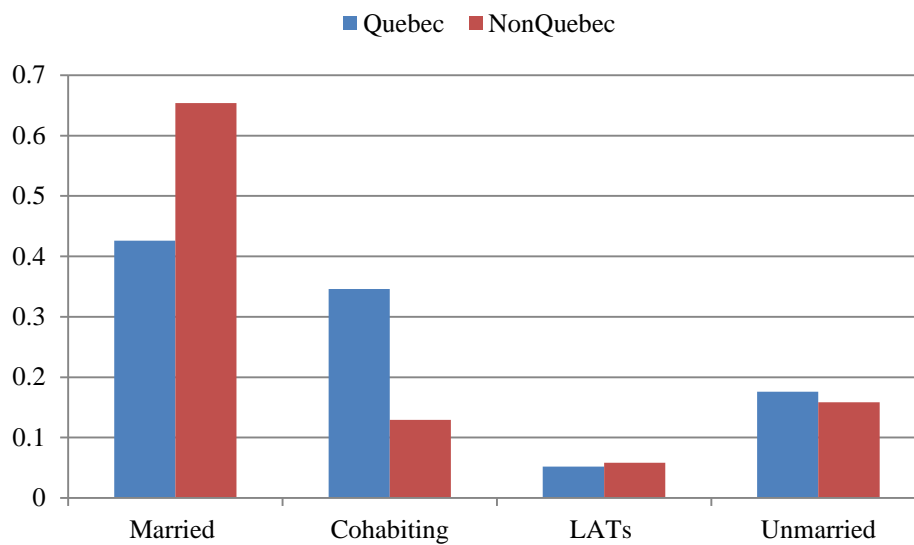
Source: The 2011 Canadian General Social Survey.

The two panels in Figure 7 graph the predicted probabilities of union statuses by gender and region. The top panel reports the results for men, and the bottom panel reports the results for women. For both men and women, the predicted probability of respondents being married is much lower (men 43% and women 41%) among respondents residing in Quebec than among those residing in the rest of the Canadian provinces (men 65% and women 60%). Similarly, residing in Quebec is positively associated with the predicted probability of being in a cohabiting union by a difference of 22% (from 13% to 35%) for men and by 18% (from 10% to 28%) for women. Additionally, Quebec residence does not greatly affect the predicted probability of being unmarried, with a 2% difference for men and 1% difference for women. Furthermore, living in Quebec minimally affects the predicted probabilities of being in a LAT union for both men (Quebec: 5%, NonQuebec: 6%) and women (Quebec: 6%, NonQuebec: 7%).

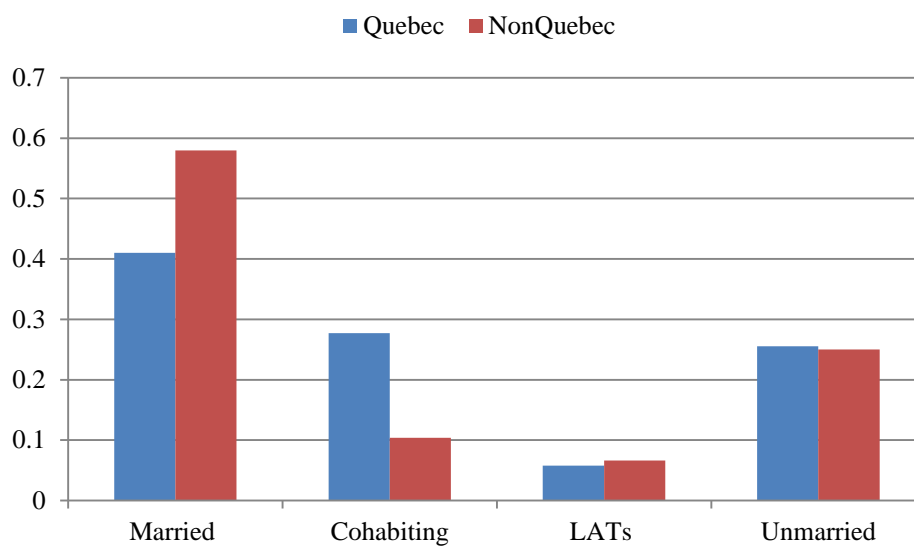
Overall, the trends of how geographic location is associated with the predicted probabilities across union status are similar for men and women.

Figure 7 The predicted probabilities in different union statuses by province

A. Men



B. Women

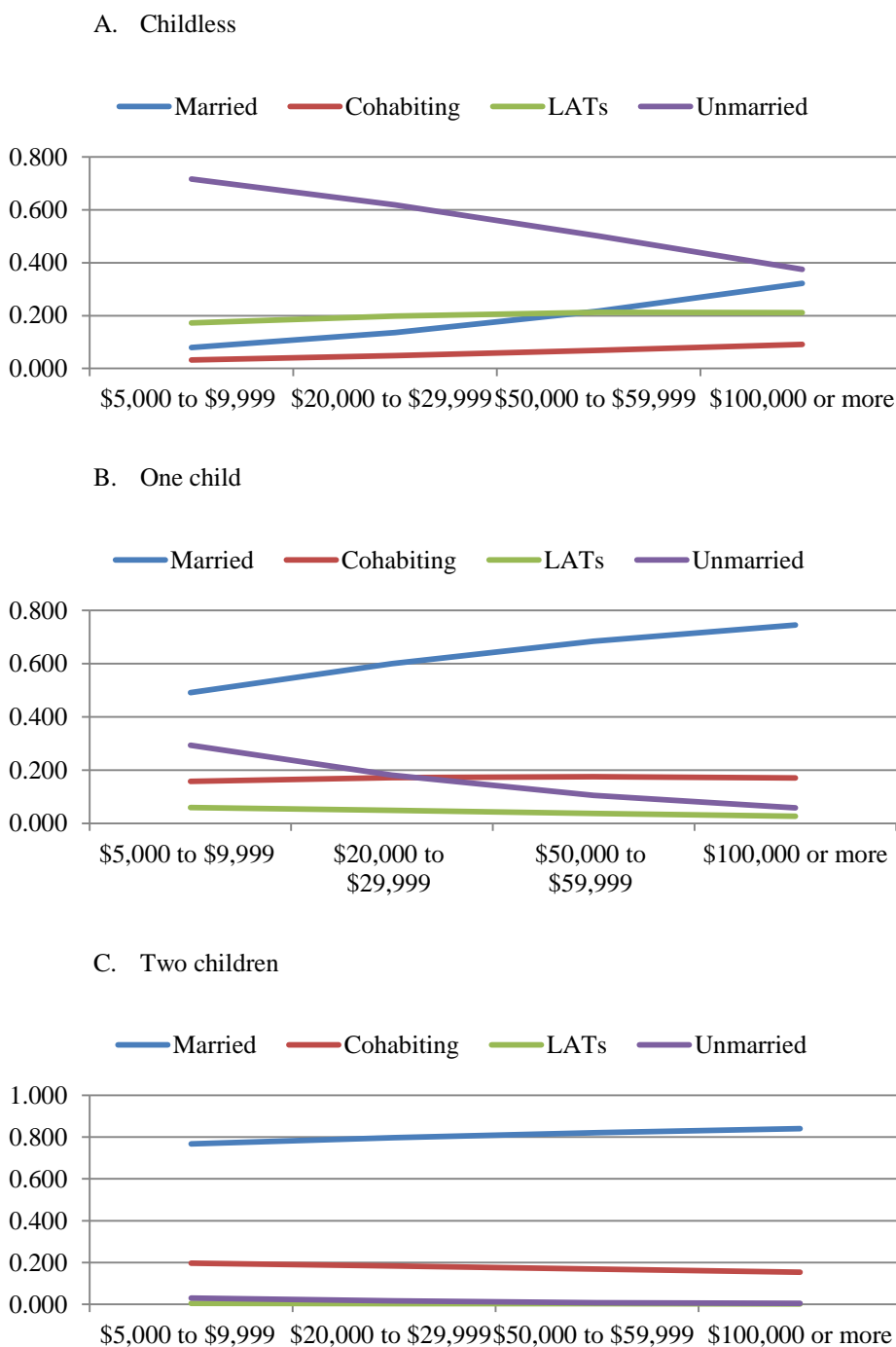


Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

To further explore the prevalence of LATs in Canada, I identified interaction terms for both men and women that might affect the likelihood of being in different union statuses. For men, previous research has shown that the presence of children and income have significant effects on marital behavior (Oppenheimer, 1994; 1997; 1998; Waite & Lillard, 1991; Wu, 1995; Wu & Hart, 2001, also mentioned in the Chapter 3), it would be interesting to test if there is an interaction effect between presence of children and income on the likelihood of being married, cohabiting, LATs and unmarried. By using the command *mim: testparm*, the interaction effect is shown to be significant ($p = 0.025$). Figure 8 shows (for men) the association between annual personal income and the predicted probability of varying union status by numbers of children (ranging from 0 to 2). When men have two children, there is apparently no association between annual personal income and the choices of union status. In contrast, as number of children increase (from 0 to 1), respondents are progressively and positively associated with the likelihood of being married, and are negatively associated with the likelihood of being unmarried.

Figure 8 The predicted probabilities of men being in different union statuses by interaction between number of children and annual personal income



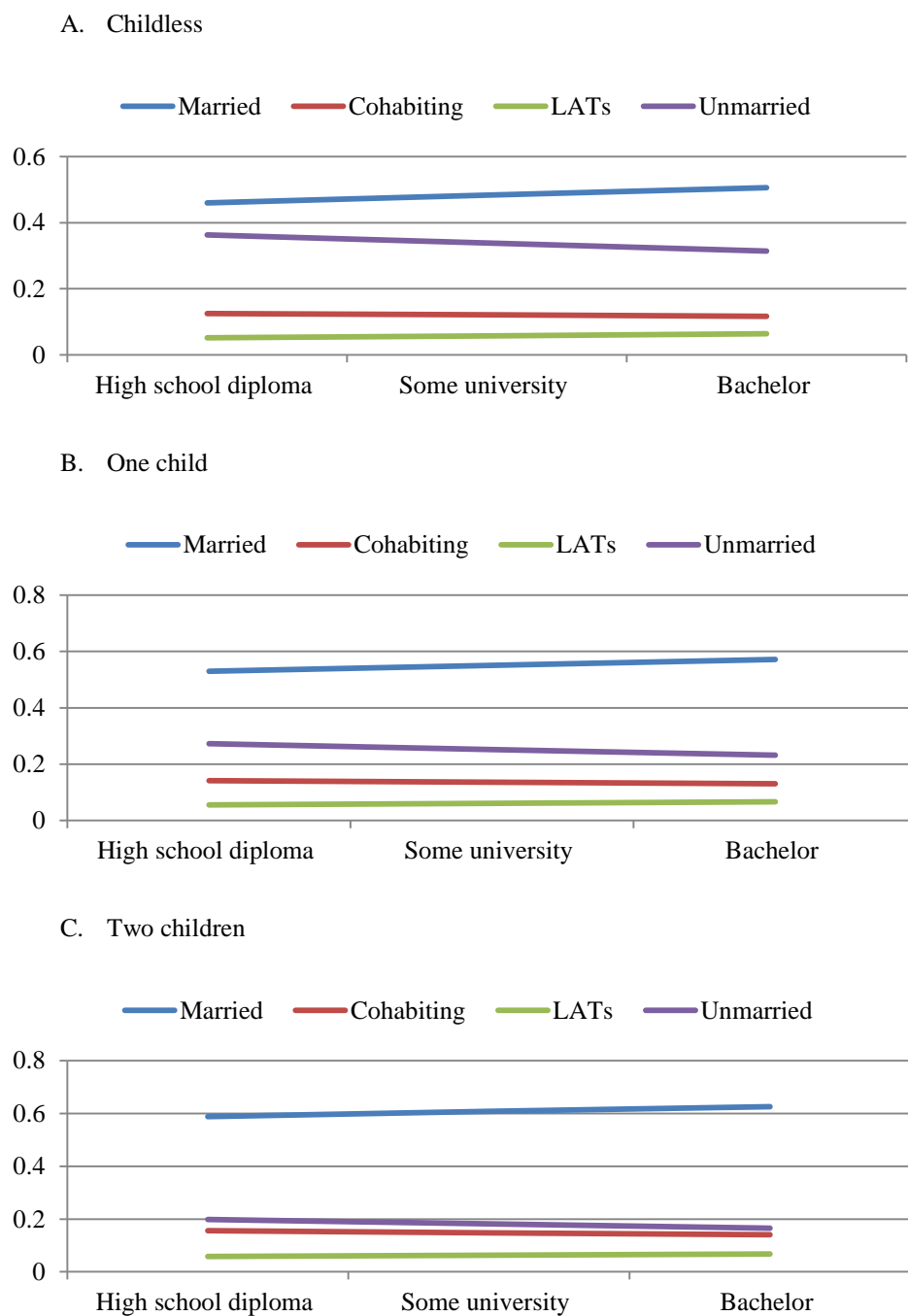
Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

For women, previous research has shown that the presence of children and education have significant effects on marital behavior (Becker, 1973; 1974; 1981; Waite & Lillard, 1991; Wu, 1995; Wu & Hart, 2001, also see in Chapter 3), as such, I will investigate if there is an interaction effect between presence of children and education on the four union status options. By using the command *mim: testparm*, it shows the interaction effect is significant ($p = 0.000$). Figure 9 shows (for women) the interaction between education and number of children (ranging from 0 to 2) as associated with the predicted probability of being in each of the four union status options at the several. When women have two children, there is apparently no association between level of education and the choices of union status. In contrast, as number of children increases (from 0 to 1), respondents are progressively and positively associated with the likelihood of being married, and are negatively associated with the likelihood of being unmarried.

As a result, we observed the important interaction effects on the likelihood of choosing different union statuses, indicating that for men, the number of children- annual personal income do matter on the choice of union status. For women, the number of children- highest level of education also are associated with the choice of union statuses, but only to those who have no children or have one child.

Figure 9 The predicted probabilities of women being in different union statuses by interaction between number of children and highest level of education



Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.

5.4 Robustness

I ran a number of robustness checks to examine the sensitivity of my results to various analytic choices. Because the data are cross-sectional, I am unable to infer the selection and casual effects. It is possible that other confounding variables associated with union status account for the disparity of the distribution in different union statuses. However, I am able to check the robustness of my results by testing multicollinearity and comparing my results with the *bootstrap* application. More specifically, by using Stata command *corr*, the correlations of selected independent variables for both men and women are relatively low; these indicators show that multicollinearity is likely not a problem in the data. In addition, I used Stata command *Collin* to retest for multicollinearity. The results confirm that my data does not have the problem of multicollinearity. Furthermore, I compare my regression results under two conditions, first by applying *multiple imputation* considering *person weight*, and second, by applying *bootstrap* which is produced by Statistics Canada for the purpose of acquiring more precise estimates of the sampling variability (Statistics Canada, 2011). Table 11 shows that there are no significant changes regarding coefficients and significances. All in all, all my findings are robust.

Table 11: Robust Checks

Variable	Weighted and Multiple imputation						Bootstrap					
	Men		Men		Men		Men		Men		Men	
	Married vs LATs		Cohabiting vs LATs		Unmarried vs LATs		Married vs LATs		Cohabiting vs LATs		Unmarried vs LATs	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
Demographic variables												
Age	0.322 ***	0.037	0.290 ***	0.041	0.154 ***	0.037	0.341 ***	0.039	0.320 ***	0.042	0.180 ***	0.038
Age Square	-0.003 ***	0.000	-0.003 ***	0.001	-0.002 ***	0.000	-0.003 ***	0.000	-0.003 ***	0.001	-0.002 ***	0.000
Number of children	1.603 ***	0.174	1.258 ***	0.176	0.001	0.196	1.574 ***	0.186	1.267 ***	0.188	0.031	0.209
Socioeconomic variables												
Highest level of education	-0.004	0.027	-0.074 *	0.030	-0.092 ***	0.028	-0.013	0.028	-0.081 **	0.031	-0.096 **	0.030
Annual personal income	0.090 **	0.031	0.040	0.033	-0.098 **	0.031	0.102 ***	0.032	0.038	0.035	-0.117 ***	0.031
Main activity												
Working (ref.)												
Going to school	-0.693 *	0.290	-0.681 *	0.318	0.390	0.222	-0.621 *	0.303	-0.619	0.334	0.403	0.246
Retired	0.742 **	0.279	0.596	0.332	0.227	0.291	0.830 **	0.304	0.653	0.361	0.265	0.303
Others	-0.354	0.264	-0.222	0.286	0.423	0.253	-0.214	0.290	-0.233	0.307	0.361	0.269
Cultural variables												
Religiosity	0.220 ***	0.054	-0.199 ***	0.061	0.023	0.056	0.227 ***	0.059	-0.183 **	0.065	0.026	0.060
Quebec (1=yes)	-0.307	0.172	1.101 ***	0.170	0.218	0.164	-0.327	0.175	1.077 ***	0.175	0.103	0.168
Religious affiliation												
Roman Catholic (ref.)												
Protestants	0.457 *	0.183	-0.168	0.207	0.267	0.191	0.416 *	0.185	-0.218	0.219	0.213	0.185
No religion	0.472 **	0.180	0.170	0.186	0.410 *	0.175	0.454 *	0.190	0.186	0.187	0.422 *	0.175
Others	0.940 ***	0.250	-0.218	0.305	0.441	0.261	0.867 ***	0.250	-0.115	0.314	0.384	0.280
Intercept	-8.317 ***	0.723	-5.631 ***	0.777	-1.402 *	0.674	-8.728 ***	0.752	-6.165 ***	0.778	-1.703 *	0.677

***p<0.001; **p<0.01; *p<0.05 (two-tail test)

Source: The 2011 Canadian General Social Survey.

Table 11: Robust Checks (Con't)

Variable	Weighted and Multiple imputation Women						Bootstrap Women					
	Married vs LATs		Cohabiting vs LATs		Unmarried vs LATs		Married vs LATs		Cohabiting vs LATs		Unmarried vs LATs	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
Demographic variables												
Age	0.272 ***	0.036	0.127 **	0.041	0.036	0.037	0.279 ***	0.038	0.158 ***	0.043	0.047	0.039
Age Square	-0.002 ***	0.000	-0.001 *	0.000	0.000	0.000	-0.002 ***	0.000	-0.002 **	0.001	0.000	0.000
Number of children	0.851 ***	0.077	0.562 ***	0.085	0.139	0.083	0.888 ***	0.081	0.574 ***	0.088	0.149	0.084
Socioeconomic variables												
Highest level of education	0.047	0.025	-0.025	0.028	-0.031	0.027	0.050	0.026	-0.021	0.029	-0.033	0.028
Annual personal income	-0.056 *	0.026	0.024	0.028	-0.011	0.027	-0.071 *	0.028	0.017	0.031	-0.026	0.030
Main activity												
Working (ref.)												
Going to school	-1.504 ***	0.225	-0.977 ***	0.244	0.120	0.203	-1.657 ***	0.242	-0.962 ***	0.258	0.077	0.219
Retired	0.843 ***	0.247	0.578	0.309	0.186	0.256	0.825 **	0.272	0.562	0.330	0.151	0.271
Others	0.476 *	0.187	0.552 **	0.202	0.518 **	0.196	0.397 *	0.202	0.494 *	0.220	0.388	0.221
Cultural variables												
Religiosity	0.174 ***	0.050	-0.163 **	0.057	0.114 *	0.053	0.165 **	0.054	-0.168 **	0.061	0.125 *	0.060
Quebec (1=yes)	-0.208	0.154	1.124 ***	0.162	0.168	0.160	-0.273	0.161	1.157 ***	0.167	0.151	0.170
Religious affiliation												
Roman Catholic (ref.)												
Protestants	0.045	0.160	-0.170	0.188	0.110	0.170	0.061	0.164	-0.190	0.199	0.165	0.178
No religion	0.016	0.166	0.137	0.180	0.226	0.178	-0.018	0.174	0.134	0.194	0.207	0.185
Others	0.956 ***	0.236	-0.327	0.277	0.465	0.246	0.747 **	0.244	-0.402	0.280	0.420	0.255
Intercept	-6.235 ***	0.679	-2.530 ***	0.752	-0.827	0.686	-6.266 ***	0.719	-3.111 ***	0.792	-0.954	0.715

***p<0.001; **p<0.01; *p<0.05 (two-tail test)

Source: The 2011 Canadian General Social Survey.

5.5 Summary

The chapter summarized the findings of my statistical analysis, and presented tables and figures to illustrate the results. The two descriptive tables provided information on selected independent variables by union status and on union status across age groups by gender. In addition, the six multinomial logistic regressions illustrated the log odds of being LATs versus married, versus cohabiting, and versus unmarried, separately by gender. Furthermore, the seven figures highlighted how each independent variable is associated with the likelihood of being married, cohabiting, LATs and unmarried. Finally, two more additional figures (one for men and one for women) illustrated the interaction effects on the likelihood of being in each union status. In the next chapter, results are discussed in relation to hypotheses set out in chapter 3.

Chapter Six: Discussion

6 Introduction

Many family changes have been interpreted as part of the process of the Second Demographic Transition; LAT relationships (LATs) are inevitably considered to be part of this progression as well (Liefbroer, Poortman, & Seltzer, 2015). Yet to date very few studies have investigated LATs in Canada. By using a nationally representative survey, General Social Survey (GSS25), this thesis examines the prevalence of LATs in Canada. Additionally, this study has sought to explore the characteristics of those in LATs as well as how these people differ from those who are married, cohabiting or single. This chapter provides a review of my findings and a discussion on how these findings relate to the theories of family formation and hypotheses addressed in the chapter 3.

6.1 The Prevalence of LATs in Canada

My results show that LAT relationships are not very common in Canada. LATs are less common than marriage, cohabitation or singlehood. Specifically, less than 10% of the Canadian population aged 18-64 are in a LAT relationship (not reported here, but available on requested). Although LATs are a rather marginal phenomenon now, I would expect more people will potentially choose LAT as a preferred living arrangement. One of the significant reasons is the increase in divorce rates and the decrease in marriage rates in most of the developed countries (Campbell & Wright, 2010; Manning, Longmore, & Giordano, 2007).

Information on the demographic, socioeconomic and cultural characteristics of respondents allows me to observe more broadly the potential unique characteristics of those who select LAT

unions (Table 2). In terms of demographic characteristics, there are slightly more women (51.26%) than men in LATs; the average age group for people in LATs is between 20 and 29 and people in LATs on average have less than one child. In terms of socioeconomic characteristics, people in LATs on average report between \$15,000 and \$19,999 annual personal income and have some university education; the majority of people in LATs report working for pay (59.03%) as their main activity, followed by attending school (32.55%), other activities (6.89%) and retired (1.53%). In terms of cultural characteristics, the majority of people in LATs are Roman Catholics (38.46%), followed by those who have no religions (29.99%), are Protestants (22.72%) and hold other religion affiliations (8.82%); people in LATs on average participate in religious activity at least once a year; and finally, compared to other regions, approximately 21% of people residing in Quebec are in a LAT relationship.

Furthermore, as previous literature suggests that LATs could occur at any point in the life course (Turcotte, 2013; Duncan & Phillips, 2010), a cross-tabulation table of age groups and gender (Table 3) shows that for both men and women, those between 18 and 19, and between 20 and 29 have the highest percentages of people living in a LAT union, ranging from 23.04% to 34.66%. The other age groups between 30 and 39, 40 and 49, 50 and 59, 60 and 64 have much lower rates, ranging from 1.77% to 5.57%. These findings (Table 2 and Table 3) are largely consistent with the view of LAT relationships in which they consist of individuals who are young, childless, and financially disadvantaged (Duncan & Phillips, 2010; Milan & Peters, 2003; Reimondos et al., 2010).

6.2 Are LAT Relationships an Alternative to Singlehood?

The multinomial logistic regression results suggest that we cannot consider LATs an alternative to singlehood (Table 9 and Table 10). For men, a higher level of personal income or a

higher level of education increased the likelihood of being LATs compared to being single. Moreover, compared to having no religion, men who identify as Roman Catholic are more likely to be LATs compared to being single. However, there are no statistically significant associations between number of children, main activity, religiosity and region and the likelihood of being LATs versus single. For women, a higher number of children is negatively associated with the likelihood of being LATs compared to being single. In addition, compared to Roman Catholics, women who have no religion are less likely to be LATs compared to being single. Furthermore, women who participate in religious activity more frequently are less likely to be LATs compared to being single. However, there are no statistically significant associations between annual personal income, level of education and region and being LATs versus single. As a result, LAT relationships are not an alternative to singlehood.

6.3 Are LAT Relationships an Alternative to a Co-residential Relationship?

My results also show that LATs are not an alternative to marriage and cohabitation (Table 5 to Table 8). If LATs could be considered an alternative, we would expect to confirm the hypothesis that people with more liberal attitudes should be more likely to be in a LAT relationship than in any other co-residential relationship. However, Table 5 shows that compared to Roman Catholics, men who are Protestants have a greater likelihood of being married compared to being LATs which failed to support my hypothesis. The result is consistent with what Wu and Balakrishnan (1992) found, that compared with non-Catholics, Catholics have more liberal attitudes toward marriage and cohabitation. In addition, I hypothesized that men who live in Quebec should have a positive association with the likelihood of being LATs compared to being married. However, Table 5 shows that there is no statistically significant association between region and the likelihood of being LATs. For women, the results regarding religious affiliation

and region (Table 6) also failed to support my hypothesis.

Now I turn a discussion of cohabitation versus LATs (Table 7 and Table 8). For both men and women, the results failed to support the hypotheses that compared to Protestants, Roman Catholics are more likely to be cohabit versus LATs. It indicates that religious affiliation may not be an effective cultural indicator to study family formations such as LATs. Additionally, for both men and women, Quebec is positively associated with the likelihood of being cohabited compared to being LATs, which also failed to support my hypothesis. The fact that LATs are legally defined as single may contribute to this. In other words, LATs may not be considered as liberal a living arrangement as cohabitation. As a result, it is possible that people who live in Quebec chose cohabitation rather than LATs as their ideal partnerships.

For a specific group, however, LATs may be an alternative to marriage and cohabitation. Compared to working, people who attend school have a higher likelihood of being LATs compared to a co-residential union. This finding holds for both men and women. This pattern is consistent with previous literature that suggests LATs are the domain of young people who are students and/or the children of the Household Reference Person (Haskey, 2005).

As I hypothesized in Chapter 3, women's socioeconomic characteristics are expected to be associated with a higher likelihood of being in LATs compared to co-residential unions, whereas men's socioeconomic characteristics are expected to be associated with a higher likelihood of being in a co-residential union compared to LATs. I find that for men, education is not significantly associated with the likelihood of being married compared to being LATs. Furthermore, education is associated with a decreased likelihood of being in a cohabiting union compared to being LATs. For women, education increases the likelihood of being married compared to being LATs, although education associated with a greater likelihood of being LATs

compared to being in a cohabiting union. In terms of income, my hypotheses failed to be supported, Only for men is there a positive association between income and the likelihood of being married compared to being LATs. These findings suggest that Oppenheimer's critique (1994; 1997) and Becker's women economic independent hypothesis (1981) may not be appropriate theoretical frameworks to investigate LATs as an emerging living arrangement because these economic theories may be too dated to study family and marital behaviors in the 21st century.

6.4 Summary

This chapter provided a discussion on how my results related to theories of family formation. First, my findings are consistent with Oppenheimer's critique (1994) that a higher level of personal income is positively associated with the likelihood of men being married compared to being LATs, but failed to support the hypotheses that a higher level of personal income positively associated with the likelihood of men cohabiting compared to being in LATs; education is positively associated with the likelihood of men being married compared to being LATs; and education is also positively associated with the likelihood of being in a cohabiting union rather than being in a LAT relationship.

Second, my findings failed to support Becker's women economic independence hypothesis (1981) that women's socioeconomic characteristics such as personal income or education are positively associated with the likelihood of being in a LAT union compared to being in a co-residential relationship.

Third, my findings are consistent with ideational theory (Lesthaeghe, 1980; 1983) that men and women who participate in religious activity more frequently have a higher probability of being married compared to being LATs, whereas the findings differed from ideational theory in

that men and women who participate in religious activity more frequently have a higher probability of cohabiting compared to being LATs. In addition, my findings failed to support the theory that Quebec residence would be positively associated with being LATs compared to being married, and Quebec residence would increase the likelihood of being in a LAT union compared to cohabiting.

A tentative conclusion is that LATs are an emerging living arrangement in Canada, as has been suggested by other Western countries (Duncan & Phillips, 2010; Karlsson & Borell, 2002; Levin & Trost, 1999; Noack & Seierstad, 2003; Régnier-Loilier, Beaujouan, & Villeneuve-Gokalp, 2009; Strohm, Seltzer, Cochran, & Mays, 2009; Liefbroer, Poortman, & Seltzer, 2015; Turcotte, 2013). My results emphasize the need for further research into LAT relationships, particularly in the development of theoretical explanations of LAT relationships. LATs are a critical component to understanding family ties in the 21st century because LAT relationships play a significant role in balancing autonomy with the responsibility and obligations in an intimate relationship through the life course (Liefbroer, Poortman, & Seltzer, 2015). To conclude this thesis, the following chapter discusses its limitations.

Chapter Seven: Limitations

The cross-sectional GSS-25 data provide an invaluable opportunity to examine LATs as a living arrangement in Canada, but there are a few significant limitations. First, there is little consensus on the difference between LAT unions and less committed dating relationships (Levin & Trost, 1999; Sobotka & Toulemon, 2008). To address this issue, the survey question regarding union status should distinguish LATs from less committed dating in a way that is easy to understand. Specifically, survey questions that define LATs have used the following phrases: “main romantic involvement” (General Social Survey in the United States), a “relationship partner” (California Quality of Life Survey I), an “intimate relationship” (General Social Survey in Canada), or a “regular partner” (the Omnibus Survey in Great Britain). Without further defining the concept, it is challenging to determine how these terms can really distinguish LATs from casual dating relationships (see also Liefbroer, Poortman, & Seltzer, 2015).

Second, LAT relationships may be interpreted differently depending on gender or age (Liefbroer, Poortman, & Seltzer, 2015). Specifically, women may consider the distinction between casual and serious relationships differently than men. In addition, typically an “intimate relationship” involves sexual intercourse, older people may not be as comfortable as young people responding to LATs related survey questions (Liefbroer, Poortman, & Seltzer, 2015). A broader understanding of the term and how it is defined would be possible via in-depth interviews.

Third, cross-sectional data can only examine the prevalence of LATs in Canada. Longitudinal data is required to investigate questions about whether LAT unions are a short-term living arrangement or a long-term family formation? What demographic, socioeconomic and cultural characteristics motivate people to live in a LAT relationship? Additionally, as Liefbroer,

Poortman, and Seltzer (2015) suggest, the prevalence rates might have underestimated the significance of LAT relationships because their significance is very likely associated with whether an individual has ever been in a LAT relationship.

Future research could expand on my study by using a larger longitudinal dataset. In addition, variables related to housing market should be taken into consideration (Strohm, et al., 2009); when housing cost is high, younger people living with their parents may delay moving in with their LAT partners whereas older people already usually live in their own houses. When the housing cost is high, all else being equal, older people may decide to move in together to save money (Strohm, et al., 2009). Thus, housing market may play a pronounced role on the decision making of LATs.

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Appendix

The Predicted Probabilities of the Selected Independent Variables Across Union Status by Gender

Demographic variable	Married	Cohabiting	LATs	Unmarried	Married	Cohabiting	LATs	Unmarried
	Men				Women			
Number of children								
0	0.352	0.129	0.139	0.380	0.401	0.127	0.110	0.362
1	0.647	0.169	0.047	0.137	0.560	0.133	0.061	0.245
2	0.805	0.151	0.011	0.033	0.697	0.125	0.031	0.148
Socioeconomic variables								
Annual personal income								
\$5,000 to \$9,000	0.451	0.157	0.071	0.321	0.586	0.111	0.062	0.241
\$20,000 to \$29,999	0.550	0.166	0.064	0.219	0.548	0.132	0.065	0.255
\$50,000 to \$59,999	0.636	0.167	0.055	0.142	0.509	0.155	0.069	0.268
\$100,000 or more	0.706	0.161	0.045	0.088	0.469	0.180	0.071	0.280
Main activity								
Working	0.627	0.172	0.055	0.146	0.575	0.131	0.065	0.229
Going to school	0.434	0.125	0.096	0.346	0.227	0.098	0.147	0.527
Retired	0.706	0.162	0.033	0.100	0.700	0.118	0.039	0.143
Others	0.516	0.163	0.063	0.258	0.577	0.143	0.040	0.239
Highest level of education								
High school diploma	0.552	0.191	0.054	0.203	0.480	0.151	0.071	0.298
Some university	0.603	0.170	0.058	0.170	0.535	0.136	0.066	0.263
Bachelor	0.650	0.148	0.061	0.140	0.589	0.121	0.061	0.228
Cultural variables								
Religious affiliation								
Roman Catholics	0.541	0.217	0.074	0.168	0.525	0.156	0.072	0.247
Protestants	0.641	0.139	0.055	0.165	0.536	0.127	0.070	0.267
No religion	0.591	0.179	0.052	0.178	0.484	0.165	0.067	0.284
Others	0.733	0.093	0.037	0.137	0.705	0.057	0.036	0.201
Religiosity								
Not at all	0.512	0.243	0.064	0.180	0.486	0.192	0.074	0.248
A few times a year	0.653	0.135	0.054	0.157	0.566	0.114	0.062	0.258
At least once a week	0.763	0.069	0.042	0.126	0.630	0.065	0.049	0.256
Region								
Quebec	0.426	0.346	0.052	0.176	0.410	0.277	0.058	0.256
NonQuebec	0.654	0.129	0.058	0.159	0.580	0.104	0.066	0.250

Note: Weighted probabilities.

Source: The 2011 Canadian General Social Survey.