MARITAL AND NONMARITAL UNION SEPARATION IN CANADA*

Zheng Wu
Department of Sociology
University of Victoria P.O. Box 3050
Victoria, B.C. V8W 3P5 Canada

Randy Hart
Department of Sociology
University of Toronto
Toronto, Ontario M5T 1P9 Canada

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ABSTRACT

While the patterns of divorce have been well documented in the 1980s, little research has been conducted on marital dissolution in Canada in the 1990s. Even less is known about the dissolution of nonmarital unions. In this study, we utilize data obtained from the tenth cycle of the General Social Survey (GSS-95) to examine the trends and determinants of both marital and nonmarital separation. To facilitate our understanding of recent changes in union life, we review and test a number of hypotheses that pertain to explain the trends of union separation. We found that both women's and men's employment (outside the home), school enrollment, current pregnancy (or, partner's pregnancy), and the presence of young children generally enhance marital stability. In the case of nonmarital unions, pregnancy and young children have a positive effect on the transition to marriage. Age heterogamy tends to increase the risk of union separation as does level of education. We also found that people who live in the province of Quebec are less likely to make the transition from nonmarital to a marital union. The effect of birth cohort is also significant. People born into earlier cohorts have greater risks of union separation than those born into later cohorts. There is some evidence, especially for women, that having a happy childhood and growing up in an "intact" family stabilizes unions in later life.

Key words: Marriage, cohabitation, common-law union, union separation, divorce

During the 1990s, first marriage rates decreased, the age of first marriage increased, and more and more Canadians, especially in Quebec, cohabited, either as a precursor or as an alternative to a matrimonial union. Also, after a surge in the late 1980s, the Canadian divorce rate appears to have leveled-off (Duchesne et al., 1999). But while the patterns of marital dissolution during the 1980s have been well documented, relatively little research has been conducted on divorce in Canada in the 1990s. Even less is known about the dissolution of nonmarital unions during this decade. As the number of people who choose to cohabit has increased, however, we need to examine the relationship between marital and nonmarital unions and determine how the rate of marital dissolution is affected by nonmarital unions (Axinn & Thornton, 1992; Bumpass, Sweet, & Cherlin, 1991).

Previous Canadian research has found that cohabitation tends to delay the timing of first marriage by about 26% for women and 19% for men, while decreasing some women's and men's propensity to marry altogether (Wu, 1999). The rise in nonmarital unions also means that more and more children are being born out of marriage and, consequently, are being reared in nontraditional familial arrangements. Wu (1995; 1996) has found that children born into these nonmarital unions tend to have a stabilizing effect and deter union dissolution. Overall, union dissolution in Canada has been found to be influenced by various individual-level characteristics such as gender, education, age at the start of the union, pre-union births, age heterogamy, religion, and region (Wu & Balakrishnan, 1995). Both marital and nonmarital unions can dissolve through separation; but in the case of cohabitations, they can also be dissolved through legal marriage.

In this article we update our knowledge of Canadian union dissolution using data from the 1995 Canadian General Social Survey (GSS-95). We examine the trends and identify the determinants of marital and nonmarital dissolution, both separately *and* combined. To our

knowledge, no other Canadian study has systematically explored union dissolution in this way. In what follows, we discuss our theoretical orientations and state a number of hypotheses. We then briefly discuss our data source and explain our methods of analysis. This is followed by an elaboration of our results. The paper ends with a short discussion and conclusion.

THEORETIC FRAMEWORK AND HYPOTHESES

Because of their similar processes and determinants, it is often argued that the same theoretical frameworks used to understand marital union formation and dissolution can be applied to the formation and dissolution of nonmarital unions (Landale & Forste, 1991). Although marital and nonmarital unions also have important differences, these theoretical frameworks are useful for orienting our study of union dissolution.

The Economic Perspective

Becker's economic theory, known as the theory of the gains to marriage, makes an analogy between international trade relationships and the relationship between union partners by applying the principle of comparative advantage to marriage. Simply stated, Becker (1981; 1993; Becker, Landes, & Michael, 1977) argues that, all else being equal, if a man and a woman stand to gain advantages from a marital union that meet or exceed the advantages of remaining in the single state, they will marry. Traditionally, these gains to marriage are derived from the gendered division of labour wherein women's skills were specialized, and thus more valued, in domestic activities, and men's skills were relegated to, and more valued in, market activities. So, in the traditional family a woman's role was as a domestic "housewife" and man's role was as a "breadwinner" husband.

According to this perspective, individuals must constantly make choices regarding their personal welfare. However, as with all decisions, there is always some uncertainty about these choices and their outcomes. This uncertainty has a negative impact on the gain to marriage. As the level of uncertainty increases, people may be more willing to accept a less-than-perfect match, and thus accept lower gains from a union. According to Becker, the best union decision at any moment, then, is likely to be the one that maximized the gain that one expects to receive over one's lifetime, given the realization up to that moment. But weighing the costs and benefits of marrying only marks the beginning of a union's history and trajectory. In an ongoing effort to maximize their individual welfare, men and women continuously weigh both the *expected* advantages and disadvantages of remaining in or dissolving a union.

The social context wherein individual choices are made has changed. With the industrialization of many societies, with more and more women in these societies spending their time in market activities, and with the growth of the welfare state and rise in welfare payments, the gendered division of labour has become increasingly more equitable. This has changed union life (Becker, 1981; Westoff, 1983). According to the economic perspective, the rise in women's economic independence has reduced their gain to marriage which has consequently altered both marital and nonmarital unions. In the traditional family, a wife relied on her husband for economic support, and the husband relied on his wife for domestic support. The increase in women's economic independence impairs the efficiency of the traditional household and reduces this mutual dependency between marital partners. As a result, the stability of on-going marriages is undermined and nonmarriage becomes more attractive to women because they no longer have to depend on a male spouse for economic support.

The economic perspective is also useful for understanding nonmarital union behaviour. Even if a couple does not believe in the utility of the institution of marriage, they may still

attempt to maximize their comparative advantage through cohabitation. From this perspective, however, the effect of an increase in women's economic independence on nonmarital unions is the same as its effect on marital unions: the stability of the union will be undermined.

Becker's theory has its critics. Most notably, sociologist Valerie Oppenheimer (1997) criticizes Becker's gain to marriage theory on both theoretical and empirical grounds. She suggests that Becker's focus on the traditional family is a family type that cannot possibly survive changes in the modern world. The cost of such an inflexible, gendered division of labour would be too great. Indeed, Oppenheimer argues that, in some instances, income equality between spouses can increase the gain to marriage rather than reduce it and, thus, strengthen rather than weaken union stability. On empirical grounds, Oppenheimer suggests that evidence for the women's economic independence hypothesis is either weak or misguided. Along with the problem of establishing causal directionality, she argues that aggregate-level analyses provide poor tests of individual-level hypotheses – indeed, she suggests that this puts such analyses at risk of the "ecological fallacy" (Oppenheimer, 1997:438). Where longitudinal studies or "survival" data are utilized in individual-level analyses of union formation and dissolution, they either fail to support the hypothesis or produce inconsistent results.

For Oppenheimer (1988, 1995, 1997), it is men's economic circumstances rather than women's that has had the most profound influence on union life, especially on the timing of first marriage. She argues that, traditionally, young men married when their economic situation afforded them the establishment of an independent household. The current deterioration in young men's labour market position has made marriage relatively unaffordable. The uncertainty of young men's economic circumstances and future prospects also makes them less attractive as potential spouses. As a result, young men with poor economic circumstances spend more time looking for a spouse and may settle for a nonmarital union relationship as a temporary

compromise (Oppenheimer, Kalmijn, & Lim, 1997). In this reasoning, a decrease in a young man's economic position should reduce his chances of marrying and increase his chances of cohabiting.

Keeping Oppenheimer's criticism in mind, we test Becker's theory of the gains to marriage by exploring the determinants of union dissolution. Overall, children born within a union are known to have a stabilizing effect (Morgan, Lye, & Condran, 1988; Waite & Lillard, 1991; Wu, 1995). In the economic perspective, these children are viewed as union-specific capital which increase the gains realized by the union. The effect of pre-union births on union stability is somewhat different: Wu (2000) has shown that pre-union births tend to raise the risk of separation for women but reduce the risk of separation for men. This may be because men with pre-union children may desire a more traditional union role. Thus, for these men, either a marital or a nonmarital union may be preferable to the single state because there are more advantages to having a female partner. The presence of a woman's pre-union children, however, may have negative effect on union stability because, from the male partner's point of view, these children are not union-specific capital. Consequently, their presence may reduce the gains realized by the union.

The women's economic independence hypothesis would suggest a positive relationship between a woman's employment status and her risk of union dissolution. Likewise, a woman's increased educational attainment and school enrollment should increase the likelihood of a union dissolving because these are investments in market activities rather than domestic activities. Rather than look solely at women's economic position, we also look at men's economic status and education. As Oppenheimer argues, men's economic position is an important determinant of union stability.

In Becker's economic perspective, assortative mating suggests that unions wherein a couple have similar characteristics will be more stable than a heterogamous union. All else being equal, a person will search for the perfect match. However, due to time constraints, search costs, and uncertainty, a person may settle for a less-than-perfect match. This may result in heterogamy which would undermine the stability of the union.

In this study, our hypotheses based on the economic perspective are as follows. First, the presence of a woman's pre-union children will likely have a negative effect on union stability, whereas a man's pre-union children will likely have a positive effect. Within-union births, however, will have a positive effect on union stability. Second, a woman's employment status, education attainment, and school enrollment will negatively affect union stability, whereas for a man, these will have a positive effect. Third, a heterogamous match will increase the likelihood of a union dissolving.

The Sociological Perspective

For a sociological perspective on changes in union behaviour, we may look to ideational theory (Lesthaeghe, 1980; 1983; 1998; Lesthaeghe & Surkyn, 1988). This theory argues that changes in norms, values, and attitudes over the last century have had a profound impact on the institution of the Western family. Because value-systems change over time and vary across space, we would expect that the ways people value, think about, and behave within unions will vary both historically and geographically (by cultural regions).

Research on trends in Canadian marital and nonmarital unions supports this view (Dumas & Belanger, 1994; Pollard & Wu, 1998). In Canada, the province of Quebec is largely francophone and has distinguish itself as a separate culture more than any other Canadian province. Indeed, empirical evidence suggests that many Quebeckers value marriage and

cohabitation differently from other Canadians, with people in Quebec being less committed to marriage (Pollard & Wu, 1998). In the present study, we hypothesize that because of the different value system in Quebec, the rate of union dissolution will be greater there than elsewhere in Canada. We also compare the risk of union dissolution between Canadian-born and foreign-born residents in order to better understand whether the value systems of immigrants to Canada affect their union stability and trajectory. We further consider the relationship between religion and union dissolution and anticipate that some religions will espouse a value system that favors long-term commitment to a union, especially a marital union.

From a sociological standpoint, processes of socialization are also important for understanding people's union behaviour. Norms, attitudes, and values concerning both marital and nonmarital unions are learned through social interaction, especially familial experiences (Axinn & Thornton, 1993; L. Wu & Martinson, 1993; L. Wu, 1996). Past research has shown that parental divorce is often associated with union dissolution in adulthood (McLanahan & Bumpass, 1988; Kiernan & Cherlin, 1999). So, we would expect that a positive childhood experience of an "intact" family will inspire a favorable outlook on marital unions and, consequently, increase the likelihood of having a stable union. Also, we speculate that having a happy childhood will have a positive effect on the stability of both marital and nonmarital unions.

Children also socialize their parents (Axinn & Thornton, 1993) and their presence in a union may affect the familial division of labour (Durkheim, 1893/1984; Morgan Lye, & Condran, 1988; Waite & Lillard, 1991). Children may cause role specification and encourage mutual dependence between union partners. Like the economic perspective, sociological theory predicts a positive relationship between the presence of children (born into the union) and union stability. As we noted above, past research on the role of children on the stability of nonmarital

unions in Canada has supported this hypothesis, although there is some evidence from Sweden that this stability only occurs during pregnancy and during the first few years after the birth of a first child (Hoem, 1997).

Role specification may provide an important check against the somewhat reductive conception of rational choice that informs the economic perspective. Role theory suggests that the benefits that people attempt to maximize through their rational actions are actually embedded in social roles which are governed by normative value systems (Montgomery, 1998). In other words, the "rationality" that people display in their decision-making is more a product of certain role-specific values than a biological imperative. For example, a woman learns the role of mother from her own socialization which provides cues for her normative, maternal behaviour. Accordingly, her rational actions as a mother follow whatever value system informs her ideas of motherhood. These actions are rational in so far as they are consistent with this value system.

Admittedly, role theory is difficult to operationalize. That said, we believe it is useful for our understanding of union behaviour. Pregnancy and the presence of young children in a union may generate a rational choice to adopt traditional, parental roles. This may occur in both marital and nonmarital unions.

Other Determinants

In this study we also include a number of other variables that are known to affect union stability. Research suggests that premarital cohabitation increases the likelihood that a marital union will dissolve (e.g., Balakrishnan et al, 1987; Bennett, Blanc, & Bloom, 1988; Teachman & Polonko, 1990). So, we have included premarital cohabitation, whether with a current partner or with a previous partner, in our models. We have also included birth cohort. With the assumption that cohort changes may reflect and capture societal changes, birth cohort can be used as a proxy

for the past history of the individuals in that cohort (Ryder, 1965). We hypothesize that as values, norms, and attitudes have changed over time, people of later birth cohorts may be more at risk of union dissolution than those born earlier. Here, we assume that people born into earlier cohorts may be more committed to the permanence of a union than those born into more recent cohorts.

DATA AND METHODS

Data

The data used in this study were obtained from the tenth cycle of the General Social Survey (GSS-95), conducted by Statistics Canada in 1995. The GSS-95 used a nationally representative sample of 10,749 people aged 15 and over, excluding residents of the Yukon and Northwest Territories, people of the First Nations living on reserves, and full-time institutionalized residents. Telephone interviews were used to collect the data (more than 98% of Canadian households have telephones, and the data have been weighted to represent persons without telephones). The overall response rate was 81% (see Statistics Canada, 1997).

The GSS-95 focused on the family. It collected detailed information regarding family and marital histories (including both legal marriages and nonmarital cohabitations), children, family origins, schooling, work interruptions, and values and attitudes towards certain areas of family life. To study union dissolution (transition), we restrict the study sample to respondents who have ever cohabited and/or married. We further exclude respondents who were over age 65 at the time of the survey. There are two reasons for this. One is conspicuously low rates of cohabitations in the elderly population (e.g., Wu and Balakrishnan, 1995). The second reason is that the onset of retirement tends to occur around age 65, the effects of work and employment-related activities are unlikely to be observed for elderly persons. In addition, we further constrain

our analysis to respondents' first unions. There are also two reasons for this. First, excluding higher order unions reduces the complexity of the analysis. Second, and more important, the determinants of union transitions may well be different for first unions than for subsequent unions. Thus, modeling the first and subsequent unions jointly could mis-specify the model. While one solution to this would be to model union transition by order of union, small sample sizes for higher order unions may not yield reliable results. With all these restrictions, and after removing missing cases for key variables (e.g., the timing of union transition), the study sample includes 3,723 women and 2,989 men.

Measures

The primary dependent variable is union dissolution (transition). For nonmarital cohabitations, union transition is a categorical variable indicating whether a (first) cohabitation relationship has ended in marriage, in separation, by the death of one partner, or had remained intact at the time of the interview. Exposure (survival) time to the risk of union transition is measured from the date of the initiation of cohabitation to the date of transition. Where a union remained intact, survival time is measured from the date of the beginning of cohabitation to the date of the interview. Similarly, for legal marriages, union dissolution is a categorical variable indicating whether a (first) marriage has terminated by separation or divorce without separation, by widowhood, or had remained intact at the time of the survey. Following prior studies (e.g., Bumpass, Sweet, & Castro Martin, 1990), we use the date of separation rather than the date of divorce to determine the timing of marital disruption. For marriages that were ended in divorce without separation, the date of divorce is used. Moreover, for marriages that were preceded by cohabitation, survival time is measured from the date of the initiation of cohabitation. Survival time is measured in months.

In our study, the outcomes of cohabiting union transitions are modeled as competing "risks" (e.g., Hachen, 1988). For example, in the analysis of union separation, the transition to marriage is a competing risk in the sense that those who married were removed from the risk of experiencing a subsequent separation at the time of marriage. Similarly, in the analysis of the transition to marriage, separation is a competing risk. Respondents who separated prior to marriage were removed from the risk of experiencing a subsequent marriage at the time of separation. The two outcomes of marital disruption are modeled in a similar fashion. While widowhood (or the death of one partner) is treated as a competing risk, we chose not to model widowhood as it is generally beyond human control and not of our interest.

We consider a set of independent variables pertaining to measure the key concepts noted in our theoretical discussion. Variable definitions and descriptive statistics for these variables are presented in Table 1. Briefly, we constructed a time-varying (dummy) variable to indicate the economic activity of the respondent (1 = currently working outside the home, 0 = otherwise). We use two variables to measure education. Educational attainment is measured as an ordinal variable in 10 levels, from no formal schooling to bachelor degrees or higher. School enrolment is a time-varying variable indicating whether the respondent is currently enrolled as a full-time student.

[Table 1 About Here]

We include a total of nine indicators to measure the characteristics of children. We use one time-invariant variable indicating whether the respondent had any premarital (pre-union) children. We created one time-varying variable indicating whether the respondent or partner was pregnant. We constructed seven time-varying variables for the characteristics of the children born *into* the union: 1) the first child was a boy, 2) the first child was a girl, 3) the second child was also a boy (two boys), 4) the second child was also a girl (two girls), 5) the second child had

an opposite sex of the first child (one boy and one girl), 6) the respondent had a third child, and 7) the respondent had a child under age 6.

Two variables are used to measure heterogamy in union relationships. Age-discrepancy between partners is measured by two dummy indicators: 1) male partner was older (6 or more years older than his partner), and 2) female partner was older (2 or more years older). In addition, we use a dummy variable indicating whether the respondent's partner had married before.

Three variables are used to measure cultural aspect of the respondent. Religion is a categorical variable in four levels: Catholics, Protestants, others, and no religious affiliation. Additionally, we use one dummy indicator for immigrant status, and another for region. While Canada has ten provinces (recall that the northern territories were not included in the target population), we separated the French-speaking province of Quebec from other regions primarily because the "French-English dualism" has been the most distinctive cultural, political and demographic feature throughout the nation's history (Beaujot & McQuillan, 1982; Pollard & Wu, 1998).

We consider a number of demographic and family characteristics as well. Birth cohort is measured as a set of five dummy indicators. We use two dummy variables for cohabitational history. One indicates whether the respondent cohabited with his/her spouse premaritally if the first union was a marriage; another indicates whether the respondent's partner cohabited with someone else prior to this (cohabiting) union if the first union was a nonmarital union. In other words, while only first unions for the respondents are considered in the study, they were not necessarily first unions as far as for their partners are concerned.

Finally, we use two variables to measure the respondent's childhood experience. One is a self-reported measure of childhood satisfaction based on the responses to the statement, "I had a

happy childhood". The other variable is an indirect measure of parental divorce using the information on whether the respondent lived with both parents up to age 15.

Statistical Models

Survival model techniques are the primary statistical methods used in the study (e.g., Lee, 1992). We began our analysis with several simple (descriptive) survival models, namely life tables (e.g., Namboodiri & Suchindran, 1987). We computed conventional double-decrement life tables to examine the two competing transitions out of cohabitations (i.e., union separation and transition to marriage). We then computed ordinary life tables to examine marital union disruption. Finally, we combined marital and nonmarital unions, and examined the rate of overall union separation. Because of the uniqueness of Quebec in the Canadian context, we computed separate life tables for Quebec and elsewhere in Canada, respectively.

Our analytical (multivariate) models employed proportional hazard (PH) model techniques (Cox, 1972). The PH model has the advantage of allowing the form of the baseline hazard function to remain unspecified (Cox, 1972; Namboodiri & Suchindran, 1987). For the purpose of this study, the hazard function can be written as

$$h(t) = h_0(t) \bullet \exp(\beta \bullet \mathbf{z})$$

where $h_0(t)$ is an arbitrary and unspecified baseline hazard function, β is the vector of parameters associated with the explanatory variables considered, and $\mathbf{z}$ is the vector of the explanatory variables. While β indicates the effects of the explanatory variables, a simple transformation of β gives a more meaningful interpretation. For example, a transformation of β_j, $100 \times [\exp(\beta_j) - 1]$ indicates the percentage change in the baseline hazard rate for a one unit change in z_j, controlling for other explanatory variables.

Our multivariate analysis follows the same sequence as does the descriptive analysis. We

began modeling the two competing outcomes of nonmarital cohabitation. We then modeled marital disruption. Finally, we estimated models of overall union separation. Throughout the multivariate analysis, we estimated separate models for women and men. However, we could have estimated models using gender (of the respondent) as a covariate, which implies using "union" rather than "individual respondent" as the unit of the analysis. Because several key measures (e.g., economic activity, school enrolment) were only observed for the respondent but not for their partner, using union as the unit of the analysis would not permit us to examine the effects of the covariates that are postulated to be gender-specific, such as testing the women's economic independence hypothesis.

RESULTS

Dissolution of Nonmarital Unions

Table 2 presents the cumulative proportion of cohabiting couples married or separated. The life tables indicate some differences in dissolution (transition) between Quebec and the rest of Canada. For example, by 2 years, 72% of cohabitations in Quebec had survived, compared to 64% in the rest of Canada. By 4 years, the proportion declines to 34% in Quebec, compared to only 8% elsewhere in Canada. Further, by 4 years, 32% of these nonmarital unions in Quebec ended in marriage, and 35% ended in separation. In the rest of Canada the corresponding figures are 49% and 44%, respectively. Overall, it appears that about an equal proportion of Quebec cohabitations end in either marriage or separation. In the other provinces, however, cohabitations tend to end in marriage.

[Table 2 About Here]

Table 3 presents the parameter estimates for the proportional hazard models of cohabiting union transitions (marriage and separation) for women and men. Turning first to our economic

variables, we see that working outside the home and school enrollment have a significant and negative effect for both women and men on their transition from cohabitation to either marriage or separation. Specifically, we observe that working outside the home decreases the hazard rate of transition to marriage by 75% [$(e^{-1.372} - 1) \times 100$] for women and 94% [$(e^{-2.860} - 1) \times 100$] for men, while it decreases the hazard rate of transition to separation by 82% for women and 90% for men. With the exception of men's transition to marriage (which is positive but nonsignificant), education has a significantly positive effect in all models. Better educated women are more likely to make a union transition, either to marriage or separation, than less educated women. Better educated men are more likely to terminate cohabitations via union separation.

[Table 3 About Here]

Table 3 shows that having a premarital birth reduces women's chances of separation by about 41% [$(e^{-0.523} - 1) \times 100$]. As expected, a respondent's (or a respondent's partner's) current pregnancy significantly increases the hazard rate of marriage and decreases the rate of separation. Children born into a union also have a significant impact. Overall, we see that first births, either a boy or a girl, reduce the hazard rate of marriage, but their effects on separation are not significant. Second births show some negative effect on marriage but positive effect on separation. Also, the presence of children under age 6 increases the hazard rate of marriage, and decreases the hazard rate of union separation (for women).

Heterogamy in union relationships has a significant impact as well. Overall, heterogamy in age reduces the hazard rate of marriage, and raises the hazard rate of separation. However, there are two exceptions: men in women-older relationships are more likely to marry, and women in men-older relationships are less likely to separate. The effect of heterogamy in union status is more consistent though. We find that having a partner who was previously married

reduces the hazard rate of marriage. Union status has no significant effect on union separation.

Turning to our cultural indicators, we observe that Protestant and Catholic men are more likely to marry their partner than people with no religious affiliations. Protestant women are more likely to marry; and Catholic women are less likely to end their union via separation. Men with other religious orientations are also more likely to marry than men with no religious orientations. While immigrant status (place of birth) has no significant effect on either union transition, there is a significant regional impact. Quebeckers are significantly less likely to marry than non-Quebeckers, which is consistent with the findings of our life table estimates (see Table 2).

As noted, we also consider several other determinants of union transition. Cohort effect is generally nonsignificant with a few exceptions. Men born in the 1930s are more likely to marry than others, while both men and women born in the 1960s show an elevated rate of separation. Having a partner who had cohabited with someone else raises the hazard rate of separation significantly, which is consistent with the well-known (positive) effect of premarital cohabitation on subsequent marital instability. Moreover, for women, having a male partner who cohabited with someone else prior to this union also raises the hazard rate of marriage. Finally, our data show that for women, having a happy childhood reduces the hazard rate of separation; and growing up in an intact family raises the hazard rate of marriage. The effects of childhood experience do not affect men's union transition significantly.

Dissolution of Marital Unions

Table 4 presents the parameter estimates for the hazard models of marital separation. For both women and men, working outside the home and school enrollment reduces the risk of marital separation, while an increase in educational attainment raises its risk. Specifically, the

hazard rate of marital separation is 93% [$(e^{-2.643} - 1) \times 100$] lower for women who work outside the home than for women who do not. For men, the comparable figure is 98%. Attending school full-time reduces the risk of separation by 33% for women, and 55% for men. However, a one unit (level) increase in educational attainment raises the risk of separation by 13% for women, and 8% for men.

[Table 4 About Here]

Table 4 also shows that premarital birth does not have a significant effect on marital dissolution. However, as we expected, pregnancy reduces the risk of disruption. For men, first births reduce the risk. The effect of second births changes depending upon gender: two boys decreases the risk of disruption but the risk increases when there are two girls. For women, first births has no significant effect. But, having two girls, one boy and girl, or a third child increases the risk of marital dissolution.

Heterogamy also shows a significant effect. As anticipated, heterogamy in age raises the risk of disruption. Specifically, we find that the hazard rate of dissolution is 119% higher for women-older unions and 63% higher for men-older unions than age-homogenous unions. Also as expected, heterogamy in marital status increases the risk of marital disruption.

Turning to our cultural indicators, the effect of religion is generally nonsignificant. However, immigrant status is significant for both genders. We find that the hazard rate of disruption is lower among immigrants than non-immigrants. There is also a regional effect. For men, marriages are less stable in Quebec than elsewhere in Canada.

For both women and men, cohort effect is consistent and significant. We observe that the most recent cohort (the 1970-80 cohort) shows the lowest risk of marital disruption than earlier cohorts. However, a closer look at the magnitudes of the cohort estimates suggests that the size of the effect rises with birth cohort. In other words, with the exception of the most recent cohort,

the risk of marital disruption declines with age, with older cohorts experiencing lower risks of dissolution than younger cohorts. The lower rate of disruption among the youngest cohort may reflect lower risks of marital disruption in the first few years of marriage as shown in the aggregate trends (Duchesne et al., 1999). The increased risk of disruption among younger cohorts is consistent with the idea that younger people tend to be less committed to marriage than older people who were probably raised with more traditional values.

Consistent with previous research, premarital cohabitation increases subsequent marital instability. Indeed, it raises the risk of disruption by 350% for women and 240% for men. Also as expected, having a happy child reduces the risk of disruption, by 9% for women and 11% for men. Finally, women who grew up in an intact family are also less likely to separate than women who did not. This childhood experience has no significant effect for men.

Dissolution of Marital and Nonmarital Unions

As noted, since the early 1990s, the Canadian divorce rate has leveled-off. One explanation for this is that an increasing number of people choose to cohabit, and that the dissolution of nonmarital unions is not counted in the divorce rate (Wu, 2000). Thus, it would be useful and important to combine marital and nonmarital unions in the study of union separation. Figure 1 provides the life table estimates for combined (overall) union disruption. To facilitate our discussion, we also plotted the estimates for marital separation.

[Figure 1 About Here]

The divergence of the patterns of marital separation and overall union separation is evident. When marital and nonmarital unions are combined, we can see a much greater proportion of unions that end in separation than is the case when only marital union separations are considered. For example, after 2 years, 2% of Canadian marriages are dissolved through

separation, compared to 7% of all unions. After 5 years, the proportion rises to 8% for marital unions, and 16% for all unions. After 10 years, the comparables figures are 20% and 26% for marital and overall unions, respectively. Figure 1 also shows that the patterns of marital and overall union separation converge in longer durations, reflecting the fact that nonmarital unions are generally short-lived, as shown in Table 2.

Using the overall union dissolution as the dependent variable, we estimated two proportional hazard models for women and men to examine the determinants of union disruption. The results are presented in Table 5.

[Table 5 About Here]

A cursory examination of Table 5 suggests that the parameter estimates are fairly similar to those in Table 4, supporting the view that the processes of marital and nonmarital union disruption may very well be determined by a common set of mechanisms. As in Table 4, we find that both working outside the home and school enrollment reduce the risk of disruption, while an increase in educational attainment raises the risk.

Table 5 shows that the effects of children are generally significant. First births, regardless of the gender of the child, reduce the risk of dissolution. The effect of second births is gender specific: having two boys reduces the risk of disruption, while having either two girls or one boy and one girl increases the risk. Unlike marital unions (Table 4), we find that the arrival of a third child does not have a significant effect. The age of children matters too. As in Table 4, we find that having a child under 6 reduces the risk of disruption. Finally, we find that age heterogamy generally increases the risk of union separation, while the effect of heterogamy in union status is nonsignificant.

Looking at the cultural indicators, we see that religion has a significant effect, although the effect is gender specific. For men, the hazard rate of disruption is lowest among those who

have no religious orientations. For women, Protestants tend to have a higher risk than those who have no religious orientations. The effect of immigrant status is significant and consistent. As in Table 4, we see that immigrants are at a reduced risk of union disruption than non-immigrants. Regionally, Quebec men again are at a higher risk of dissolution than other Canadian men. The hazard rate for Quebec women is not significantly different from other Canadian women.

Since Table 5 is a combination of marital and nonmarital unions, we added one dichotomy indicating whether the union is a marital union to the model. As would be expected, marital unions are significantly more stable than nonmarital unions. Moreover, as in Table 4, with the exception of the youngest cohort, the risk of union disruption declines with birth cohort with the younger cohort at a greater risk of disruption. Also consistent with Tables 3 and 4, we see that premarital (pre-union) cohabitation increases the risk of union disruption. Women who reported having a happy childhood or growing up in an intact family are at a reduced risk of disruption. While the effects of these family environment variables for men are in expected directions, they fail to reach the level of significance.

DISCUSSION AND CONCLUSION

In this study we have examined marital and nonmarital union dissolution in order to gain a more complete understanding of Canadian union behaviour in the 1990s. We have shown that while the Canadian divorce rate may have leveled off in the 1990s, when nonmarital unions are considered, the overall rate of union disruption has likely increased in recent years. As the popularity of cohabitation has grown, an increasing number of Canadians are likely to experience union disruption, either marital or nonmarital. While one might think that it would be less traumatic to break up a nonmarital union than a marriage, research by Vaughan (1986) has

shown that uncoupling is an agonizing and painful event whether the couple is married or not. As more Canadians choose to cohabit, it has become increasingly important to consider both marital and nonmarital dissolution in the study of Canadian union life.

To facilitate our understanding of the determinants of union disruption in Canada, we posited a number of economic, sociological, and demographic hypotheses. With regard to the women's economic independence hypothesis, our results are mixed. Women's employment (outside the home) appears to reduce the risk of both marital and nonmarital separation and decreases the odds of a cohabitational union becoming a marriage. Those women who live in a nonmarital union and also work outside of the home may prefer a cohabitational union to marriage because it affords them the benefits of both a (heterosexual) coupling and the single state. On the other hand, married women who are employed outside of the home may be less likely to separate because, as Oppenheimer suggests, an increase in total family income may lead to union stability. Consistent in both Becker's and Oppenheimer's theorizations, we found that men's employment is negatively associated with union dissolution.

Women's level of education is positively associated with the likelihood of union dissolution. This finding supports the (women's economic) independence hypothesis. However, in the case of women in nonmarital unions, a higher level of education increases their odds of transition to marriage. This may indicate that these women delay the timing of their first marriage through cohabitation while they are students, and may marry only after they have completed their education. Our data support this explanation: women in nonmarital unions are less likely to become married or separated while enrolled in school.

Consistent with both the economic and sociological theories, pregnancy and the presence of (young) children generally lead to union stability. As we noted above, previous Canadian research has found similar associations (Wu, 1995). More specifically, we found that having a

child under the age of 6 years reduces the chances of union disruption and increases the likelihood of a nonmarital union becoming a marriage. This supports our hypothesis that union-specific children increase the gains to a union, although these gains may diminish over time as the child (children) become older and family size becomes larger (e.g., Hoem, 1997).

There may also be a sociological explanation for these findings. Pregnancy and the presence of young children may encourage role specification and mutual dependence between union partners. Whether in marital or nonmarital unions, new parents may feel an obligation to adopt socially inscribed, parental roles. For a while these parental roles increase the gains to the union because each parent may feel somewhat satisfied that she/he has fulfilled a social imperative to rear children in a (heterosexual) union and act according to the normative ideas of parenthood. Over time, however, these social values toward parenthood may change or come into conflict with other roles. As a result, the gains to marriage realized by the presence of children may decline.

We hypothesized that age heterogamy would increase the risk of union dissolution. For the most part, our hazard model analysis supports this hypothesis. The hazard rate of union separation increases when one partner is much older than the other (see Table 5). This may be due to search costs and uncertainty which could lead an individual to settle for a less-than-perfect match. In turn, this could undermine the stability of the union.

Table 3 shows that Quebec (cohabiting) couples are less likely to than other Canadians to marry each other after a period of cohabitation. Table 4 indicates that married men in Quebec are likely to become separated, and Table 5 shows that Quebec men in either a marital or nonmarital union are at an increased risk of union disruption. This is consistent with what we had expected as Quebeckers' attitudes toward marriage appear to be different from other Canadians (e.g., Pollard & Wu, 1998). Overall, however, nonmarital unions in Quebec are more stable than in the

rest of Canada (see Table 2), which may indicate that cohabitation is a more established institution in Quebec.

There is also some support for our hypothesis that positive familial experiences and a happy childhood may improve union stability later in life and promote the movement from cohabitation to marriage. Women who grew up in an intact family and women who reported having had a happy childhood are less likely to experience union disruption. Women in nonmarital unions are also at an increased chance of moving from cohabitation to marriage under these circumstances. Married men who grew in an intact family are also at an reduced risk of marital separation.

Because of changing value systems – more specifically a decline in the belief in the permanence of a union – we hypothesized that people born into more recent cohorts will be at an increased risk of union dissolution than those born into earlier cohorts. Our findings generally support this view. With the exception of the youngest cohort (the 1970-80 cohort), the rate of union dissolution generally decreases with age. Over time, then, it appears that unions have become less stable or permanent.

What does all this mean to Canadian union life in the 1990s? Our findings suggest that in order to get a clear idea of union dissolution we must consider both marital and nonmarital unions. As values have changed, more and more Canadians are entering cohabitational relationships, either as a precursor or as an alternative to married life. The dissolution of these unions may be as important to Canadian families as marital separation, especially when children are present. As cohabitations are often much shorter lived than marriages, fewer children may be experiencing an “intact” familial setting. These experiences may have profound effects on union life in the future. Our research shows that people who lived with both parents until at least age 15 are more likely to have stable unions in their adult lives; and so the instances of Canadian union

dissolution may rise steadily as more children experience familial disruptions.

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Table 1. Definitions and Descriptive Statistics for Independent Variables Used in the Analysis of First Marital or Nonmarital Union Dissolution

Variable	Definition	Women Mean or %	Men Mean or %
Economic Indicators			
Working outside the home	Time-varying indicator of currently employed (1 = yes, 0 = no)	—	—
Education	Educational attainment in 10 levels (1 = no schooling, …, 10 = bachelor or higher)	6.25	6.51
School enrollment	Time-varying indicator of currently enrolled as a full-time student (1 = yes, 0 = no)	—	—
Premarital birth	Dummy indicator of having any pre-union children (1 = yes, 0 = no)	6.0%	5.8%
Pregnant	Time-varying indicator of respondent or their partner being pregnant (1 = yes, 0 = no)	—	—
Children born in unions			
One boy	Time-varying indicator of a first birth being a boy (1 = yes, 0 = no)	—	—
One girl	Time-varying indicator of a first birth being a girl (1 = yes, 0 = no)	—	—
Two boys	Time-varying indicator of a second birth also being a boy (1 = yes, 0 = no)	—	—
Two girls	Time-varying indicator of a second birth also being a girl (1 = yes, 0 = no)	—	—
One boy and one girl	Time-varying indicator of a second birth having an opposite gender of the first birth (1 = yes, 0 = no)	—	—
Three or more children	Time-varying indicator of having a third child (1 = yes, 0 = no)	—	—
Children under 6	Time-varying indicator of having a child under age 6 (1 = yes, 0 = no)	—	—
Heterogamy in age	Age difference between partners		
Male partner older	Men 6 or more years older (1 = yes, 0 = no)	16.3%	16.0%
Female partner older	Women 2 or more years older (1 = yes, 0 = no)	8.8%	7.9%
Age-homogenous marriage	Reference category		

Table 1. Definitions and Descriptive Statistics for Independent Variables Used in the Analysis of First Marital or Nonmarital Union Dissolution

Variable	Definition	Women Mean or %	Men Mean or %
Continued			
Partner married before	Partner had been married before (1 = yes, 0 = no)	7.3%	7.1%
Cultural Indicators			
Catholic	Dummy indicator (1 = yes, 0 = no)	46.3%	45.9%
Protestant	Dummy indicator (1 = yes, 0 = no)	33.3%	31.7%
Other	Dummy indicator (1 = yes, 0 = no)	12.7%	14.8%
None	Reference category		
Nativity			
Canadian born	Dummy indicator (1 = yes, 0 = no)	78.6%	78.3%
Foreign born	Reference category		
Region			
Quebec	Dummy indicator (1 = yes, 0 = no)	26.3%	27.1%
Rest of Canada	Reference category		
Other Determinants			
Birth cohort			
1930-39	Dummy indicator (1 = yes, 0 = no)	15.4%	16.0%
1940-49	Dummy indicator (1 = yes, 0 = no)	21.9%	23.5%
1950-59	Dummy indicator (1 = yes, 0 = no)	29.4%	31.7%
1960-69	Dummy indicator (1 = yes, 0 = no)	26.5%	25.1%
1970-80	Reference category		
Cohabited with spouse	Respondent cohabited with spouse prior to marriage (1 = yes, 0 = no)	11.9%	11.4%
Spouse cohabited with others	Spouse cohabited with someone else prior to this union (1 = yes, 0 = no)	7.4%	7.0%
Had a happy childhood	Whether respondent had a happy childhood (1 = strongly disagree, …, 5 = strongly agree)	4.09	4.12
Intact family	Whether respondent lived with both parents up to age 15 (1 = yes, 0 = no)	84.4%	84.5%
N		3,723	2,989

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

Source: The 1995 General Social Survey.

Table 2. Life Table Estimates of Cumulative Proportion of Cohabiting Couples Married or Separated: Canada, 1995

	Quebec			Non-Quebec		
		Proportion			Proportion	
Month	Surviving	Married	Separated	Surviving	Married	Separated
6	0.971	0.016	0.013	0.974	0.018	0.008
12	0.887	0.055	0.058	0.872	0.071	0.057
18	0.785	0.107	0.108	0.716	0.159	0.125
24	0.718	0.142	0.140	0.637	0.213	0.150
30	0.590	0.200	0.211	0.471	0.295	0.234
36	0.509	0.240	0.251	0.361	0.354	0.285
42	0.402	0.290	0.308	0.198	0.408	0.394
48	0.336	0.315	0.349	0.077	0.486	0.437
N	933			1318		

Note: Life table estimates are based on two double-decrement survival tables. The complete survival tables are available from the authors upon request.

Source: The 1995 General Social Survey.

Table 3. Proportional Hazard Models of Cohabiting Union Transition: Canada, 1995

Variable	Transition to Marriage		Transition to Separation	
	Women	Men	Women	Men
Economic Indicators				
Working outside the home[a]	-1.372 ***	-2.860 ***	-1.704 ***	-2.261 ***
Education	0.125 ***	0.036	0.044 **	0.038 *
School enrollment[a]	-1.156 ***	-1.029 ***	-0.634 ***	-0.358 ***
Premarital birth[b]	0.069	0.081	-0.523 ***	-0.280
Pregnant[a]	0.480 ***	0.770 ***	-1.079 ***	-0.935 **
Children born in unions				
One boy[a]	-0.676 ***	-0.406 **	-0.085	0.020
One girl[a]	-0.623 ***	-0.643 ***	-0.001	-0.229
Two boys[a]	-0.079	-0.235	0.255	0.025
Two girls[a]	-0.281	-0.067	0.222	0.530 *
One boy and one girl[a]	-0.090	-0.404 **	0.324 *	0.184
Three or more children[a]	-0.142	-0.076	0.260	-0.255
Children under 6[a]	0.575 ***	0.690 ***	-0.201 *	-0.161
Heterogamy in age				
Male partner older[b]	-0.452 ***	-0.961 ***	-0.271 *	0.752 ***
Female partner older[b]	-0.724 ***	0.445 **	0.929 ***	0.172
Partner married before[b]	-0.248 *	-0.884 ***	0.023	-0.071
Cultural Indicators				
Catholic[b]	0.039	0.340 **	-0.339 ***	-0.122
Protestant[b]	0.372 **	0.722 ***	-0.010	0.126
Other[b]	0.096	0.861 **	-0.137	0.401
Canadian born[b]	-0.134	0.008	0.233	0.239
Quebec[b]	-0.345 ***	-0.546 ***	-0.028	0.150

Table 3. Proportional Hazard Models of Cohabiting Union Transition: Canada, 1995

Variable	Transition to Marriage		Transition to Separation	
	Women	Men	Women	Men
Continued				
Other Determinants				
Birth cohort				
1930-39[b]	0.331	1.181 **	0.201	0.100
1940-49[b]	0.358	0.563	0.495	0.219
1950-59[b]	0.018	0.003	0.676	0.709 *
1960-69[b]	-0.659	-0.665	0.850 *	1.368 ***
Spouse cohabited with others[b]	0.254 **	-0.120	0.375 ***	0.579 ***
Had a happy childhood	0.056	-0.059	-0.130 **	-0.114
Intact family[b]	0.231 *	0.220	-0.119	-0.023
– 2 Log Likelihood	4283.8	2909.5	4272.3	3483.4
Model chi-square	417.5 ***	850.9 ***	456.1 ***	632.9
df	27	27	27	27

[a] Time-variant dummy indicator, 1 = yes, 0 = no.
[b] Time-invariant dummy indicator, 1 = yes, 0 = no (see Table 1 for definitions).

* $p < .10$. ** $p < .05$. *** $p < .01$. (two-tailed test.)

Source: The 1995 General Social Survey.

Table 4. Proportional Hazard Models of Marital Separation: Canada, 1995

Variable	Women	Men
Economic Indicators		
Working outside the home[a]	-2.643 ***	-3.867 ***
Education	0.123 ***	0.080 ***
School enrollment[a]	-0.402 ***	-0.795 ***
Premarital birth[b]	0.144	-0.022
Pregnant[a]	-0.952 ***	-1.546 ***
Children born in unions		
One boy[a]	0.027	-0.670 ***
One girl[a]	0.138	-0.462 ***
Two boys[a]	0.255	-0.481 **
Two girls[a]	0.659 ***	0.743 ***
One boy and one girl[a]	0.886 ***	-0.110
Three or more children[a]	0.248 *	0.193
Children under 6[a]	-0.285 ***	0.006
Heterogamy in age		
Male partner older[b]	0.023	0.491 ***
Female partner older[b]	0.786 ***	-0.027
Partner married before[b]	0.299 ***	0.253 *
Cultural Indicators		
Catholic[b]	-0.114	-0.108
Protestant[b]	-0.153	-0.053
Other[b]	-0.550 **	-0.004
Canadian born[b]	0.209 **	0.698 ***
Quebec[b]	0.056	0.295 ***

Table 4. Proportional Hazard Models of Marital Separation: Canada, 1995

Variable	Women	Men
Continued		
Other Determinants		
Birth cohort		
1930-39[b]	1.223 ***	0.753 ***
1940-49[b]	1.861 ***	1.307 ***
1950-59[b]	2.458 ***	2.182 ***
1960-69[b]	3.157 ***	3.021 ***
Premarital cohabitation[b]	1.503 ***	1.225 ***
Had a happy childhood	-0.092 **	-0.116 **
Intact family[b]	-0.209 **	-0.158
– 2 Log Likelihood	12249.8	7315.9
Model chi-square	2763.5 ***	3273.1 ***
df	27	27

[a] Time-variant dummy indicator, 1 = yes, 0 = no.

[b] Time-invariant dummy indicator, 1 = yes, 0 = no (see Table 1 for definitions).

* $p < .10$. ** $p < .05$. *** $p < .01$. (two-tailed test.)

Source: The 1995 General Social Survey.

Table 5. Proportional Hazard Models of Marital/Nonmarital Separation: Canada, 1995

Variable	Women	Men
Economic Indicators		
Working outside the home[a]	-1.781 ***	-2.951 ***
Education	0.068 ***	0.062 ***
School enrollment[a]	-0.260 ***	-0.387 ***
Premarital birth[b]	0.017	0.091
Pregnant[a]	-0.951 ***	-1.244 ***
Children born in unions		
One boy[a]	-0.224 **	-0.394 ***
One girl[a]	-0.263 **	-0.467 ***
Two boys[a]	0.179	-0.452 ***
Two girls[a]	0.439 ***	0.266
One boy and one girl[a]	0.516 ***	0.026
Three or more children[a]	0.180	-0.093
Children under 6[a]	-0.179 ***	-0.175 **
Heterogamy in age		
Male partner older[b]	-0.083	0.642 ***
Female partner older[b]	0.849 ***	0.270 **
Partner married before[b]	0.146	-0.002
Cultural Indicators		
Catholic[b]	-0.243 ***	0.070
Protestant[b]	-0.168 *	0.204 **
Other[b]	-0.419 *	0.234
Canadian born[b]	0.227 **	0.453 ***
Quebec[b]	0.046	0.162 **

Table 5. Proportional Hazard Models of Marital/Nonmarital Separation: Canada, 1995

Variable	Women	Men
Continued		
Other Determinants		
Marital union[b c]	-1.571 ***	-1.524 ***
Birth cohort		
1930-39[b]	1.089 ***	0.735 ***
1940-49[b]	1.554 ***	0.791 ***
1950-59[b]	1.770 ***	1.154 ***
1960-69[b]	1.956 ***	1.703 ***
Premarital cohabitation[b d]	0.297 ***	0.273 ***
Had a happy childhood	-0.139 ***	-0.064
Intact family[b]	-0.211 ***	-0.108
– 2 Log Likelihood	14715.8	9543.7
Model chi-square	2335.3 ***	2986.3 ***
df	28	28

[a] Time-variant dummy indicator, 1 = yes, 0 = no.

[b] Time-invariant dummy indicator, 1 = yes, 0 = no (see Table 1 for definitions).

[c] 1 = marital union, 0 = nonmarital union.

[d] For nonmarital unions, 1 = spouse cohabited with others, 0 = otherwise. For marital unions, 1 = cohabited prior to marriage, 0 = otherwise.

* $p < .10$. ** $p < .05$. *** $p < .01$. (two-tailed test.)

Source: The 1995 General Social Survey.

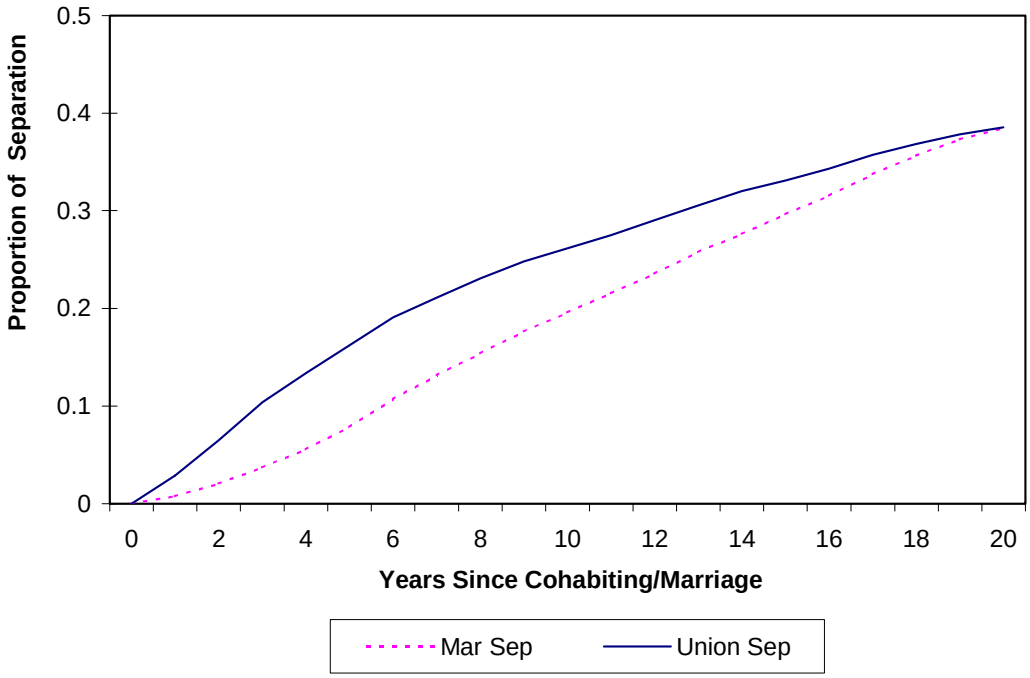

Figure 1. Ordinary Life Table Estimates of Marital and Overall Union Separation

Source: The 1995 General Social Survey.