

# Uxoricide in Canada: Demographic risk patterns <sup>(1)</sup>

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*Au Canada, une femme mariée a neuf fois plus de chance d'être tuée par son mari que par un étranger. Les auteurs ont analysés les données sur les homicides des époux et tirent les conclusions suivantes:*

- (1) les risques d'assassinat pour les épouses sont beaucoup plus élevés à la suite d'une séparation;*
- (2) les conjoints sont beaucoup plus à risque dans des unions de fait que dans des mariages;*
- (3) les jeunes épouses sont plus à risque dans des mariages tandis que les partenaires féminines d'âge mûr sont plus à risque dans les unions de fait; et*
- (4) les taux d'homicide des épouses augmentent rapidement à mesure que l'écart d'âge augmente entre les partenaires dans les unions de fait et dans les mariages.*

*Pour 31 maris tués par des épouses, il y a 100 épouses tuées par leur maris. Dans les mariages, ce sont les épouses qui sont le plus souvent les victimes alors que dans les unions de fait ce sont les maris; bien que maris et femmes sont tous les deux à risque dans des unions de fait. Le risque d'être victime d'homicide est plus grand pour l'épouse lorsque le couple est séparé comparativement aux couples qui demeurent ensemble. La disparité entre l'âge du mari et celui de la femme a aussi un impact plus grand sur les maris que sur les femmes; il sont plus à risque et ce risque grandit au détriment de la partie la plus âgée.*

*A married woman in Canada is about nine times more likely to be killed by her husband than by a stranger. Our epidemiological analyses of the demographic risk patterns of Canadian spousal homicides have demonstrated the following facts about differential homicide rates:*

- (1) Uxoricide risk is substantially elevated in the aftermath of separation;*

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- (2) Both wives and husbands incur far greater risk in de facto marriages than in registered marriages;
- (3) Young wives incur the greatest risk in registered marital unions, while middle-aged wives incur the greatest risk in de facto unions; and
- (4) Uxoricide rates increase sharply as age disparity increases in both registered and de facto unions.

*There were 31 spousal homicides perpetrated by women per 100 perpetrated by men ("Spousal Sex Ratio of Killing"). Spousal homicide victimization was more female-biased in registered marriages than in de facto marriages, indicating that the greater homicide rates in de facto unions than in registered unions are incurred by husbands more than wives even though both parties are at greater risk in de facto unions. Spousal homicide victimization was more female-biased in separated than in coresiding registered married couples, indicating that separation is specifically associated with excess risk to wives relative to husbands. The risk factor of age disparity has a greater impact on male victimization than on female victimization; moreover, there was some tendency for the excess risk in age-discrepant couples to befall the older party.*

A large proportion of women who are killed by men are killed by their husbands (Statistics Canada 1992b; Crawford and Gartner 1992), but the correlates and possible determinants of variable uxoricide risk have been little explored.

It might be argued that the prominence of uxoricides as a proportion of all femicides is a mere byproduct of routine activity budgets in which spouses are often together. Goode (1969: 941), for example, has written "Why do intimates commit violence against one another? Perhaps the most powerful if crude answer is that they are *there*." There is evidence, however, that risk to wives is greater than can be explained by mere opportunity. In a one-year sample of homicides in the city of Detroit, for example, coresiding spouses incurred more than eleven times the homicide risk of other coresiding relatives (Daly and Wilson 1982). It is a bitter irony that the most lethal of "family" relationships is the one in which people have chosen their intimate partners.

Why are spouses slain more often than other relatives? To answer this, one would like to elucidate the substantive issues in marital conflicts. Although the identification of homicide "motives" is admittedly controversial (Daly and Wilson 1988b: 170-174), nevertheless, there seems to be a remarkably short list of issues that give impetus to lethal marital violence, according to police files, psychiatric reports, case law, ethnographic accounts, and interview studies. In any sample of well-described spousal homicides, a large majority were evidently precipitated by the husband's accusing the wife of sexual infidelity, by her unilateral decision to terminate the relationship, and/or by a more

generalized inability to control her (Bohannon 1960; Campbell 1992; Chimbos 1978; Crawford and Gartner 1992; Daly and Wilson 1988b; Daly, Wilson and Weghorst 1982; Dobash and Dobash 1979; Elwin 1950; Levy, Kunitz, and Everett 1969, Polk and Ranson 1991; Saran 1974; Showalter, Bonnie, and Roddy 1980; Tanner 1970; Varma 1978; Wilson 1989; Wilson and Daly 1993). These motives are not mirrored in cases where wives killed husbands. Women who kill their husbands usually do so in self-defense (whether or not the circumstances and prior history of victim and killer match the legal self-defense criteria) or in defense of children (Bacon and Lansdowne 1982; Bowker 1983; Browne 1987; Campbell 1992; Dobash, Dobash, Wilson, and Daly 1992).

As in homicide, so too in wife-beating — the predominant issues appear to be adultery, jealousy, desertion, and male control (Counts 1990; Counts, Brown and Campbell 1992; Dobash and Dobash 1984; Hilberman and Munson 1978; Rounsaville 1978). This suggests that uxoricide may provide a marital conflict “assay”, representing the relatively unequivocal “tip of the iceberg” of less reliably reported sublethal violence. Men who actually kill their wives, even where such is their right, may have overstepped the bounds of utility, but the sublethal use of coercive violence in similar contexts can serve husbands’ interests, by deterring wives’ autonomy.

“Jealous” and “possessive” are the terms most often used to describe the mindset of men who have beaten or killed wives, but we prefer to describe such men as “proprietary”. Proprietariness implies a more encompassing mindset, referring not just to the emotional force of one’s desire for exclusivity, but also to feelings of entitlement. Proprietary entitlements in people have been conceived and institutionalized as identical to proprietary entitlements in land or chattels (Wilson and Daly 1992b). We have argued that the historical and evolutionary foundations of the functional design of a masculine psychology that is proprietary about the sexuality and reproduction of women lie in the sexually asymmetrical risk of misattributed parenthood and male-male rivalry (Daly, Wilson and Weghorst 1982; Daly and Wilson 1988b; Wilson and Daly 1992b). Although there is cross-cultural and historical variation in the institutional and structural manifestations of masculine proprietary sexual psychologies, including such cultural practices as infibulation, foot-binding, veiling, and prohibition of widow remarriage, and, although women are variably effective in resisting male control, fatal and nonfatal violence are cross-culturally ubiquitous outcomes of marital conflict over female autonomy.



Most criminological studies of homicide focus on variations in gross homicide rates between places or times. Our more epidemiological approach focuses on demographic patterns of risk with respect to particular kinds of relationship categories such as the marital relationship. Our prior analyses of spousal homicides in Canada between 1974 and 1983 (Daly and Wilson 1988a; 1988b; Wilson 1989) revealed these previously unidentified spousal homicide risk patterns: (1) victimization of both wives and husbands occurred in several-fold higher rates in de facto marital unions than in registered marital unions; (2) the youngest wives incurred the greatest risk in registered unions, whereas in de facto unions risk was greatest for middle-aged wives; (3) increasing age disparities of husband and wife — in either direction — were associated with increasing rates of homicide victimization of both parties, in both registered and de facto marital unions. Mercy and Saltzman (1989) found that the Canadian homicide patterns of risk in relation to age and age disparity were replicated in registered marriages in the United States.

The logic underlying our expectation that certain demographic variables would be associated with uxoricide risk derives from considering violence's utility as a coercive tool (without any implications about whether the violent person has any awareness of its utility). If the coercive use of violence is best understood as one means by which uxorial proprietary claims are maintained, then one would expect that male sexual proprietariness and use of violence might covary with such demographic variables as estrangement, type of marital union, and age of the woman.

(1) *Estrangement.* If violence and threats of violence by husbands indeed function to limit female autonomy, then men may be motivated to act in these ways in response to probabilistic cues of their wives' likelihood or intention of desertion. It follows that resolving to leave one's husband may be associated with elevated risk of violence, including risk of being killed. Because the decision to leave is covert, however, it is difficult to compare the risks to women who intend to leave but have yet to do so with the risks to other coresiding women. One can, however, assess the magnitude of elevated risk in the aftermath of actual separations, at which time possessive husbands may continue their threats and violence to coerce the woman's return (Allen 1990, Browne 1987; Mahoney 1991; Wallace 1986).

(2) *Type of Marital Union.* There is reason to suppose that husbands may be less secure in their proprietary claims over wives in de facto unions than in registered unions. Until relatively recently, uxorial entitlements and obligations



within registered marital unions were firmly reinforced in legal, religious and other social institutions (Dobash and Dobash 1979; Wilson and Daly 1992b). Perhaps, in part, because of values and expectations associated with the socially and legally enforced commitments that marital registration entailed in the past, de facto marrieds may be less committed to the alliance. In fact, de facto unions are often "trial" marriages with relatively short durations and a relatively high incidence of break-ups (Balakrishnan 1989; Booth and Johnson 1988; Bumpass and Sweet 1989; Wu and Balakrishnan 1992). Moreover, there is some direct evidence for a greater incidence of conflicts within de facto couples than within registered couples (Macklin 1972; Sarantakos 1984).

(3) *Age of Woman*. A woman's youth is one cue that is likely to be associated with the probability that she will desert her husband permanently or temporarily, even if there is no explicit indication of her intention to do so. All else equal, youth makes a woman more attractive to men (Cunningham 1986; Deutsch, Zalenski and Clark 1986; Kenrick and Keefe 1992; Mathes, Brennan, Haugen, and Rice 1985; Symons 1979), men more than women express a desire for young spouses (Townsend 1989; Buss and Barnes 1986), and the younger a divorcee the greater her likelihood of remarriage (Glick and Lin 1987; Trost 1984). These age-related "opportunity" and "motivational" considerations, as well as other factors including childlessness, suggest that young wives — all else equal — may be more likely than older wives to terminate an unsatisfactory marriage and also more likely to form new sexual relationships. It follows that men may be more jealous, proprietary, and coercive toward younger wives.

Here, we describe analyses of the demography of spousal homicides, especially uxoricides, in Canada during the period 1974-1990.

## Method

### Spousal homicide data

The Statistics Canada homicide archive is a victim-based datafile of all criminal homicides which occurred in Canada and were known to police. This datafile contains, among other things, information on the sex, age, and marital status of victim and killer, as well as their relationship, which has been categorized into some 37 types including "stranger", "acquaintance", "lover", "wife", "husband", "common-law wife", and "common-law husband".

Registered marital relationships (i.e., "wife" and "husband") encompass both cohabiting and separated (including divorced) couples; the marital statuses

of victim and killer are coded separately. In the case of de facto ("common-law") marital relationships, however, how police should code dissolved unions has been inexplicit, and "ex-common-law" is not a marital status code. Thus, former de facto unions may sometimes have been coded as "lovers", "friends", or "acquaintances" rather than as "common-law husbands" and "common-law wives", and any such cases will have been excluded from our analyses of spousal homicides. Furthermore, although the "lover" relationship may be functionally similar to that of de facto marriage, there are no estimates of the numbers of such relationships in the population-at-large, and demographic analyses of cases involving "lovers" are thus precluded. For these reasons, the following analyses of uxoricides, defined as Statistics Canada's "wife" and "common-law wife" cases, do not represent the totality of "intimate femicides" (Crawford and Gartner 1992).

Analyses in this paper are based on case-by-case information for 1974 to 1990. The Statistics Canada homicide archive was begun in 1961, but from 1961 to 1973, the archive was limited to those cases where the initial charge was murder, those with an initial charge of manslaughter were excluded. Annual reports of spousal homicides occurring in 1974-1975 (Statistics Canada, 1977: Table 1) continued to exclude such cases, but they have been included in the case-by-case archive since 1974 and are thus included in all data used in this paper. We wish to point out that, unlike the data reported in this paper, the statistics on spousal homicides published annually by Statistics Canada between 1976 and 1985 were limited to registered marital unions. Since 1986, registered and de facto unions have both been included in Statistics Canada's reporting of spousal homicides. The homicide datafile maintained by Statistics Canada is continually updated as new information becomes available; the data in this paper are current as of September 1992.

### Computation of demographic-group-specific homicide rates

As in any epidemiological analysis, homicide rates are properly computed relative to the population at risk. Homicide rate denominators can be computed from census information on the numbers of persons in relevant age classes, marital statuses, and so forth.

The Canadian census first distinguished registered from de facto marriages in 1981 (Turcotte 1988). Censuses since 1981 thus offer the best national estimates of the numbers of coresiding couples in registered and de facto marriages, but they represent only the eighth (1981) and thirteenth (1986) years of the 17-year homicide sampling period (1974-1990), plus 1991. The mid-



point of the 17-year period is 1982, so we have interpolated 1982 estimates from the 1981 and 1986 censuses, and used these 1982 estimates as the denominators in computing the per annum homicide rates. De facto marriages constituted 6.4% of all marriages in 1981, 8.3% in 1986, and 11.1% in 1991 (Turcotte 1988; Statistics Canada 1992a); the absolute number of de facto unions doubled from 1981 to 1991. While changes in the form of the census questions may account for part of the increase in estimated numbers of de facto marital unions, there is evidence that the increase is largely genuine (Balakrishnan 1989; Turcotte 1988). In interpolating our 1982 estimates from the 1981 and 1986 censuses, we have ignored the 1991 census estimate, even though it may be the most accurate to date, as it presumably reflects a recently accelerated increase in the de facto phenomenon beyond what prevailed over the 1974-1990 period.

We estimate homicide victimization rates in estranged couples, using census counts of persons whose marital status is "separated" as our denominator. According to the Canadian census bureau's procedures, the marital status "separated" refers, at least in principle, to those persons who have ceased to coreside with their registered-marriage spouses, regardless of whether there has been a legal separation decree, and who have not (yet) divorced or established a new de facto marital union. This definition does not precisely correspond to the population "at risk" from ex-spouses, however, not only because divorce does not terminate risk, but also because a homicide could occur where one or both partners had entered into new common-law unions. A further complication arises from the fact that many more women than men are counted in the census as "separated"; interpolation from the 1981 and 1986 censuses (Statistics Canada 1987a: Table 3; Statistics Canada 1987b: Table 2), for example, yields 1982 estimates of 268,468 separated women in Canada and 211,403 separated men. This discrepancy may reflect sex-differential speed or probability of entering de facto unions and sex-differential self labelling as "single", as well as mortality and other factors. (Estimation of the incidence of former de facto relationships in the population-at-large is even more problematic, and we have eschewed any estimation of homicide rates in such relationships.)

### **Sex ratio of killing (SROK)**

For certain comparisons, we compute and compare "Sex Ratios of Killing" (SROK), which we define as the number of homicides perpetrated by women per 100 perpetrated by men (Wilson and Daly 1992a). In spousal cases (and in

subsets thereof), this quantity represents the relative risk incurred by husbands as compared to the risk incurred by wives. SROK comparisons between groups such as de facto *versus* registered marriages do not indicate which entails greater per capita homicide risk but they do indicate variation in relative victimization whose validity is independent of possible problems in estimating populations-at-large. Factors associated with increased rates of uxoricide may be associated with higher, lower, or unchanged SROK values, and the implications of SROK comparisons and homicide rate comparisons are distinguished in the analyses that follow.

## Results

### The prevalence of spousal homicide

In Canada between 1974 and 1990, a total of 1333 women were slain by their husbands (859 registered marital unions, 474 de facto unions). Men killed by their wives totalled 416 (196 registered, 220 de facto).

The 1333 wife victims constituted 49.4% of a total of 2699 women (15 years of age or older) who were the victims in solved homicides perpetrated by men. Another 112 women (4.1% of women slain by men) were identified as having been killed by their "lovers", 607 (22.5%) by "close friends", "acquaintances", or co-workers, 250 (9.3%) by relatives, and 397 (14.7%) by strangers.

More than three women were killed by their husbands for every one killed by a stranger, then. However, even this comparison understates the relative threat from husbands versus strange men, since not all women are married. The estimated average number of adult ( $\geq 15$  years of age) women in Canada during the 17-year homicide sampling period was 9,468,357, of whom 5,282,366 (55.8%) were residing with husbands (including both registered and de facto unions). Leaving aside, for the moment, complications introduced by estrangement, the 1333 slain wives represent 14.8 deaths per million wives per annum, whereas the 397 women killed by strangers represent 2.5 deaths per million women in the population-at-large per annum. Moreover, only 144 of the 397 women killed by strangers were married and, so *for married women*, the chance of being killed by one's husband was nine times higher than the chance of being killed by a stranger.

Table 1 presents annual spousal homicide totals over the 17 years, during which period an average of 78.4 Canadian women were killed by their husbands each year, and an average of 24.5 men were killed by their wives. There have





been no evident trends in the year-to-year totals of spousal homicides, nor in the spousal SROK (Table 1). The numbers of wife victims ranged from 61 to 91 and the numbers of husband victims ranged from 17 to 34. The largest number of spousal homicides in any one year occurred in 1975.

**Table 1**

Number of men and women killed by their spouses in Canada 1974-1990, with the annual Sex Ratio of Killing (SROK = homicides committed by women per 100 committed by men).

	Total homicides	Husband killed wife			Wife killed husband			Spousal SROK
		Registered	De facto	Total	Registered	De facto	Total	
1974	600	56	34	90	14	10	24	27
1975	701	51	40	91	12	21	33	36
1976	668	60	23	83	15	12	27	33
1977	711	50	30	80	17	12	29	36
1978	661	50	28	78	14	9	23	29
1979	631	59	31	90	8	14	22	24
1980	593	41	20	61	9	8	17	28
1981	648	62	20	82	14	13	27	33
1982	668	49	28	77	13	9	22	29
1983	682	52	31	83	10	17	27	33
1984	667	43	20	63	8	9	17	27
1985	704	55	31	86	11	14	25	29
1986	569	44	26	70	12	7	19	27
1987	642	57	22	78	14	20	34	44
1988	580	44	27	71	5	16	21	30
1989	638	46	30	76	12	11	22	30
1990	639	41	33	74	8	18	26	35
Total	11,037	859	474	1333	196	220	416	31

In Canada in this 17-year period, many more women (1333) than men (416) were slain by spouses. Thus, the spousal SROK was 31 (that is, 31 women killed their husbands for every 100 men who killed wives). Over the 17-year period, the spousal SROK ranged between 24 in 1979 and 44 in 1987 (Table 1), with no systematic relationship between the SROK and the number of spousal homicide victims. Variation in spousal SROK is discussed further below (see "Variation in SROK").

### Estrangement and the risk of uxoricide

Table 2 presents our estimates of differential homicide rates incurred by coresiding and separated persons at the hands of their registered marriage spouses. Two estimates of the homicide rate in separated couples are presented because of the sex difference in the numbers of separated persons identified by the census. Regardless of which estimate is used for separated marrieds, wives incurred substantially elevated risk when separated as compared to when coresiding. For husbands, by contrast, the risk when separated was elevated by a much smaller factor.

**Table 2**

Homicides per million registered-marriage spouses per annum, according to whether the couple were coresiding or separated at the time of the homicide (Canada 1974 - 1990)

	Coresiding Couples	Separated persons Rate calculated per million	
		Separated women	Separated men
Husband killed wife	7.3	40.1	50.9
Wife killed husband	1.9	4.2	5.3

Rate: Average annual number of homicides divided by the weighted average of population-at-large numbers of coresiding and separated spouses for 1981 and 1986 censuses ( $1981 \times .80 + 1986 \times .20$ ): Coresiding couples = 5,282,366; separated women = 268,468; separated men = 211,403 (1981 and 1986 census in Table 3, Statistics Canada 1987a; Table 2, Statistics Canada 1987b).

### Homicide rates for registered versus de facto marriages

Table 3 presents the numbers of victims and the victimization rates for coresiding spouses in registered versus de facto marital unions for 1974-1990. The uxoricide rate was elevated by a factor of 8.4 in de facto unions as compared to registered unions, and the rate of wives killing husbands was elevated by a factor of 15.

**Table 3**

Spousal homicide rates in Canada (1974 - 1990) according to type of marital union for couples still coresiding at the time of the homicide.

	Husband killed wife	Wife killed husband
Rates per million couples per annum		
Registered union	7.3	1.9
De facto union	61.4	28.5

Rates: Average annual number of homicides divided by the weighted average of population-at-large numbers of coresiding and separated spouses for 1981 and 1986 censuses ( $1981 \times .80 + 1986 \times .20$ ): Registered coresiding couples = 5,282,366; de facto coresiding couples = 454,001 (1981 and 1986 census estimates in Turcotte 1988).

The Statistics Canada homicide datafile for 1974-1990 contains some information on the registered marriage status of persons in de facto unions. Among the 474 de facto uxoricide victims, 165 were noted to have been in a prior registered marriage (including 85 married but separated, 13 widows, and 67 divorcees), 91 were never-married, and marital status was not specified for the remaining 218. The 474 killers included 136 with prior registered marriages (including 68 married but separated, 4 widowers, and 64 divorcees), 112 never-marrieds, and 225 for whom marital status was not specified. Thus, prior-marrieds substantially outnumbered never-marrieds (unless the unspecified marital statuses are predominantly never-marrieds): 36% of known-marital-status de facto uxoricide victims and 45% of their known-marital-status killers were never-marrieds. By contrast, according to Canadian censuses, 59% of persons in de facto unions were never-marrieds in 1986 (Turcotte 1988 and personal communication) and 64% in 1991 (Statistics Canada 1992a: Table 6). (The 1981 census did not code the registered marriage status of common-law spouses.) This comparison suggests that prior marriages may constitute an important demographic risk factor for lethal conflict in de facto unions without even considering the issue of de facto marital history; fuller information on the marital histories in homicides and in the population-at-large is needed to confirm this apparent relationship. Marital history may also be an important risk factor for homicides involving registered marrieds, but the homicide datafile does not have the requisite information to evaluate this hypothesis.

## Ages of wife and husband and the risk of uxoricide

### Registered marriages

In registered marriages, the greatest risk of uxoricide has been found to befall the youngest wives, in Canada (1974-1983: Daly and Wilson 1988a,b; Wilson 1989) and in the United States (1976-1985: Mercy and Saltzman 1989). It may be hypothesized that the risk incurred by young wives is attributable to the fact that their husbands also tend to be young, since young men are the most violent age-sex class in general (Daly and Wilson 1988b; 1990; Hewlett 1988; Wilson and Daly 1985; 1992c). Table 4 therefore presents uxoricide rates according to both wife and husband's ages, specifically according to the combination of 10-year age categories of coresiding wife and husband. Within concordant ages (i.e., along Table 4's diagonal), uxoricide rates were much higher in the youngest couples, but Table 4 also shows that even greater risk was incurred by young women whose husbands were much older than themselves.

Data from couples with big disparities in age should be most informative as to whether the wife's or the husband's youth is the more potent risk factor. The hypothesis that the violent inclinations of young men are more relevant would lead one to predict that cross-tabulation of partners' ages should manifest declining uxoricide rates as a function of husband's age, more or less regardless of wife's age. Such is clearly not the case, but the data remain inconclusive as regards the relative importance of husband's versus wife's age, since age-discrepant couples are relatively few. There were no cases of young husbands killing much older wives, but there were so few such couples in the population-at-large that any inference that this is a low risk age-combination is presently unwarranted. In general, for all age combinations that were substantially represented in the Canadian population, uxoricide rates for discrepant age categories were somewhat higher than the rates for concordant age categories (Table 4).

**Table 4**

Uxoricide rates for registered-marriage couples who were evidently still coresiding at the time of the homicide, according to age combinations, with corresponding numbers of uxoricides (Canada 1974-1990) and numbers of coresiding registered-marriage couples in the population-at-large.

		Age of husband					
		15-24	25-34	35-44	45-54	55-64	≥65
Age of wife							
15-24	$N_v$	29	29	2	1	0	1
	$N_p$	183,122	227,099	8,832	1019	362	367
	Rate	9.3	7.5	13.3	57.5	-	160.3
25-34	$N_v$	4	112	67	10	0	0
	$N_p$	26,525	1,016,063	392,289	23,081	2855	749
	Rate	8.9	6.5	10.0	25.5	-	-
35-44	$N_v$	0	12	91	49	6	0
	$N_p$	708	56,589	770,503	329,386	22972	2196
	Rate	-	12.5	6.9	8.8	15.4	-
45-54	$N_v$	0	1	7	55	34	3
	$N_p$	221	1,799	43,275	598,550	283330	22169
	Rate	-	32.7	9.5	5.4	7.1	8.0
55-64	$N_v$	0	0	0	4	49	21
	$N_p$	138	486	1905	51362	486719	235024
	Rate	-	-	-	4.6	5.9	5.3
≥65	$N_v$	0	0	0	0	3	62
	$N_p$	174	291	363	2403	41014	455410
	Rate	-	-	-	-	4.3	8.0

**Note:**

$N_v$  Number of registered-wife victims evidently still coresiding 1974-1990.

$N_p$  Estimated number of coresiding couples in registered marriages for 1982 (1981 census x .8 + 1986 census x .2).

Rate Age-combination-specific uxoricide rate per million couples per annum: Average annual number of homicides divided by 1982 estimate of persons in population-at-large.

**De facto marriages**

Table 5 presents uxoricide rates in de facto unions according to the combination of 10 year age categories of coresiding wife and husband, paralleling Table 4's information for registered unions. In de facto unions, unlike registered unions, 35 to 54 year old wives experienced the highest homicide rates in age-concordant unions (those along the diagonal). The de

facto pattern is similar to that in registered unions, however, in that age discrepancy was associated with elevated homicide rates.

**Table 5**

Uxoricide rates for de facto marriage couples who were evidently still coresiding at the time of the homicide, according to age combinations, with corresponding numbers of uxoricides (1974-1990) and numbers of coresiding de facto marriage couples in the population-at-large.

		Age of husband					
		15-24	25-34	35-44	45-54	55-64	≥65
Age of wife							
15-24	$N_v$	40	53	11	3	0	1
	$N_p$	77,717	60,010	3,331	128	58	30
	Rate	30.3	52.0	194.3	1378.7	-	1960.8
25-34	$N_v$	22	65	61	20	2	0
	$N_p$	11,916	88,470	34,071	2,606	260	27
	Rate	108.6	43.2	105.3	451.4	452.5	-
35-44	$N_v$	3	24	45	34	4	2
	$N_p$	381	11,071	27,970	14,418	1,123	66
	Rate	463.2	127.5	94.6	138.7	209.5	1782.5
45-54	$N_v$	0	4	15	23	17	2
	$N_p$	8	441	4,950	12,801	6,549	537
	Rate	-	533.5	178.3	105.7	152.7	219.1
55-64	$N_v$	0	1	3	5	7	1
	$N_p$	8	27	304	3,049	6,536	3109
	Rate	-	2178.6	580.5	96.5	63.0	219.1
≥65	$N_v$	0	0	1	0	2	2
	$N_p$	8	6	17	201	1400	4306
	Rate	-	-	3460.2	-	84.0	27.3

**Note:**

$N_v$  Number of de facto wife victims 1974-1990; age missing in one case.

$N_p$  Estimated number of coresiding couples in de facto marriages for 1982.

Rate Age-combination-specific uxoricide rate per million couples per annum: Average annual number of homicides divided by 1982 estimate of persons in population-at-large.

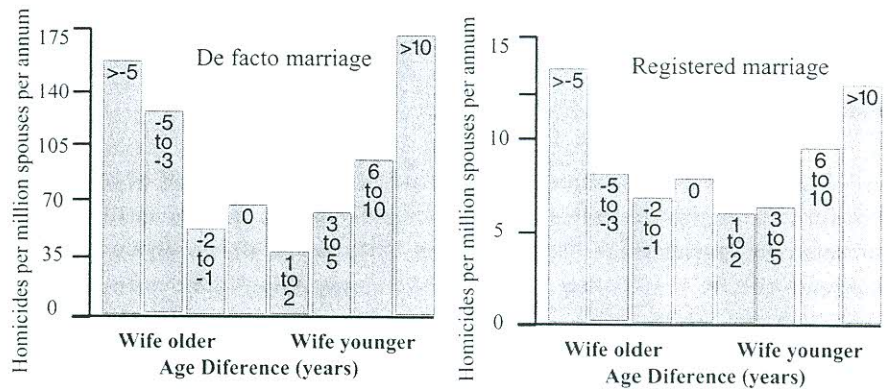
The ages of de facto married couples tend to be less similar than those of

couples in registered marriages. Among the 652 coresiding, registered-marriage uxoricides in Canada in 1974-1990, the correlation between husband's age and wife's age was .93, and the mean absolute age disparity was 4.7 years. In 474 coresiding de facto uxoricides, the equivalent correlation was just .65 and the mean absolute age disparity was 7.3 years. A greater prevalence of age-discrepant couples in de facto unions than in registered unions also extends to the population-at-large (1981 census: Norland 1983; 1986 census: Turcotte, personal communication). Thus, the risk factor of age discrepancy may be partly responsible for the differential risk in de facto versus registered marriages; however, comparing Tables 4 and 5, it is evident that uxoricide rates are consistently higher in de facto unions than in registered unions, within age combinations.

**Husband-wife age disparity**

In Canada, in the period 1974-1990, 20% of 1749 spouse-killings involved partners with an age disparity of 10 or more years. This large number of age-discrepant couples exceeds what would be expected on the basis of age distributions in the populations-at-large. Figure 1 presents uxoricide rates as a function of age disparity, for coresiding registered and de facto marriages in Canada. (The age disparity categories in Figure 1 were prompted by the categories used by Statistics Canada for their summary tabulations of husband-wife age differences for the 1981 census; Norland 1983). Clearly, the largest age discrepancies — in either direction — are associated with the highest uxoricide risks in both registered and de facto marital unions.

**Figure 1**  
Uxoricide rates in registered and de facto marital unions as a function of the age difference between wife and husband in Canada 1974-1990.



### Variation in SROK

Although the spousal sex ratio of killing (SROK) does not vary with actual totals in spousal homicides over 1974-1990 (Table 1), SROK does vary systematically with certain demographic correlates of the spousal homicide cases. Table 6 presents the numbers of spousal homicides according to the sex of the killer and the corresponding SROK values.

**Table 6**  
Numbers of homicides perpetrated by husbands versus wives and the spousal SROK, contrasting various subsets of spousal homicides in Canada, 1974-1990.

	Husband killed wife cases	Wife killed husband cases	SROK
Type of marital union:			
Registered			
Coresiding & separated	859	196	23
Coresiding only	652	173	27
De facto**	474	220	46
de facto vs coresiding & separated: Chi-Square = 39.6, $p < .001$			
de facto vs coresiding only : Chi-Square = 22.6, $p < .001$			
Coresidency vs. separation *** (Registered marriages):			
Coresiding	652	173	27
Separated	183	19	10
Chi-Square = 14.3, $p < .001$			

**Note**

\*\* *Coresiding only.*

\*\*\* *Separateds do not include divorced killers (24 husbands and 4 wives).*

### Estrangement

In registered married couples, the degree to which spousal homicide victimization was female-biased (relatively lower SROK values) was substantially greater when the couple was estranged (9.6 slain wives per slain husband; SROK = 10), than when they were coresiding (3.8 slain wives per slain husband; SROK = 27). Clearly, separation is specifically associated with excess risk to wives relative to husbands. The SROK was intermediate for the 28 spousal homicides involving divorced couples (6.0 slain wives per slain husband; SROK = 17).



Thus, over and above the fact that estrangement is associated with elevated spousal homicide rates (Table 2), the SROK contrasts show that this applies specifically or primarily to deaths of wives, not husbands.

### Type of marital union

Victimization was significantly less female-biased in de facto unions (2.2 slain wives per slain husband; SROK = 46) than in registered unions, whether one considers all registered marriages regardless of residency status (4.4 slain wives per slain husband; SROK = 23) or just the coresiding subset of registered marriages (SROK=27).

Thus, over and above the fact that de facto unions incur higher spousal homicide rates than registered unions (Table 3), the SROK contrasts indicate that this is even more the case for deaths of husbands than for deaths of wives.

### Age and age disparity

Table 7 presents ages and age disparities in male-victim versus female-victim cases. Youth, perhaps especially the woman's youth, appears to have comparable relevance to wife-victim and husband-victim cases. The risk factor of age disparity, however, has an even greater impact on male victimization than on female victimization: the mean absolute age disparity was significantly greater in male-victim than in female-victim cases. The same was true of the mean signed age disparity (that is, husband's age minus wife's age), indicating that in addition to other age effects, there was some tendency for the excess risk in age-discrepant couples to befall the older party.

**Table 7**

Average ages of spouses and their age disparities in Canadian spousal homicides (1974-1990), contrasting cases by sex of killer

	Husband killed wife	Wife killed husband	t	df	p
	Mean ± SE	Mean ± Se			
Husband's age	41.9 ± 0.4	40.9 ± 0.6	1.3	1746	.207
Wife's age	38.2 ± 0.4	36.0 ± 0.6	3.0	1745	.003
Absolute age disparity	5.8 ± 0.2	6.9 ± 0.3	3.3	1744	.001
Signed age disparity	3.7 ± 0.2	4.9 ± 0.4	2.0	1744	.004

*Note: Missing information on age of spouse in three cases.*

## Discussion

### SROK variation

Canada's spousal SROK of 31 is similar to those of several other countries for which we have relevant information (Wilson and Daly 1992a): 17 in Denmark (1933-1961: 16 husbands, 96 wives); 23 in England and Wales (1977-1986: 223 husbands, 981 wives); 31 in New South Wales, Australia (1968-1986: 95 slain husbands, 303 slain wives), and 40 in Scotland (1979-1987: 40 husbands, 99 wives). In contrast, the spousal SROK is substantially higher in the United States, with a national value of 75 (1976-1985: 7,888 husbands, 10,529 wives), and values in some cities exceed 100 (i.e. more husbands slain than wives). This exceptional equity of spousal homicide perpetration in the United States cannot be attributed to greater gun use, nor does it extend to other victim-killer relationships (Wilson and Daly 1992a). Significant predictors of within-sample variation in the spousal SROK include the type of marital union (registered versus *de facto*), coresidency versus separation, ethnicity, and age disparity, but these variables do not account for between-sample variations in the spousal SROK (Wilson and Daly 1992a).

The spousal SROK was lower, that is, female-biased victimization was greater, (1) in registered marriages than in *de facto* marriages, and (2) in estranged than in coresiding couples within registered marriages. These contrasts replicate effects found in Chicago spousal homicides (Wilson and Daly 1992a), although SROK values in Chicago greatly exceed those in Canada.

### Estrangement

It is not exactly news that women who attempt to terminate relationships with men are frequent homicide victims. Wallace (1986) reported that 45% of women (98/217) slain by their husbands in New South Wales, Australia, had left their killers or were in the process of leaving. Older data portray the same picture, with almost half of New South Wales uxoricide victims separated from their killers in the 19th century, and an even higher proportion in the 1930's (Allen 1990). This high incidence of estrangement among wife-killings was not mirrored in husband-killings: whereas 98 of 217 slain wives in Wallace's (1986) study were separated from their killers, the same was true for just 3 of 79 slain husbands. Similarly, in a Florida study, 13 of 23 slain wives were separated from their spouses, as compared to just 1 of 11 slain husbands (Bernard, Vera, Vera, and Newman 1982). However, we have found no prior

quantitative estimation of the magnitude of the possible association between estrangement and uxoricide risk.

Supporting our interpretation of uxoricide as the "tip of the iceberg" of sublethal violence, there is some evidence that the frequency of sublethal assaults against wives in Canada is also greater in separated than in coresiding couples. In several victimization surveys, for example, much greater proportions of separated wives than of cohabiting wives reported abusive acts by their husbands (Ellis and DeKeseredy 1989; Kennedy and Dutton 1989; Smith 1990; Solicitor General of Canada 1985; Statistics Canada 1990).

The fact that separation is temporally associated with increased lethal risk does not necessarily mean that the link between the two is directly causal. If women leave assaultive husbands when the frequency and severity of assaults become intolerably dangerous, then the immediate separation period might be a time of elevated uxoricide risk regardless of whether men respond violently to separation *per se*. Nevertheless, some case descriptions strongly suggest that the husband's use of lethal violence was a direct response to the wife's decision to terminate the relationship.

Data on time-since-separation for homicides involving estranged couples in New South Wales suggest that the risk is especially great within the first two months: 47% of separated wives were killed within 2 months of separating, and 91% were killed within a year (Wilson and Daly 1993). Information on separation duration is not available for the Canadian homicide cases, and computation of uxoricide rates per unit of time-since-separation is in any case impossible, since there is no information on durations of separation in the population-at-large. Nevertheless, it seems clear that the coresiding versus separated rate differentials in Table 2 must fail to adequately portray the real magnitude of excess risk incurred by women in the immediate aftermath of separation, because the rate denominators aggregate all durations of separation whereas most homicides probably occurred soon after separation. In other words, the huge elevation of risk incurred by separated wives, portrayed in Table 2, still understates the excess risk in the immediate aftermath of separation. These considerations underscore the need for safe refuges for women deserting violent husbands, and suggest that other means of protection, such as anti-stalking laws and court-ordered radiotelemetry of dangerous estranged husbands' whereabouts, merit further exploration.

### Type of marital union

Daly and Wilson (1988a; 1988b) reported that rates of spousal homicide in Canadian de facto marital unions in 1974-1983 were substantially higher than in registered marriages: the rate of uxoricide was estimated to be about eight times higher in de facto unions. That analysis should have underestimated the true difference, however, by including estranged registered-marriage homicides even though some or all of the estranged de facto homicides are likely to have been categorized otherwise and, hence, excluded. However, despite the exclusion of separated registered-marriage homicides, the present estimate of the ratio of de facto to registered spousal homicide rates is about the same as originally reported for 1974-1983. The fact that this new estimate is scarcely higher than the old underestimate probably reflects the fact that de facto unions in the population-at-large have greatly increased in frequency in recent years, whereas the absolute numbers of homicides in such unions have not, hence that homicide rate differentials between de facto and registered unions have shrunk. Lacking good estimates of the numbers of de facto unions in the population-at-large throughout the 17-year period, however, we cannot accurately describe any such temporal trend.

Considering that de facto unions are so much more dangerous than registered unions, and that estrangement is an important risk factor in registered marriages, it is probable that identification of the estranged de facto cases which are presently recorded as other relationships would substantially increase counts of "spousal" homicides in Canada.

In the United States, precise comparisons of spousal homicide rates in registered versus de facto marriages are precluded because the census has not provided direct information on de facto unions for the population-at-large. It seems clear that homicide rates are substantially higher in de facto unions in that country, too. De facto unions constituted 46% of the 1706 spousal homicides in Chicago in a 25-year period (1965 -1989; Wilson and Daly 1992a), as well as 35% of 43 spousal homicide cases in Miami in 1980 (Wilbanks, 1984), 31% of 45 in Houston in 1969 (Lundsgaarde 1977), and 46% of 972 in Detroit in 1926 - 1968 (Boudouris 1971). By contrast, recent survey-based estimates of the prevalence of such unions in the U.S. are only on the order of 9% (Bumpass and Sweet 1989).

Again supporting the interpretation of uxoricide as the tip of the iceberg of sublethal violence, there is evidence that excess risk in de facto unions extends

to wife-beating, too (Ellis 1989; Fergusson, Horwood, Kershaw, and Shannon 1986; Stets and Straus 1989; Straus and Gelles 1990; Yllo and Straus 1981).

De facto and registered marital unions differ in many ways, and the higher risk of homicide and assault in the former may be attributable to a combination of correlated factors. De facto marital unions are generally more prevalent among the poor and the young (Balakrishnan 1989; Bumpass and Sweet 1989, Carmichael 1984; Khoo 1987; Norland 1983; 1984; 1985; Rousset 1978; Spanier 1983; Turcotte 1988; Wu and Balakrishnan 1992), and poverty and young adulthood are both associated with higher homicide rates (Daly and Wilson 1988b; 1990). Another difference between de facto and registered unions is that de facto unions are more often childless than are registered unions for a given duration of marriage (e.g., Statistics Canada 1987). Joint offspring promote solidarity between spouses, and childlessness is associated with higher spousal conflict and divorce (Rasmussen 1981); homicide risk may parallel divorce risk with respect to the effects of children. Moreover, whereas couples in de facto unions are less likely than those in registered unions to have children of the present marriage, they are more likely to have stepchildren (Bumpass, Sweet, and Cherlin 1989; Khoo 1988), and the presence of stepchildren is itself a risk factor for spousal conflict and violence (Daly, Singh and Wilson 1993; White and Booth 1985; Wilson and Daly 1987). Whether adultery, desertion, and loss of control are greater sources of conflict in de facto unions than in registered unions is unknown, and whether the elevation of homicide rates associated with de facto marital status is mediated by steprelationships, poverty, and/or other factors is a question for future research.

#### **Ages of wives and husbands**

The risk of sublethal assault is, like that of uxoricide, a declining function of the wife victim's age, according to victimization surveys in the United States, Canada, and New Zealand, (Gaquin 1977/78; Straus, Gelles, and Steinmetz 1980; Fergusson *et al.* 1986; Statistics Canada 1990). In the New Zealand study, it was also shown that rates of assault declined as a function of the husband perpetrator's age (Fergusson *et al.* 1986). However, none of these victimization studies has reported assault rates in relation to age combinations and age disparities.

Other correlated factors besides the husband's age may also be relevant to the high risk incurred by young wives. For example, mean marital duration is necessarily shorter for young wives than older wives, and unions of lesser

duration may be relatively conflictual, on average, because the most conflictual end early, so that long-standing unions are self-selected as relatively harmonious. Wallace (1986) has demonstrated that Australian husbands were especially likely to kill wives in the first year of marriage, and Fergusson *et al.* (1986) found that New Zealand wives in marriages of less than one year's duration experienced the greatest risk of assault. In neither study, however, were the effects of marital duration and the spouses' ages separated statistically. Another possibly relevant factor associated with brief marital duration and wife's youth is childlessness; as noted above, children of the union evidently promote solidarity between spouses. Financial hardship is yet another possible correlated factor (but young wives married to much older husbands are not necessarily in poor financial circumstances). Unfortunately, information on marital duration, children, marital history, and income are not available for the Canadian homicides. We have not found any *reliable* evidence of variations in age-specific rates of wifely adultery, nor have we found any evidence that female-initiated divorces are more common among young wives than among older wives.

The age-specific risk of uxoricide in de facto unions manifested a very different pattern from that in registered marriages: In de facto marriages, the highest uxoricide rates befell the middle-aged wives (Daly and Wilson 1988a; 1988b). As suggested above with respect to registered marriages, the risk pattern associated with wife's age in de facto unions may also reflect correlated variables such as duration of the union, age of husband, age disparity, economic circumstance, and joint offspring.

The 1981 Canadian census revealed that mean family income for de facto marrieds and registered marrieds increased with age, with little difference between marital types prior to age 40; thereafter, the family income gap of de facto and registered marital unions was striking (Norland 1984; 1985). De facto family income peaked about age 40, while registered family income peaked about 10 years later. Occupational status and education exhibited age patterns similar to family income: little difference between de facto unions and registered unions for persons less than 40 years of age, but substantial differences for spouses over 40. It is unfortunate that the Statistics Canada homicide file does not have adequate information to assess changes in age-specific risks as a function of socio-economic factors.

### Age disparity

The subject of age disparity in husband-wife couples with respect to marital solidarity and conflict is virtually unstudied, although May-December marriages are remarkably prevalent among spousal homicides. Husband-wife age disparity of 10 years or more characterized 29% of 42 Miami spouse-killings in 1980 (Wilbanks 1984), and 25% of 32 Houston cases in 1969 (Lundsgaarde 1977), as well as 23% of 1703 Chicago spouse-killings in 1965-1989, 23% of 80 Detroit cases in 1972, 18% of 1,182 cases in England/Wales 1978-1986, 15% of 139 cases in Scotland in 1979-1987, 19% of 373 cases in New South Wales, Australia in 1968-1986 (unpublished data). In Canada, in the period 1974-1990, 20% of the 1749 spouse-killings involved partners with an age disparity of 10 or more years. In Canada (Daly and Wilson 1988a; 1988b) and in the United States (Mercy and Saltzman 1989), the risk to both partners increases sharply with age disparity in either direction.

Although increased spousal homicide risk in age-discrepant couples is a robust phenomenon, its interpretation is unclear and perhaps multifaceted. Older men with much younger wives may feel especially threatened by possible infidelity or desertion, and behave especially jealously and coercively. Moreover, the older parties in markedly age-discrepant marriages may be more likely than persons in age-concordant marriages to have had prior marital and reproductive careers, providing possible sources of conflict with present mates. One or both parties in a markedly age-discrepant marriage is likely to have married outside their preferred age categories (Kenrick and Keefe 1992), perhaps contributing to conflict. Finally, age discrepancy may be an incidental correlate of atypicality in other domains. People tend to marry persons of similar age: An age difference of 2 years or less characterized 45% of the registered and 37% of the de facto couples in the 1981 Canadian census (Norland 1983). In contrast, wives were 5 or more years older than their husbands in just 3% of registered couples and 7.5% of de facto couples, and wives were 10 or more years younger than their husbands in 6.6% of registered and 10% of de facto couples in 1981 (Norland 1983). It is possible that the increased uxoricide risk in the markedly age-discrepant couples merely reflects their statistically unusual status; such couples may be atypical in a number of other respects including attributes or circumstances which increase the risk of conflict and homicide.

## Concluding remarks

Uxoricide is a significant component of Canadian homicide. The 1333 women known to have been slain by their registered or common-law spouses in 1974-1990 constitute 15% of all solved homicides in Canada, and almost half of all women killed by men. They outnumber male victims of spousal homicide by a factor of 3.2. The prevalence of this crime is widely, if imprecisely, known, but patterns of risk have hitherto been little studied.

The present analyses have demonstrated the following facts about Canadian spousal homicide. (1) Uxoricide risk is substantially elevated in the aftermath of separation. (2) Both wives and husbands incur far greater risk in *de facto* marriages than in registered marriages. (3) Young wives incur the greatest risk in registered marital unions, while middle-aged wives incur the greatest risk in *de facto* unions. (4) Uxoricide rates increase sharply as age disparity increases. (5) Spousal homicide victimization is more female-biased in registered than in *de facto* unions. (6) Spousal homicide victimization is more female-biased in estranged couples than in coresiding couples.

The demographic patterns of homicide risk for Canadian wives reported here are striking and robust, but, as we stated earlier, the causal dynamics underlying these risk patterns have not been identified. We endorse the widespread view that male sexual proprietariness is the main substantive issue behind husbands' use of violence. Sublethal violence and threats of violence are apparently effective in maintaining uxorial proprietary claims, and uxoricide appears to be at least in part the tip of the iceberg of such proprietary violence rather than a motivationally distinct phenomenon. We hypothesize that there are empirically reliable, parallel relationships between lethal and sublethal manifestations of masculine proprietary sexual psychologies and the demographic risk factors identified in this paper, namely type of marital union, estrangement, age, and age disparity.

It is not our view that these risk factors could be used to predict lethal outcomes in individual cases, but we hope these analyses will inspire new approaches to the study of femicide.



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