



Report on the Demographic Situation in Canada



1997

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Report on the Demographic Situation in Canada

1997

Alain Bélanger and Jean Dumas
with the collaboration of Cathy Oikawa and Laurent Martel

Jean Dumas
Editor-in-Chief

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Preface

Once again this year, the Report on the Demographic Situation in Canada takes stock of the changes that have taken place in Canadian society and compares them to those of other industrialized nations. Changes in behaviour relating to the life of Canadian couples, to third order births and to contraception are the subject of in-depth analysis.

In recent years, Statistics Canada has contributed to a major United Nations study on the economic situation of the elderly population in industrialized nations. In the second part of the Report, the situation of the elderly in Canada is analysed, taking account of the relationship between living arrangements and the economic circumstances of seniors.

Ivan P. FELLEGI

Chief Statistician of Canada

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Coming soon

A Century of Demographic Changes in Canada, Occasional publication by the Current Demographic Analysis (December 1999).

Document no. 6: “*Intergenerational Relationships and Population Estimations*” by C. Dionne and D. Kerr.

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Highlights

PART I

- For 1996, the overall rate of population increase was 10.7 per 1,000, the lowest since 1985. This low growth rate is due to the steady decline in natural increase. In five years, natural increase fell by 27%, going from 207,000 in 1991 to only 151,100 in 1996. This trend is due to the aging of the population, which results in fewer births and a greater number of deaths despite declining mortality.
- Newfoundland is living through difficult years in demographic terms. In no other province has the fall-off in growth been so dramatic. In 1996 Newfoundland experienced strong negative growth (-11.7 per 1,000). The total fertility rate, which at 1.31 was already the lowest in Canada in 1994, declined further in 1995 to a historic low of 1.25 children per woman.
- Even though its growth rate was down slightly (from 23.7 per 1,000 in 1995 to 22.2 per 1,000 in 1996), British Columbia continued to lead in population growth. This was primarily due to a high level of net international migration of 43,100 people.

xxx

- Owing to the aging of the population and a low birth rate, a very low rate of natural increase is causing the European Economic Area to have a minimal growth rate of 2.8 per 1,000.
- In Europe, immigration plays a greater role in population growth than the excess of births over deaths. In Canada, natural increase and immigration contribute nearly equally to growth. By contrast, in the United States, net migration (740,000) is only a third of the total growth.

xxx

- The very slight increase in the number of marriages in 1994 and 1995 was only a brief episode. The decline has resumed. The 156,691 marriages registered in 1996 represented a drop of 3,560 (2.2%) from the number registered in 1995. Such a low number of marriages has not been seen since 1966.
- Remarriage is declining in popularity. For men in particular, the rate fell from 63.2 per 1,000 in 1991 to 45.4 per 1,000 in 1996.

- In 1996, 71,528 divorces were decreed. This represents a decrease of 6,108 decrees (7.9%) from the year before. It is in the recent cohorts of marriage that the divorce rate appears to be declining the most.
- Marriages preceded by a common-law union are less solid than unions sealed by marriage vows at the beginning. After ten years of conjugal life, 18% of marriages preceded by a common-law union were dissolved, compared to only 10% of those not preceded by a period of living common-law.

xxx

- The decline in the birth rate since the early 1990s is clearly reflected in the shrinking of the base of the population pyramid for 1996. Unlike the drop observed in the 1960s, this new decline is structural in nature: there is no longer much change in the fertility rate, but the number of women of childbearing age is decreasing.
- Third births, which are indispensable if the population is to be maintained at the replacement level, have become rare. They generally occur in cases where the woman is young when she has her first child and the second child is born shortly after the first. Women who have their first child before age 25 are 2.5 times more likely to have a third child than those who are still childless at age 30, and 1.6 times more likely than those who had their first child between ages 25 and 29.
- Women born either at the beginning or the end of the baby boom, along with those born during the “baby bust” appear to have had the same probabilities of having a third child.
- Women who did not finish high school have a 31% greater probability of having a third child than those who graduated. On the other hand, there appears to be no difference between these women and women who had post-secondary education. Women who work have a much lower probability of having a third child than those who do not work.

xxx

- In a comparison with other Western countries, the dominant characteristic of contraception in Canada is the frequency of the use of sterilization. The 1995 General Social Survey found that in all, for natural, medical or contraceptive causes, 4.5 million Canadian couples in which the woman was under 50 years of age were sterile. They represented nearly half (46%) of all such couples.

- The proportion of couples who have voluntarily undergone sterilization rises rapidly after the woman reaches age 30. In more than a quarter of couples in which the woman is between 30 and 34 years of age, one of the partners has undergone sterilization for contraceptive purposes. In the 35-39 age group, the proportion is nearly half.
- In couples who are sterile by choice, the younger the woman, the greater the probability that it is the man who is sterilized: this is the case in two thirds of such couples in which the woman is aged 25 to 29, but less than half of those in which the woman is aged 45 to 49.
- Sterilization appears to be the preferred method of contraception for Canadian couples who want to limit their offspring to their desired number of children. The proportion of couples in which one partner has been sterilized rises from 14% for couples with one child to 47% for those with two children.
- In the past twenty years, natural methods of contraception have nearly disappeared. In 1976, one married woman in 10 reported using the rhythm method or withdrawal. In 1984, the corresponding proportion was one married woman in 23. In 1995, these methods could be considered as now part of ancient history, since only one married woman in 52 reported using them.

xxx

- Canada is currently in an enviable position in world rankings for life expectancy. Canadians rank 4th for men and 5th for women. In comparison to the United States, Canadian life expectancies for men and women are respectively 3.0 and 2.1 years higher.
- Women's life expectancy gains are slowing, but not those for men. In the last five-year period, men added just over one year to their life expectancy, as compared to only half a year for women. Over the past 20 years, men's life expectancy at birth has increased by 5.2 years, while women's has increased by 3.7 years. Nevertheless, the gap in favour of women remains sizable (5.8 years).
- There are fewer deaths due to AIDS. For the first time since statistics on this cause of death became available (1987), the annual number of deaths attributed to HIV fell in 1996, and the decrease was substantial. The AIDS infection caused the death of 1,306 Canadians in 1996, a decrease of 458 (26%) from the preceding year.

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- With 7.5 immigrants per 1,000 inhabitants in 1996, Canada has a much higher immigration rate than most Western countries with which it can be compared, such as the United States (3.4 per 1,000) and Australia (5.1 per 1,000).
- Immigrants in the economic class are on the increase. They now represent 56% of all immigrants. By contrast, the number of immigrants in the family class is declining. In 1996 it was down 12% from the year before.
- Immigration to Quebec contrasts sharply with immigration to British Columbia in its composition. Whereas two-thirds (66.5%) of immigrants who settled in the Pacific province were in the economic class, only a little over one-third of those bound for Quebec fell into that class.
- Among refugees, one in three settled in Quebec, compared to one in 20 in British Columbia.
- The proportion of Asian immigrants continues to grow. Numbering 145,200, they account for the majority of all immigrants for the year.

PART II

- Mostly because of the difference in life expectancy between the sexes and the usual age difference between spouses, one man in two lives in a couple at age 85 while only one woman in ten does so.
- Half of women aged 75 years and older live alone. But, because they die younger and remarry more readily, only one in ten men lives alone at this age.
- The living arrangements of the elderly are good predictors of whether they will be institutionalized. People living alone, particularly men, are most susceptible to being placed in an institution.
- More and more, the elderly, when they can, prefer to live on their own, away from the children. As life expectancy increases, the coexistence of several generations will also increase, but not necessarily their cohabitation.
- If we find households in which several generations are living together, it is often because the elderly, with low incomes, consider this a means of reducing the cost of living.
- Canada is trying, more and more, to provide the elderly with three or even four sources of income. Diversification provides a better protection against poverty.

- In 1990, less than 45% of women 60 years or older were receiving a pension from the Canada Pension Plan or the Quebec Pension Plan.
- Income-earning activity is strongly linked to one's education. Educated people are the last to leave the labor market.
- The 1991 Census counted only 3% of men aged 50 to 64 without income, but 17% of women.
- In 1990, about 15% of those 65 years and older received only the Old Age Security pension.
- While many women live out their old age alone, it is because they are the most independent financially.

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Part I

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DEMOGRAPHIC ACCOUNTS

As of January 1, 1997, the population of Canada was estimated at 30,110,700 persons.¹ The net increase of 321,700 persons during the year raised Canada's population over the 30 million mark at the end of the summer of 1996 (Table 1A). ***The net rate of growth for 1996 was 10.7 per 1,000.*** If these preliminary statistics are confirmed by the final data, ***this would be the lowest rate of increase since 1985.*** Whereas the low growth rate of the mid-1980s was due to weak international migration, that of 1996 is due to the continuing decrease of natural growth.

In 1996, as in 1992 and 1993, net international migration (175,400) was higher than natural increase (151,100), resulting in the latter being responsible for 47% of total growth. ***In five years, natural growth fell by 27%, from 207,000 in 1991 to 151,000 in 1996.*** As a result, the growth rate fell significantly from 6.0 per 1,000 in 1994 to 5.6 in 1995 and, in 1996, it fell again by more than half a point to about 5.0 per 1,000. The ageing of the population reduces natural growth since it is accompanied by an increase in the number of deaths—despite a reduction in the mortality rate—whereas the number of births continues to decrease. In the absence of an increase in fertility, substitution of the depleted childbearing population of the baby bust for the strong baby-boom generations will accentuate the decrease in births. As this is not a temporary situation, ***Canada will increasingly have to rely on immigration to sustain its population growth.***

Provincial Demographic Accounting

Population growth fell off in most provinces (Table A1, appendix), but nowhere as much as in Newfoundland. The rate of population growth in that province, already negative in 1995, fell further by 3.1 points to -11.7 per 1,000 in 1996. Over the past four years, this province saw its population decrease by 17,900 persons or 3.1 percent of the peak population level recorded in 1993. The total fertility rate, which was the lowest in Canada at 1.31 in 1994 fell again in 1995, reaching a historical low of 1.25 children per woman (Figure 1). But it is on the level of internal migration that Newfoundland posts its greatest loss. While the entrance rate was minimal, the interprovincial migration exit rate for 1996 was 29.8 per 1,000, more than one quarter higher than in 1995. It is much higher than the exit rate for Saskatchewan (20.1 per 1,000), which ranks second among the provinces.

In 1996, British Columbia led the field in terms of population growth, although growth in that province fell slightly from 23.7 per 1,000 in 1995 to

¹ The numbers included in the 1997 accounting, unless otherwise specified, are those which were available on December 30, 1997.

Table 1A. Statement of Population Change, Canada, 1972-1997

Year	Population as of January 1	Total Growth	Births	Deaths	Natural Increase (4) = (2) - (3)	International Immigrants ¹	Returning Canadians	Inter-national Emigrants ²	Net			Residual ⁴
									Statistical International Immigration ³ (8) = (5) - (7)	Non-Permanent Residents (9)	Growth by Flow (10) = (6) + (9) + (8)	
		(1)	(2)	(3)	(4) = (2) - (3)	(5)	(6)	(7)	(8) = (5) - (7)	(9)	(10) = (6) + (9) + (8)	
(in thousands)												
1972	22,157.8	256.7	347.3	162.4	184.9	122.0	37.1	63.2	58.8	3.0	98.8	-27.1
1973	22,414.5	303.7	343.4	164.0	179.3	184.2	37.8	78.5	105.7	7.9	151.4	-27.1
1974	22,718.2	326.3	345.6	166.8	178.9	218.5	36.0	78.0	140.4	-2.0	174.5	-27.1
1975	23,044.4	326.6	359.3	167.2	192.1	187.9	36.4	70.7	117.2	7.9	161.5	-27.1
1976	23,371.0	289.7	360.0	167.0	193.0	149.4	36.1	64.4	85.1	-3.0	118.2	-21.5
1977	23,660.7	261.0	362.2	167.5	194.7	114.9	32.3	61.4	53.5	-2.0	83.8	-17.5
1978	23,921.7	224.4	358.4	168.2	190.2	86.3	31.8	63.5	22.8	-3.0	51.7	-17.5
1979	24,146.1	275.9	366.1	168.2	197.9	112.1	30.3	54.7	57.3	7.9	95.5	-17.5
1980	24,422.1	322.1	370.7	171.5	199.2	143.1	27.6	45.2	97.9	14.9	140.4	-17.5
1981	24,744.2	317.7	371.3	171.0	200.3	128.6	25.4	50.1	78.6	30.3	134.3	-16.9
1982	25,061.8	268.5	373.1	174.4	198.7	121.1	28.3	59.4	61.7	-3.7	86.4	-16.6
1983	25,330.3	244.4	373.7	174.5	199.2	89.2	26.8	58.6	30.6	4.4	61.7	-16.6
1984	25,574.7	243.6	377.0	175.7	201.3	88.2	26.2	55.2	33.0	-0.3	58.8	-16.6
1985	25,818.3	246.3	375.7	181.3	194.4	84.3	27.3	54.2	30.1	11.0	68.4	-16.6
1986	26,064.5	297.1	372.9	184.2	188.7	99.2	25.4	49.1	50.1	46.5	122.1	-13.6
1987	26,361.7	346.1	369.7	185.0	184.8	152.1	24.2	44.3	107.8	40.9	172.9	-11.5
1988	26,707.8	428.9	376.8	190.0	186.8	161.9	21.5	38.7	123.2	108.9	253.6	-11.5
1989	27,136.7	429.9	392.7	191.0	201.7	192.0	21.1	40.7	151.3	67.4	239.7	-11.5
1990	27,566.6	385.1	405.5	192.0	213.5	214.2	19.4	39.6	174.6	-11.0	183.1	-11.5
1991	27,951.6	370.1	402.5	195.6	207.0	230.8	22.7	48.0	182.8	-37.6	168.0	-4.8
1992 (PD)	28,321.7	401.1	398.6	196.5	202.1	252.8	22.9	44.6	208.3	-32.1	199.0	...
1993 (PD)	28,722.9	354.0	388.4	204.9	183.5	255.7	22.4	44.6	211.1	-63.0	170.5	...
1994 (PD)	29,076.9	360.1	385.1	207.1	178.0	223.8	22.5	46.2	177.6	-18.0	182.1	...
1995 (PD)	29,437.0	352.0	378.0	210.7	167.3	212.0	22.6	47.0	165.0	-2.9	184.7	...
1996 (PR)	29,789.0	321.7	364.7	213.6	151.1	224.2	22.5	48.8	175.4	-27.3	170.6	...
1997 (PR)	30,110.7	...	...	...	...	...	...	...	...	...	...	...

See notes at the end of Table 1B.

Table 1B. Main Rates of the Demographic Accounts, Canada, 1972-1997

Year	Population as of January 1 (in 1,000)	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Net Rate of International Migration ^{1,2}	Rate of Growth by Flow ⁵
		(per 1 000)					
1972	22,157.8	11.52	15.58	7.29	8.30	2.64	3.22
1973	22,414.5	13.46	15.22	7.27	7.95	4.68	5.51
1974	22,718.2	14.26	15.11	7.29	7.82	6.14	6.44
1975	23,044.4	14.07	15.48	7.20	8.28	5.05	5.79
1976	23,371.0	12.32	15.31	7.10	8.21	3.62	4.11
1977	23,660.7	10.97	15.22	7.04	8.18	2.25	2.79
1978	23,921.7	9.34	14.91	7.00	7.92	0.95	1.42
1979	24,146.1	11.36	15.07	6.93	8.15	2.36	3.21
1980	24,422.1	13.10	15.08	6.98	8.10	3.98	5.00
1981	24,744.2	12.76	14.91	6.87	8.04	3.15	4.71
1982	25,061.8	10.66	14.81	6.92	7.88	2.45	2.77
1983	25,330.3	9.60	14.68	6.86	7.83	1.20	1.77
1984	25,574.7	9.48	14.67	6.84	7.83	1.28	1.65
1985	25,818.3	9.49	14.48	6.99	7.49	1.16	2.00
1986	26,064.5	11.34	14.23	7.03	7.20	1.91	4.14
1987	26,361.7	13.05	13.93	6.97	6.96	4.06	6.08
1988	26,707.8	15.93	14.00	7.06	6.94	4.58	8.99
1989	27,136.7	15.72	14.36	6.98	7.37	5.53	8.34
1990	27,566.6	13.87	14.61	6.92	7.69	6.29	6.18
1991	27,951.6	13.15	14.31	6.95	7.36	6.50	5.80
1992 (PD)	28,321.7	14.06	13.98	6.89	7.09	7.30	6.98
1993 (PD)	28,722.9	12.25	13.44	7.09	6.35	7.31	5.90
1994 (PD)	29,076.9	12.31	13.16	7.08	6.09	6.07	6.22
1995 (PD)	29,437.0	11.89	12.77	7.12	5.65	5.57	6.24
1996 (PR)	29,789.0	10.74	12.18	7.13	5.04	5.86	5.70
1997 (PR)	30,110.7	...	...	...	...	...	...

¹ Based on Employment and Immigration Canada and after 1993, Citizenship and Immigration Canada.

² Estimated using Family Allowance and Income Tax files.

³ Emigrants subtracted from immigrants. It is statistical because landed immigrants in one year could have been in the country a year earlier or more, when they were counted in the non-permanent residents category.

⁴ The residual consists of the distribution over five years of the error of closure at the end of the census period, which is equal to the difference between the census count predicted by the components method and the actual count corrected for net undercoverage. This "error" combines errors on the components, on the net undercoverage of the censuses and differences between concepts used by the Census and administrative files.

⁵ Takes into account non-permanent residents, returning Canadians and the residual.

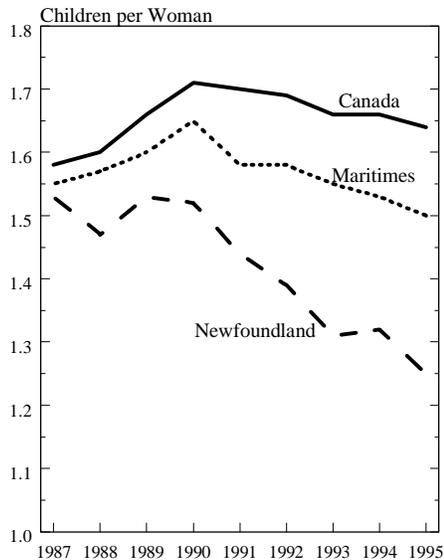
(PD) Final postcensal data based on 1991, as of December 30, 1997.

(PR) Revised postcensal data based on 1991, as of December 30, 1997.

Note: All other data are from final intercensal estimates. Calculations were carried out on unrounded numbers.

Source: Statistics Canada, Demography Division, *Annual Demographic Statistics, 1997*, Catalogue no. 91-213-XPB and calculations by the author.

Figure 1. Total Fertility Rate, Canada, Newfoundland and the Maritimes, 1987-1995



22.2 per 1,000 in 1996. This rate was twice as high as the national average. This is due to a significant positive net interprovincial migration (20,700 persons)—despite a notable decrease in comparison with that of previous years—and especially to a net international migration of 43,100 persons in 1996, a record for this province since 1913 (57,000). Alberta and Ontario, with rates of growth of 16.1 and 12.3 per 1,000 respectively, are the only two other provinces showing population growth rates higher than the national average. On a strict numbers basis, however, Ontario shows the highest gain with 138,800 persons, a number which is significantly higher than those in British Columbia (85,200), Alberta (44,900) and Quebec (39,600).

Source: Table A5.

The 1996 Census and Population Estimates

On May 14, 1996, Statistics Canada enumerated 28,846,800 persons in the Census. Postcensal estimates for the same date show a population of 29,909,100. The difference between these two numbers exceeds one million persons. This is not surprising, for several reasons. Since 1991, population estimates are the result of a population accounting exercise based on the population figures in the 1991 Census *adjusted* for net undercoverage. Each year, population growth components are either added or subtracted from this population, as indicated in Table 1A: births and deaths provided by the provincial registrars of vital statistics—the balance of which constitutes natural growth, landed immigrants accounted for by Citizenship and Immigration Canada—emigrants, non-permanent residents² and returning Canadians, the number of which are estimated from indirect sources (administrative records). All births and deaths during the year are recorded, with few exceptions. Similarly, all landed immigrants are accounted for in Citizenship and Immigration Canada

² The current estimation method only takes into account the changes in the number of non-permanent residents.

records. The annual estimate of the three main components of population growth (births, deaths and international immigrants) is therefore calculated using very reliable data. The three other components are estimated using sources that are less reliable, because the numbers are derived from administrative records that were not designed for enumeration purposes.

The census is an enumeration of the population living in Canada on a given date. Despite efforts to ensure the accuracy of the enumeration, there are always persons who, for one reason or another, fall between the cracks. Their number represents the undercoverage. Others are included in more than one questionnaire. Because of this double counting, they represent overcoverage. Since 1991, checking of census data provides an estimate of the number of persons who should have been counted, but were not, as well as an estimate of the number of those who were counted more than once. Because undercoverage is higher than overcoverage, the difference is called net undercoverage and the “gross” census figures are adjusted accordingly for purpose of producing population estimates. Although errors affect all age groups, young men are particularly subject to undercoverage because they are more mobile and often live alone.

Checking of the 1996 Census was not completed when the present report was written. The population *adjusted* for net undercoverage is as yet unknown. Upon completion of checking, postcensal population estimates will be compared with the adjusted numbers of the 1996 Census. The difference between the two population estimates will provide the missing data in the “residuals” column of Table 1A and the population estimates for the period between 1991 and 1996 will be revised. These estimates will then be called final intercensal estimates and the estimates for 1996 will be used as the basis for population accounting calculations until the adjusted numbers for the 2001 Census become available.

As can be seen by looking at Table 1A, the residuals for the intercensal period, also called “closure error”, are usually negative. This suggests that intercensal estimates tend to slightly overestimate the size of the population numbers in comparison with the adjusted census numbers. If one accepts that populations enumerated in two successive censuses and subsequently adjusted for net undercoverage, are perfectly comparable—this supposes error-free operations or a bias in the same direction and of the same magnitude—the residuals would be entirely due to errors in the population growth components. Given that the numbers for births, deaths and immigrants are among the most reliable, the differences would therefore result from errors in the estimates of the numbers of emigrants, returning Canadians or non-permanent residents. In fact, the “closure error” is probably the result of inaccuracies in the adjusted population numbers and components, although it is impossible to accurately estimate the impact of the errors in each case.

Summary Table, Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1981-1996								
	Year	New- foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	
Birth Rate (per 1,000)	1981	17.6	15.3	14.1	14.8	14.5	13.8	
	1986	14.0	15.0	13.9	13.5	12.6	14.1	
	1991	12.4	14.4	13.1	12.7	13.7	14.4	
	1992	11.9	14.1	12.9	12.5	13.4	14.1	
	1993	11.0	13.2	12.4	12.0	12.8	13.7	
	1994	10.9	12.8	11.9	11.9	12.4	13.4	
	1995	10.2	12.9	11.4	11.3	11.9	13.2	
	1996	10.1	12.2	11.1	10.8	11.6	12.3	
Mortality Rate (per 1,000)	1981	5.6	8.0	8.1	7.3	6.5	7.1	
	1986	6.1	8.7	8.1	7.5	7.0	7.2	
	1991	6.6	9.1	7.9	7.3	6.9	7.0	
	1992	6.5	8.5	8.2	7.5	6.8	6.9	
	1993	6.7	8.6	8.1	7.7	7.1	7.0	
	1994	7.0	8.3	8.3	7.8	7.0	7.1	
	1995	6.8	8.5	8.2	7.8	7.2	7.1	
	1996	6.9	9.0	8.2	7.8	7.2	7.0	
Total Fertility Rate (number of children per woman aged 15-49)	1981	..	1.87	1.62	1.67	1.57	1.57	
	1986	..	1.78	1.58	1.53	1.37	1.60	
	1991	1.44	1.85	1.58	1.54	1.65	1.66	
	1992	1.39	1.82	1.58	1.53	1.65	1.67	
	1993	1.31	1.73	1.56	1.50	1.61	1.64	
	1994	1.31	1.69	1.52	1.51	1.61	1.65	
Total First Marriage Rate (per 1,000) (males aged 17-49, females aged 15-49)	1981 M	648	697	682	655	542	687	
	F	627	665	669	645	557	680	
	1986 M	584	704	590	594	426	616	
	F	576	737	628	622	439	653	
	1991 M	597	717	568	574	377	606	
	F	611	724	600	599	425	646	
	1992 M	547	678	545	544	332	579	
	F	571	690	579	573	375	623	
	1993 M	531	705	532	527	323	553	
	F	554	718	565	554	364	595	
	1994 M	567	656	540	538	333	560	
	F	596	693	572	555	373	598	
	1995 M	592	674	542	543	324	569	
	F	624	712	580	570	362	607	
	1996 M	563	720	556	561	320	560	
	F	591	756	584	590	355	595	
	Rate of Natural Increase (per 1,000)	1981	12.0	7.3	6.0	7.6	8.0	6.7
		1986	7.9	6.3	5.7	6.0	5.6	7.0
1991		5.8	5.3	5.2	5.4	6.8	7.5	
1992		5.4	5.6	4.7	5.0	6.6	7.3	
1993		4.3	4.6	4.3	4.3	5.6	6.7	
1994		3.9	4.5	3.6	4.0	5.4	6.4	
1995		3.3	4.4	3.2	3.5	4.7	6.1	
1996		3.2	3.3	2.9	3.0	4.3	5.2	
Total Growth Rate (per 1,000)	1981	-1.1	2.0	4.1	0.2	6.5	10.9	
	1986	-3.0	1.2	4.9	1.8	8.9	18.4	
	1991	3.0	0.7	5.6	5.0	10.8	16.0	
	1992 (PD)	5.5	8.2	6.9	3.7	11.1	15.6	
	1993 (PD)	-2.9	9.8	5.6	3.8	9.1	13.1	
	1994 (PD)	-7.9	10.7	3.5	3.2	7.3	14.5	
	1995 (PD)	-8.6	8.5	4.6	2.4	7.1	14.3	
	1996 (PR)	-11.7	6.8	5.6	1.4	5.4	12.3	

See notes at the end of this table.

**Summary Table, Rates and Principal Demographic Indicators, Canada,
Provinces and Territories, 1981-1996 - Continued**

	Year	Manitoba	Saskatch- ewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Birth Rate (per 1,000)	1981	15.5	17.6	18.5	14.6	21.8	27.3	14.9
	1986	15.6	17.0	18.0	13.9	19.3	27.3	14.2
	1991	15.6	15.2	16.5	13.5	19.6	26.8	14.3
	1992	14.9	14.9	15.9	13.3	17.7	24.9	14.0
	1993	14.9	14.2	15.1	12.9	16.9	24.5	13.4
	1994	14.6	13.9	14.7	12.8	14.8	24.4	13.2
	1995	14.2	13.3	14.2	12.5	15.4	24.5	12.8
	1996	13.7	12.8	13.6	12.1	14.2	23.3	12.2
Mortality Rate (per 1,000)	1981	8.3	7.7	5.6	7.0	5.7	4.1	6.9
	1986	8.1	7.8	5.6	7.0	4.5	4.3	7.0
	1991	8.1	8.1	5.6	7.1	3.9	3.9	7.0
	1992	8.1	7.8	5.6	7.1	3.9	4.1	6.9
	1993	8.3	8.1	5.7	7.2	4.1	4.1	7.1
	1994	8.1	8.2	5.8	7.1	4.1	3.7	7.1
	1995	8.5	8.4	5.8	7.0	5.1	3.4	7.1
	1996	8.4	7.8	5.9	7.2	3.9	3.5	7.1
Total Fertility Rate (number of children per woman aged 15-49)	1981	1.82	2.11	1.86	1.63	2.06	2.83	1.65
	1986	1.83	2.02	1.85	1.61	1.92	2.81	1.60
	1991	1.97	2.03	1.88	1.67	2.13	2.85	1.70
	1992	1.91	2.02	1.85	1.65	1.92	2.69	1.69
	1993	1.95	1.96	1.79	1.61	1.88	2.66	1.66
	1994	1.95	1.96	1.80	1.62	1.71	2.71	1.66
	1995	1.92	1.90	1.77	1.59	1.82	2.75	1.64
	Total First Marriage Rate (per 1,000) (males aged 17-49, females aged 15-49)	1981 M	719	706	639	677	685	450	640
F		709	694	684	689	710	469	647
1986 M		611	582	561	575	473	342	552
F		657	623	612	616	564	393	585
1991 M		592	613	590	599	465	285	543
F		647	650	635	651	514	308	588
1992 M		595	603	581	593	536	270	518
F		643	634	623	633	562	292	561
1993 M		581	612	583	575	404	279	503
F		628	642	621	612	465	308	544
1994 M		583	633	597	575	446	301	512
F		627	658	641	617	465	333	552
1995 M		597	646	604	561	575	286	515
F		645	658	638	594	553	317	552
1996 M		574	635	565	529	479	272	502
F		613	648	605	556	495	281	537
Rate of Natural Increase (per 1,000)	1981	7.1	9.9	12.9	7.6	16.0	23.2	8.0
	1986	7.4	9.2	12.4	6.9	14.8	23.0	7.2
	1991	7.5	7.2	10.9	6.4	15.7	22.9	7.4
	1992	6.8	7.2	10.4	6.2	13.8	20.8	7.1
	1993	6.6	6.1	9.3	5.7	12.8	20.4	6.3
	1994	6.5	5.7	8.9	5.8	10.6	20.6	6.1
	1995	5.7	4.9	8.4	5.4	10.3	21.0	5.6
	1996	5.3	5.0	7.7	4.9	10.3	19.8	5.0
Total Growth Rate (per 1,000)	1981	7.5	11.5	39.1	23.0	-21.8	37.5	12.8
	1986	6.4	2.7	6.0	11.2	31.3	-1.8	11.3
	1991	2.6	-2.7	14.4	22.2	36.8	27.9	13.2
	1992 (PD)	4.4	1.4	15.5	27.0	23.3	16.1	14.1
	1993 (PD)	4.9	3.2	12.6	26.9	-11.3	21.5	12.3
	1994 (PD)	5.3	3.2	12.4	27.5	5.1	20.6	12.3
	1995 (PD)	4.6	3.3	14.1	23.7	34.1	11.6	11.9
	1996 (PR)	5.4	5.1	16.1	22.2	17.2	9.4	10.7

See notes at the end of this table.

Summary Table, Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1981-1996 - Continued								
	Year	New- foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	
Population Aged 65 + as a Percentage of the Total Population on July 1	1981	7.6	12.1	10.9	10.0	8.7	9.9	
	1986	8.7	12.6	11.8	11.0	9.8	10.7	
	1991	9.6	13.1	12.4	11.9	11.0	11.5	
	1992 (PD)	9.7	13.1	12.5	12.1	11.2	11.6	
	1993 (PD)	9.9	13.1	12.6	12.2	11.4	11.8	
	1994 (PD)	10.1	13.1	12.7	12.3	11.7	12.0	
	1995 (PD)	10.3	13.1	12.7	12.4	11.9	12.1	
	1996 (PR)	10.6	13.0	12.8	12.6	12.1	12.2	
Total Age Dependency Ratio (in %) ¹	1981	77.9	75.8	66.9	69.3	55.8	58.7	
	1986	67.9	68.4	60.9	62.2	52.0	54.9	
	1991	59.6	67.1	58.9	59.6	53.4	55.5	
	1992 (PD)	58.0	66.4	58.6	58.8	53.8	55.7	
	1993 (PD)	56.4	65.5	58.0	58.0	53.9	55.9	
	1994 (PD)	55.0	64.8	57.5	57.3	54.1	56.3	
	1995 (PD)	54.0	63.9	57.1	56.6	54.0	56.5	
	1996 (PR)	53.2	62.8	56.8	56.1	53.9	56.6	
Life Expectancy at Birth (in years)	1986	M	72.9	72.8	72.5	72.7	72.2	73.8
		F	79.2	...	79.5	80.1	79.7	80.0
	1991	M	73.7	73.2	73.7	74.2	73.8	75.0
		F	79.5	...	80.3	80.9	80.9	80.9
	1992	M	74.3	73.6	73.9	74.4	74.1	75.2
		F	79.7	...	80.6	81.1	81.2	81.1
	1993	M	74.0	74.4	74.1	74.5	74.3	75.3
		F	79.9	...	80.4	80.7	81.1	81.1
	1994	M	74.0	...	74.5	74.5	74.3	75.5
		F	80.2	80.9	80.5	80.9	81.1	81.1
	1995	M	74.4	...	74.7	74.7	74.7	75.8
		F	80.3	81.1	80.6	81.1	81.3	81.2
	1996	M (P)	74.9	...	75.0	74.9	75.1	76.1
		F (P)	80.6	...	80.8	81.4	81.5	81.4
	Infant Mortality Rate (per 1,000)	1981	9.7	13.2	11.5	10.9	8.5	8.8
		1986	8.0	6.7	8.4	8.3	7.1	7.2
1991		7.8	6.9	5.7	6.1	5.9	6.3	
1992		7.1	1.6	6.0	6.3	5.4	5.9	
1993		7.8	9.1	7.1	7.2	5.7	6.2	
1994		8.2	6.4	6.0	5.3	5.6	6.0	
1995		7.9	4.6	4.8	4.8	5.5	5.9	
Rate of Pregnancies Terminated (per 1,000 women aged 15-44) ³	1981	2.6	0.2	8.4	2.6	5.5	14.3	
	1986	1.9	..	8.1	1.9	7.4	11.7	
	1991	2.9	..	8.2	3.2	8.7	12.4	
	1992	3.0	..	8.6	3.5	9.4	11.9	
	1993	3.2	..	8.9	3.5	9.9	11.9	
	1994	3.2	..	8.5	3.3	10.3	11.6	
	1995	3.6	..	8.5	3.4	10.7	11.3	

See notes at the end of this table.

**Summary Table, Rates and Principal Demographic Indicators, Canada,
Provinces and Territories, 1981-1996 - Concluded**

	Year	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada	
Population Aged 65 + as a Percentage of the Total Population on July 1	1981	11.8	11.9	7.2	10.6	3.2	3.0	9.6	
	1986	12.4	12.6	7.9	11.9	3.7	3.0	10.5	
	1991	13.3	14.0	8.9	12.6	3.9	2.7	11.4	
	1992 (PD)	13.4	14.2	9.1	12.7	3.9	2.7	11.6	
	1993 (PD)	13.4	14.3	9.3	12.7	4.1	2.7	11.7	
	1994 (PD)	13.5	14.4	9.5	12.7	4.3	2.7	11.9	
	1995 (PD)	13.6	14.5	9.7	12.7	4.5	2.9	12.0	
	1996 (PR)	13.6	14.6	9.8	12.8	4.7	3.0	12.2	
Total Age Dependency Ratio (in %) ¹	1981	67.6	73.1	57.3	58.4	53.3	77.4	59.7	
	1986	63.8	70.5	56.0	57.2	50.0	68.4	56.1	
	1991	65.3	73.5	57.7	57.6	47.6	66.7	56.7	
	1992 (PD)	65.3	73.5	57.9	57.3	48.3	67.4	56.8	
	1993 (PD)	65.0	73.4	57.9	56.9	47.7	67.1	56.8	
	1994 (PD)	64.9	73.2	57.9	56.7	48.1	66.9	56.9	
	1995 (PD)	64.9	72.8	57.7	56.5	48.3	66.8	56.8	
	1996 (PR)	64.7	72.3	57.5	56.2	47.9	66.9	56.7	
Life Expectancy at Birth (in years)	1986	M	73.3	73.8	73.7	74.4	73.3
		F	80.0	80.5	80.2	80.8	80.0
	1991	M	74.6	75.3	75.1	75.2	74.6
		F	80.7	81.5	81.2	81.4	81.0
	1992	M	74.7	75.6	75.4	75.5	74.9
		F	81.0	81.9	81.3	81.7	81.2
	1993	M	74.7	75.5	75.5	75.5	75.0
		F	80.9	81.9	81.2	81.5	81.1
	1994	M	74.8	75.2	75.6	75.8	75.1
		F	80.7	81.7	81.3	81.6	81.1
	1995	M	75.1	75.2	75.8	76.1	75.4
		F	80.7	81.5	81.4	81.7	81.2
	1996	M (P)	75.3	75.3	76.1	76.3	75.7
		F (P)	80.7	81.5	81.5	82.0	81.5
	Infant Mortality Rate (per 1,000)	1981	11.9	11.8	10.6	10.2	14.9	21.5	9.6
		1986	9.2	9.0	9.0	8.5	24.8	18.6	7.9
1991		6.4	8.2	6.7	6.5	10.6	12.2	6.4	
1992		6.8	7.3	7.2	6.2	3.8	16.7	6.1	
1993		7.1	8.1	6.7	5.7	7.9	9.6	6.3	
1994		7.0	8.9	7.4	6.3	2.3	14.6	6.3	
1995		7.6	9.1	7.0	6.0	12.8	13.0	6.1	
Rate of Pregnancies Terminated (per 1,000 women aged 15-44) ³	1981	6.8	7.6	11.5	18.7	16.9	11.9	10.8	
	1986	10.6	4.1	10.1	15.8	16.3	13.0	9.9	
	1991	10.3	5.6	9.9	13.6	19.8	18.6	10.4	
	1992	10.4	6.4	9.5	13.0	20.5	16.9	10.4	
	1993	10.7	7.3	9.8	13.0	20.9	15.1	10.6	
	1994	11.7	7.9	10.3	11.5	18.4	14.6	10.5	
	1995	11.6	8.3	10.1	9.9	16.3	14.5	10.3	

¹ Ratio between population aged 0-17, 65+ and 18-64.

² Because of an absence of deaths in certain age groups, the mortality table could not be calculated.

³ Practised in hospitals in Canada.

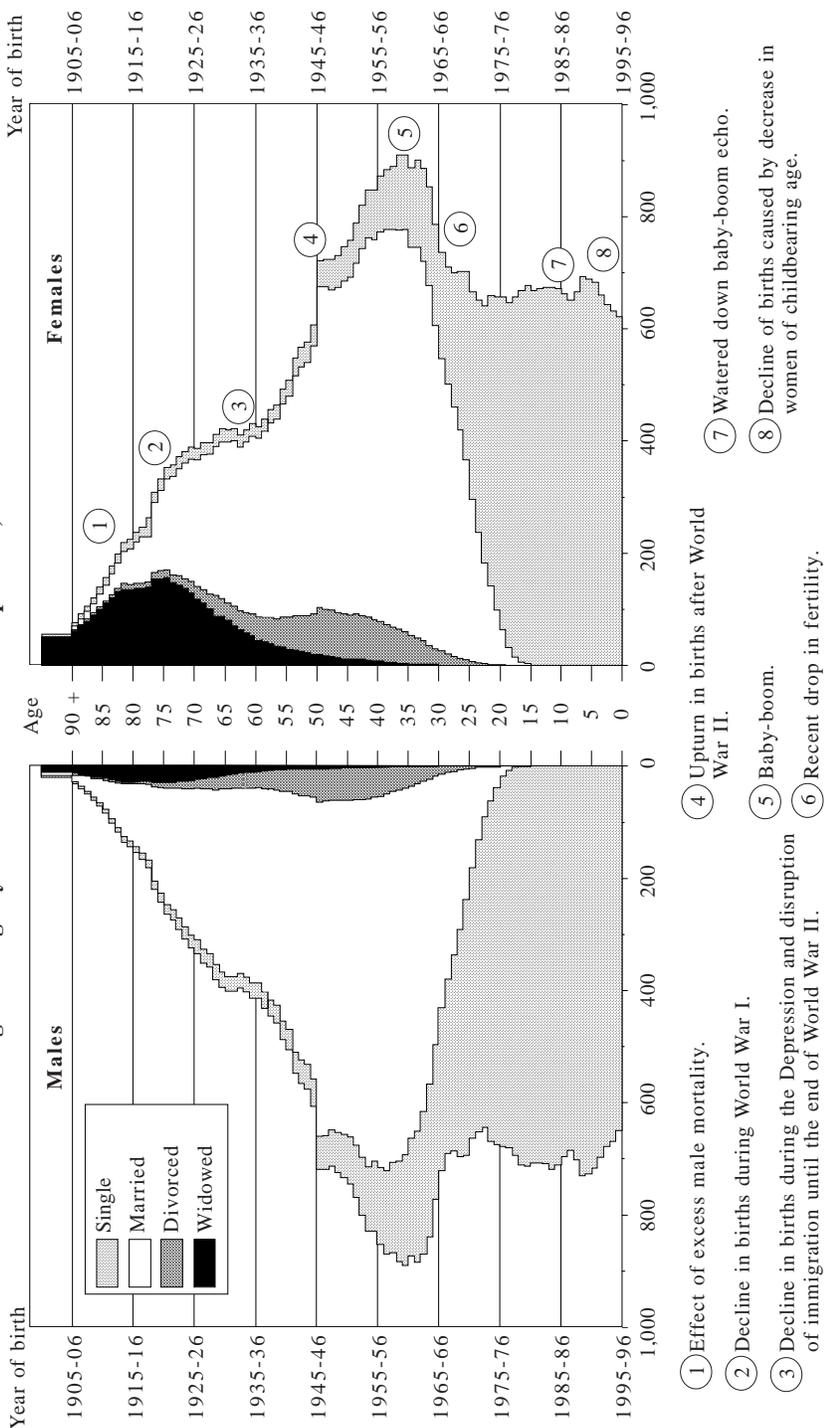
(P) Preliminary.

(PD) Final postcensal data based on 1991, as of December 30, 1997.

(PR) Revised postcensal data based on 1991, as of December 30, 1997.

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Births*, catalogue no. 84-210, *Deaths*, catalogue no. 84-211, *Marriages*, catalogue no. 84-212, *Therapeutic Abortions*, catalogue no. 82-219, Demography Division, Population Estimates Section and calculations by the author.

Figure 2. Age Pyramid of the Canadian Population, 1996 Census



Source: Statistics Canada, 1996 Census of Canada.

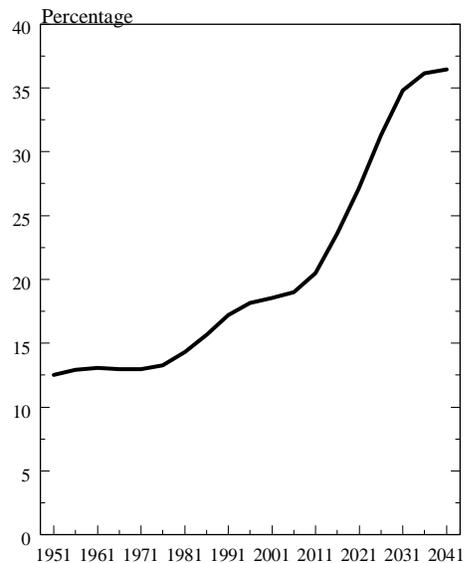
The Age Structure of the Population of Canada According to the 1996 Census

The age pyramid reveals evidence of demographic events of the past. These may have been political events or particular economic conditions such as the Great Depression, or the two world wars which had a major impact on the demographics of the day. This evidence takes the form of depleted age groups or swollen age groups. These provide a glimpse not only of future demographic consequences, but of social and economic consequences as well (Figure 2). A study of the age pyramid of the population of Canada revealed by the 1996 Census provides some food for thought along these lines.

Given its variations over the last half-century, fertility is without a doubt the most influential factor that affected the current age structure of the Canadian population. The most visible effect in Figure 2 is the baby boom, the many cohorts of which, born between the end of the Second World War and the early sixties, are reflected by their density in the histogram. This indication, in the form of a protrusion, is all the more evident in that it is preceded by a trough generated by the low birth rate during the Depression and the sharp drop in the birth rate which began in the mid-sixties. Since its early days, the baby-boom forced Canadian society to react to the passing from one phase of the life cycle to another of large generations over the years: construction of schools in the sixties, job creation 20 years later, etc. Currently, these generations contribute to a relatively low dependency ratio among senior citizens, but as baby-boomers themselves become senior citizens, they will weigh heavily for 20 years on this demographic indicator (Figure 3).

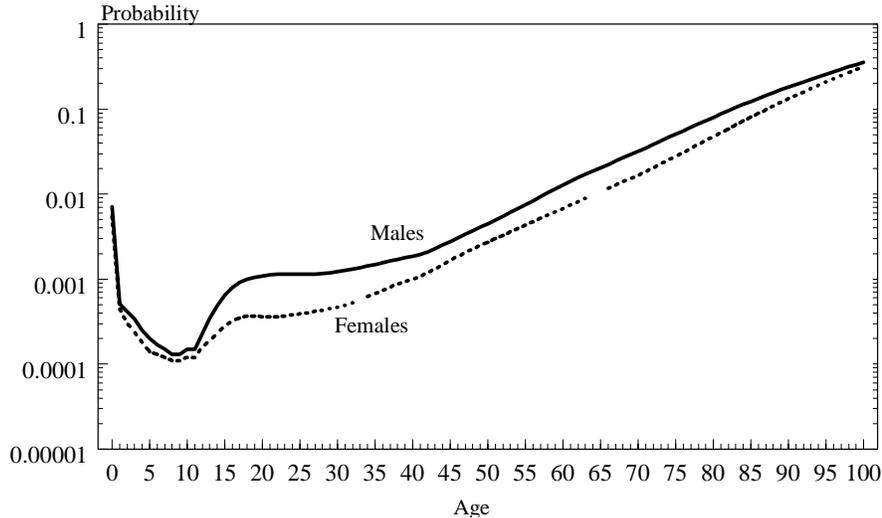
The variations in fertility have left other marks on the age pyramid (Figure 2). The decline in fertility during the 1960s, following the baby-boom, is unmistakable. It is also evidenced by the evolution of the total fertility rate of the day. Between 1959 and 1974, this rate fell by half, from 3.9 to 1.9. This change in fertility propensity in every age group has resulted in a significant

Figure 3. Ratio (in Percent) of Persons Aged 65 and Over to Persons of Working Age (15-64), Canada, 1951-2041



Sources: Statistics Canada, 1951 to 1996 Censuses of Canada and Demography Division, Population Projections Section.

Figure 4. Probabilities of Dying, by Sex, Canada, 1991



Source: Statistics Canada, *Mortality Tables, Canada and Provinces, 1990-1992*, Catalogue no. 84-537.

reduction of the number of births, as illustrated in the 1996 pyramid by a sharp decline in the numbers of persons in the 22 to 37 years age group. Subsequently, fertility continued its slow decline, leaving the sides of the pyramid nearly vertical in shape. The anticipated baby-boom echo, in the form of an increase in the number of the births, resulting from an increase in the number of women of childbearing age, never materialised except for a slight and delayed increase in the late 1980s. Unless there is an immediate and significant reversal of the situation—which is highly unlikely—the decline in fertility of the 1960s will leave a gap in the age structure in the years to come and this gap will be greater than the weak echo produced by the baby-boom generations. *The decline of the birth rate in the early 1990s is evident at the base of the 1996 pyramid. Contrary to the decline noted during the 1960s, this new decrease is structural in nature: fertility fluctuates only mildly, but the number of women in the age groups where fertility reaches its peak is decreasing.*

In recent times, no other component of population movement has had a greater effect on the age structure than fertility. The change in numbers associated with migratory movements can vary significantly from one year to the next, but as immigrants are spread across several age groups, the impact on the age structure of the total population is very slight. In the absence of calamities, the slow but regular decrease in the mortality rate becomes evident at the top of the pyramid. The excess male mortality rate which is apparent in Canada

since statistics have been compiled results in an elderly female population which is greater than the corresponding male population (Figure 4). The masculinity ratio among persons aged 65 years and over is 73 men per 100 women, whereas it stands at 105 boys per 100 girls at birth. The excess male mortality has an inescapable consequence: widowhood. Nearly half of the women aged 65 years and over (46 percent) in 1996 were widows whereas only 13 percent of men in the same age group were widowers.

CANADA'S PLACE IN THE WORLD

According to data gathered chiefly by Eurostat, the population of the European Economic Union increased by only 1,103,500 in 1996, compared to 1,151,200 in 1995. This was chiefly due to a decrease in net migration, which fell from 824,500 to 750,200. In spite of this, migration remained the key factor in overall growth. Growth through migration was more than twice as high as growth through natural increase, which stood at 353,300. These figures indicate that, overall, migration from Eastern to Western Europe did not reach the scale feared in the early nineties when over one million people migrated and that it has, in fact, slowed. However, because of an aging population and low fertility, the very low natural increase means that the European Economic Union will see an increase of only 2.8 per 1,000. France, Denmark and the Netherlands exceeded 4.0 per 1,000; many stand at below 2.0 per 1,000; and a few of the smaller countries stand at 7.0 per 1,000. Canada's growth rate is 10.7 per 1,000.

In the European Economic Union, the most significant change in migration patterns has been in Germany, where migration has been decreasing for several years. It decreased from 422,000 in 1995 to 281,000 in 1996. In spite of this, Germany's net migration is still higher than any other European country, followed by Italy with net migration of 152,000.

A less complete analysis is possible for the rest of Europe (Central Europe, Eastern Europe, and Russia). However, the quality of the statistics is improving even if some figures seem improbable and incomplete.

Central Europe has a total population of approximately 120 million. In almost all Central European countries, the population is declining, often because of a negative natural increase and negative net migration.

Eastern Europe, although somewhat smaller, still has a population of over 70 million. Almost all Eastern European countries having declining populations and for the same reasons as Central Europe, i.e., a negative natural increase and negative net migration.

Russia is also declining demographically. According to the available figures, the natural increase is very negative: close to 800,000. Positive net migration

Table 2. Statement of Population Change (in Thousands) for the Main Industrialized Countries, 1996

Country	Population as of January 1, 1996	Births	Deaths	Natural Increase	Net Migration	Population as of January 1, 1997	Total Growth
Belgium	10,143.0	116.2	105.3	10.9	21.1	10,175.0	32.0
Denmark	5,251.0	67.7	61.1	6.6	17.5	5,275.1	24.1
Germany	81,817.5	796.0	882.8	-86.8	281.3	82,012.0	194.5
Greece	10,474.6	100.5	100.5	0.0	0.8	10,475.4	0.8
Spain	39,220.2	352.2	337.3	14.9	84.7	39,319.8	99.6
France	58,255.9	734.0	537.0	197.0	41.0	58,493.9	238.0
Ireland	3,615.6	50.4	31.5	18.9	8.3	3,642.8	27.2
Italy	57,330.5	538.2	557.1	-18.9	152.8	57,464.4	133.9
Luxemburg	412.8	5.7	3.9	1.8	3.7	418.3	5.5
Netherlands	15,493.9	189.0	137.5	51.5	16.8	15,562.2	68.3
Austria	8,054.8	87.8	80.9	6.9	6.1	8,067.8	13.0
Portugal	9,920.8	109.8	105.8	4.0	10.4	9,935.2	14.4
Finland	5,116.8	60.2	48.7	11.5	2.9	5,131.2	14.4
Sweden	8,837.5	95.2	94.0	1.2	9.8	8,848.5	11.0
United Kingdom	58,694.0	733.3	638.9	94.4	85.0	58,873.4	179.4
Europe (15)	372,638.9	4,036.2	3,722.3	313.9	742.2	373,695.0	1,056.1
Iceland	268.0	4.3	1.9	2.4	-0.5	269.9	1.9
Norway	4,370.0	60.8	44.2	16.6	5.4	4,392.0	22.0
Switzerland	7,062.4	82.8	62.6	20.2	3.1	7,085.7	23.3
Leichtenstein	30.9	0.4	0.2	0.2	0.0	31.1	0.2
E.E.A.	384,370.2	4,184.5	3,831.2	353.3	750.2	385,473.7	1,103.5
Albania	3,167.2	..	..	..	..	..	..
Bulgaria	8,384.7	72.2	117.1	-44.9	..	8,339.8	-44.9
Hungary	10,212.0	105.5	143.5	-38.0	..	10,174.0	-38.0
Poland	38,609.0	429.0	386.0	43.0	-25.0	38,627.0	18.0
Czech Republic	10,321.3	90.4	112.8	-22.4	9.8	10,308.7	-12.6
Romania	22,656.1	231.3	286.2	-54.9	-19.3	22,581.9	-74.2
Slovakia	5,367.8	60.1	51.2	8.9	3.5	5,380.2	12.4
Bosnia	4,570.3	..	..	..	..	..	..
Croatia	4,597.0	53.8	50.6	3.2	..	..	..
Slovenia	1,990.3	18.8	18.6	0.2	-3.5	1,987.0	-3.3
Yugoslavia ¹	10,568.2	137.4	111.2	26.2	..	..	..
Central Europe	120,443.9	...	...	...	...	...	...
Belarus	10,312.0	95.8	133.6	-37.8	..	..	..
Estonia	1,476.3	13.2	19.0	-5.8	-6.8	1,463.7	-12.6
Latvia	2,500.4	19.8	34.3	-14.5	-4.3	2,481.6	-18.8
Lithuania	3,711.9	49.2	42.9	6.3	-10.1	3,708.1	-3.8
Moldavia	4,334.0	51.9	49.7	2.2	-196.2	4,140.0	-194.0
Ukraine	51,334.0	467.2	776.6	-309.4	..	..	..
Eastern Europe	73,668.6	697.1	1,056.1	-359.0	...	...	...
Russia	147,976.4	1,304.6	2,082.2	-777.6	303.6	147,502.4	-474.0
Canada	29,789.0	364.7	213.6	151.1	170.6	30,110.7	321.7
United States	264,162.0	3,899.0	2,311.0	1,588.0	740.0	266,490.0	2,328.0
Mexico	92,399.5	2,279.7	422.1	1,857.6	-293.5	93,963.6	1,564.1
North America	386,350.5	6,543.4	2,946.7	3,596.7	617.1	390,564.3	4,213.8
Australia	18,187.7	253.8	128.7	125.1	114.1	18,426.9	239.2
New Zealand	3,714.1	57.1	27.8	29.3	17.3	3,760.7	46.6
Japan	125,500.0	1,206.6	896.2	310.3	89.1	125,899.5	399.5

¹ The most recent data available.

Sources: The data comes mainly from Eurostat, from data published in *Population* and, in some cases, directly from the national statistical agencies.

Table 3. Main Demographic Indicators for the Main Industrialized Countries, 1996

Country	Total Fertility Rate	Total Growth Rate (per 1,000)	Infant Mortality Rate (per 1,000)	Life Expectancy		Marriages		Divorces		Total Divorce Rate (per 100)	Births Out of Wedlock (for 100 Births)
				Males	Females	Number (in thousands)	Rate (per 1,000)	Number (in thousands)	Rate (per 1,000)		
Belgium	1.59	2.7	5.6	73.3	80.2	50.6	5.0	28.4	2.8	58.1	15.0
Denmark	1.75	4.6	5.7	72.8	78.0	36.0	6.8	12.8	2.4	40.9	46.5
Germany	1.29	2.6	5.0	73.3	79.8	426.0	5.2	**	**	33.0	16.1
Greece	1.31	1.9	8.2	75.0	80.3	47.0	4.5	9.0	0.9	17.0	3.0
Spain	1.15	1.4	4.7	74.4	81.6	194.6	5.0	**	**	12.0	10.8
France	1.72	4.1	5.0	74.0	81.9	279.0	4.8	**	**	38.7	37.2
Ireland	1.91	7.5	5.5	73.2	78.5	16.3	4.6	**	**	**	22.2
Italy	1.22	2.3	5.8	74.9	81.3	273.1	4.8	**	**	8.0	8.1
Luxembourg	1.76	13.2	4.9	73.0	80.0	2.1	5.1	0.8	2.0	33.0	13.1
Netherlands	1.52	4.4	5.1	74.7	80.3	84.2	5.4	35.1	2.3	37.0	15.5
Austria	1.42	1.6	5.1	73.9	80.2	42.3	5.2	18.1	2.2	38.3	27.4
Portugal	1.40	1.4	6.9	71.0	78.5	63.7	6.4	13.4	1.4	16.0	18.7
Finland	1.76	3.0	3.9	73.0	80.5	24.5	4.8	13.8	2.7	49.0	33.1
Sweden	1.61	0.8	3.5	76.5	81.9	33.5	3.8	21.4	2.4	53.9	51.6
United Kingdom	1.70	3.1	6.0	74.4	79.3	**	**	**	**	46.0	33.6
Europe (15)	1.44	2.8	**	**	**	**	**	**	**	**	**
Iceland	2.09	7.2	3.7	76.3	80.8	1.4	5.0	0.5	2.0	**	61.2
Norway	1.89	5.2	4.0	75.1	81.1	**	**	**	**	46.0	47.6
Switzerland	1.50	3.2	4.8	75.7	81.9	40.6	**	16.2	2.3	38.0	6.8
Leichtenstein	**	7.1	7.4	**	**	0.1	5.7	**	1.4	**	**
E.E.A.	1.45	**	**	**	**	**	**	**	**	**	**
Canada	**	10.7	**	**	**	156.7	5.2	71.5	2.4	34.6	**
United States	2.00	8.8	7.2	72.7	79.4	2,344.0	8.8	1,150.0	4.3	**	32.4
Mexico	2.73	16.8	28.0	71.6	76.3	717.7	7.7	55.9	0.6	**	**
Australia	1.79	13.1	5.8	**	**	106.1	5.8	52.5	2.9	**	23.0
New Zealand	**	12.5	**	**	**	21.5	5.8	10.0	2.7	**	**
Japan	1.43	3.2	4.5	77.0	83.6	795.0	6.4	207.0	1.7	**	1.2

Sources: The data comes mainly from Eurostat, from data published in *Population* and, in some cases, directly from the national statistical agencies. Life expectancy comes from annual tables, sometimes from biennial or triennial tables.

(300,000) is probably due largely to people who have returned from the former satellite republics of central Asia, bringing the negative total growth to below 0.5 million.

And so there remains a well-documented contrast between the countries that once made up the Soviet Union and its sphere of influence, where there has been a net decrease, and the countries of Northern, Western, and Southern Europe, which have experienced modest growth.

The European countries that never came within the Soviet sphere of influence display similar demographic indicators, and no net trends emerge from the short-term changes. The most that one can say for 1996, is that fertility stopped falling due to a slight increase in the total rate in most countries; however, the increase was too small to constitute a reversal. Overall, first marriages continue to fall slowly and out-of-wedlock births continue to rise. In most Western European countries, abortion rates have dropped slightly. The only singular observation is the difference between behaviour in Western and Northern Europe and behaviour in Southern Europe, where the sociodemographic indicators are very different. The four countries that make up Southern Europe (Italy, Greece, Spain, and Portugal) have distinctly lower fertility rates. It would appear that this is due to a change in timing and that young women are putting off starting a family just as older women are completing theirs. Out-of-wedlock births are rising rapidly, but levels are still much lower than in Western or Northern Europe. The same can be said of the divorce rate which is, on average, three times lower. Although abortion rates have dropped somewhat in other parts of Europe, in three of these four countries, abortion rates are stable or increasing and first marriages are falling. All of these factors suggest that Southern Europe remained conservative longer, and has only been catching up to Western Europe in recent years.

Europe and North America

Hence, in both the European Economic Union and Canada, growth is due more to immigration than to natural increase. This observation is incomplete at best, as it compares one country to a complex group of countries. There are also major differences in terms of spreads. In Canada, net migration is only slightly higher than natural increase (159,000 compared to 151,000) whereas in the European Economic Union, net migration is 750,000 compared to a natural increase of 350,000. In the United States, net migration (740,000)³, which is almost the same as that of Europe, is only half the natural increase. This natural increase reflects one of the highest fertility rates in the industrialised world which is at the replacement threshold of 2.1 children per woman. Mexico is just beginning to mirror the demographic patterns found in the other North American countries. Its population is one-third that of the

³ The difference between the official estimates of the resident population and natural increase.

United States, but its natural increase is higher. Its negative net migration brings its total increase to over 1.5 million per year. Mexico's rate of increase is 16.8 per 1,000, twice that of the United States (8.8 per 1,000). Demographically speaking, North America does not form a cohesive whole because its three members are so different. In Europe, within the four major regional areas, we see strong similarities in demographic behaviour.

The features shared by Europe and North America, the world's two major groups of industrialised countries, concern migration. Both face considerable pressure from nationals of developing countries who are prepared to travel great distances to seek asylum or live as illegal immigrants. In Europe, Kurds, Turks, and Iraqis travel via Greece and Central Europe hoping mainly to reach Italy, France, and Germany according to "Migration News". The Kurd diaspora is believed to have reached one million in Europe, including 700,000 in Germany and 120,000 in France. Moroccans target Spain (120,000 since 1970), Algerians target France (600,000 since 1990), and former colonial subjects of Portugal target that country. There are also Albanians migrating to Italy, Bosnians migrating to Germany, and ethnic Germans arriving in Germany from Russia, to mention only the most widely known migration patterns.

NUPTIALITY

Following a slight increase in 1994 and 1995, the number of marriages continued to decline in 1996, reaching 156,691 (Table A2). This represents 3,560 fewer marriages than in 1995, i.e., a 2.2% decrease. Hence, the increase in 1994 and 1995 (900 marriages) was more than offset by the decrease in 1996 (Table 4). The 156,691 marriages that took place in 1996 represent only 82.2% of the last peak which occurred in 1989 (190,640 marriages). The year 1996 had the lowest number of marriages since 1966, when there were 155,600 marriages.

This decline in nuptiality is due solely to a decrease in first marriages. In 1996, 3,738 fewer single men and 3,846 fewer single women married than in 1995. On the other hand, the number of remarriages continued to increase (Table 5). However, this increase is not a sign of an increase in nuptiality among widowed or divorced individuals, but of growth in the population at risk of remarriage. The overall rate of remarriage, which is the ratio of the number of remarriages among widowed Canadians to the total number of widowed and divorced Canadians 18 years and over, continues to decline. This is particularly true among men, for whom the rate of remarriage dropped from 63.2 per 1,000 in 1991 to 45.4 per 1,000 in 1996. The number of marriages in which at least one spouse was previously married barely changed between 1995 and 1996 (Table 4), but the percentage of remarriages in which both spouses were previously married increased to 45%.

Table 4. Marriages, First Marriages and Remarriages, Canada, 1970-1996

Year	Number of Marriages	Number of First Marriages		Number and Proportion of Marriages in which at least one Spouse has been Previously Married		Number and Proportion of Remarriages in which both Spouses had been Previously Married	
		Males	Females	Number	Percentage	Number	Percentage
1970	188,428	167,267	167,421	29,975	15.9	12,193	40.7
1971	191,324	168,944	169,072	31,698	16.6	12,934	40.8
1972	200,470	176,537	177,155	33,582	16.8	13,666	40.7
1973	199,064	173,355	174,135	36,047	18.1	14,591	40.5
1974	198,824	170,678	172,107	39,063	19.6	15,800	40.4
1975	197,585	167,022	168,817	42,300	21.4	17,031	40.3
1976	186,844	155,679	157,412	43,098	23.1	17,499	40.6
1977	187,344	154,906	156,854	44,750	23.9	18,178	40.6
1978	185,523	151,884	154,016	46,254	24.9	18,892	40.8
1979	187,811	152,731	154,982	48,309	25.7	19,600	40.6
1980	191,069	154,138	156,918	50,600	26.5	20,422	40.4
1981	190,082	151,978	154,506	52,340	27.5	21,340	40.8
1982	188,360	149,419	152,825	52,979	28.1	21,438	40.5
1983	184,675	144,960	147,968	53,342	28.9	22,080	41.4
1984	185,597	144,674	147,907	55,436	29.9	23,177	41.8
1985	184,096	144,009	146,718	54,632	29.7	22,833	41.8
1986	175,518	137,665	138,523	52,678	30.0	22,170	42.1
1987	182,151	138,454	139,324	60,106	33.0	26,529	44.1
1988	187,728	142,956	143,943	61,665	32.8	26,892	43.6
1989	190,640	145,733	146,242	62,276	32.7	27,029	43.4
1990	187,737	143,637	145,350	60,393	32.2	26,094	43.2
1991	172,251	131,996	133,584	55,278	32.1	23,644	42.8
1992	164,573	125,505	126,955	53,547	32.5	23,139	43.2
1993	159,317	121,104	122,479	52,406	32.9	22,645	43.2
1994	159,958	121,497	122,641	52,758	33.0	23,020	43.6
1995	160,251	121,312	122,131	53,477	33.4	23,582	44.1
1996	156,691	117,574	118,285	53,481	34.1	24,042	45.0

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Marriages*, catalogue no. 84-212 and unpublished data, Demography Division, Population Estimates Section and calculations by the author.

Table 5. Number and General Rate of Remarriage, by Sex, Canada, 1991 to 1996

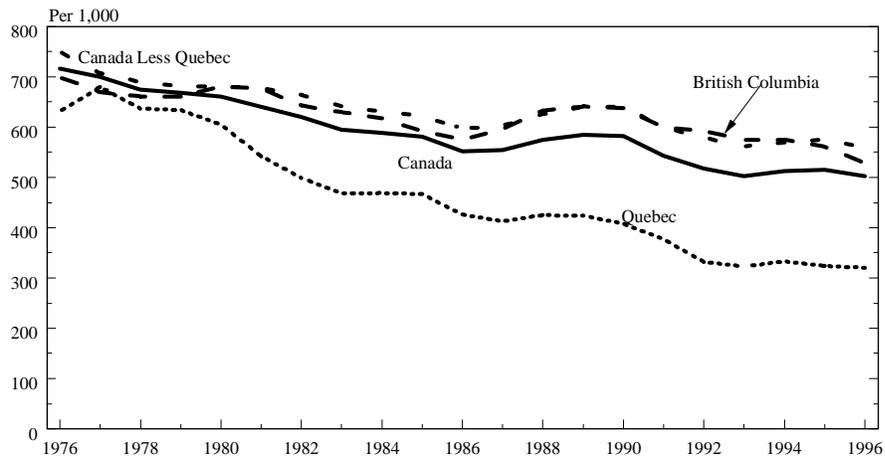
Year	Number of Remarriages		Ever Married Population Aged 18 and Over		Global Rate of Remarriage (per 1,000)	
	Males	Females	Males	Females	Males	Females
1991	40,255	38,667	637,427	1,694,750	63.2	22.8
1992	39,068	37,618	683,107	1,754,963	57.2	21.4
1993	38,213	36,838	729,266	1,814,554	52.4	20.3
1994	38,461	37,317	776,069	1,872,610	49.6	19.9
1995	38,939	38,120	821,169	1,927,997	47.4	19.8
1996	39,117	38,406	861,107	1,978,237	45.4	19.4

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, Demography Division, Population Estimates Section and calculations by the author.

In 1996, there was a decrease in the number of marriages in all of the provinces except the three Maritime provinces (Table A2). Given the size of its population, Ontario saw the largest decrease (-1,375). However, in relative terms, the largest decreases were in British Columbia (-3.2%), Manitoba (-3.8%), Alberta (-4.2%) and, particularly, Newfoundland (-6.2%). Total first marriage rates also declined in all Canadian provinces except the Maritime provinces (Table 6).

Figure 5 illustrates the drop in male nuptiality over the past 20 years in period rates. The drop is especially pronounced in Quebec, where the total

Figure 5. Variation in the Total First Marriage Rates, for Males, Canada and Certain Provinces, 1976-1996



Source: Table 6 and calculations by the author.

Table 6. Total First Marriage Rate, Canada, Provinces and Territories, 1988-1996 (per 1,000)¹

Province	1988		1989		1990		1991		1992		1993		1994		1995		1996	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Newfoundland	626	628	664	669	644	658	597	611	547	571	531	554	567	596	592	624	563	591
Prince Edward Island	728	739	798	807	768	766	717	724	678	690	705	718	656	693	674	712	720	756
Nova Scotia	637	680	640	685	610	649	568	600	545	579	532	565	540	572	542	580	556	584
New Brunswick	644	675	639	680	624	659	574	599	544	573	527	554	538	555	543	570	561	590
Quebec	425	453	424	455	408	459	377	425	332	375	323	364	333	373	324	362	320	355
Ontario	635	690	647	697	653	698	606	646	579	623	553	595	560	598	569	607	560	595
Manitoba	617	669	624	679	637	690	592	647	595	643	581	628	583	627	597	645	574	613
Saskatchewan	600	647	625	677	613	665	613	650	603	634	612	642	633	658	646	658	635	648
Alberta	590	642	621	665	625	673	590	635	581	623	583	621	597	641	604	638	565	605
British Columbia	633	684	641	693	638	694	599	651	593	633	575	612	575	617	561	594	529	556
Yukon	525	623	497	558	518	591	465	514	536	562	404	465	446	465	575	553	479	495
Northwest Territories	302	314	301	326	313	327	285	308	270	292	279	308	301	333	286	317	272	281
CANADA	574	620	585	630	582	631	543	588	518	561	503	544	512	552	515	552	502	537
CANADA LESS QUEBEC	626	676	640	688	641	687	599	640	579	620	562	600	569	608	575	611	559	593

¹ Males aged 17 to 49 and females aged 15 to 49.

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, unpublished data, Demography Division, Population Estimates Section and calculations by the author.

marriage rate for 1996 (320 marriages per 1,000) was half what it was 20 years earlier (631 marriages per 1,000), when it was already one of the lowest rates in the country. The decline in nuptiality was less pronounced in the other provinces; nonetheless, it was considerable. For all of the other provinces, the 1996 rate is 559 marriages of single persons per 1,000 individuals, i.e., three-quarters the rate in 1976 (750 per 1,000 individuals). Quebec's population size and low nuptiality bring the rate for Canada as a whole (502 per 1,000) to below the rate for British Columbia, which has the second lowest rate of all of the provinces (529 per 1,000). This analysis is also valid for females.

The decrease in nuptiality in period rates mirrors that of the generations. The curves in Figures 6a and 6b rise increasingly slowly. For members of the youngest generation, who are just beginning to marry (generation 1975), nuptiality rates are lower for all ages than the rates for the next youngest generation.

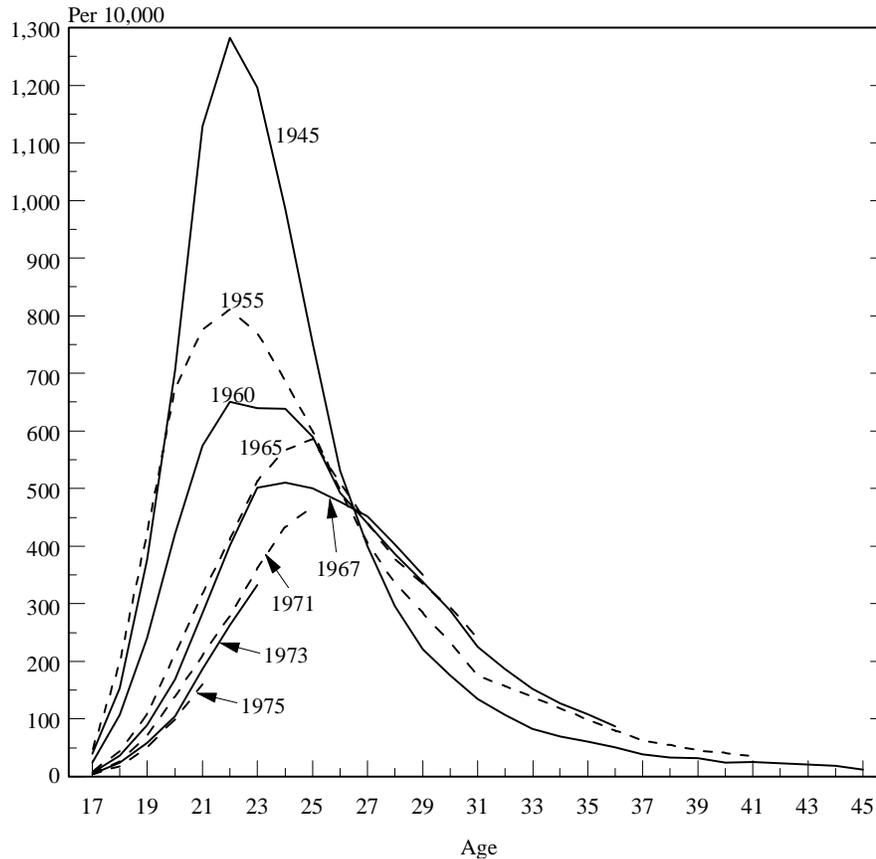
We can also see from Figures 6a and 6b, that the average age at the time of the first marriage is increasing from generation to generation. It rose⁴ from 25.2 years in 1991 to 26.0 years in 1996 for men, and from 23.4 years in 1991 to 24.2 years in 1996 for women.

The decline in nuptiality and the increase in the average age at first marriage are both due to the increasing popularity of common-law relationships and of living in a relationship that is not formalized. This is particularly true of young people. According to the 1996 Census, 1,829,000 individuals lived in common-law relationships; this represents a 26.0% increase over the previous census. Table 7 indicates that the increase in the number of married individuals is smaller than the increase in the total population in all age groups, whereas the increase in the number of people living in common-law relationships is higher, except for those 15 to 19 years of age in 1996. Clearly, the percentage of individuals living in common-law relationships continued to increase in every age group between the censuses, and this has been the case since 1981, when the phenomenon was first measured (Figure 7). We also see that the propensity of individuals to live together without being married increases not only from one generation group to the next within a given age group, but also within generations, as they increase in age. This is shown by the dotted lines linking the percentage of individuals living in common-law relationships in each generation group.

The decrease in the number of marriages is not offset by the increase in the number of common-law relationships and, between the two censuses, the percentage of individuals living in a union decreases for all age groups.

⁴ Based on the nuptiality rates of single persons.

**Figure 6A. First Marriage Rates, Males, Canada
(Some Recent Generations)**

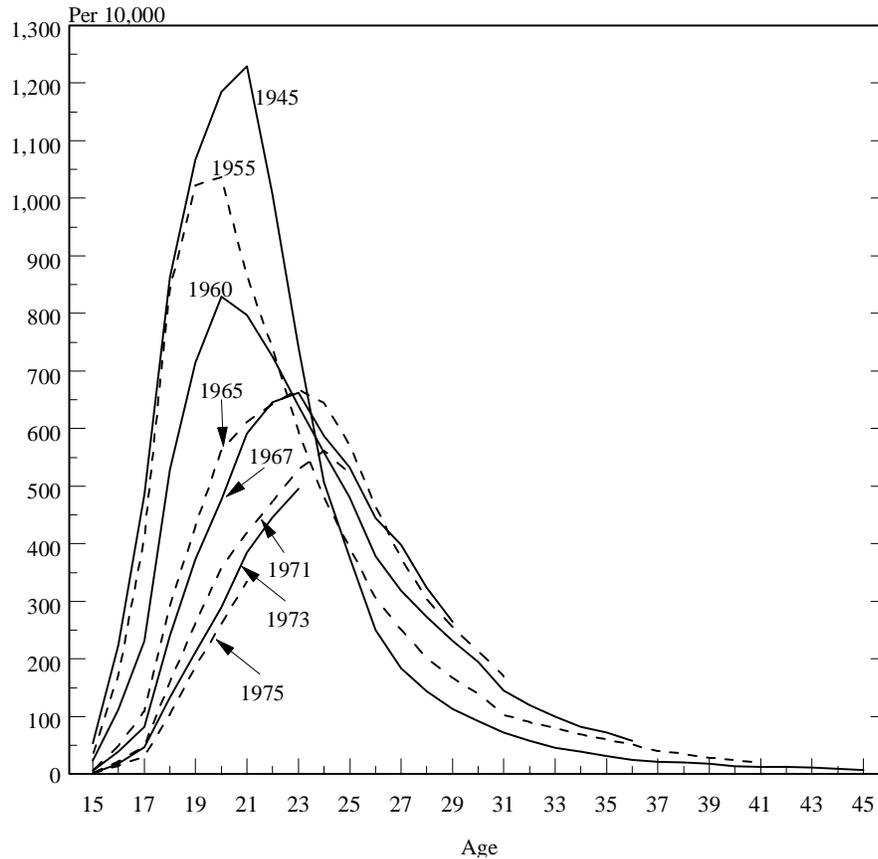


Source: Table A3.1.

Between 1991 and 1996, the number of individuals 15 years and over who were not living in a union increased by 10.7%—almost twice the rate of growth of the total population (6.2%). The increase in the number of individuals who were not living in a relationship on the day of the census is due to many things:

1. Young people are postponing living together.
2. Couples are choosing common-law relationships which are more likely to end in breakdown and periods of living alone.
3. Although more resilient than common-law relationships, marriages in recent cohorts are more fragile than marriages in earlier cohorts.

**Figure 6B. First Marriage Rates, Females, Canada
(Some Recent Generations)**



Source: Table A3.2.

4. Lastly, the tendency to remarry is declining.

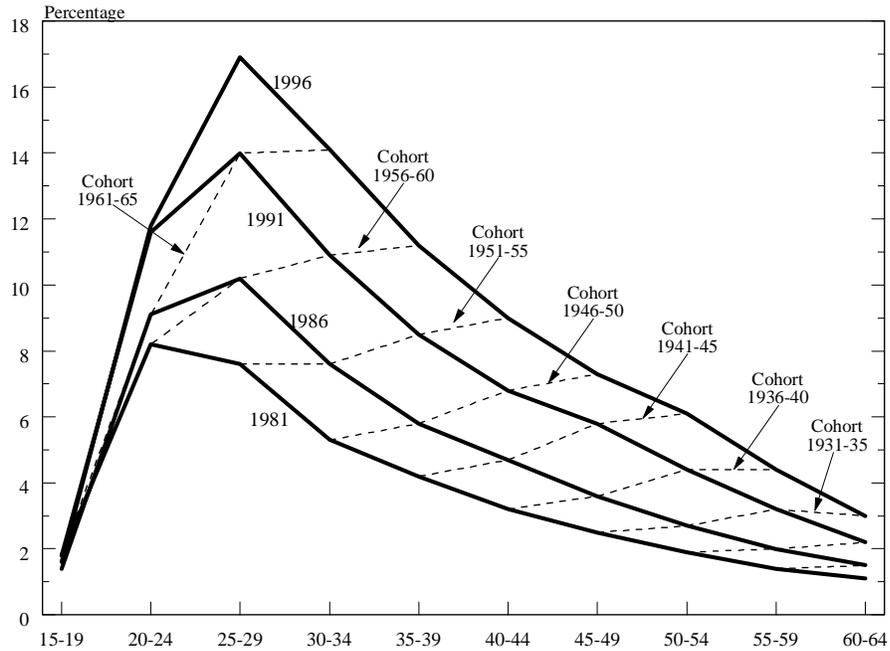
To conclude, the slight increase in the number of marriages in 1994 and 1995 which resulted in a similarly small increase in total marriage rates appears to have been temporary. It can be interpreted as a random increase of what was already a very low rate, particularly in Quebec where, depending on the period rate, only about one person in three will marry (Table 6). Common-law relationships appear to be the phenomenon with the greatest impact on the distribution of the population according to marital status. However, there are other factors at work: the postponement of first unions, unions that are less resilient, and the decrease in remarriages.

Table 7. Population Aged 15 and Over by Conjugal Status and Age Group, Canada, 1991 and 1996

Age Group	Total	In a Couple			Not in Union		
		Married	Common-Law	Total	Single	Ever Married	Total
Population (in thousands)							
1991							
15 - 19	1,869	16	33	49	1,817	3	1,820
20 - 24	1,962	273	228	501	1,437	24	1,461
25 - 29	2,376	1,050	333	1,383	897	96	993
30 - 34	2,491	1,537	271	1,808	506	177	683
35 - 39	2,284	1,575	193	1,768	292	224	516
40 - 44	2,087	1,512	142	1,655	185	247	432
45 - 49	1,641	1,216	96	1,311	114	215	329
50 - 54	1,325	1,002	58	1,061	82	183	265
55 - 59	1,223	922	39	960	74	189	263
60 - 64	1,177	854	26	880	75	222	297
65+	3,170	1,724	33	1,757	234	1,180	1,413
Total	21,604	11,681	1,452	13,132	5,713	2,759	8,472
1996							
15 - 19	1,959	10	32	42	1,914	3	1,917
20 - 24	1,898	179	225	403	1,476	19	1,495
25 - 29	2,031	724	343	1,067	885	79	963
30 - 34	2,468	1,348	347	1,695	596	177	773
35 - 39	2,544	1,596	286	1,882	403	259	663
40 - 44	2,318	1,549	208	1,756	261	300	561
45 - 49	2,094	1,460	153	1,613	173	308	481
50 - 54	1,617	1,156	99	1,254	107	255	362
55 - 59	1,302	949	57	1,006	77	219	296
60 - 64	1,188	852	36	888	69	231	300
65+	3,528	1,917	44	1,961	234	1,333	1,567
Total	22,945	11,739	1,829	13,568	6,196	3,182	9,378
Percentage							
1991							
15 - 19	100.0	0.9	1.7	2.6	97.2	0.2	97.4
20 - 24	100.0	13.9	11.6	25.5	73.3	1.2	74.5
25 - 29	100.0	44.2	14.0	58.2	37.7	4.1	41.8
30 - 34	100.0	61.7	10.9	72.6	20.3	7.1	27.4
35 - 39	100.0	68.9	8.5	77.4	12.8	9.8	22.6
40 - 44	100.0	72.5	6.8	79.3	8.9	11.9	20.7
45 - 49	100.0	74.1	5.8	79.9	7.0	13.1	20.1
50 - 54	100.0	75.6	4.4	80.0	6.2	13.8	20.0
55 - 59	100.0	75.4	3.2	78.5	6.0	15.4	21.5
60 - 64	100.0	72.6	2.2	74.8	6.4	18.8	25.2
65+	100.0	54.4	1.0	55.4	7.4	37.2	44.6
Total	100.0	54.1	6.7	60.8	26.4	12.8	39.2
1996							
15 - 19	100.0	0.5	1.6	2.1	97.7	0.1	97.9
20 - 24	100.0	9.4	11.8	21.3	77.8	1.0	78.7
25 - 29	100.0	35.7	16.9	52.6	43.6	3.9	47.4
30 - 34	100.0	54.6	14.1	68.7	24.2	7.2	31.3
35 - 39	100.0	62.7	11.2	74.0	15.9	10.2	26.0
40 - 44	100.0	66.8	9.0	75.8	11.3	13.0	24.2
45 - 49	100.0	69.7	7.3	77.0	8.3	14.7	23.0
50 - 54	100.0	71.5	6.1	77.6	6.6	15.8	22.4
55 - 59	100.0	72.9	4.4	77.3	5.9	16.8	22.7
60 - 64	100.0	71.7	3.0	74.7	5.8	19.5	25.3
65+	100.0	54.3	1.3	55.6	6.6	37.8	44.4
Total	100.0	51.2	8.0	59.1	27.0	13.9	40.9

Source: Statistics Canada, 1991 and 1996 Censuses of Canada.

Figure 7. Proportion of People Living Common-Law, Canada, 1981 to 1996



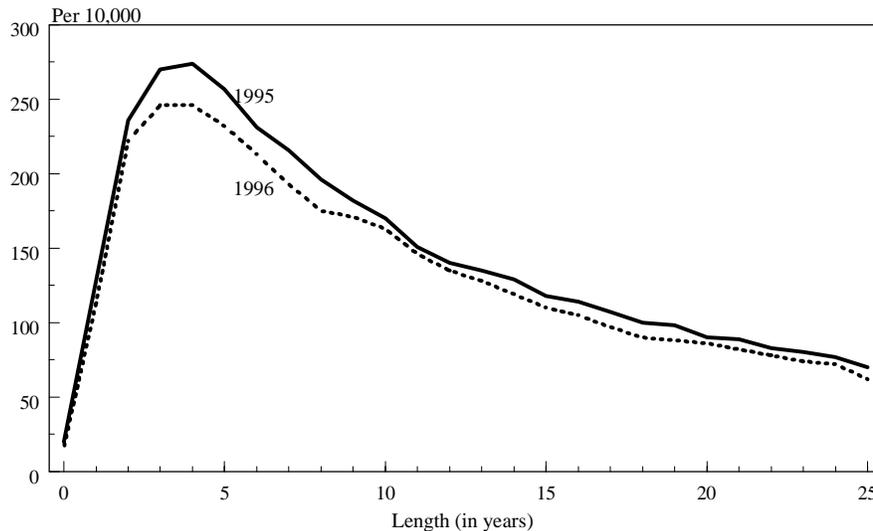
Sources: Statistics Canada, 1981, 1986, 1991 and 1996 Censuses of Canada and calculations by the author.

DIVORCE

Canadian courts granted a total of 71,528 divorces in 1996. This represents a decrease of 6,108 decrees (-7.9 %) from 1995. All provinces except those at the two extremities of the country, Newfoundland and British Columbia, experienced a decline (Table A4). The number of divorces increased significantly after changes to the law in 1985, but has remained stable since the early nineties. In the light of this stability, the drop observed in 1996 begs an explanation.

The number of marriages that take place each year has dropped markedly since 1990. In 1991, the number of marriages dropped by 8.2% (Table A2). In 1992, there was a further drop of 4.5%. At the present time, the risk of divorce is greatest during the third and fourth years of marriage (Table 8). It should not come as a surprise therefore—all things being equal—that we see a drop in the number of divorces four years after a year in which fewer marriages took place. One explanation for the 7.9% drop in the number of divorces granted in 1996 is the decrease in the number of marriages at the start of the decade.

Figure 8. Divorce Rate by Length of Marriage, Canada, 1995 and 1996



Source: Table 8.

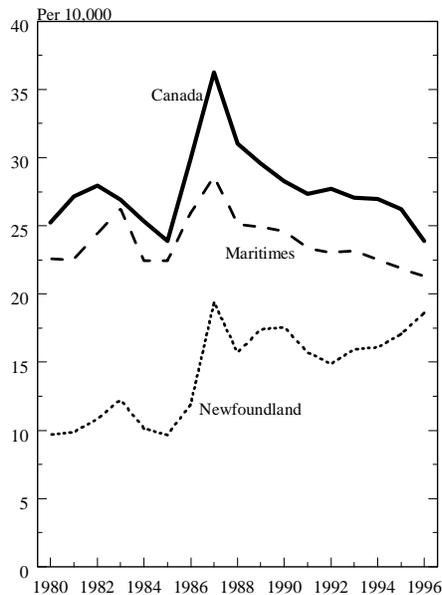
However, this decline in marriages does not explain the drop in the total divorce rate, since the calculation of this indicator allows us to remove the effect of changes in the number of candidates for divorce. In 1996, this measure fell to 3,463 per 10,000 marriages, a drop of 7.9 % compared to the 1995 figure (Table 8). ***This drop results from a decline in all divorce rates by duration, but as Figure 8 shows, it is the shortest durations, and therefore the most recent cohorts, where the decline is most notable.*** However, this observation is based on only one year of data.

It would require a few more years of low divorce rates to conclude that a trend towards a decline in divorce rates is underway, but certain indicators point in that direction. Age at marriage is rising and we know that marriages of very young couples are less durable. It is also possible that the growth of common-law unions selects candidates for marriage: those who are more likely, for whatever reason, to end their relationship, choose common-law unions rather than marriage.

Provincial Variations

The decline in marriages does not explain the regional variations in changes in the divorces rate. Whereas the drop in the number of marriages at the start

Figure 9. Crude Divorce Rate, Canada, Newfoundland and Maritime Provinces, 1980-1996



Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, Demography Division, Population Estimates Section and calculations by the author.

of the decade was felt in all Canadian provinces more or less equally, with the exception of British Columbia, 1996 divorce rates varied by region. Almost all of the provinces experienced a decrease in the number of divorces, but the decrease was strongest in Ontario and Quebec. *In Ontario there were 4,317 fewer divorces (-14.7%), and in Quebec there were 2,055 fewer divorces (-10.2%). In Alberta, there were only 90 fewer divorces (-1.2%) and in British Columbia the divorce rate increased by 541 divorces (+5.2%).*

Annual variations in the divorce rate are often due to administrative factors, rather than a change in the propensity of couples to separate. Often, these variations reflect the courts fluctuating ability to handle cases, and a fluctuation in one direction is offset by a fluctuation in the opposite direction the following year. The decrease observed in Quebec in 1996 corresponds fairly closely to an increase the previous year (+10.5%). Similarly, the increase observed in British Columbia in 1996 follows a

year in which the number of divorces decreased by 9.4%, even though the average decrease in Canada was only 1.6%. In Ontario's case, part of the pronounced drop in the divorce rate in 1996 could be due to the decrease in the number of divorces funded by legal aid in that province. However, we must refrain from interpreting regional variations in the annual divorce rate—which are sometimes pronounced—as changes in behaviour. A trend must develop over a period of years before this kind of hypothesis can be put forward.

Such a trend does, however, appear to be emerging in Newfoundland. For years, divorce rates in this province were lower than anywhere else in Canada. However, since 1980, the number of divorces has risen rapidly, from 555 divorces in 1980 to 1,060 divorces in 1996. In the space of 16 years, Newfoundland's number of divorces practically doubled; during the same period; the increase for Canada as a whole was a mere 15%. In spite of the

Table 9. Crude Divorce Rate (per 10,000), Canada, Provinces and Territories, 1980 to 1996

Year	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
1980	9.67	13.19	27.08	18.75	21.31	25.62	22.06	18.95	34.36	34.29	25.23
1981	9.89	15.12	26.64	18.84	29.24	24.51	23.10	19.74	36.55	33.63	27.17
1982	10.83	16.49	26.42	23.39	28.16	26.40	22.79	18.32	37.48	35.24	27.95
1983	12.25	17.12	26.84	27.08	26.22	25.42	24.86	19.91	36.57	32.00	26.94
1984	10.15	15.34	25.69	19.75	25.32	23.51	24.29	19.53	35.23	30.38	25.36
1985	9.67	16.61	26.33	18.74	23.64	22.33	21.31	18.75	33.59	27.85	23.89
1986	11.89	15.46	29.24	23.77	28.23	29.03	27.27	24.02	39.32	37.39	29.87
1987	19.38	21.29	30.80	27.34	32.50	40.39	35.67	28.72	39.03	39.72	36.25
1988	15.72	20.69	27.70	22.82	29.62	32.85	28.12	24.30	35.45	34.34	31.02
1989	17.41	18.99	27.88	22.35	28.56	30.91	26.36	24.12	32.87	33.16	29.61
1990	17.57	21.47	26.51	22.86	29.19	28.08	25.27	23.40	33.23	29.59	28.27
1991	15.73	20.53	24.84	22.09	28.61	26.41	25.12	22.30	32.27	30.64	27.37
1992	14.89	17.25	24.95	21.74	27.49	28.60	23.84	23.16	31.14	30.08	27.71
1993	15.95	17.09	25.57	21.30	27.17	26.75	23.10	22.25	32.19	30.56	27.07
1994	16.09	18.56	24.49	20.75	24.98	28.04	24.40	23.32	30.17	31.24	26.96
1995	17.07	19.19	24.48	19.19	27.40	26.41	23.67	22.90	27.68	27.57	26.22
1996	18.62	17.36	23.65	19.07	24.45	22.23	22.90	21.79	26.94	28.35	23.88

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, Demography Division, Population Estimates Section and calculations by the author.

fact that Newfoundland's crude divorce rate is still lower than the Canadian average, it appears to be catching up and even gaining speed. Since 1992, it has progressed steadily, unlike those of the other provinces which have either remained unchanged or dropped slightly (Figure 9 and Table 9).

AN ANALYSIS OF UNION DISSOLUTION IN CANADA

Introduction

Every year, in the *Report on the Demographic Situation in Canada*, the total divorce rate and the marriage-duration-specific divorce rate are analysed using vital statistics. Those studies describe the effect that divorce has on the various marriage cohorts and provide a time series of total divorce rates. They do not, however, supply any information about changes over time in the average duration of all types of unions. Common-law unions and their dissolution elude observation. As a result, the rates present an incomplete picture of the social reality.

The analysis that follows draws on data from Statistics Canada's 1995 General Social Survey. Compared with vital statistics, which provide comprehensive coverage in their area, the General Social Survey represents a relatively small sample of Canadian society. Nevertheless, the survey offers a great deal more explanatory information, though some of it concerns the respondent's characteristics at the time of the interview. In particular, the Survey provides information about all types of unions, including common-law marriage.

The survey is representative of the Canadian population aged 15 and over in 1995, excluding residents of the Territories and of institutions⁵. The responses by the 10,749 persons interviewed provide, after weighting, a detailed snapshot of Canadian society at a particular time. In addition, the survey's historical modules collect data that can be used to reconstruct the complete marital and fertility histories of respondents. To assist researchers in their analyses, Statistics Canada developed three public use microdata files: the main file, whose unit of analysis is the individual; a children file, which contains one record for each child of each respondent; and a unions file, which contains one record per union. A respondent contributed more than one record to the second and third files if he or she has had more than one child or more than one marriage at the time of the interview.⁶ Other respondents had no information to put in the files. The unit of analysis is the respondent and not the union.

⁵ The implicit assumption is that the characteristics of the small number of people who do not have a telephone (about 2% of the target population) do not differ sufficiently from those of people who have telephones to affect the survey estimates.

⁶ These two files contain no weighting factors. The weights associated with each respondent in the main file are used to ensure that the analysis is representative.

In all, the Survey's 10,749 respondents were partners in 10,938 unions. Of these, 767 were excluded for one of three reasons: the duration of the union could not be determined; the respondent did not specify the start or end date of the union; or the type of dissolution could not be determined.

Analysis of Union Duration using Data from a Historical Survey

The analysis is based on attained-duration-specific cumulative proportions of separations. This indicator is derived from demometric tables established from marital histories. Such tables are an excellent tool for analysing this type of data because they circumvent truncation problems. Truncation in this case refers to a marital episode that is incomplete at the time of the survey. Because of truncation, the total duration of the episode is unknown. Using only the known part of the duration to calculate an index such as average duration would produce an understated, and therefore inaccurate, measurement. On the other hand, using only terminated unions would make the analysis less useful because only one particular category of union would be covered.

Unlike vital statistics, the survey data provide some choices as to the duration that will be analysed. While the exact dates on which a legal marriage started and ended (wedding, divorce or death of one spouse) are known because they are recorded in legal documents, more information is required to determine when cohabitation began and concluded. For marriages preceded by common-law union, both start dates are needed. If we want to measure the length of time a couple stays together, on the implicit assumption that unions eventually “wear out”, we need a starting point: the date on which cohabitation commenced.⁷ Likewise, in the case of marriage, we need—if we are to be realistic and consistent—the separation date rather than the divorce date.

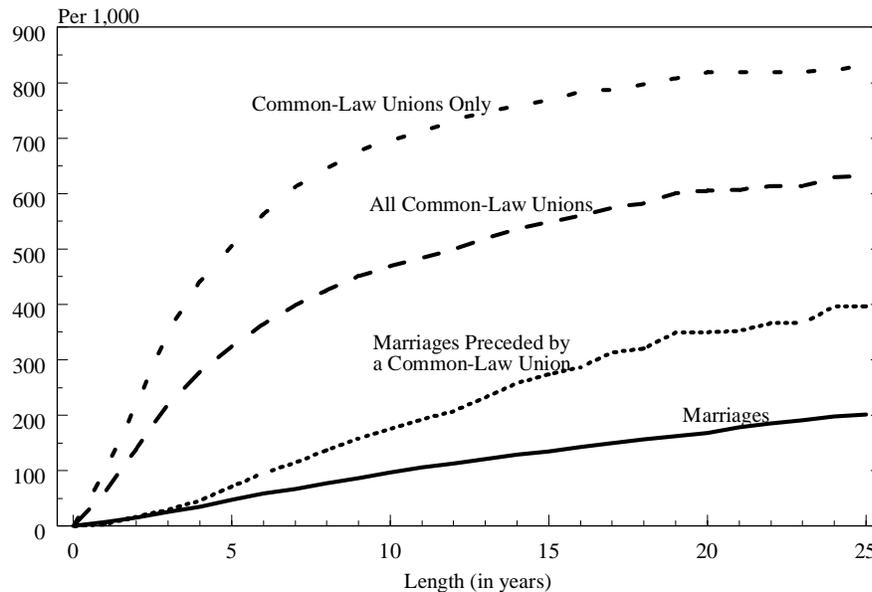
Union Duration by Type

The 1984 Family History Survey was the first survey to collect historical information about all unions formed by respondents. For the first time, the duration of legal marriages could be compared with the duration of common-law unions, and the difference between the two was found to be substantial.⁸ Figure 10 shows that the situation has not changed appreciably: *common-law unions are much shorter-lived than legal marriages. For example,*

⁷ However, this duration cannot be compared with the duration of a marriage not preceded by cohabitation, especially if the duration is short, because a common-law union preceding the marriage of the two partners is, by definition, at no risk of dissolving before the marriage. Since prenuptial cohabitation is usually brief, however, the first of the two dates was used to measure the length of time the couple remains together.

⁸ Burch, T. K., and A.K. Madan (1986). *Union Formation and Dissolution: Results from the 1984 Family History Survey*. Statistics Canada Catalogue No. 99-963. Ottawa, Canada.

Figure 10. Cumulative Proportions of Separations by Length of Union per 1,000 Unions of Each Type, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

within five years of their formation, half of all common-law unions that did not lead to the marriage of the two partners dissolved, whereas only 5% of marriages not preceded by cohabitation of the two partners failed.

Legal Marriage Preceded by Common-law Union

The figure also shows that marriages preceded by cohabitation of the two partners seem less stable than unions that begin with marriage. While the differences are marginal for the shortest durations, the two lines diverge noticeably for longer durations. *Ten years after the beginning of conjugal life, 18% of marriages preceded by common-law union have dissolved, compared with only 10% of marriages without prenuptial cohabitation.* In a way, this finding defies logic since people who have lived together before marriage have supposedly had a chance to test their union and based their decision to legalise it on a better appreciation of the difficulties involved. Studies in many Western countries, including the United States, have produced similar observations, sparking controversy about the possible reasons. One common theory is that there is a selection effect: people who choose common-law union have different characteristics from people who opt for marriage. In

Table 10. Cumulative Proportions of Separations, by Union Length and Formation Period for 1,000 Unions, Marriages Preceded or Not by a Common-Law Union, Canada, 1995

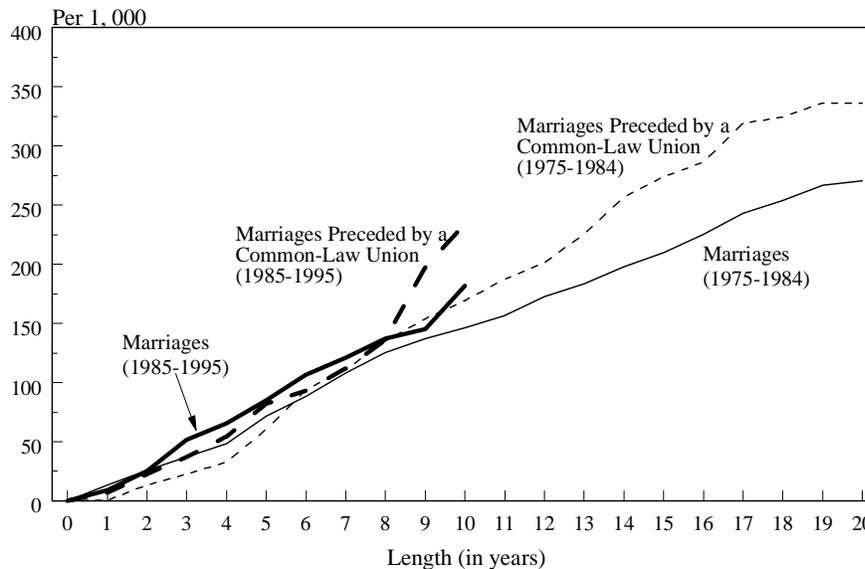
Length (in years)	Union Formation Period						Total
	Before 1970	1970-1974	1975-1979	1980-1984	1985-1989	1990-1995	
Marriages Not Preceded by a Common-Law Union							
5	22	69	73	70	78	89	47
10	57	132	142	150	176	...	97
15	88	173	197	233	...	...	135
20	11	223	259	...	...	...	169
25	15	265	...	...	...	...	202
Number	3,354	730	624	680	571	435	6,394
Percentage	52.5	11.4	9.8	10.6	8.9	6.8	100.0
Marriages Preceded by a Common-Law Union							
5	..	75	60	61	67	142	71
10	..	167	182	158	222	...	176
15	..	241	297	240	...	...	274
20	..	311	358	...	...	...	350
25	..	442	...	...	...	...	396
Number	72	152	282	303	349	186	1,344
Percentage	5.4	11.3	21.0	22.5	26.0	13.8	100.0
Percentage of Marriages Preceded by a Common-Law Union	2.1	17.2	31.1	30.8	37.9	30.0	17.4

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

other words, it may be that people who choose common-law union belong to the same category of people as those who marry and get divorced shortly after.

There may also be a period effect. The two groups being compared do not belong to the same marriage cohort groups. Marriages preceded by cohabitation are, on average, much more recent than marriages not preceded by cohabitation. *For all durations, recent unions are less stable than older unions, whether the type of union is legal marriage or common-law marriage* (Table 10). In fact, when the period of formation is taken into account (Figure 11), the differences between the two groups diminish considerably, especially for unions that dissolve quickly. For the first 10 years following formation of the union, the lines representing the cumulative proportion of separations for marriages preceded by common-law union overlap the lines representing marriages not preceded by common-law union, both for unions formed between 1975 and 1984 and for unions formed between 1985 and 1995. Only then do the lines diverge, though not as much as in Figure 10.

Figure 11. Cumulative Proportions of Separations (for 1,000 Unions) by Union Length, Marriages Preceded or Not by a Common-Law Union and Formed Between 1975-1984 and 1985-1995, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

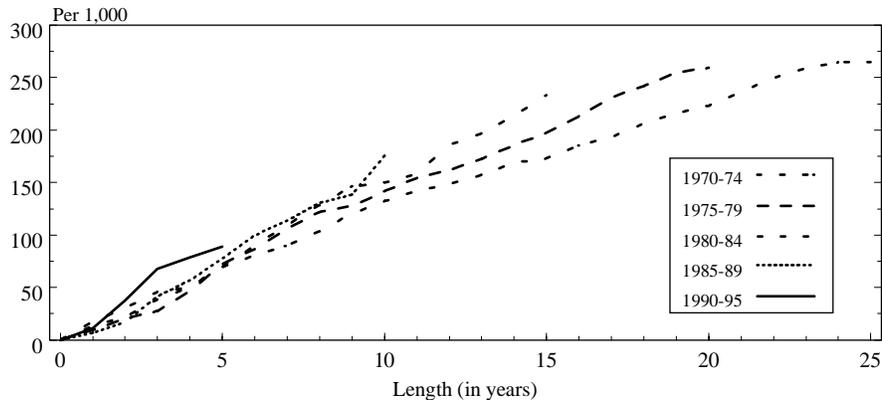
Significant as it is, the period effect cannot account for the entire difference. For unions formed between 1975 and 1984, 34% of marriages preceded by cohabitation had dissolved after 20 years, compared with only 27% of marriages without prior cohabitation.

Dissolution of Legal and Common-law Marriages Formed after 1970

The figure above illustrates how important it is to differentiate unions by their period of formation. Divorce did not become legal in all provinces of Canada until 1968. The effect that amendment of the federal *Divorce Act* had on the average duration of legal unions in Canada is well known. Since the early 1970s, the number of common-law marriages, like the number of divorces, has been on the rise.⁹ In addition to taking period of formation into account, an analysis of the dissolution of modern marriages would do well to include another dimension: the type of union chosen by the partners when they formed their union. Because of its historical nature, the survey

⁹ For a description of these trends, see Part II of the *Report on the Demographic Situation in Canada, 1996*, entitled "Common-law Unions in Canada at the End of the 20th Century".

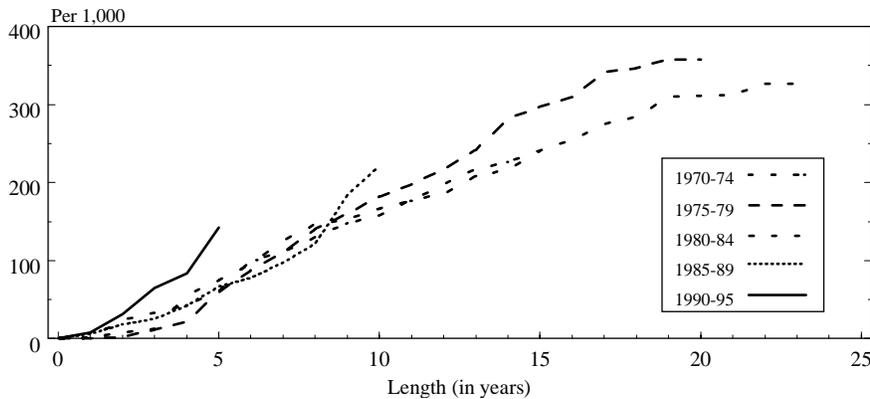
Figure 12.1. Cumulative Proportions (per 1,000) of Separations, by Union Length and Union Formation Period, Marriages Not Preceded by a Common-Law Union, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

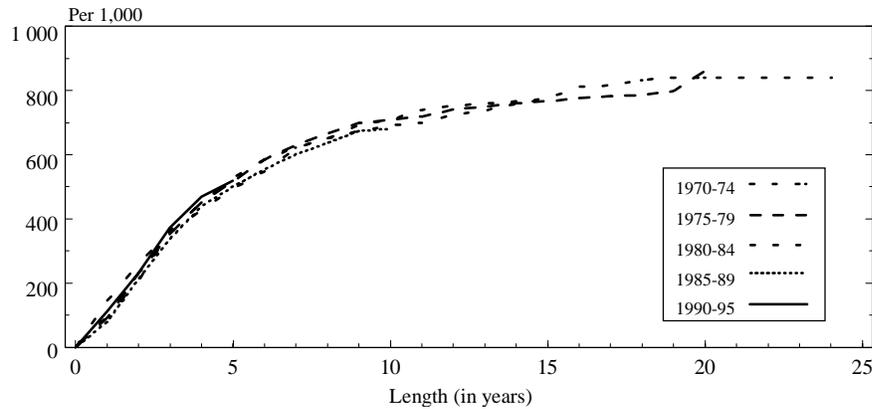
enables us to distinguish three types of unions *a posteriori*: unions that began with the marriage of the partners, marriages preceded by a period of cohabitation, and common-law marriages that have not been converted into marriages. For each type, the cumulative proportion of separations by duration and period of formation are shown in Figure 12.1-12.3.

Figure 12.2. Cumulative Proportions (per 1,000) of Separations by Union Length and Union Formation Period, Marriages Preceded by a Common-Law Union, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Figure 12.3. Cumulative Proportions (per 1,000) of Separations by Union Length and Union Formation Period, Common-Law Unions Not Followed by a Marriage, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

The first thing we learn is, as previously noted, the substantial difference in durability between the types of union. For example, for unions formed between 1970 and 1974 (the first marriage cohorts formed after the divorce law was liberalised), there were 225 separations for every 1,000 marriages without prior cohabitation 20 years later, 310 separations for every 1,000 marriages preceded by a period of cohabitation, regardless of its length, and 840 separations for every 1,000 common-law unions that did not lead to marriage.

The second thing it illustrates is the extreme fragility of common-law unions not followed by marriage between the two partners, regardless of the period of formation. While common-law marriage has increased in popularity from period to period, to the point where it is becoming the usual way in which first unions are formed, its instability has declined only slightly from cohort to cohort. This consistency contrasts with the trend for legal marriage: from one marriage cohort group to the next, it has become less and less stable.

Even if we look exclusively at the most recent marriage cohorts since there are too few common-law unions formed before 1970, we find that the proportion of separated couples at each duration differs much more, from cohort to cohort, for married couples than for common-law couples. For marriages with or without prior cohabitation, the line representing the cumulative proportion of separations for each cohort group lies above the line representing the preceding cohort group, whereas for common-law unions not followed by marriage, the lines overlap. For example, 10 years after formation there

were, depending on the cohort group, between 130 and 175 separations for every 1,000 marriages without prior cohabitation, between 160 and 220 separations for every 1,000 marriages preceded by cohabitation, and between 710 and 680 separations per 1,000 common-law unions that did not lead to marriage. Between the unions formed in the 1970-1974 period and those formed in the 1990-1995 period, the cumulative proportion of unions dissolved by separation after 10 years increased by 35% for marriages without prenuptial cohabitation and by 33% for marriages preceded by cohabitation, but declined by only 4% for common-law unions. ***Thus, while legal marriage appears to be less and less stable, the proliferation of common-law marriage has not been accompanied by an increase in its durability. The growing fragility of marriage, combined with the rising popularity and extreme instability of common-law union, has made marital histories increasingly complex.***

Duration of Common-law Unions

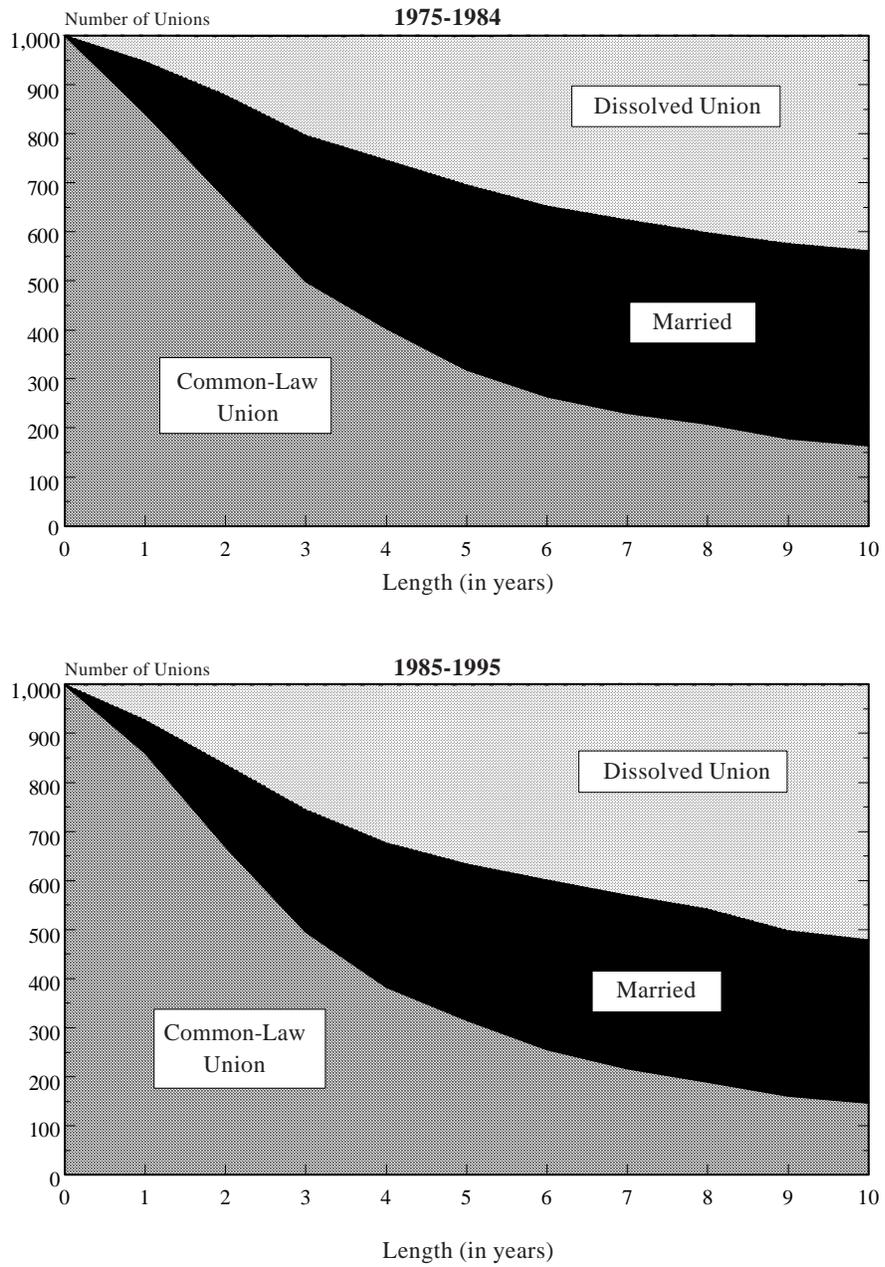
Aside from the death of one partner, common-law unions can end in only one of two ways: separation or marriage. To measure the longevity of common-law unions, we need to consider the probabilities of dissolution, the probabilities of marriage and the probabilities of divorce for couples who marry after cohabiting. Each probability is based on the length of time since the union was formed. When the three series of probabilities are combined in a multiple entry-exit table, we can calculate the proportion of common-law unions that survive, either as common-law unions or as marriages, and the proportion of common-law unions that dissolve. Those proportions are shown in Figure 13 for two different groups of common-law marriage cohorts.

Common-law unions appears to be a temporary state. They are quickly dissolved or converted into marriage. The proportion of intact common-law unions has changed little over time. Less than a third (32%) of common-law marriages formed in each period described above are still common-law marriages five years after they were formed. Ten years after formation, only about 15% remain.

By contrast, the proportion of common-law unions that became legal marriages declined slightly between the two periods. Five years after moving in together without being married, 38% of couples from the 1975-1984 period were married, compared with 32% of couples from the 1985-1995 period. Ten years after formation, the gap remains the same: the proportion of married couples is 40% for the older group and 33% for the more recent group.

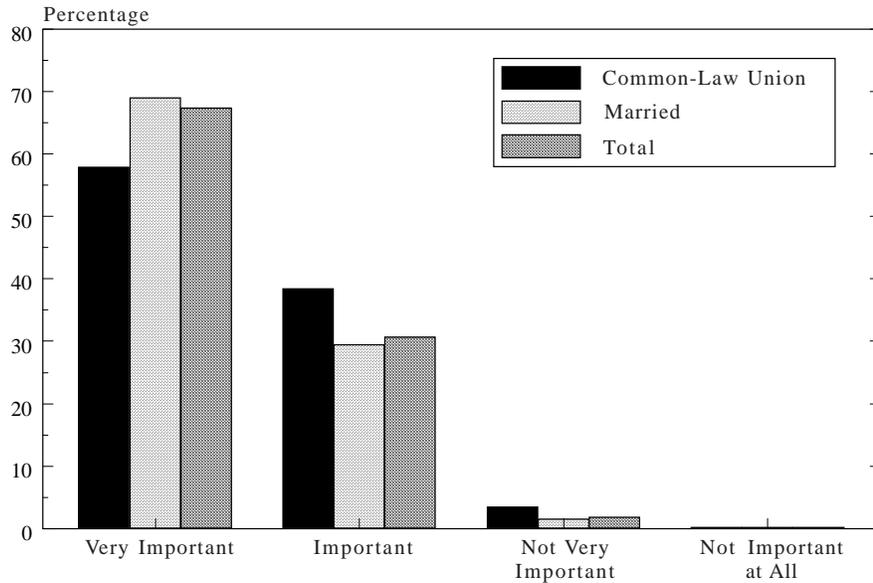
Hence, ***dissolution is more frequent among common-law marriages formed in the 1985-1995 period than among those formed 10 years earlier.*** This conclusion is based on ***the fact that common-law unions formed in***

Figure 13. Status of 1,000 Common-Law Unions Formed Between 1975-1984 and Between 1985-1995, by Union Length Since Formation, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Figure 14. Distribution of Population Living as a Couple According to the Importance They Place on Living in a Long Relationship in Order to Be Happy, by Type of Union, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

the second period were converted less often into marriages and, to a lesser extent, on the fact that the risk of separation for marriages with prenuptial cohabitation is slightly higher in the more recent period.

Conclusion

The finding that common-law marriage is more unstable than legal marriage hardly comes as a shock. What is surprising, however, is the magnitude of the differences between the various types of unions, particularly for more recent cohorts. And it is even more surprising when we consider that a large proportion of people regard a lasting relationship as important or very important to their happiness (Figure 14). Almost all legally married people (98%) and people in common-law unions (96%) feel that for their happiness it is important or very important to have a long-term relationship. Since about half of all common-law unions that do not end in the marriage of the partners, regardless of the cohort, dissolve after five years (Figure 12.3), it may well be asked whether the 2 million Canadians who have opted for this marital arrangement are deluding themselves about how long their relationship is likely to last.

FERTILITY

Vital statistics on births in 1996 were not available at the time of writing. The estimates for 1996 contained in the population accounting tables for Canada and in Table A5 (appendix) were obtained using very short-term projections: the estimated population in 1996 multiplied by the fertility rates for the previous year, according to age and province. These statistics indicate a decline in the number of births between 1995 and 1996, resulting strictly from the change in the population structure and size. Only a rise in fertility rates could reverse this situation. Hence, an analysis of fertility for the year 1996 will only be possible once the final data have been released.

A LONGITUDINAL ANALYSIS OF THIRD-ORDER FERTILITY IN CANADA

Introduction

The sudden, rapid change that has occurred in Canadian fertility since the 1960s has been described so often that there is no need to do so here. In the 1991 Census, about 40% of ever-married women aged 45 to 49 reported that they had two children, while only 6% had five or more children. Ten years earlier, 23% of women in the same age group reported having only two children, and 22% had five or more (Figure 15).

From one cohort to the next, the number of births has declined rapidly and steadily. A third child has become a rarity. A comparison of parity progression ratios for older cohorts and younger cohorts leaves no doubt (Table 11).

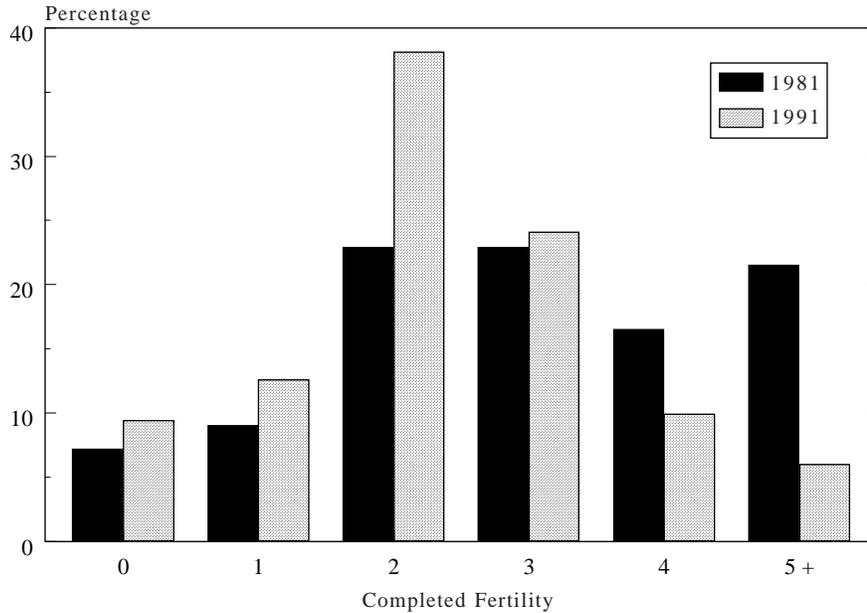
Table 11. Parity Progression Ratios by Specified Ages in 1991 by Five-Year Birth Cohorts of People Born from 1927 to 1956, Canada, 1991

Parity Progression Ratio	Birth Cohorts					
	1927-31	1932-36	1937-41	1942-46	1947-51	1952-56
	By Age 50			By 45-49	By 40-44	By 35-39
a_0	866	880	879	863	841	802
a_1	895	903	887	856	828	799
a_2	742	728	647	512	422	393
a_3	663	619	523	399	311	273
a_4	615	568	482	380	305	267

Note: a_0 : proportion of women who proceed to have at least a first child.
 a_1 : proportion of women who, having had a first child, proceed to have at least a second.
 a_2 : proportion of women who, having had two children, proceed to have at least a third.
 All births are assumed to have occurred by age 50, and only births before Census Day 1991 are included.

Source: Statistics Canada, 1991 Census of Canada, Catalogue no. 93-321, Table 2.

Figure 15. Percentage Distribution of Women Aged 45-49 by Completed Fertility, Canada, 1981 and 1991



Source: Statistics Canada, 1981 and 1991 Censuses of Canada and calculations by the author.

Although they decline over time, the first two probabilities remain high from one five-year cohort to the next. For example, 80% of women in the youngest cohort group (1952-1956) have had a second child, while 90% of women in the oldest cohort (1927-1931) did so. With third-order births, major changes begin to appear as we move from cohort group to cohort group. While 75% of women born between 1927 and 1931 had a third child, only 40% of women born between 1952 and 1956 did so. According to calculations, more than three quarters (77%) of the women in the 1927-1931 group have had at least two children, compared with only 64% of the women in the 1952-1956 group. That is a decrease of 13 percentage points, but it is small in comparison with the decline in the proportion of women who have had at least three children. While three out of five women (58%) in the oldest group had a third child, the corresponding proportion in the youngest group is unlikely to exceed one in four (25%).¹⁰

¹⁰ At the time of the 1991 Census, the fertile period of women born between 1952 and 1956 was incomplete since they were between 35 and 39 years of age. However, fertility in Canada is very low after age 39. The fertility rate for women aged 40 to 44 ranges between 4.0 and 6.0 births per 1,000 women depending on the province. The rate for women aged 45 to 49 is virtually zero.

Parity progression ratios are based on attained birth order. The first probability, denoted a_0 , is given by the proportion of women who have had at least one child. The subsequent probabilities, denoted a_n , represent the probability that a woman who has had n children will have at least one more. For example, enlargement probability a_1 is the probability that a woman with one child will have at least one more (i.e. a second child). Hence, probability a_2 is the probability that a woman who already has two children will have a third.

Although there is a strong trend toward uniformity in reproductive behaviour across the country, analysis shows that the small differences that persist are largely due to the third child. In 1993, for instance, the ratio of the first-order fertility rate of the province with the lowest total fertility rate in the country (Newfoundland, 20.3 per 1,000) to the rate of the province with the highest (Saskatchewan, 23.7 per 1,000) was 0.86. The ratio of third-order fertility rates for the same provinces was 0.51.

Hence, the third child continues to have an appreciable impact on the country's fertility. Since *the current third-order fertility rate makes up about 15% of the total fertility rate for the year*, it makes sense to study the characteristics of women who decide to have a third child. In this section, we will use a technique called event history analysis to examine those characteristics, as reflected in the 1995 General Social Survey.

Data Source

The 1995 General Social Survey is a good source of information on the recent fertility behaviour of Canadian women. With its coverage of respondents' fertility history, the survey provides information not only about the number of children each one has had, but also about the intervals between successive births. Since the survey collected data about respondents' marital history and the dates they started and stopped working, their marital status and employment status at the time of their children's birth can also be determined. From this information it is possible to obtain a dynamic picture of the relationships between those statuses and the probability of having a child. Marital histories are not confined to legal marriage; they rightly include common-law unions, since more and more children are being born to parents who live together but are not legally married. Finally, the survey covers almost the entire period during which the Quebec government offered parents a financial incentive to have more children. The survey data can therefore be used to perform a statistical assessment of the incentive program's effectiveness.

THE ANALYTICAL TOOL: EVENT-HISTORY ANALYSIS

Event-history analysis is a time-honoured technique in medicine, biology and engineering. The parametric variants of these models are rarely used in the social sciences because it is necessary to specify the effect of time on the risk being studied, which is often impossible in this field where experimental research is rare. Not until Cox (1972) developed the theory for a less restrictive semi-parametric model did the first social-science applications appear. This model, known as the proportional-hazards model, deals with the problem of the effect of time on hazard by proposing that the hazards for any two individuals have a constant ratio over time. Now that statistical software such as SAS and SPSS, which make it easier to estimate the parameters of the model, have become widely available, more applications of this kind of analysis have been developed.

Its growing popularity can be explained by the fact that it combines two familiar tools of analysis: attrition tables and regression. The dependent variable in these analytical models is a measurement comparable to the probability in a life table: the probability of a transition from one state to another, but conditional on the fact that the individual is still at risk of experiencing the transition. The use of conditional probabilities is necessary to obtain an unbiased estimator when there is the possibility of censorship, such as when only one part of the history is known.

Unlike the classic regression model, the parameters of this model are not determined by the least-squares method, but by the maximum-likelihood method. Nevertheless, as with the coefficients obtained by the least-squares method, we can estimate the standard error associated with the distribution of each coefficient, and compare it to the normal distribution in order to establish a statistical significance test (Student's-t test). For this analysis, we have used the 5% threshold most often used in the social sciences. That means we are prepared to be wrong one time out of twenty by inferring a relationship that does not really exist. Another important difference compared to the classic regression model is the possibility of easily integrating explanatory variables that vary over time. Note also that the objective of the event-history-analysis model is not to explain the relation between duration and the transition rate, since this is eliminated by using a semi-parametric model, but rather to estimate the effect of each of the independent variables on the differences observed between respondents holding constant the effects of all the other independent variables included in the model.

In the General Social Survey, 3,229 women reported that they had two children. Of this number 211 had to be removed from the sample because the birth date of one or both children was missing. Another 403 respondents were excluded because they did not answer one of the questions used by the model to explain variations in fertility.¹¹ The 47 women whose second pregnancy ended in a multiple birth were also excluded. Thus, the sample used to compute the risk ratios shown in Table 12 consists of 2,568 women.

At the time of the survey, many of these women had not yet had a third child. Some will never have a third child since they were 50 years old when the survey was conducted and their childbearing years were behind them. For others, the data provide no information because at the time of the interview, they still had neither had a third child nor reached the age limit for reproduction. What is known about the 2,568 respondents is that 1,325 (51.6%) had a third child and 1,243 (48.4%) had not or were over 50 at the time of the survey. The term used in the model to denote the period of their lives during which these women were likely to have a third child is *episode*. For those who gave birth to a third child, the episode ended with the event being studied. For the others, the episode was truncated since, while they had not yet had their third child, they might still do so before they turned 50. The method attempts to consider not only women who have completed their childbearing years, but also those who may not have completed them.

Objectives

In this analysis, data from the 1995 General Social Survey will be used to determine the factors influencing the probability that a woman who has two children will give birth to a third. The primary objective is to identify the demographic, cultural and socioeconomic characteristics that affect the probability of having a third child and to measure those effects after compensating for the effects of the other factors included in the model. Each characteristic plays a role in explaining the variation in the probability of a third child, since only women who have had two children are considered in the analysis. The demographic, cultural and socioeconomic characteristics of the regression model are regarded in this case as the only ones that can have an impact.¹²

¹¹ The number of respondents excluded from the study may seem high, but since a number of variables rely heavily on respondents' memories (fertility history, marital history and employment history), the large number of respondents excluded for missing responses is not surprising.

¹² For example, the relationship between employment status and fertility is not necessarily a one-way street. For a number of women, having a third child will certainly have a substantial effect on the probability of being off work for a period of time, but that effect is not measured by the model. The object of the study is to measure the effect of each woman's employment status on her probability of having a third child. For that reason, employment status is measured six months before the birth.

The second objective is to examine the effect that the Quebec government's baby bonus program had on third-order births. The baby bonus program was in effect for 10 years (starting in 1988 and ending in September 1997). Initially, the allowance provided at the birth of the third child was \$3,000. It was increased every year until 1992, when it peaked at \$8,000.

Economists, sociologists and demographers have long identified a number of factors affecting fertility. Economists of the Chicago School, for example, argued that women who have been on the labour market tend to have fewer children than do women who have not worked, and highly educated women tend to have fewer children than do women with less schooling. Other researchers have focused on cultural characteristics such as attendance at religious services, country of birth and number of siblings. Demographers, on the other hand, have emphasized the timing of life-cycle events, such as age at first birth and intervals between births, in explaining the differences.

The effects of a number of these characteristics manifest themselves in the fact that older cohorts were more fertile than younger cohorts. However, are there significant third-order fertility differences between women born in the first half of the baby boom (between 1945 and 1954), women born in the second half of the baby boom (between 1955 and 1964) and women born early in the baby bust (after 1965)? It is also important to determine whether this and other relationships persist once the other factors have been neutralised.

The results presented here are net effects, i.e., the effects after other factors included in the model have been neutralised. They are expressed in terms of "risk ratios" and hence are interpreted in relation to a reference group. A factor has a risk ratio of one if in relation to the excluded group it has no influence on a woman's probability of having a third child. If the risk ratio is greater than one, the factor's effect is positive, and the ratio is less than one, its effect is negative. For instance, according to Table 12, the probability of having a third child is 46% higher for women who attend religious services every week (1.46) than for other women, who are by definition assigned a value of one.

In addition, as for multivariate linear regression coefficients, we can compute the standard error associated with each parameter to establish a test of statistical significance. In this analysis the threshold of 5%, generally used in the social sciences, is employed. Risk ratios that are significant at this level are shown in boldface in the result's table.

Results

Effects of Demographic Variables

The model includes four potentially influential demographic variables: cohort group, conjugal status at the time of the third child's birth, age at first birth,

Table 12. Risk Ratios¹ for Models of Third Birth Fertility, for Specified Sociodemographic Variables, Women With 2 Births, Canada, 1995

		Model	
		Univariate	Multivariate
Demographic Variables			
Period of Birth	-Born Before 1945	1.76	1.76
	-Born Between 1945 and 1954	0.87	1.06
	-Born Between 1955 and 1964	0.91	1.07
	-Born After 1965	1.00	1.00
Age at First Birth	-Less Than 25	2.36	2.53
	-Between 25 and 29	1.31	1.60
	-30 or More	1.00	1.00
Interval Between the First Two Births	-Less Than 30 Months	1.00	1.00
	-Between 30 and 53 Months	0.57	0.66
	-More Than 53 Months	0.29	0.31
Marital Status	-Common-Law Union	0.93	1.05
	-Not in Union	0.53	0.63
	-Married	1.00	1.00
Socioeconomic Variables			
Employment Status	-Working	0.49	0.65
	-Unemployed	1.00	1.00
Education	-No Secondary Diploma	1.64	1.31
	-Secondary Diploma	1.00	1.00
	-Post-Secondary	0.89	1.02
Cultural Variables			
Region	-Superior Fertility	1.20	1.17
	-Others	1.00	1.00
Religious Practice	-Weekly	1.59	1.46
	-Other	1.00	1.00
Number of Siblings	-No Siblings	1.05	0.96
	-One Sibling	1.00	1.00
	-More Than One Sibling	1.34	1.11
Place of Birth	-Born in Canada	1.00	1.00
	-Europe and North America	0.76	0.80
	-Other Countries	0.98	1.48

¹ The risk, relative to that of the reference group (1.00), of giving birth to a third child, holding constant the other independent variables in the model.

Note: Risk ratios that are significant at the 5% level are in boldface.

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

and interval between the first two births. For all these variables, at least one response category has a statistically significant effect on the probability of having a third child.

Fertility history turns out to be the most important factor in the analysis of third-order fertility. Of all the variables in the model, the interval between the first two births appears to have the greatest effect on a woman's probability

of having a third child. Age at first birth ranks second, its effect being only slightly weaker. The size of the differences between the risk ratios for the categories defined by these two variables sets them clearly apart from the others. The effects of the other two demographic variables are appreciable, but comparable to those of socioeconomic and cultural variables such as employment status prior to the birth and mother's country of birth.

The earlier the first birth and the shorter the interval between the first two births, the higher the probability of a third. Specifically, the effects of other variables having been taken into account, the risk of a third birth is one third as high (0.31) for women who had a long interval between their first two children (over 53 months) as for women who had their second child fairly quickly (interval of less than 30 months). The risk ratio of 0.66 for the intermediate category (interval of 30 to 53 months) is statistically different from the other two. *The dissuasive effect that the interval between the first two births has on third-order fertility appears to increase with the length of the interval:* the quotient of the risk ratios for the long-interval category (over 53 months) over the ratios for the intermediate category (30 to 53 months) is greater than the quotient of the ratios for the latter category over the ratios for the short-interval category ($1.00 / 0.66 = 1.5$ and $0.66 / 0.31 = 2.1$). As for the effect of the mother's age at first birth, we found that among women who have had at least two children, *those who bore their first child before age 25 are 2.5 times more likely to have a third than those who were still childless at age 30, and 1.6 times more likely than those who had their first child between 25 and 29 years of age* ($2.53 / 1.60 = 1.56$).

The mother's birth cohort is also a very important factor in the probability of having a third child. *For women born before 1945 who had two children, the probability is 76% higher than for women born after 1965 (the reference group). The former took part in the increase in fertility at the time of the baby boom*, an increase that affected both the current fertility rate and completed fertility. *By contrast, the probability of a third child for women in the other two cohort groups (cohorts born between 1945 and 1954 and between 1955 and 1964) is not statistically different from the probability for women in the reference group (born after 1965). This finding implies that for women with two children, the probability of having a third child was essentially the same, whether they were born in the first half of the baby boom, in the second half, or during the baby bust that followed.* This analysis deals only with third-order fertility, but if a similar relationship were found for higher-order births, it might be viewed as a refutation of Easterlin's cyclical theory.

Marital status has a weaker effect on third-order fertility. The risk of having a third child is certainly far lower for women who are not married or living common-law (0.63) than for women who are. *However, compared with marriage, common-law union does not significantly reduce the risk of bearing a third child.*

Cultural Variables

Three cultural variables have a statistically significant effect on the risk of having a third child: region of residence, attendance at religious services and country of birth.

Region of residence has a significant effect. For women in Prince Edward Island, Manitoba, Saskatchewan and Alberta, provinces whose total fertility rates have long been slightly above the national average, the probability of having a third child is 17% higher than for residents of other Canadian provinces. This probability is only slightly lower than the one in the univariate model (1.20). Consequently, the explanation for the persisting fertility differences must lie outside the variables in the model.

Women with two children who attend religious services every week are about 50% more likely to have a third child than other women. This relationship appears fairly robust since the model neutralises the effects of several other important variables (birth cohort, fertility history and conjugal status) that are strongly correlated with religious-service attendance. In other words, the promotion of certain behaviours or attitudes expressed through religious-service attendance has an effect on fertility that goes beyond the indirect effects associated with those other variables.

The woman's country of birth also plays an important role in determining the probability of a third child. Studies based on vital statistics have shown¹³ that Canadian-born women have a higher fertility rate than women who immigrated many years ago, but a lower rate than more recent immigrants. This difference is probably due to a shift in immigrants' countries of origin. A majority of women who immigrated in the more distant past came from Europe, where fertility declined earlier than in Canada, while a majority of more recent immigrants are from developing countries, where fertility is generally higher than in Canada. However, such studies do not take into account other variables such as level of education, fertility history and religious-service attendance. The results in Table 12 show that even when the effects of those variables are neutralised, the part of the world in which the mother was born still has a significant effect on the probability of a third child. ***Women born in Europe and elsewhere in North America have a lower probability (0.80) than Canadian-born women of bearing a third child, while women born in other parts of the world have a higher probability (1.48).***

On the other hand, the number of siblings a woman has does not have a statistically significant effect on her probability of increasing her lifetime fertility beyond two. The univariate model, in which the other variables are ignored,

¹³ See, for example, the *Report on the Demographic Situation in Canada, 1994*.

indicates that women who have one sibling have a greater probability of bearing a third child, but this relationship is illusory since it becomes statistically insignificant when the effects of the other variables are neutralised.

Socioeconomic Variables

The two socioeconomic variables in the model have a statistically significant effect on the probability of a third birth. This finding is interesting in the sense that a pronatalist policy could target those variables in an effort to influence the fertility of Canadian women. ***Women who did not finish high school are 31% more likely to have a third child than women who graduated from high school. On the other hand, the risk ratio for women who pursued a higher education is not statistically different from the ratio for women who completed secondary school.***

Employment status has a substantial effect. Employed women have a much lower risk (0.65) of having a third child than women who are not in the labour force. This effect is a powerful one: the risk ratio is of the same order of magnitude as the ratio between women not living in an union and married women. In other words, the proportion by which an employed woman's probability of having a third child is lower than that of a woman not in the labour force is approximately equal to the proportion by which the probability of a woman not living in an union is lower than a married woman's.

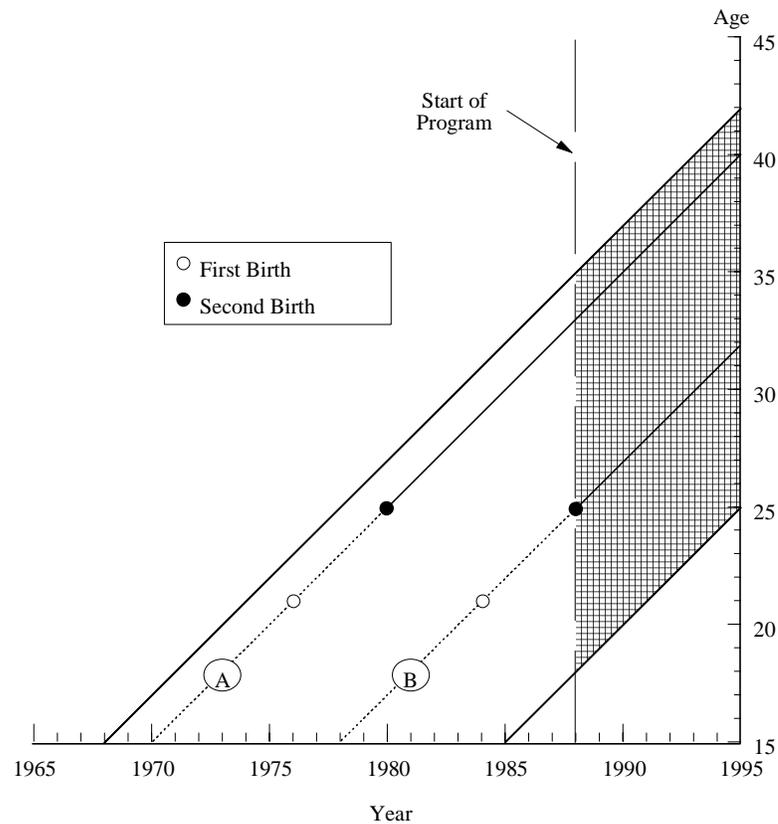
These findings provide statistical support for the theoretical arguments advanced by the proponents of neoclassical economics. For the latter, the decline in fertility stems from the increase in women's level of education and labour market participation, which has given them greater economic independence and thus reduced the benefits they might derive from motherhood. In particular, higher employment among women has led to an increase in both direct costs (day-care, education) and indirect costs (loss of income, setbacks or delays in career advancement), which mount with every birth. Lowering those costs might have a positive effect on fertility.

A Statistical Assessment of the Quebec Baby Bonus Program's Impact

Realising the importance of increasing third-order births, the Quebec government developed an incentive policy to address the problem. A baby bonus was considered the best way to increase total fertility and thus narrow the large gap between the total fertility rate and the replacement level. When fully implemented (after 1992), the program provided Quebec families with an allowance of \$500 for the birth of the first child, \$1,000 for the birth of a second child, and \$8,000 for each subsequent child.

To measure the impact of this third-order fertility incentive program, we limited the sample to women who were between 25 and 35 during the life of

Figure 16. Lexis Diagram Showing Female Cohorts in Which their Most Fertile Period Coincides with the Birth Benefit Program



the program because they were the only ones eligible (see hatched part of Lexis diagram). The average age of women at the birth of their third child was about 30, and those women, aged 25 to 42 at the time of the survey, were at their most fertile while the program was in effect. The subsample initially consisted of 1,007 but was reduced to 952 after the elimination of non-responses affecting one of the model's variables.

The multivariate model used to gauge the program's effects is a scaled-down version of the previous model. The various categories of the variable measuring the effect of the mother's birth cohort were not needed because the sample includes only a few younger cohorts. Number of siblings and place of birth were discarded as variables, the former because it had no significant effect, and the latter because the sample was small. On the other hand, two dichotomous variables were added. The first was assigned a value of one if

Table 13. Risk Ratios¹ for Models of Third Birth Fertility for Specific Sociodemographic Variables and Measuring the Effect of the Third Birth Benefit Program from the Quebec Government, Women Born Between 1953 and 1970 Who Had 2 Children, Canada, 1995

		Models	
Demographic Variables			
Age at First Birth	-Less Than 25	1.56	1.60
	-Between 25 and 29	1.00	1.01
	-30 or More	1.00	1.00
Interval Between the First Two Births	-Less Than 30 Months	1.00	1.00
	-Between 30 and 53 Months	0.72	0.72
	-More Than 53 Months	0.43	0.42
Conjugal Status	-Common-Law Union	1.04	1.04
	-Not in Union	0.55	0.55
	-Married	1.00	1.00
Socioeconomic Variables			
Employment Status	-Working	0.53	0.53
	-Unemployed	1.00	1.00
Education	-No Secondary Diploma	1.22	1.22
	-Secondary Diploma	1.00	1.00
	-Post-Secondary	0.97	0.97
Birth Allowances	-Yes	0.81	0.75
	-No	1.00	1.00
Period of 2nd Birth	-Before 1988	...	1.00
	-1988 and After	...	1.24
Cultural Variables			
Region	-High Fertility	0.98	0.98
	-Others	1.00	1.00
Religious Practice	-Weekly	1.46	1.46
	-Other	1.00	1.00

¹ The risk, relative to that of the reference group (1.00), of giving birth to a third child, holding constant the other independent variables in the model.

Note: Risk ratios that are significant at the 5% level are in boldface.

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

the woman lived in Quebec, but only after the baby bonus program was launched in 1988. Its purpose was to measure the effect that the program might have had on the probability of having a third child. The hypothesis that the program might have had a greater effect on women who had their second child during the program's life is also tested using a second dichotomous variable which takes the value of "one" for women, who have had their second child during the program's life.

The risk ratios for the model's variables are presented in Table 13. The effects that the program might have had on a woman's probability of having

a third child are discussed in the notes. Only the two new variables are of questionable worth. The risk ratios for the other variables are of roughly the same order of magnitude as the ratios shown in Table 12. On the other hand, the parameters estimated for some variables (age at first birth, marital status, level of education, region) are not statistically significant, either because the sample is smaller or because the relationship does not apply to this subsample. The risk ratios for the two new variables are not statistically significant.

On the basis of these results it cannot be concluded that the baby bonus program led to a significant increase in third-order fertility, even among the women who could theoretically have benefited from it most, i.e., women in their thirties who had their second child after the program came into effect. It may not be valid to conclude from these findings that the program was ineffective, since the sample was small and the period covered was short. It is also impossible to say what the third-order fertility of women in Quebec would have been if the program had not existed.

Conclusion

The risk ratios presented in this study and their statistical significance indicate that the following characteristics have the greatest effect on third-order fertility:

- *the interval between the first and second births*: the shorter it is, the greater the risk of having a third child;
- *the woman's age at the birth of her first child*: the younger she is, the greater the risk of having a third child;
- *the woman's employment status*: women who are not employed are 50% more likely to have a third child than employed women;
- *marital status*: women living with a male partner have a greater chance of having a third child, but there is no significant difference between married women and women living common-law;
- *attendance at religious services*: women who attend services every week are 50% more likely than others to have a third child.

Hence, information about women's fertility history is vital to the analysis of higher-order fertility. Women who had their first child young and quickly had a second child have the greatest chance of bearing a third child. It is also true, however, that even when the influence of previous fertility is taken into account, certain cultural and economic characteristics have a substantial effect on the risk of a third birth. Employed women in particular are much less likely to bear a third child than are women who are not in the labour market, even when their fertility history and other variables have been factored in.

The analysis failed to establish a clear statistical relationship between third-order fertility and the financial incentives offered by the Quebec government's baby bonus program. On the other hand, labour market participation by women has a strong negative effect on third-order fertility.

CONTRACEPTION IN CANADA, 1995

Canadian women have more control over their fertility than ever before. Access to effective contraceptive methods over the past 30 years, though not the cause of their reproductive behaviour, has certainly been a key factor in their gaining control of it. The 1995 General Social Survey has provided the data for a more up-to-date look at contraception and sterilization practices in Canada. By comparing those data with the results of previous surveys, we can measure changes in the use of the various contraceptive methods and of sterilization. And by cross-tabulating the data on contraceptive use with the respondents' socioeconomic characteristics, we can determine whether all groups exhibit the same use patterns.

For the demographer, two aspects of contraception are important:

1. the effect on the lifetime fertility of women or couples;
2. the effect on the timing of births, i.e. the mother's age at the birth of her first child, and the interval between successive births.

The increase in fertile common-law unions results in more out-of-wedlock births but does not affect non-conjugal fertility, which remains low. For these reasons, unless otherwise specified, the analysis that follows will focus on married or common-law couples whose female partner was under 50 years of age at the time of the survey. Age-specific distributions will be based on the age of the female partner.

Contraception and the 1995 General Social Survey

For the purposes of the questions on contraception, the universe of the 1995 General Social Survey consisted of the population at risk of reproducing, i.e. all respondents under the age of 50¹⁴ and married or common-law male respondents whose spouses were under 50. Of the 10,749 respondents, 5,457 had to be excluded because the questions did not concern them. Of the remaining 5,292 respondents, 2,243 replied affirmatively to the question "Are you currently using any form of contraception?"¹⁵ People who reported that

¹⁴ Pregnant women and respondents whose spouses were pregnant at the time of the interview were not asked to respond to this part of the questionnaire.

¹⁵ Married people and people living common-law were asked the question "Are you or your spouse/partner currently using any form of contraception?"

they had had operations resulting in sterility (or whose spouses had had such operations) were also excluded. A small percentage of respondents refused to answer (7.2%), and for a number the question was not relevant because they or their spouses were pregnant.

For the question “What method(s) of contraception are you or your spouse currently using”, respondents were given a choice of nine different methods. Several methods had so few users that they had to be grouped with related methods.

Natural methods have been around the longest: coitus interruptus (withdrawal), periodic abstinence and the rhythm method. It is worth noting that until 1969, the sale of contraceptives and the publication of information about contraceptive methods were prohibited in Canada under the Criminal Code.¹⁶ Because natural methods do not involve the use of any devices or products, they were, until fairly recently, the leading means of contraception in Canada. *According to a 1971 Quebec survey,¹⁷ an estimated 40% of married women under age 45 who were practising contraception were using periodic abstinence or withdrawal to limit the number of children they would bear.* The results of the 1995 survey suggest that *these methods are now a thing of the past: only 63 respondents reported using natural methods. All natural methods combined were practised by only 2.8% of respondents.*

The second category can be described as *barrier methods*: condoms, diaphragms and spermicides (sponge, foam and jelly). An overwhelming majority of those who practised the methods in this group (96%) used condoms.

Medical methods include the birth-control pill and the intra-uterine device (IUD). The “pill” was by far the more popular of the two, as 87% of couples in the group were using it. *The low rate of IUD use in Canada was comparable to the rate in the United States (less than 1%), but quite different from European rates (16% of French women using a contraceptive method opt for an IUD).*

Sterilization is a very different phenomenon. When voluntary and performed only to control fertility, it involves, at the very least, tying the woman’s fallopian tubes or cutting the man’s vas deferens (vasectomy). The General Social Survey distinguishes between people who had the operation for contraceptive purposes and those who were sterilized for medical reasons or knew they were sterile but had not undergone an operation. The following two tables show the distribution of sterile couples by reason; only respondents who reported having been operated on for contraceptive reasons are included in the other tables.

¹⁶ In this area, however, perhaps more than in others, changes in practices preceded changes in the law.

¹⁷ This is the second oldest Canadian survey on the use of contraceptives, the oldest being a 1968 survey of a smaller, more homogeneous population in the Toronto urban area.

Table 14. Distribution (in Thousands) of Respondents Living as a Couple in Which the Female Partner is Aged 15 to 49 and One or the Other is Sterile and the Reason for the Sterility, Canada, 1995

	Female Partner: Cause of Sterility				Sub-Total	Fertile	Total
	Operation for Contraceptive Reasons	Operation for Medical Reasons	Both Reasons	No Intention			
Male Partner: Cause of Sterility							
Operation for Contraceptive Reasons	55	130	**	34	241	1,515	1,756
Operation for Medical Reasons	**	**	**	**	25	33	58
Both Reasons	**	**	**	**	16	41	57
No Intention	**	**	**	**	34	72	106
Sub-total	66	168	24	60	318	1,659	1,977
Fertile	1,441	689	261	189	2,580	5,268	7,848
Total	1,507	857	285	249	2,898	6,927	9,825

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Separating the methods into various categories minimises the differences in effectiveness between methods and maximises the differences between categories. Needless to say, sterilization is by far the most effective method of contraception.

Sterility and Voluntary Sterilization in Canada, 1995

In a comparison with practices in other Western countries, most of them European, the high rate of sterilization in Canada stands out. Because the practice is so widespread, because the people having it done are so young, and because it is nearly irreversible, it cannot help but affect fertility. That is why sterilization is the first topic in this study.

A total of 4.5 million Canadian couples whose female partner was under age 50 in 1995 were sterile for either natural, medical or contraceptive reasons. They made up nearly half (46%) of all couples in that age range, i.e. in their reproductive years (Table 14). Overall, despite an appreciable increase in male sterilization since 1984, *the woman is the sterilized partner in a majority of sterile couples (58%)*. An estimated 2,650,000 Canadian women under age 50 who were living with a male partner had been surgically sterilized: 1.5 million (57%) solely for contraceptive purposes, 857,000 (32%) for medical reasons, and 285,000 (6%) for both reasons.¹⁸ In addition, a quarter of a million Canadian women were sterile for natural reasons.¹⁹ *Male sterility is*

¹⁸ Possibly women who decided to undergo surgical sterilization after considering whether to have a family or whether to add to their family.

¹⁹ This is probably a minimum figure since some people may be sterile, or in the case of male respondents, may be living with a sterile woman, without knowing it.

less common, primarily because surgical sterilization for medical reasons is rare among men in this age group. Only 58,000 men living with a female partner aged 15 to 49 had undergone an operation resulting in sterilization for medical reasons. As well, only 106,000 men living with a female partner knew they were naturally sterile. On the other hand, *male partners who had had a vasectomy (1,756,000) outnumbered female partners who had had their tubes tied (1,507,000)*, assuming that operations performed exclusively for contraceptive reasons were tubal ligations. *Almost all men (93%) who had undergone surgical sterilization did so for contraceptive reasons; the corresponding proportion of women was only 57%.* Finally, in 315,000 couples (3%), both partners were sterile.

Voluntary Sterilization by Age of Female Partner

Because voluntary sterilization is virtually irreversible, its use for contraception is inversely related to age (Table 15). *The youngest age group with a significant sterilization percentage (10%) was the group in which the female partner was between 25 and 29.* This was also the group in which fertility was at its peak, though it still was not very high. Because sterilization is cumulative, the percentage rises from age group to age group, and in the age group at the end of the reproductive cycle (45-49), in nearly half of the couples in which the female partner was approaching menopause, one of the two partners had been sterilized. The table shows that the proportion of voluntarily sterilized couples increased rapidly from age 30 on, and *that in more than one quarter (26%) of all couples in which the female partner was aged 30 to 34, one partner had been surgically sterilized for contraceptive purposes. In the 35-39 group, the proportion was nearly one half.* A generation effect has also an impact. The fact that the percentage of men who had had a vasectomy increased from one age group to the next simply reflects the cumulative effect, since vasectomy is considered irreversible. However, starting with the 40-44 age group, the male partner being a few years older—the proportions were lower. *Older men knew less about vasectomy or were more reluctant to have it done.*

Table 15 also shows which partner underwent contraceptive sterilization, by age group of the female partner. *The younger the female partner was, the higher the proportion of male sterilization was: two thirds (66%) of couples in which the woman was between 25 and 29, compared with less than half (45%) of couples in which the female partner was between 45 and 49.* More than a single observation is needed to be sure that this is truly a generation effect, but younger men appear to be more inclined than older men to take the responsibility of sterilization.

The large number of couples in which both partners were sterile stemmed from the combined effect of three factors whose frequency was relatively high: early male sterilization for contraceptive purposes, medical or natural

Table 15. Number (in Thousands) of Couples Where One of the Partners Had an Operation Solely for Contraceptive Purposes, by Sex of the Person Who Had the Operation and the Female Partner's Age Group, Canada, 1995

Age Group	Males		Females		Total		Total Number of Couples	Percentage of Couples in Which One of the Partners Had an Operation for Contraceptive Reasons	Percentage Who Had a Vasectomy
	Number	%	Number	%	Number	%			
15-19	**	**	**	**	**	**	**	**	**
20-24	**	**	**	**	**	**	**	**	**
25-29	90	65.6	47	34.4	138	100.0	1,432	9.6	6.3
30-34	361	62.9	213	37.1	575	100.0	2,193	26.2	16.5
35-39	494	56.1	386	43.9	880	100.0	1,960	44.9	25.2
40-44	411	51.6	386	48.4	797	100.0	1,739	45.8	23.6
45-49	385	45.2	466	54.8	851	100.0	1,735	49.0	22.2
Total	1,756	53.8	1,507	46.2	3,263	100.0	9,825	33.2	17.9

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

sterility in the woman, and formation of a new union following dissolution of an earlier one in which one partner had undergone sterilization. A quarter of couples in which the woman was between 30 and 34 were sterile, usually because the male partner had had a vasectomy. About 9% of women who were living with a male partner had undergone a sterilising operation for medical reasons. Thus, it is no surprise to find that some 7% of women sterilized for medical reasons were living with a male partner who had been sterilized for contraceptive reasons.

Voluntary Sterilization by Number of Children Borne or Fathered²⁰

Today, large families make up only a tiny proportion of all families, and two-child families are becoming the norm. In the 1991 Census, for example, roughly 40% of ever-married women aged 45 to 49 reported having borne two children, whereas only 6% had had five children or more. Ten years earlier, 23% of women in the same age group reported having had two children, and 22% five or more.

In Canada, family size is becoming uniform, and voluntary contraceptive sterilization appears to be the means favoured by Canadian couples who want to ensure that their attained fertility does not exceed their intended fertility. This conclusion is based on Table 16. Sterilization becomes much more common following the birth of the second child. The proportion of couples in which one partner has undergone contraceptive sterilization increases from 14% for couples with one child to 47% for couples with two children, but it is only four percentage points higher for couples with three or more children.

²⁰ The number of children borne or fathered as reported by the respondent. The sterilized partner may have produced a different number of children.

Table 16. Number (in Thousands) of Couples of Which One of the Partners Had an Operation Solely for Contraceptive Purposes, by Sex of the Partner Who Had the Operation and the Number of Children Born, Canada, 1995

Number of Children Born in the History of the Respondant	Males	Females	Total	Number of Couples on Survey Day	Percentage of Sterile Couples
0	99.2	80.3	179.5	2,118.7	8.5
1	147.7	124.0	271.7	1,925.0	14.1
2	922.7	756.0	1,678.7	3,574.8	47.0
3+	586.5	546.5	1,133.0	2,205.1	51.4
Total	1,756.1	1,506.9	3,262.9	9,823.6	33.2

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Changes in contraceptive use in Canada

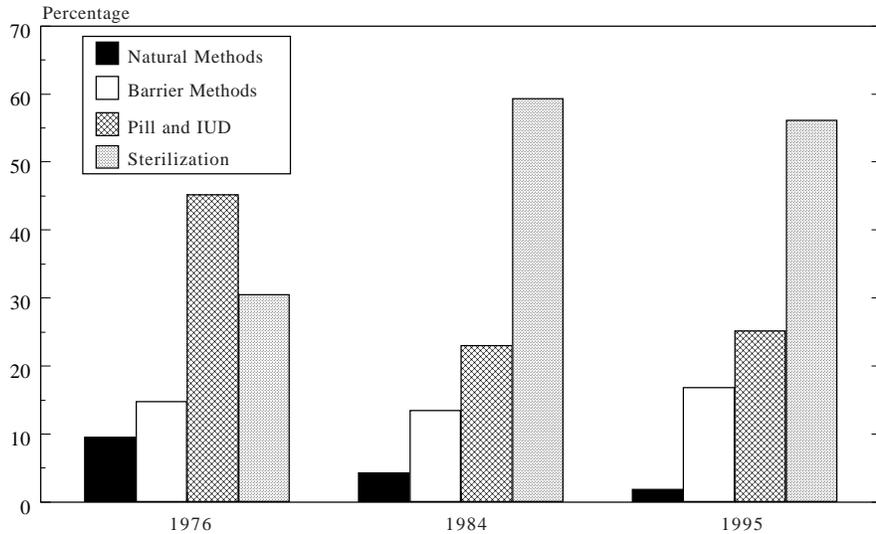
Comparing the results of different surveys is always difficult because the goals of the surveys usually are or were different; asking people about very private subjects, such as sterilization and contraception, compounds the difficulties. The wording of questions, the order in which they are asked, and more generally the structure of the questionnaire affect the respondent's state of mind.

The 1995 General Social Survey was the first national survey to address the issue of contraceptive use since the 1984 Family History Survey. Before that, the only surveys on the subject were regional (Toronto and Edmonton in 1968 and 1973 respectively) or provincial (the 1971 Quebec survey and its 1976 update). However, apart from some data provided from the 1976 study by the Committee on Abortion (Guilbert-Lantoine, 1990)²¹, there was very little national information about the contraceptive practices of Canadian women. Unlike the 1984 survey, the General Social Survey was not intended primarily to gather data about the fertility of Canadian women, and it provided much less information than the earlier survey about contraceptive use. The questions in the 1984 survey provided a history of the respondents' contraceptive practices (for example, they were asked what methods they used before the birth of their first child), whereas the 1995 survey included only a few questions about the contraceptive methods respondents were *currently* using. Of the three surveys, the 1984 study probably supplied the most information about contraceptive practices. It is difficult to draw comparisons between different times, especially regarding the proportion of women who used contraceptives.

According to the 1995 survey, 31% of all respondents aged 18 to 49 were not using any form of contraception. Catherine Guilbert-Lantoine (1990)

²¹ Guilbert-Lantoine, C. (1990). Révolutions contraceptives au Canada. *Population*, Vol. 45: 361-398.

Figure 17. Distribution (in Percent) of Married Women Who Use Contraception, by Method, Canada, 1976 to 1995



Source: Table 17.

estimates that the corresponding proportion for the 1984 survey was 25%. It is difficult to account for this apparent decline in contraceptive use. One possible explanation is that since in the 1984 survey the questions about past practices preceded the ones about current practices, respondents were more inclined to give accurate answers.

Changes in Contraceptive Practices

Figure 17 shows, for three different surveys approximately 10 years apart, the distribution of married women practising contraception by category of method used. *There were more changes in contraceptive preferences during the first period (1976-1984) than during the second interval (1984-1995). The latter appears to have been a period of consolidation of the practices begun 10 years earlier.* Examination of Figure 17 leads to a number of observations.

First, *natural methods have been almost completely abandoned. In 1976, one out of 10 married women reported using periodic abstinence or withdrawal as birth control. In 1984, only one woman in 23 was using these methods, and by 1995 the proportion was down to one in 52.*

Table 17. Distribution (in Percent) of Married Women Who Use Contraception by Method, Various Surveys, Canada, 1976, 1984 and 1995

Contraceptive Method	1976 (Aged 15 and Over)	1984 (Aged 18 to 49)	1995 (Aged 18 to 49) ¹
Natural Methods	9.5	4.3	1.9
Periodic Abstinence	6.1	3.0	0.8
Withdrawal	3.4	1.3	1.0
Barrier Methods	14.8	13.5	16.8
Condom	6.0	10.8	15.7
Diaphragm	2.2	1.4	0.6
Douche, Jelly	2.5	0.7	0.2
Others	4.1	0.6	0.3
Pill and IUD	45.2	23.0	25.2
Pill	39.2	15.0	20.8
Intra-Uterin Devices	6.0	8.0	4.4
Sterilization	30.5	59.3	56.1
Females	30.5	41.7	30.0
Males	..	17.6	26.1

¹ The 1995 sample includes women in common-law unions or married.

Sources: For 1976 and 1984: C. Guilbert-Lantoiné (1990). Révolutions contraceptives au Canada. *Population*, Vol. 45 (2), pages 361-398. For 1995: Statistics Canada, 1995 General Social Survey and calculations by the author.

The key observation, however, is *the increase in male sterilization between 1984 and 1995, and the corresponding decline in female sterilization*. The proportion of couples in which one partner had undergone contraceptive sterilization remained almost unchanged during the period (59% and 56%), but the distribution by the sex of the sterilized partner changed markedly. *The male partner was sterilized in less than a third (30%) of sterilized couples in 1984, compared with nearly one half (47%) in 1995.*

Furthermore, *the birth-control pill appears to have become more popular at the expense of the IUD*. According to the figures in Table 17, the proportion of married respondents using the pill rose from 15% of all married women using contraceptives in 1984 to 21% in 1995, a 6 point increase. Over the same period, the proportion using the IUD declined from 8% to 4%.

Condom use increased as well. The surveys indicate that the proportion of contraceptive-using couples who reported using condoms rose from 6% in 1976 to 11% in 1984 and 16% in 1995, while the use of other barrier methods (diaphragm and spermicide) dropped steadily over the 20-year period to almost negligible levels in 1995. The rising popularity of the condom may be related to its prophylactic advantages over other methods. There are more

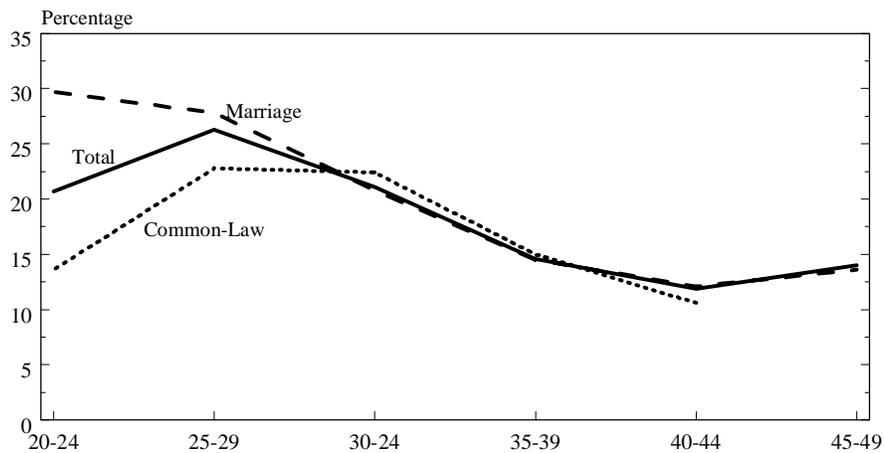
and more information campaigns warning people about sexually transmitted diseases and urging them to use condoms. In 1984, few people knew what HIV was, how devastating it could be and, more importantly, how it was transmitted. Assuming that most married people do not have sexual relations with other partners, they have very little chance of being infected by HIV and therefore would have no need to use condoms for prophylactic reasons. If that is the case, the increase in condom use may instead reflect a greater willingness among men to take responsibility for birth control. This hypothesis is supported by the sharp increase in the number of vasectomies. It is also a fact that condoms are much more openly displayed in pharmacies than they used to be.

Contraceptive Methods and Sociodemographic Characteristics, 1995

Marital status

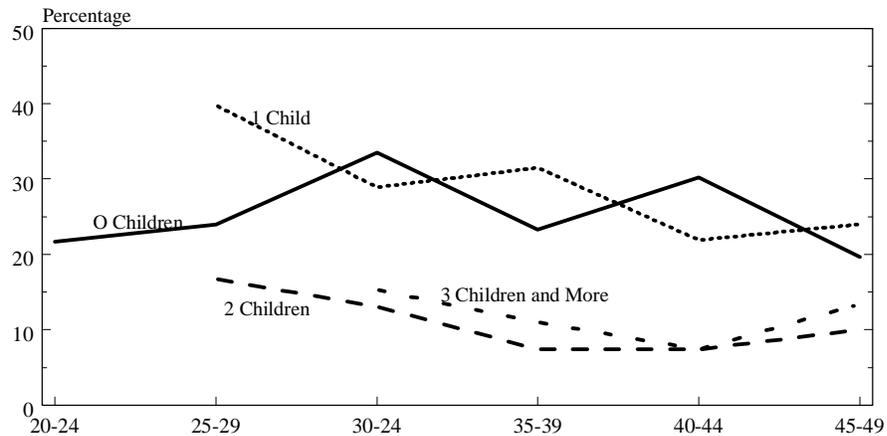
With the exception of couples in which the woman is between 20 and 24, there is no significant difference in the proportions of married and common-law couples who do not practise contraception (Figure 18). This shows that a common-law relationship is increasingly considered equivalent to marriage, as the latter is no longer viewed as a prerequisite for reproduction. Out-of-wedlock births make up about a third of total births in Canada; in Quebec, where common-law union is more popular, they account for approximately half of all births.

Figure 18. Proportion of Couples Not Using Any Contraceptive Method, by Age Group and Conjugal Status of Female Partner, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Figure 19. Distribution of Couples (in Percent) Not Using Any Contraceptive Method, by the Number of Children Born to the Respondent and the Age of the Female Partner, Canada, 1995

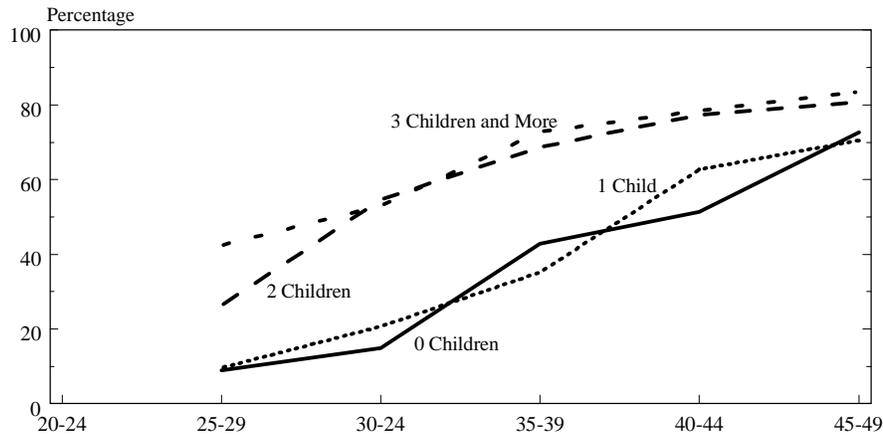


Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

The birth-control practices of married and common-law couples differ only in the youngest age group. The proportion of married couples who do not use contraceptives is double the proportion of common-law couples (30% compared with 14%). A majority (55%) of couples in which the woman is between 20 and 24 live common-law, whereas in the older age groups, common-law union is less frequent than marriage. According to an analysis of common-law relationships presented in the 1996 report, there was an inverse correlation between the proportion of unstable unions (unions that dissolve in less than three years) and the respondent's age at the time the union was formed. It was estimated that one in five common-law relationships formed when the respondent was between 20 and 24 broke up within three years. This suggests that for the members of the youngest age group, the reasons for entering into a common-law union may be different from the reasons for getting married. Common-law relationships may be less stable and those who form them less interested in starting a family, which would explain why they are more likely to use birth control.

Married couples in which the female partner is between 25 and 29 on average do not use the same contraceptive methods as common-law couples do. Women living common-law are more likely to be on the pill, whereas sterilization is more common among married couples.

Figure 20. Proportion of Sterile Couples by Number of Children of the Respondent and Age of the Female Partner, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

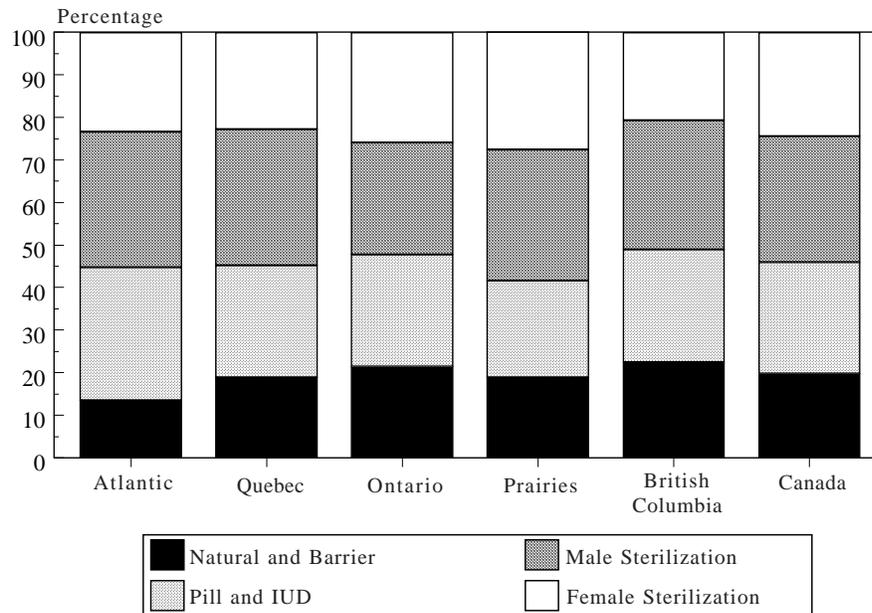
Attained Fertility

Attained fertility has less effect on contraception than one might expect. The proportion of couples using birth control does not vary linearly with the number of children they have. The dividing line comes after the second birth, as in the case of sterilization. For example, in Figure 19, which shows the distribution of couples by age group and number of children, the lines for childless couples and one-child couples overlap. Similarly, the line for couples with two children follows the same path as the line for couples with three or more children. In contrast, the proportion of couples who have two or more children and are not using any form of contraception is significantly lower in all age groups than the proportion who have no children or one child and are not practising birth control. Likewise, in Figure 20, which shows the distribution of sterilized couples by attained fertility and age of the female partner, there are no clear differences between childless and one-child couples, or between two-child couples and couples with three or more children, but there are major differences between couples with two or more children and childless or one-child couples.

Region

Figure 21 presents the percentage distribution of couples using contraception by birth-control method used and region of residence. To circumvent the small-numbers problem, the provinces are grouped into five regions: Atlantic,

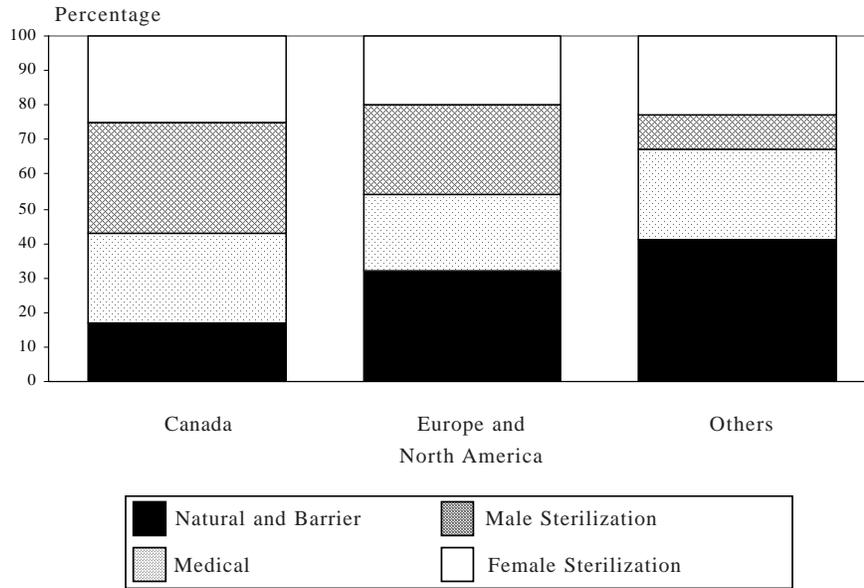
Figure 21. Distribution (in Percent) of Couples Using Contraceptives, by Method Used, Canada and Regions, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Quebec, Ontario, Prairies and British Columbia. The three most populous and most urbanised provinces—Quebec (55%), Ontario (52%) and British Columbia (51%)—have higher proportions of couples who do practise sterilization than the two less urbanised regions do. This observation is probably related to the higher proportion of recent immigrants in the three large provinces. A total of 57% of couples using a contraceptive method, in which the respondent was born in Canada, have one of the two partners sterilized for contraceptive reasons. The corresponding figures are 46% when the respondent was born in Europe or North America and 34% when the respondent was born in another country (Figure 22). Similarly, the proportion of sterilized couples in which the male partner has had a vasectomy is much lower in the case of foreign-born respondents, born outside Europe (6%) and United States (34%), than in the case of Canadian-born respondents (56%). This finding may partially account for the fact that male sterilization is less common in Ontario (26%), which has the highest percentage of immigrants, than in other regions (30% to 32%).

Figure 22. Distribution (in Percent) of Couples Using Contraception, by Method Used and Place of Birth, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Religious Denomination and Attendance at Religious Services

Unlike the Protestant churches, the Catholic Church has long wielded considerable influence over its followers, and its doctrine of encouraging large families has had an effect on Canadian fertility. Today, however, ***the differences in fertility between Catholics and Protestants are negligible. It is also true for their contraceptive practices.*** As shown in Table 18, the followers of other religions and people who claim no religious affiliation are distinct from the two major groups. Almost equal proportions (two percentage-point difference, at most) of Catholic and Protestant respondents reported using a barrier or medical method of birth control. The percentages in the table have not been standardised because the sample was too small to provide reliable age-specific estimates for groups other than Catholics and Protestants. A study of the latter two groups is interesting, though an analysis by age group confirms that there are no major differences in contraceptive practices between Catholics and Protestants.

Table 18. Distribution (in Percent) of Couples Using Contraception, by Method and Religious Denomination, Canada, 1995

Religion	Natural and Barrier	Pill and IUD	Sterilization		Total
			Males	Females	
No Religion	21.0	31.6	23.1	24.3	100.0
Catholic	17.2	25.4	32.4	25.0	100.0
Protestant	19.6	24.2	32.3	23.9	100.0
Other	32.6	30.5	13.2	23.7	100.0
Total	19.4	26.4	29.8	24.5	100.0

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

While there are only slight differences between Catholics and Protestants, there are major ones between those two groups on one hand and adherents of other religions (Judaism, Islam, Hinduism, Buddhism, etc.) and people who claim to be agnostic on the other. The proportion of couples who do not practise birth control is more than twice as high among those who belong to other religions (37%) than among couples in which the respondent reported no religious affiliation (15%). Catholic and Protestant respondents are about midway between these two extremes. Sterilization is also much less frequent among couples who practise other religions than among the members of the two majority denominations or couples with no religious ties; roughly a third of minority-religion couples are sterilized, for contraceptive purposes, compared with more than one half of Catholic or Protestant couples.

Frequency of attendance at religious services has no greater effect on birth-control use than does religious denomination (Table 19). The proportion of contraceptive use is marginally higher among couples in which the respondent reports never attending religious services (81%) than among couples in the other two groups (75% and 76%). The use of the pill would appear to make the difference: 29% of nonpractising couples using contraception use the birth-

Table 19. Distribution (in Percent) of Couples Using Contraception, by Method Used and Church Attendance, Canada, 1995

Church Attendance	Natural and Barrier	Pill and IUD	Sterilization		Total
			Males	Females	
Weekly	21.0	18.1	34.7	26.3	100.0
Occasionally	17.9	27.3	30.7	24.2	100.0
Never	20.1	28.9	27.0	24.0	100.0
Total	19.4	26.3	29.8	24.5	100.0

Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

control pill or IUD, compared with 18% of couples who attend services occasionally and only 12% of couples who attend weekly. These differences are statistically significant, but finding differences in a cross-tabulation does not prove a causal relationship between the variables involved. Some dissimilarities in contraceptive practices persist between religious groups, but they appear to be more a reflection of cultural and ethnic differences regarding fertility, equality of the sexes and voluntary sterilization. The main differences are between minority-religion couples; in Canada, the adherents of those religions are in many cases recent immigrants who have yet to adopt the contraceptive practices of their new society. In this area, as in others, time will wear away the differences.

Conclusion

In Canada more than in any other Western country, the birth-control revolution coincided with the drop in fertility that followed the baby boom. Even between the two world wars, fertility was already below the replacement level in many European countries. Although the fertility of Canadian women decreased during the first half of this century, it did not begin falling sharply until the early 1960s. The drop was even more remarkable because it followed the baby boom. And while it coincided with the advent of effective, accessible birth control, there is no proof of a cause-and-effect relationship. The availability of effective, modern medical contraceptives undoubtedly gave couples greater control of their fertility and enhanced their ability to determine how many children they would have. Yet the decline in people's desire to have a lot of children, or even one child, cannot be attributed to the contraceptive revolution. The most plausible reasons for the downward trend in both family size and intended fertility are the social and economic changes of the recent past.

MORTALITY

In 1996, the number of deaths in Canada came to 212,881 (Table A6). This represents an increase of 2,148 deaths (1.0%) compared with the previous year. It is only natural to expect a growing and ageing population to show an increase in the number of deaths. Actually, the observed increase for 1996 is less than expected, if only because of the changes in the structure of the population (growth and ageing). The difference can be estimated by calculating the expected number of deaths using the mortality rates for the previous year with the current population and comparing the resulting numbers to the observed numbers. Had it not been for the decrease in mortality in 1996, the number of deaths would have come to 213,600 for the year, that is, an increase of 1.4% compared with the previous year. Thus, *mortality actually declined*.

Table 20. Evolution of Life Expectancy at Birth, Canada, 1971-1996

Year	Males		Females		Difference Between Male and Female Life Expectancy	
	Life Expectancy at Birth	Gain	Life Expectancy at Birth	Gain	In Years	Variation
1971	69.62	...	76.60	...	6.98	...
1976	70.50	0.88	77.81	1.21	7.31	0.33
1981	72.05	1.56	79.17	1.37	7.12	-0.19
1986	73.32	1.26	80.02	0.84	6.70	-0.42
1991	74.61	1.29	80.95	0.94	6.34	-0.36
1996 (P)	75.69	1.08	81.45	0.50	5.76	-0.58
Gain from 1976 to 1996	...	5.19	...	3.65	...	-1.54

Source: Statistics Canada, Demography Division, Research and Analysis Section and calculations by the author.

The 1996 Life Table

The best summary measure of mortality is life expectancy at birth derived from the calculation of the life table. By virtue of its construction, this table eliminates the effects of the age structure of the population.

The preliminary table for 1996 shows significant gains in life expectancy compared with the previous year, particularly for men (Table A7). This table suggests that the life expectancy of men and women has increased by 0.3 years and 0.2 years respectively, thereby raising their life expectancy to 75.69 and 81.45 years. This would represent a remarkable increase: greater than the average increase for the previous five years and even slightly higher than the average increase for last 20 years, which are among those with the most significant gains since the last World War. Although the increase in life expectancy shows no signs of falling off, annual gains, particularly among women, are smaller than those recorded during the 1976-1981 period, which reflected some of the best gains ever (Table 20).

In the 20 years that have passed since 1976, life expectancy at birth increased by 5.19 years and 3.65 years for men and women, respectively. Canada currently enjoys an enviable record in terms of world ranking. Except for the Japanese, whose indicator is the highest for both men and women, Canadian men are outranked only by the Swedes and Icelanders, whereas Canadian women are outranked by Swedish, French, Swiss and Spanish women (Table 3). Compared with the situation in the United States, the life expectancy of Canadian men and women is higher, by 3.0 and 2.1 years, respectively.

It is important to emphasize *the slowdown in the gains achieved by women.* This contrasts with the continued gains achieved by men. During the 1976-1981 period, a trend reversal occurred. For more than half a century before

Table 21. Life Expectancy at Birth by Sex, Canada and Provinces, 1991 and 1996

Province	Males			Females			Difference Between Male and Female Life Expectancy		
	1991	1996	Gain	1991	1996	Gain	Year		Variation
							1991	1996	
Nfld	73.7	74.9	1.12	79.5	80.6	1.06	5.8	5.7	-0.07
P.E.I.	73.2	...	...	...	...	...	...	...	...
N.S.	73.7	75.0	1.22	80.3	80.8	0.48	6.6	5.8	-0.74
N.B.	74.2	74.9	0.70	80.9	81.4	0.50	6.6	6.4	-0.20
Que.	73.8	75.1	1.32	80.9	81.5	0.59	7.1	6.4	-0.73
Ont.	75.0	76.1	1.13	80.9	81.4	0.51	5.9	5.3	-0.62
Man.	74.6	75.3	0.67	80.7	80.7	-0.01	6.1	5.5	-0.68
Sask.	75.3	75.3	0.07	81.5	81.5	-0.05	6.3	6.2	-0.12
Alta	75.1	76.1	0.99	81.2	81.5	0.32	6.1	5.4	-0.67
B.C.	75.2	76.3	1.03	81.4	82.0	0.62	6.1	5.7	-0.41
Canada	74.6	75.7	1.08	81.0	81.5	0.50	6.3	5.8	-0.58

Source: Statistics Canada, Demography Division, Research and Analysis Section and calculations by the author.

that, the increase in the life expectancy had been greater for women than men. Since then, the situation has reversed, and the rate is accelerating. ***During the last five year period, the life expectancy of men increased by just over one year, whereas that of women rose by only half a year.*** The spread in favour of women, however, remains a significant one. While the difference between the life expectancy for the two sexes stands at 5.8 years, the gap has narrowed by more than 1.5 years over the past 20 years.

Narrowing of the Gaps Between Provinces and Between Men and Women

In a continuation of a long-standing trend, ***the differences between provincial mortality figures continued to shrink appreciably. A significant increase in life expectancy can be seen in Quebec and the Atlantic provinces, where mortality has always been higher than in the other provinces of the country*** (Table 21). During the last five years, the provinces that showed the lowest life expectancies in 1991 achieved the greatest gains. The male Quebeckers gained 1.32 years and the female Newfoundlanders 1.06. Four provinces show gains that are higher than the national average. In decreasing order, these are, for men: Quebec (1.32 years), Nova Scotia (1.22 years), Ontario (1.13 years) and Newfoundland (1.12 years); for women: Newfoundland (1.06 years), British Columbia (0.62 years), Quebec (0.59 years) and Ontario (0.51 years). ***For the same period, no significant gain was recorded in Saskatchewan, which showed the highest life expectancy for both men and women in 1991. According to the preliminary table for 1996, British Columbia is now at the top of the provincial ranking, with 76.3 years for men and 82.0 years***

Table 22. Evolution of Mortality from Diseases of the Circulatory System and from Tumours, by Sex, Canada, 1976-1996¹

Year	Diseases of the Circulatory System ²	Ischemic Heart Diseases ³	Cerebro-vascular Diseases ⁴	Tumors and Cancers ⁵	Malignant Tumors of the Respiratory System ⁶
Males					
1976	389.54	264.38	62.45	167.30	52.54
1977	380.50	259.14	59.58	169.49	54.26
1978	365.39	246.69	57.19	171.24	55.50
1979	352.08	232.20	55.11	173.05	56.75
1980	344.88	227.53	52.28	174.61	58.78
1981	331.40	220.25	50.32	172.48	57.63
1982	323.92	214.16	47.06	175.76	60.75
1983	311.55	205.29	44.32	175.01	61.27
1984	297.40	195.85	43.00	178.49	62.63
1985	289.99	190.84	40.75	178.76	60.90
1986	282.32	183.48	39.39	179.29	61.47
1987	267.76	174.37	38.57	178.26	61.25
1988	260.77	169.29	36.80	182.16	63.23
1989	250.09	159.79	37.19	179.28	62.69
1990	231.04	146.39	35.67	177.32	61.86
1991	225.64	142.06	34.18	177.45	61.04
1992	219.64	137.65	33.25	174.86	59.49
1993	219.68	136.89	34.51	172.69	59.12
1994	209.84	129.82	33.17	171.03	57.20
1995	203.86	129.27	32.71	168.16	54.82
1996	197.32	125.68	31.24	165.26	54.08
Females					
1976	303.54	171.16	73.12	131.41	11.84
1977	293.31	166.12	68.69	132.55	13.36
1978	283.71	161.88	67.25	132.72	14.18
1979	271.21	149.09	63.64	135.30	15.48
1980	269.77	148.06	60.69	133.71	16.17
1981	256.43	140.88	58.55	134.21	17.07
1982	252.48	138.78	56.01	134.28	18.45
1983	240.21	131.08	52.87	134.26	18.72
1984	232.06	128.66	49.81	136.37	20.83
1985	225.44	122.61	48.74	139.10	22.41
1986	222.70	121.16	48.34	139.06	22.48
1987	210.86	114.71	45.07	138.82	23.82
1988	206.88	111.07	45.30	139.84	25.17
1989	198.12	105.39	43.94	137.90	25.09
1990	187.16	100.34	40.72	138.13	25.61
1991	184.13	97.69	40.42	138.70	27.44
1992	177.56	92.22	40.14	137.98	27.19
1993	178.23	91.80	41.23	139.14	29.01
1994	173.84	88.87	39.41	139.31	29.08
1995	169.38	92.56	38.39	135.79	28.56
1996	164.83	89.49	37.53	138.12	30.36

¹ Rate per 100,000, standardized on the structure by age and sex of the 1976 population.

² Causes 390-459, 9th Revision of the I.C.D.

³ Causes 410-414, 9th Revision of the I.C.D.

⁴ Causes 430-438, 9th Revision of the I.C.D.

⁵ Causes 140-239, 9th Revision of the I.C.D.

⁶ Causes 160-165, 9th Revision of the I.C.D.

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, Demography Division, Population Estimates Section and calculations by the author.

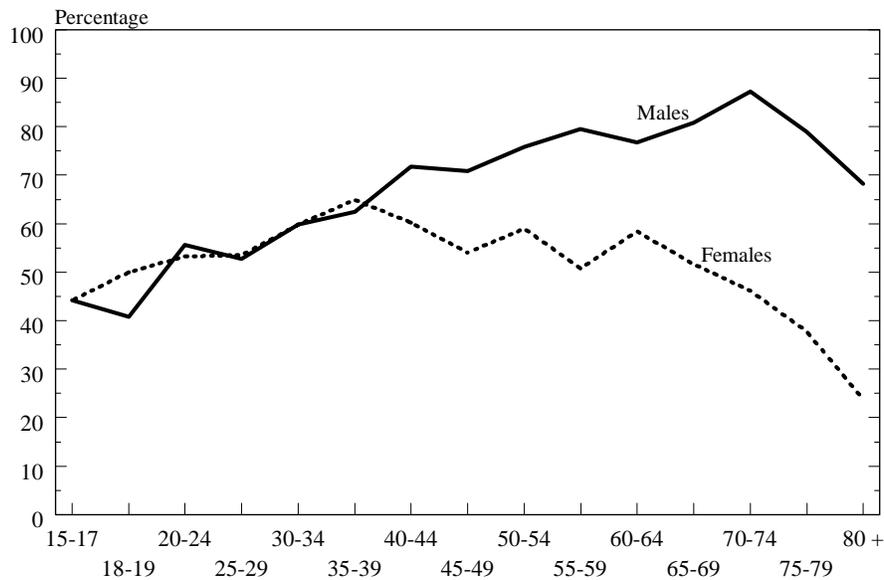
for women. The difference between the life expectancy of each sex also shrank in all provinces, particularly in Quebec and Nova Scotia, where the life expectancy of men has increased considerably.

Major Causes of Death

From one year to the next, fluctuations in the number of deaths can be observed, particularly deaths by viral infections, the virulence of which is beyond the control of public health prevention measures. The decline in mortality in 1996, however, is not due to a particularly lenient year in this regard. The number of deaths from respiratory system diseases, including victims of the flu, pneumonia and bronchitis, increased by 1.3%. On the other hand, male mortality fell for all major causes of death, as did the mortality of females brought on by circulatory system diseases, as shown in Table 22.

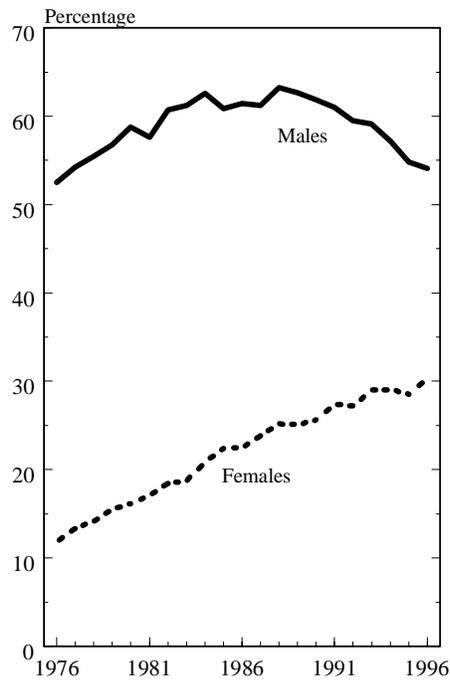
The increase in the mortality rate for tumours and cancers, particularly of the respiratory system among women, is a cause for concern in the overall mortality picture. Since 1993, lung cancer has been the leading cause of death among women. *Between 1976 and 1996, the comparative death rate due to respiratory system cancer among women has steadily increased, from 11.8*

Figure 23. Proportion of People Who Ever Smoked Cigarettes by Age Group and Sex, Canada, 1995



Source: Statistics Canada, 1995 General Social Survey and calculations by the author.

Figure 24. Change in Mortality from Malignant Tumours of the Respiratory System, Canada, 1976-1996



Source: Table 22.

per 100,000 to 30.4 per 100,000. This represents a spectacular jump of 156%. For the same period, the rates of mortality among men increased up to 1988, but decreased thereafter, thereby remaining near 1976 levels.

As far as can be determined, the increase in the rate of female mortality from respiratory system cancer is due to an increase in smoking by women of the younger generations (Figure 23). According to data collected for the 1995 General Social Survey, the proportion of women who once smoked cigarettes is identical to that of men under 40 years, whereas for older generations of women, the proportion of those who once smoked decreases with age. If women continue to smoke as much as men, one can expect, all things being equal, that the death rates from respiratory system cancer for each sex will continue to converge (Figure 24).

Decrease in the Number of AIDS-related Deaths

Monitoring of the annual number of deaths caused by HIV since 1987 shows that these fell for the first time in 1996, and by a significant margin at that. In 1996, HIV infection caused the death of 1,306 Canadians. This represents a drop of 458 deaths (26%) with respect to the previous year (Table 23). In the United States, the most recent figures available indicate that HIV related deaths fell for the first time in 1996. Moreover, the World Health Organisation predicts an even greater drop in 1997. The decrease in the number of HIV-related deaths was evidently greater among men, who are affected in greater numbers, than among women. In the United States, the drop was greatest among homosexual men, the group which contributed the most to developing an understanding of how this disease is transmitted through unprotected sexual relations and to diffusing information on this subject.

This dramatic drop in the number of HIV-related deaths undoubtedly results from the progress in the areas of prevention and treatment. Enhanced

Table 23. Deaths Due to HIV (Causes 042-044 in the ICD) by Broad Age Group and Sex, Canada, 1987-1996

Year	Sex	Age Group					Total	Variation from the previous year (%)
		0-14	15-29	30-44	45-59	60 +		
1987	M	1	85	293	87	22	488	...
	F	5	7	12	8	5	37	...
1988	M	2	96	361	126	29	614	25.8
	F	3	10	28	7	9	57	54.1
1989	M	3	124	485	164	21	797	29.8
	F	2	10	20	10	12	54	-5.3
1990	M	3	108	576	215	35	937	17.6
	F	1	14	19	7	4	45	-16.7
1991	M	3	129	698	233	42	1 105	17.9
	F	4	15	25	14	7	65	44.4
1992	M	4	161	783	305	35	1 288	16.6
	F	4	10	38	11	6	69	6.2
1993	M	7	159	924	330	54	1,474	14.4
	F	2	19	49	13	7	90	30.4
1994	M	4	127	954	350	54	1,489	1.0
	F	14	16	77	26	6	139	54.4
1995	M	9	129	1,041	409	49	1,637	9.9
	F	5	24	68	20	10	127	-8.6
1996	M	6	79	754	315	44	1,198	-26.8
	F	2	24	63	14	5	108	-15.0

Source: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Causes of Death*, catalogue no. 84-208 and calculations by the author.

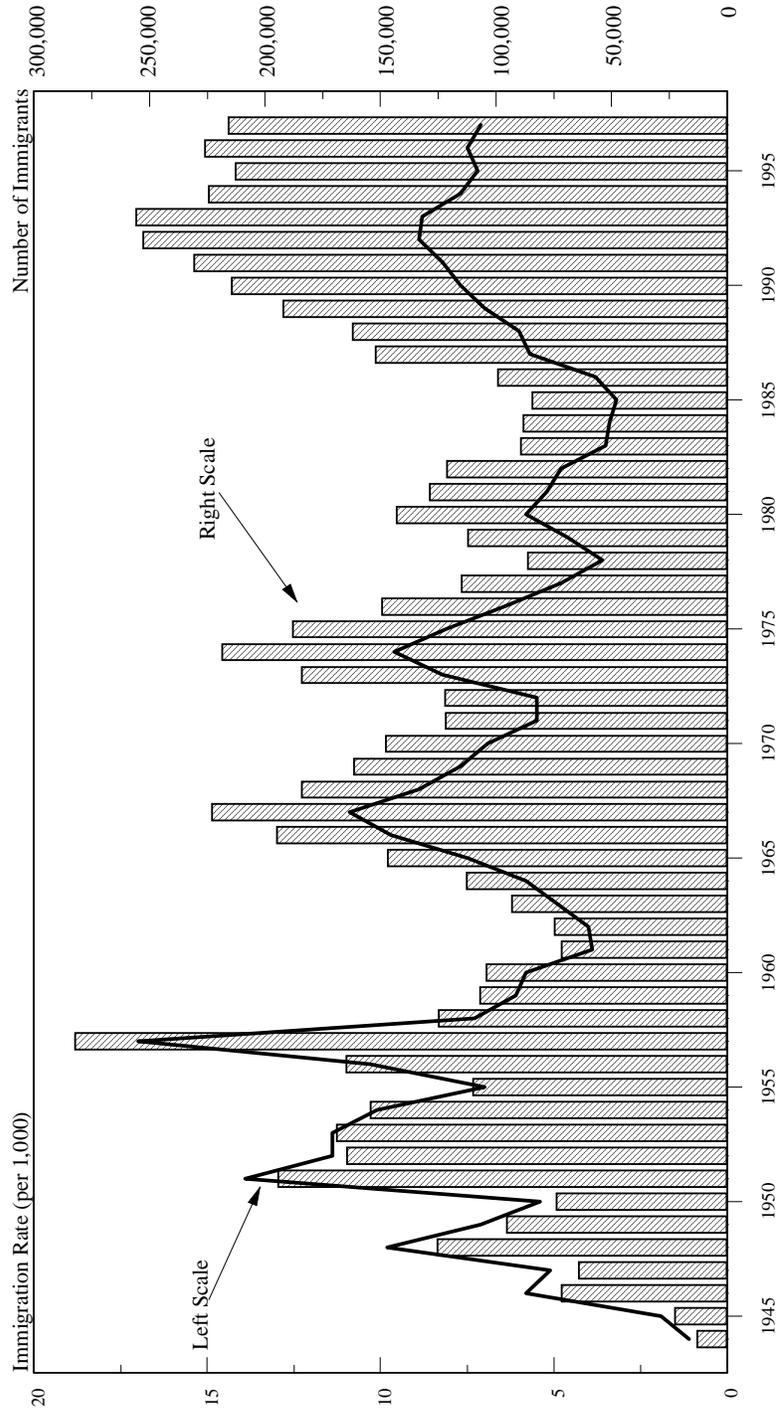
understanding of how HIV is transmitted led to measures designed to reduce the risk of infection. Transfused blood and blood products, as we know, are now closely monitored and an increasing number of publicity campaigns are promoting the prophylactic properties of condoms. Some tests are available to detect the disease. For their part, pharmaceutical companies have developed new antiretroviral drugs which help to slow down the development of the viral infection before it reaches the AIDS stage. It should be noted, however, that this disease is still incurable.

INTERNATIONAL IMMIGRATION

In 1996, Canada received 226,072 international immigrants²² (Figure 25 and Table 24), an increase of 13,220 from the previous year. According to data which were incomplete at the time this report was written, the number

²² The total number of immigrants can vary between tables because of the different dates when the data became available.

Figure 25. Number of Immigrants and Immigration Rate, Canada, 1944-1997



Note: Data are preliminary as of January 20, 1998.
Sources: Employment and Immigration Canada, *Immigration Statistics* and after 1993, Citizenship and Immigration Canada, unpublished data.

Table 24. Immigrants to Canada by Class, 1981-1997

Year		Family	Refugees		Independents		Total
			Convention Refugees	Designated Persons	Assisted Relatives	Others ¹	
1981	No.	51,017	810	14,169	17,590	45,032	128,618
	%	39.7	0.6	11.0	13.7	35.0	100.0
1982	No.	49,980	1,791	15,134	11,948	42,294	121,147
	%	41.3	1.5	12.5	9.9	34.9	100.0
1983	No.	48,698	4,100	9,867	4,997	21,495	89,157
	%	54.6	4.6	11.1	5.6	24.1	100.0
1984	No.	43,814	5,625	9,717	8,167	20,916	88,239
	%	49.7	6.4	11.0	9.3	23.7	100.0
1985	No.	38,514	6,080	10,680	7,396	21,632	84,302
	%	45.7	7.2	12.7	8.8	25.7	100.0
1986	No.	42,197	6,490	12,657	5,890	31,985	99,219
	%	42.5	6.5	12.8	5.9	32.2	100.0
1987	No.	53,598	7,473	14,092	12,283	64,652	152,098
	%	35.2	4.9	9.3	8.1	42.5	100.0
1988	No.	51,331	8,741	18,095	15,567	68,195	161,929
	%	31.7	5.4	11.2	9.6	42.1	100.0
1989	No.	60,774	10,210	26,794	21,520	72,703	192,001
	%	31.7	5.3	14.0	11.2	37.9	100.0
1990	No.	73,457	11,398	28,291	23,393	77,691	214,230
	%	34.3	5.3	13.2	10.9	36.3	100.0
1991	No.	86,378	18,374	35,027	22,247	68,755	230,781
	%	37.4	8.0	15.2	9.6	29.8	100.0
1992	No.	99,960	28,699	23,176	19,880	81,127	252,842
	%	39.5	11.4	9.2	7.9	32.1	100.0
1993	No.	112,189	22,326	8,087	22,922	90,411	255,935
	%	43.8	8.7	3.2	9.0	35.3	100.0
1994	No.	94,128	19,335	1,129	27,500	82,323	224,415
	%	41.9	8.6	0.5	12.3	36.7	100.0
1995	No.	77,322	27,923	612	29,322	77,673	212,852
	%	36.3	13.1	0.3	13.8	36.5	100.0
1996	No.	68,305	31,892	300	28,882	96,693	226,072
	%	30.2	14.1	0.1	12.8	42.8	100.0
1997	No.	59,849	27,440	189	25,490	102,933	215,901
	%	27.7	12.7	0.1	11.8	47.7	100.0

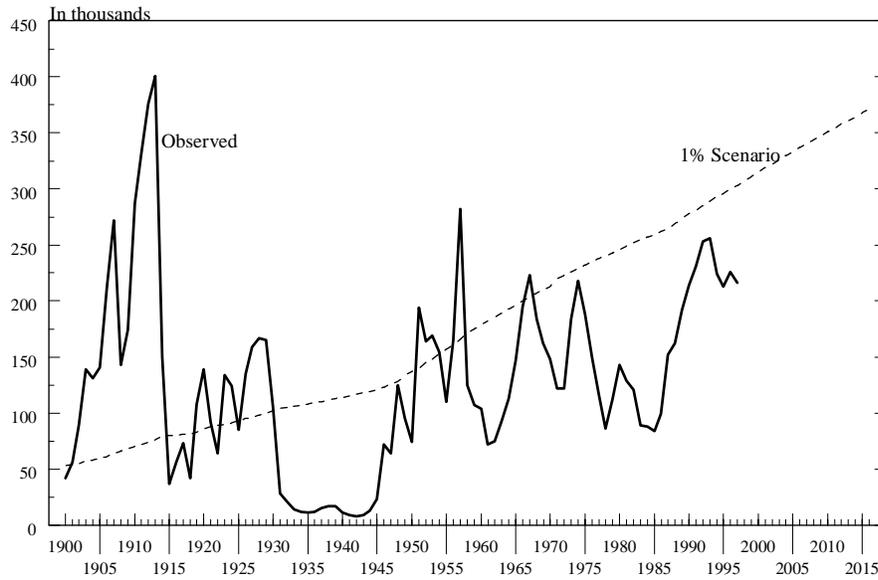
¹ Includes business, retirees and other independents.

Note: Preliminary data as of January 20, 1998.

Sources: Employment and Immigration Canada, *Immigration Statistics* and after 1993, Citizenship and Immigration Canada, unpublished data and calculations by the author.

of immigrants in 1997 should be 215,900. The admissions influx was 7.5 immigrants for every 1,000 inhabitants in 1996—a level much higher than those observed in most of the Western countries to which Canada can be compared: the United States (3.4 per 1,000), Australia (5.1 per 1,000).

Figure 26. Observed Number of Immigrants and Estimated Number of Immigrants According to a 1% Scenario, Canada, 1900-2016



Sources: Employment and Immigration Canada, *Immigration Statistics* and after 1993, Citizenship and Immigration Canada, unpublished data and calculations by the author.

Between 1990 and 1997, Canada granted permanent resident status to over 1,830,000 persons, representing an annual average of some 230,000. Never since the settlement of the Prairies before World War I has there been such a sustained period of strong immigration. It is true that if the rates are considered in light of the increase in the Canadian population, these admissions are not as impressive as those early in this century. Yet more diverse newcomers have been accompanied by the emergence of other challenges in a changing economy.

In demographic terms, the strong recent immigration is occurring in a period when the number of deaths is rising with the aging of the population, which in combination with low fertility is curbing the natural pace of growth. Over the last five years (1991-1996), the Canadian population rose by 1,837,400. Over half (51.4%) of this growth is attributable to international migration, which accounts for 944,800 persons, whereas the surplus of births over deaths is 937,900.

Still the immigration rate remains quite low for a population that saw rates of over 5% before World War I. To help get an idea of the numbers involved

Table 25. Immigrants by Urban Region, Canada, 1994-1996

Urban Region	Number			Percentage		
	1994	1995	1996	1994	1995	1996
Halifax	3,138	3,241	3,097	1.4	1.5	1.4
Montreal	22,908	20,270	21,871	10.2	9.5	9.8
Quebec	1,227	1,410	1,165	0.5	0.7	0.5
Toronto	65,667	66,808	72,471	29.3	31.4	32.3
Hamilton	2,584	2,325	2,298	1.2	1.1	1.0
Ottawa-Carleton	5,743	4,345	5,183	2.6	2.0	2.3
London	2,101	1,857	1,617	0.9	0.9	0.7
Winnipeg	3,641	3,138	3,334	1.6	1.5	1.5
Regina	758	647	613	0.3	0.3	0.3
Saskatoon	1,012	895	761	0.5	0.4	0.3
Edmonton	7,407	5,605	4,890	3.3	2.6	2.2
Calgary	8,360	6,987	7,051	3.7	3.3	3.1
Vancouver	41,920	38,166	44,615	18.7	18.0	19.9
Victoria	1,335	999	832	0.6	0.5	0.4
Elsewhere in Canada	56,074	55,798	54,252	25.0	26.3	24.2
Total	223,875	212,491	224,050	100.0	100.0	100.0

Source: Citizenship and Immigration Canada, Internet site, February 1998.

by means of percentages which would at first glance seem very low, we arbitrarily chose the rate of 1%. In Figure 26 we note that this rate has been achieved only once in the past 40 years, i.e. 1967. To attain an immigration rate of 1% in 1997, Canada would have had to grant permanent resident status to 302,900 persons, that is, 87,000 more than the actual number (215,900). In other words, immigration would have had to be 40% higher than it was.

Furthermore, as the population continues to grow, the number of immigrants required to reach this rate will have to grow as well. A simple calculation based on demographic projections shows that, to maintain an immigration rate equivalent to 1% of the population, in the first 15 years of the next century Canada would have to admit 5,150,000 people, that is, a number far above the number of immigrants received between 1900 and the outbreak of World War I (2,900,000), which has been our longest period of high annual rates. But as the conditions then were very different, much of the interest of the comparison is lost. Canada's population was but a fraction of what it is today, and hence the immigrants-to-population ratio was much larger. Far from the alluring open spaces of the turn of the century, which have now become less attractive, three immigrants in five (62%) in 1996 settled in one of the three largest census metropolitan areas: Montreal (9.8%), Vancouver (19.9%) and above all, Toronto (32.4%) (Table 25).

Table 26. Number of Immigrants by Class According to the Immigration Plan, Canada, 1996

Class	Number Planned	Observed Number	Difference (in percent)
Family	78,000 - 85,700	67,566	-21.2
Economic	85,500 - 94,500	119,813	26.8
Refugee	24,000 - 32,300	28,485	-11.8
Other	7,500	8,186	9.1
Total	195,000 - 220,000	224,050	1.8

Note: The difference is based on the maximum number planned.

Source : Citizenship and Immigration Canada, Internet site, February 1998.

Immigrant Classes

The proportion of immigrants in the economic class²³ continues to rise (Table 24 and Figure 27). According to 1996 data, there were 125,575 of these: 55.5% of the total immigrant population. While the number of immigrants in the family class fell from 77,300 to 68,300 (-11.7%) and that of refugees rose from 28,500 to 32,200 (+12.8%), independent immigrants increased 17.4%, from 107,000 to 125,600 persons. This is no surprise, since immigrant selection is largely facilitated by the statutes and regulations enacted in this country. The “*Immigration and Citizenship Plan 1995-2000*”²⁴ released in 1994 and updated annually since then, is unequivocal about the country’s interest in admitting immigrants likely to waste no time becoming involved in economic activities. In Table 26, comparison of the levels expected for 1996 and the number of immigrants actually admitted by class shows that:

1. with 67,600 persons, the anticipated level of 78,000 to 85,700 for the family class was not achieved;
2. the refugee total (28,500) is about at the midpoint of the expected range; but
3. the number of immigrants admitted under the economic component (119,800) exceeded the anticipated maximum (94,500) by 27%.

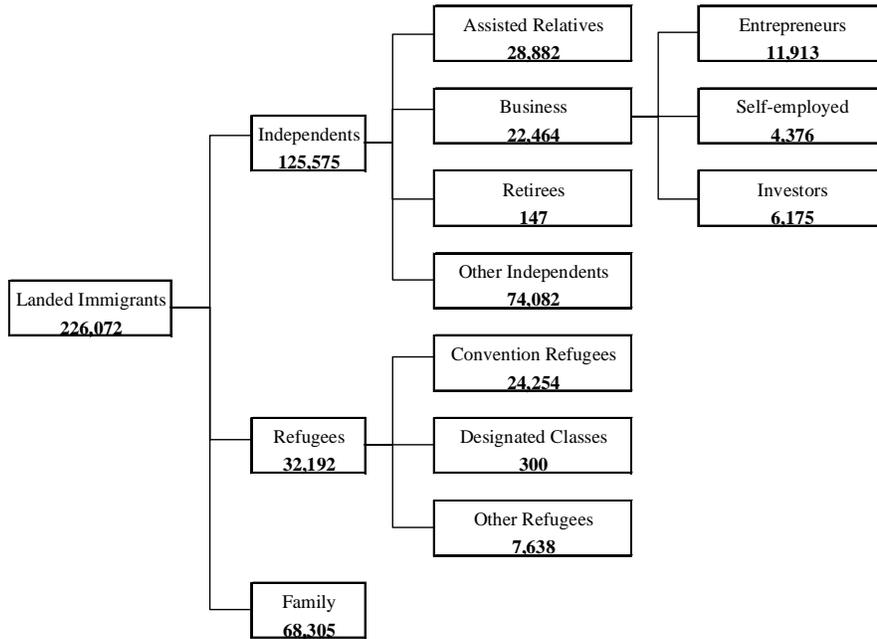
Intended Province of Destination

Ontario was a strong draw for new immigrants again in 1996: over half (53%) chose that province as their intended destination (Table 27). Since 1994 Quebec has seen a substantial reduction in the number of immigrants

²³ Previously called independents.

²⁴ Citizenship and Immigration Canada, 1994. *A Broader Vision: Immigration and Citizenship Plan, 1995-2000*. Annual Report to Parliament.

Figure 27. Distribution of Immigrants by Class and Category, 1996



Note: Preliminary data as of January 20, 1998.
 Source: Citizenship and Immigration Canada, unpublished data.

in the economic class, a reduction reflected in the proportion of all immigrants planning to settle in this province. While this proportion was steadily around 20% in the early 1990s, it is now no more than 13% of the total. In contrast, the percentage in British Columbia has risen appreciably. *In 1996, 23% of immigrants decided to settle in the country's westernmost province. This marks the highest proportion ever observed for British Columbia since 1913.*

Distribution per province by immigrant class depends on a number of factors: host community, language, available employment, climate, etc. Ontario receives nearly half the immigrants in each class (Table 28), with a slight over-representation in the family class (55.5%). This no doubt stems from the fact that this province contains a great many immigrants from previous years who attract their relatives under family reunification.

Immigrants admitted because of their economic potential are more sensitive to the economic situation in the provinces. The proportion of these immigrants who decided to settle in British Columbia was higher (27.3%) than that of all immigrants (22.7%). On the other hand, the proportion

Table 27. Percentage Distribution of Landed Immigrants by Intended Province of Destination, Canada, 1961-1996

Province	Year															
	1961	1971	1981	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996		
Newfoundland	0.5	0.7	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
Prince Edward Island	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Nova Scotia	1.3	1.5	1.1	1.1	0.8	0.8	0.8	0.7	0.7	0.9	1.2	1.5	1.8	1.5		
New Brunswick	1.1	0.9	0.8	0.6	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3		
Quebec	23.6	15.8	16.4	19.6	17.6	15.9	17.8	19.1	22.4	19.1	17.6	12.5	12.5	13.2		
Ontario	50.9	52.8	42.7	50.0	55.8	55.0	54.6	53.0	51.5	54.7	52.5	52.4	54.5	52.7		
Manitoba	3.5	4.3	4.2	3.8	3.2	3.1	3.2	3.1	2.4	2.0	1.9	1.8	1.7	1.9		
Saskatchewan	1.9	1.2	1.9	1.9	1.4	1.4	1.1	1.1	1.1	1.0	0.9	1.0	0.9	0.8		
Alberta	6.7	7.1	15.0	9.7	7.9	8.7	8.4	8.8	7.4	7.0	7.3	8.0	7.0	6.3		
British Columbia	10.2	15.5	17.1	12.7	12.4	14.3	13.2	13.4	13.9	14.5	17.9	21.9	20.9	22.7		
Yukon and Northwest Territories	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Unknown	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Total Number	71,689	121,900	128,618	99,219	152,098	161,929	192,001	214,230	230,781	252,842	255,747	223,875	210,974	225,266		

Note: Preliminary data as of January 29, 1998.

Sources: Employment and Immigration Canada, *Immigration Statistics* and after 1993, Citizenship and Immigration Canada, unpublished data.

Table 28. Number of Immigrants and Distribution (in Percent) by Province of Destination and Class, Canada, 1996

Province	Family	Economic ¹	Refugees	Total
Number				
Newfoundland	84	311	165	560
Prince Edward Island	17	74	67	158
Nova Scotia	300	2,938	229	3,467
New Brunswick	190	375	191	756
Quebec	9,125	10,301	8,896	28,322
Ontario	37,522	62,165	14,139	113,826
Manitoba	1,168	2,121	663	3,952
Saskatchewan	435	842	549	1,826
Alberta	4,435	7,976	1,345	13,756
British Columbia	14,180	32,738	2,318	49,236
Yukon	42	33	2	77
Northwest Territories	46	31	3	80
Not Stated	35	■	44	79
Total	67,579	119,905	28,611	216,095
Distribution by Province (%)				
Newfoundland	0.1	0.3	0.6	0.3
Prince Edward Island	■	0.1	0.2	0.1
Nova Scotia	0.4	2.5	0.8	1.6
New Brunswick	0.3	0.3	0.7	0.3
Quebec	13.5	8.6	31.1	13.1
Ontario	55.5	51.8	49.4	52.7
Manitoba	1.7	1.8	2.3	1.8
Saskatchewan	0.6	0.7	1.9	0.8
Alberta	6.6	6.7	4.7	6.4
British Columbia	21.0	27.3	8.1	22.8
Yukon	0.1	■	■	■
Northwest Territories	0.1	■	■	■
Not Stated	0.1	■	0.2	■
Total	100.0	100.0	100.0	100.0
Distribution by Class (%)				
Newfoundland	15.0	55.5	29.5	100.0
Prince Edward Island	10.8	46.8	42.4	100.0
Nova Scotia	8.7	84.7	6.6	100.0
New Brunswick	25.1	49.6	25.3	100.0
Quebec	32.2	36.4	31.4	100.0
Ontario	33.0	54.6	12.4	100.0
Manitoba	29.6	53.7	16.8	100.0
Saskatchewan	23.8	46.1	30.1	100.0
Alberta	32.2	58.0	9.8	100.0
British Columbia	28.8	66.5	4.7	100.0
Yukon	54.5	42.9	2.6	100.0
Northwest Territories	57.5	38.8	3.8	100.0
Not Stated	44.3	■	55.7	100.0
Total	31.3	55.5	13.2	100.0

¹ Includes business and qualified workers.

Source: Citizenship and Immigration Canada, Internet site, February 1998.

in the economic class who settled in Quebec. In 1996, was only 8.6% of the class total, whereas five years earlier in 1991 it was 25.5%. This is attributable to the fact that Quebec, which has jurisdiction over the selection of immigrants in this class.

On the other hand, the number of refugees settling in Quebec has doubled in two years, from 4,453 in 1994 to 8,896 in 1996, even though it increased by only 24% elsewhere in the country. ***With 31.1% of the total in 1996, Quebec admitted a much higher proportion of refugees than its share of total immigration (13.2%).*** This is the result of the fact that, in the statistics, the refugee class includes both refugees selected by Quebec immigration officers abroad and asylum seekers who have been allowed to remain in the country after the examinations required by the federal government. The latter may then decide upon the host province that they wish. In recent years Quebec has offered these people conditions appreciably more advantageous than those offered by other provinces. This explains why more of them have chosen this province. To this we must add that a great many asylum seekers enter the country via Quebec, mostly from the United States. When their application for asylum is accepted, they tend to remain in the province. ***Consequently the composition of immigration to Quebec contrasts strongly with that to British Columbia. Whereas two thirds (66.5%) of the immigrants settling in British Columbia are in the economic class, these people have made up only a little more than one third (36.4%) of immigrants to Quebec. On the other hand, one refugee in three (31.4%) has settled in Quebec and one in 20 (4.7%) in British Columbia.*** The recent changes in the distribution of immigration which have put the spotlight on British Columbia have meant that the immigrants there are different not only in number but also in make-up.

Origin of Immigrants

There is little change in distribution by place of birth for immigrants admitted in 1996 as opposed to 1995. Table 29 indicates that a few of the principal countries of origin have produced more immigrants than the previous year. All of these countries are in Asia: India (+ 5,200), Taiwan (+5,300), China (+ 4,100), Pakistan (+3,900) and Iran (+2,300). Other countries on this continent have seen a decline in the number of emigrants to Canada: Sri Lanka (-2,800), the Philippines (-2,200) and Vietnam (-1,400). ***The fact remains, however, that with 145,230 people, Asia is responsible for the majority of immigrants (64.5%) making up the year's total—a number exceeded only once before, and a percentage that is an all-time high.***

The history of Canadian immigration is a succession of years characterized by waves from certain countries: the years of Uganda, Hungary, Poland, Vietnam, etc. With still-modest levels, certain countries stand out in 1996 by virtue of their significant increases, such as Algeria (+86%), Pakistan (+85%), Taiwan (+72%) and Iran (+57%).

Table 29. Countries from Which more than 2,000 Immigrants Came to Canada in 1995 or 1996

Country of Birth	1995	1996	Difference
AFRICA			
Algeria	1,093	2,036	943
Egypt	2,706	2,367	-339
Somalia	2,028	1,416	-612
AMERICA			
Guyana	3,967	2,375	-1,592
Haiti	2,011	1,971	-40
Jamaica	3,623	3,219	-404
Trinidad and Tobago	2,574	2,150	-424
United States	4,291	5,034	743
ASIA			
Bangladesh	1,951	2,753	802
China	20,887	24,947	4,060
Hong Kong	24,842	24,122	-720
India	18,137	23,349	5,212
Iran	3,990	6,249	2,259
Iraq	2,340	2,770	430
Lebanon	2,137	1,892	-245
Pakistan	4,624	8,546	3,922
Philippines	15,679	13,527	-2,152
South Korea	3,492	3,246	-246
Sri Lanka	9,259	6,437	-2,822
Taiwan	7,408	12,739	5,331
Vietnam	4,142	2,703	-1,439
EUROPE			
France	3,010	2,433	-577
Great Britain ¹	4,538	4,363	-175
Poland	2,433	2,159	-274
Romania	4,320	3,940	-380
Ex USSR ²	6,854	8,584	1,730
Yugoslavia ³	10,337	8,318	-2,019

¹ Includes England, Ireland, Scotland, Wales and the Channel Islands.

² Includes Russian Federation, Estonia, Latvia, Lithuania, Belarus, Ukraine, Moldova and Russia.

³ Includes Yugoslavia, Bosnia-Herzegovina and Croatia.

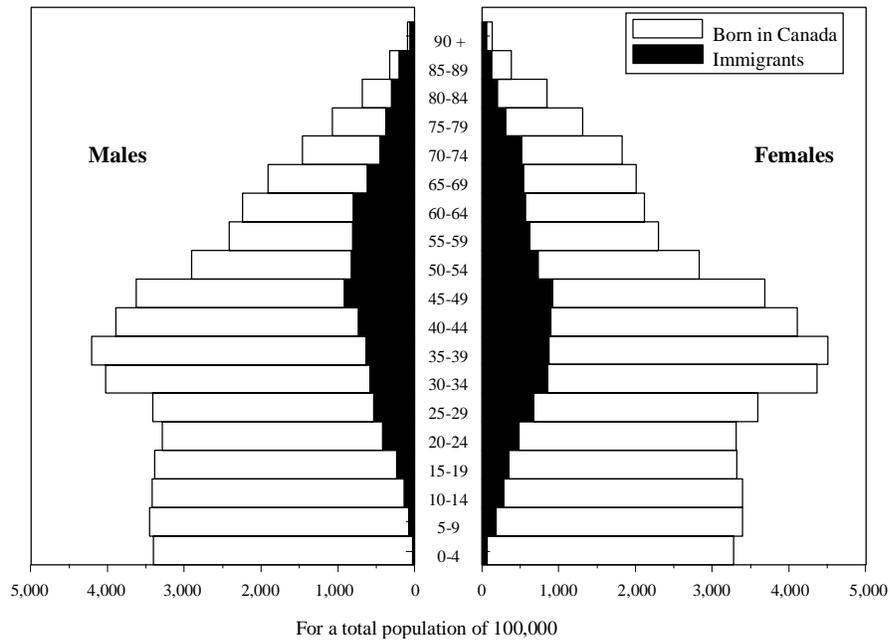
Note: Data is preliminary as of January 20, 1998.

Sources: Citizenship and Immigration Canada, unpublished data.

Proportion of Population Born Abroad, by Age and Gender, According to the 1996 Census

Over the past decade, the level of immigration to Canada has doubled. The country received about a million immigrants between 1977 and 1986 and over two million between 1987 and 1996. One direct consequence is the increase, shown clearly in the 1996 Census, in the percentage of Canadians

Figure 28. Age Pyramid Comparing the Immigrant Population to the Total Population, Canada, 1996 Census



Source: Statistics Canada, 1996 Census of Canada and calculations by the author.

born in other countries. Virtually stable since 1951, between the 1991 and 1996 censuses this percentage rose 2 points, with the result that in 1996 18% of Canadians were not born in Canada.

Given major variations in immigration levels and the age distribution of the immigrant population, the proportion of foreign-born persons varies considerably according to age group (Figure 28). Immigrants under 20 years of age are relatively uncommon. The percentage of young people born abroad is only 6.7%, ranging from a minimum of 2% for those aged 0 to 4 to 11% for those aged 15 to 19.

This proportion reaches 21.3% for the adult population (20 to 64 years of age), which is slightly higher than the overall figure (18%). In this segment as well, the percentage of people born abroad increases with age. It is 14% for those 20 to 24, steady around 20% for the five-year age groups between 25 and 44, and increases rapidly for the older age groups. It exceeds 25% for those 45 to 49 and reaches 28% for those approaching normal retirement age (60 to 64).

Table 30. Average Age of Population Born in Canada and Born Outside Canada, by Sex, 1996

Place of Birth	Males	Females	Total
	Total Population		
Canada	33.0	34.8	33.9
Outside Canada	44.7	45.7	45.2
Total	35.0	36.8	35.9
	Population Aged 20 and Over		
Canada	44.1	45.6	44.9
Outside Canada	48.5	49.2	48.9
Total	45.1	46.4	45.8

Source: Statistics Canada, 1996 Census of Canada.

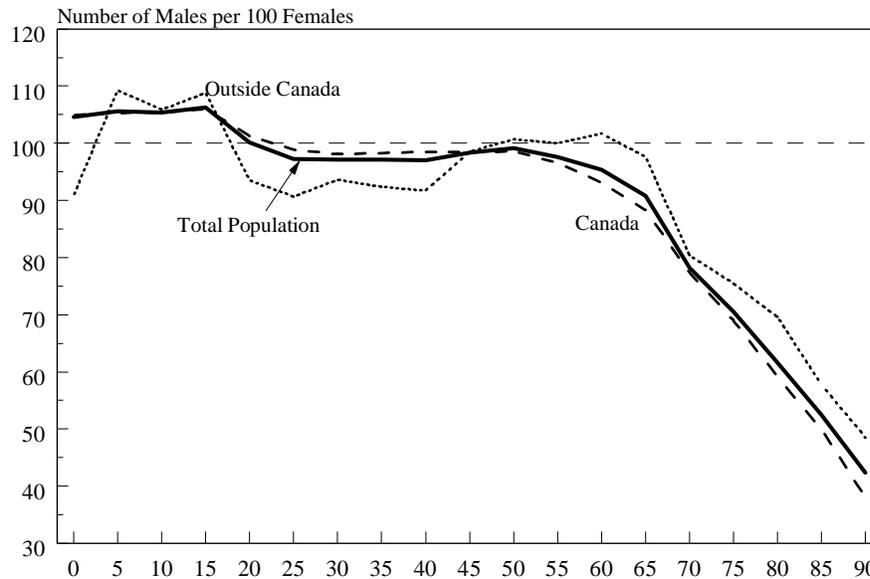
It is among the elderly that the proportion of the foreign-born is highest. More than one Canadian in four aged 65 or over (27.7%) was born outside the country. This percentage is particularly high in the very elderly. In the 1996 census, 34% of respondents aged 85 to 89 and 43% aged 90 or over declared a country of birth other than Canada. This age group was part of the waves of immigrants at the turn of the century.

Calculation of average age affords an indicator which aptly summarizes the impact of past and present immigration on the structure of the Canadian population (Table 30). In the 1996 census, the average age of the population born in Canada was 33.9.²⁵ The foreign-born population is much older, with an average age of 45.7. Much of this difference of nearly 12 years between the average ages of the two populations is due to the fact that immigrants' Canadian-born children are members of the population born in this country. But even if the calculation is restricted to the aged 20 or over, the average age of native-born Canadians is still lower. It is 44.1, compared with 48.5 for Canadians born abroad. It is clear that countries whose demographic growth is largely due to immigration are led to support that immigration, or they will face an aging population.

Because of the aging of the population and excess male mortality, the female population of Canada has been in the majority for some time now. The 1996 census indicates 14.0 million men and 14.5 million women, which translates to a sex ratio of 97 men to 100 women. Largely because it is older on average, the foreign-born population has even more of a female majority than that born in Canada: here the ratio is 94 men to 100 women.

²⁵ Data not adjusted for underenumeration.

Figure 29. Sex Ratio (Males per 100 Females) by Place of Birth and Age, Canada, 1996



Source: Statistics Canada, 1996 Census of Canada and calculations by the author.

The impact of excess male mortality on the population sex ratio is clear in the Figure 29. In the total population, this ratio is about 105 males to 100 females at birth, a level that is maintained until about age 20, since mortality is low in the young of both sexes. The marked decline observed at the beginning of adulthood is partly attributable to excess male mortality through accident, and the net undercoverage which more significantly affects young men lends a slight artificial exaggeration to the ratio. Between 25 and 55 years of age, the sex ratio is only slightly favourable to the female population (between 98 and 99 men to 100 women). After age 55, the indicator is increasingly affected by excess male mortality. There are 91 men to 100 women among those aged 65 to 69, 62 men for those 80 to 84, and only 42 men aged 90 or over to 100 women in the same age group.

Once predominantly male, the immigrant population has now become predominantly female, affecting the long-term sex ratios in this population. The curve representing sex ratios by age group for persons born abroad, looks almost the same as that for the native-born population. The main difference lies in young adults aged 20 to 44, where sex ratios vary between 90 to 93 men for every 100 women, compared with indicators above 98 men to 100

women in the population born in Canada. Past the 50-54 age group, however, the sex ratio for the foreign-born population is higher than that for native Canadians.

The traditional image of the immigrant population is that it is male, young, and ready for the job market. This image is not incorrect, apart from the fact that this population is no longer primarily male, but primarily female. The immigrant population is still young compared with the host population. But immigration is a dangerous method of curbing aging, because a halt to immigration would have the same type of effect as a drop in fertility. Immigration cannot erase the dilemma of growing old, which the entire population must face.

The increase in the proportion of persons born abroad has impacts in the linguistic, ethnic, cultural and even religious sectors. In this, Canada is noteworthy for the virtual absence of serious problems, often generated in other countries which have much lower levels of immigration.

INTERNAL MIGRATION

All national statistics agencies have a twofold obligation: to produce data that are both timely and of high quality. Sometimes the two requirements are incompatible. Recording events thoroughly and accurately usually takes time. Quality control and the use of supplementary information sources are largely responsible for the delays.

In many cases, Statistics Canada publishes preliminary data. Though carefully computed, they are likely to change, in some cases substantially. This is especially true of internal migration statistics, which are difficult to compile because Canada's population is free to move and highly mobile. The preliminary estimates are almost always higher than the revised figures. One reason for this chronic problem is that the data for the two sets of estimates come from different sources. The preliminary estimates (Table 32) are based on the Child Tax Benefit file,²⁶ which is updated monthly, whereas the revised estimates (Table 31) are based on Revenue Canada's income tax file, from which annual numbers are extracted by comparing taxpayers' addresses in successive years. The Child Tax Benefit file captures more interprovincial movement than the income tax file, as the total of monthly flows for the year exceeds the annual figure.

For the reasons outlined above, it is very risky to compare the preliminary estimates for one year with the final estimates for the previous year. According

²⁶ Until 1992, the preliminary estimates of interprovincial flows were based on family allowance data. A universal program, the family allowance was then replaced by the Child Tax Benefit, entitlement to which is determined by family income.

**Table 31. Annual Number of Interprovincial Migrants According to Revenue Canada Tax Files
January to December 1995**

Number of Migrants: 286,259

Province of Origin	Province of Destination												
	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Yukon	N.W.T.	
Newfoundland	...	218	1,821	623	217	5,735	285	112	2,412	1,804	105	193	
Prince Edward Island	124	...	522	307	65	650	33	27	278	182	3	■	
Nova Scotia	1,272	694	...	2,469	919	6,243	474	252	2,260	2,588	57	147	
New Brunswick	475	381	2,246	...	2,164	3,808	323	177	1,355	1,104	30	75	
Quebec	260	140	982	1,923	...	21,887	670	340	1,982	4,988	53	138	
Ontario	3,028	671	5,880	3,754	14,982	...	5,100	1,918	11,597	22,663	242	429	
Manitoba	112	18	456	291	540	5,291	...	2,470	4,719	4,675	63	222	
Saskatchewan	70	57	213	161	257	2,313	2,407	...	10,018	4,253	123	250	
Alberta	810	191	1,369	898	1,364	9,623	3,033	7,480	...	23,287	522	969	
British Columbia	620	185	1,750	708	2,461	12,386	2,944	3,672	17,614	...	980	371	
Yukon	2	4	23	6	33	101	26	167	363	860	...	67	
Northwest Territories	186	■	141	67	113	463	218	317	1,199	701	130	...	
In	6,959	2,559	15,403	11,207	23,115	68,500	15,513	16,932	53,797	67,105	2,308	2,861	
Out	13,525	2,191	17,375	12,138	33,363	70,264	18,857	20,122	49,546	43,691	1,652	3,535	
Net Migration	-6,566	368	-1,972	-931	-10,248	-1,764	-3,344	-3,190	4,251	23,414	656	-674	

Source: Statistics Canada, Demography Division, Population Estimates Section.

**Table 32. Annual Number of Interprovincial Migrants According to Revenue Canada Tax and Child Tax Credit Files
January to December 1996**

Number of Migrants: 315,008

Province of Origin	Province of Destination												
	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Yukon	N.W.T.	
Newfoundland	...	273	2,072	745	357	6,434	358	130	3,884	2,147	85	488	
Prince Edward Island	244	...	781	393	90	688	49	26	180	217	7	14	
Nova Scotia	1,267	820	...	2,603	1,101	6,617	601	201	2,464	2,409	108	154	
New Brunswick	552	597	2,477	...	2,110	4,256	313	200	1,716	1,267	0	137	
Quebec	180	100	1,147	2,347	...	24,720	687	322	3,774	5,966	75	150	
Ontario	4,268	756	6,595	4,015	16,399	...	5,011	2,295	14,250	24,583	150	433	
Manitoba	130	59	527	230	477	5,139	...	2,833	5,037	4,385	74	139	
Saskatchewan	31	33	313	124	302	2,400	2,724	...	10,427	3,782	90	183	
Alberta	916	141	1,663	910	1,237	9,578	3,376	8,940	...	23,134	506	857	
British Columbia	828	212	2,323	936	2,488	12,385	2,961	3,875	21,451	...	820	463	
Yukon	24	■	22	15	29	140	35	104	518	971	...	64	
Northwest Territories	153	13	179	44	167	456	277	323	1,459	546	175	...	
In	8,593	3,004	18,099	12,362	24,757	72,813	16,392	19,249	65,160	69,407	2,090	3,082	
Out	16,973	2,689	18,345	13,625	39,468	78,755	19,030	20,409	51,258	48,742	1,922	3,792	
Net Migration	-8,380	315	-246	-1,263	-14,711	-5,942	-2,638	-1,160	13,902	20,665	168	-710	

Source: Statistics Canada, Demography Division, Population Estimates Section.

Table 33. Total Number of Interprovincial Migrants, Comparison Between Preliminary and Final Data, Canada, 1987-1996

Year	Preliminary Estimates	Final Estimates	Difference		Annual Growth (%)		
			Number	%	Preliminary Estimates	Final Estimates	Preliminary t / Final t-1
1987	359,684	318,890	40,794	12.8	...	...	...
1988	372,885	323,685	49,200	15.2	3.7	1.5	16.9
1989	371,914	347,990	23,924	6.9	-0.3	7.5	14.9
1990	391,378	332,637	58,741	17.7	5.2	-4.4	12.5
1991	357,978	315,420	42,558	13.5	-8.5	-5.2	7.6
1992	348,568	309,261	39,307	12.7	-2.6	-2.0	10.5
1993	319,074	283,297	35,777	12.6	-8.5	-8.4	3.2
1994	341,863	286,370	55,493	19.4	7.1	1.1	20.7
1995	331,131	286,259	44,872	15.7	-3.1	■	15.6
1996	315,008	..	..	..	-4.9	..	10.0
Average	350,948	311,534	43,407	14.0	-1.3	-1.4	12.4

Source: Statistics Canada, *Report on the Demographic Situation in Canada*, Catalogue no. 91-209, various years.

to the figures in Table 33, the preliminary estimates overstate the flows by an average of 14%. If that average applies to this year, internal migration would appear to have remained unchanged from last year. Revised estimates will probably be in the 280,000 range. This hypothesis is particularly plausible since a comparison of the preliminary estimate for 1995 with the final estimate for 1994 showed a 15.6% increase in the number of internal migrants, while the 1994 estimate, based on final data from Revenue Canada's income tax file, indicated zero growth.

If confirmed, this stagnation in migration flows could undermine the observed relationship between economic fluctuations and internal mobility, since Canada is currently in a period of strong economic growth that has not resulted in the mobility that traditionally accompanies such periods. Until now, periods of prosperity have been associated with periods of high internal mobility and vice versa, on the grounds that interprovincial migration is often motivated by labour demand, to which young people entering the workforce are especially sensitive. Young people are particularly mobile since they have fewer ties: they are more likely to be renters than homeowners, more likely to be single than married, and so on. The current period of economic growth appears to be generating less internal migration just as it, until recently, created fewer jobs.

There is a long-term downward trend in interprovincial mobility in every province except Newfoundland (Figure 30). This trend is probably due in part to population aging and the fact that smaller birth cohorts are now reaching the ages of peak mobility.

The traces left by the recession of the early 1980s are visible in the time series of out-migration rates for almost every province of origin. Likewise, the increase in internal mobility that followed is related to the economic recovery of the late 1980s.

The preliminary estimates provide a quick estimate of the direction and magnitude of interprovincial migration flows. The direction is seldom reversed by the revised estimates: between 1987 and 1995, the sign of the preliminary provincial migration balances was the same as the sign of the revised figures 90% of the time. The preliminary estimates are also reasonably accurate about the magnitude of net migration: over the same period, the average difference between the two series was 1,500.²⁷ Hence it is worth commenting on the migration trends that appear in the data.

An analysis of the preliminary estimates for 1996 (Table 32) reveals that the attraction exerted by British Columbia in recent years has diminished. The province still gained population through interprovincial migration in 1996, but the net inflow of 20,700 is its lowest since 1987. By way of comparison, the balance for 1992 was 39,600 (Table 34). The current economic crisis in Asia is unquestionably having an impact since it is curtailing trade between Asian countries and Canada, but it is difficult to tell whether that situation will persist.

Just as British Columbia's appeal is fading, Alberta's is becoming stronger. Its net inflow of 13,900 in 1996 was its best since 1981, when the oil boom ended. In 1996, Alberta posted larger gains from all provinces to the east and a smaller loss to its western neighbour. Moreover, according to the latest quarterly population estimates,²⁸ the province gained 5,600 people from British Columbia in the first three quarters of 1997. In fact, Alberta's total migration balance for that period was 26,000, compared with 14,600 for British Columbia.

Similar movements are occurring in the United States. California, which for many years had been coming out ahead in population exchanges with other US states, has had a negative balance of internal migration over the past years.²⁹ At the same time, a number of front-range states, such as Colorado, have growing populations due to a heavy flow of in-migrants. These similarities are probably the result of the same economic situation: weakness in the Asian markets and a recovery in the petroleum sector.

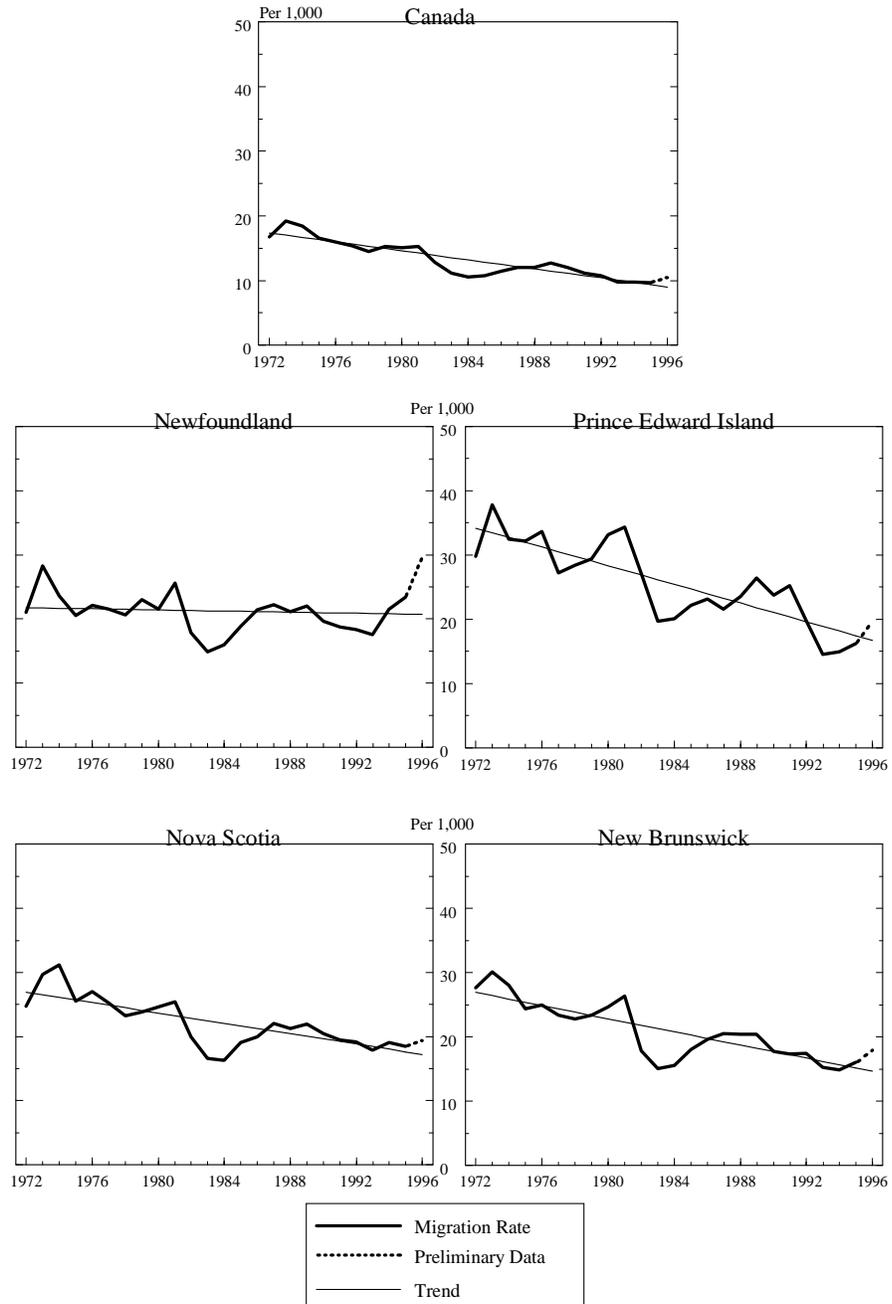
The internal migration deficits of losing provinces continued to grow in 1996: Quebec, -14,700; Newfoundland, -8,400; and Ontario, -5,900.

²⁷ To overcome the problems caused by positive and negative signs and the fact that by definition the sum of the balances for a given year must be zero, the average was computed using absolute values.

²⁸ See Statistics Canada publication 91-002.

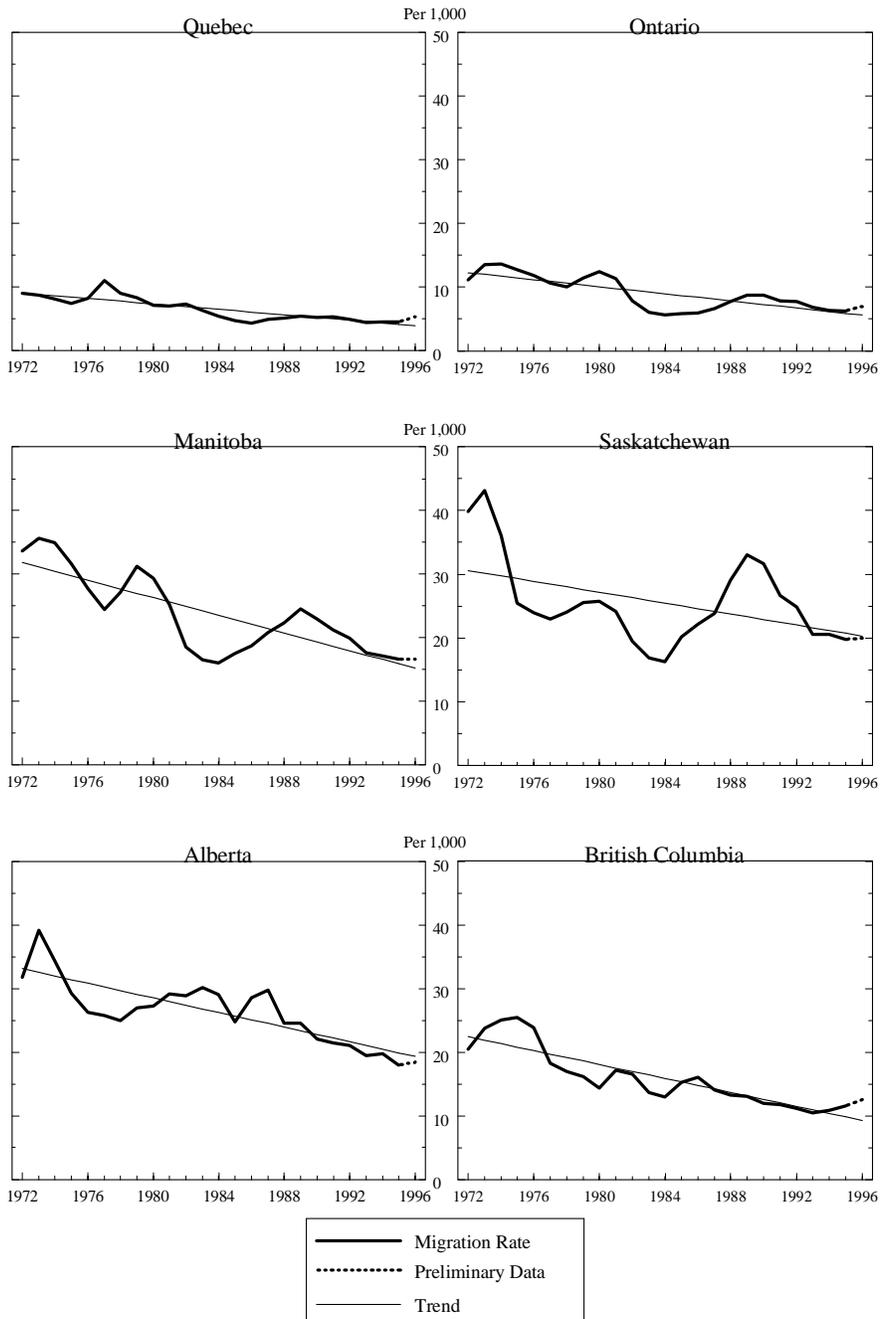
²⁹ International migration to California remains heavy.

Figure 30. Interprovincial Migration Rate (Out), Canada and Provinces, 1972-1996



Source: See at the end of this figure.

Figure 30. Interprovincial Migration Rate (Out), Canada and Provinces, 1972-1996 - Concluded



Source: Statistics Canada, Demography Division and calculations by the author.

Table 34. Net Migration for Provinces and Territories, 1970-1996

Year	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	Total
1970	-5,950	-29	-3,967	-2,373	-41,156	54,590	-7,707	-28,358	9,898	22,579	2,473	412,559
1971	733	-129	-755	1,798	-25,005	18,580	-7,251	-17,986	2,408	25,034	2,573	405,301
1972	-189	858	2,845	241	-19,891	8,227	-7,735	-17,296	6,538	24,927	1,475	375,184
1973	-2,510	478	2,107	2,841	-14,730	-5,275	-2,200	-13,261	2,698	30,537	-685	433,992
1974	-618	1,386	1,576	4,192	-11,852	-22,163	-5,400	-4,835	14,810	22,655	249	421,336
1975	915	814	4,454	7,572	-12,340	-25,057	-4,134	6,555	23,463	-2,864	622	385,330
1976	-2,732	309	361	1,640	-10,508	-10,508	-3,655	3,819	34,215	-1,490	-1,158	376,970
1977	-4,009	614	-1,277	-886	-46,536	8,596	-3,789	384	32,344	15,507	-948	366,918
1978	-3,540	25	-109	-1,644	-33,424	415	-9,557	-3,701	31,987	20,698	-1,150	348,929
1979	-4,217	-225	-1,840	-2,219	-30,025	-15,317	-13,806	-3,510	39,212	33,241	-1,294	370,862
1980	-3,082	-1,082	-2,494	-4,165	-24,283	-34,919	-11,342	-4,382	46,933	40,165	-1,349	372,167
1981	-6,238	-783	-2,465	4,766	-22,549	-19,665	-3,621	-520	40,243	21,565	-1,201	380,041
1982	261	-6	1,591	2,183	-28,169	19,614	1,498	1,743	3,961	-2,019	-657	322,634
1983	-1,092	799	3,861	2,296	-19,080	32,825	950	2,501	-26,246	4,029	-843	285,599
1984	-3,585	524	2,963	812	-10,943	36,691	-49	733	-30,591	3,505	-60	273,323
1985	-5,019	-13	-234	-1,559	-6,023	33,414	-1,755	-5,014	-9,568	-3,199	-1,030	281,275
1986	-4,682	-493	-739	-2,897	-3,020	42,916	-3,039	-7,020	-20,293	910	-1,643	302,352
1987	-4,374	301	-2,183	-1,762	-7,410	40,278	-4,751	-9,043	-27,595	17,618	-1,079	318,890
1988	-2,154	424	71	-1,215	-7,003	14,898	-8,584	-16,338	-5,535	25,865	-429	323,685
1989	-2,606	-102	572	-21	-8,379	-1,205	-10,004	-18,589	3,366	37,367	-399	347,990
1990	-1,137	-273	-106	1,014	-9,567	-15,117	-8,613	-15,928	11,055	38,704	-32	332,637
1991	-1,084	-415	1,039	-79	-13,047	-9,978	-7,581	-9,499	5,511	34,572	561	315,420
1992	-2,563	232	355	-1,087	-9,785	-13,530	-6,417	-7,727	1,030	39,578	-86	309,261
1993	-3,397	532	-1,143	-492	-7,426	-12,771	-5,206	-4,543	-2,355	37,595	-794	283,297
1994	-6,204	694	-2,694	-505	-10,252	-4,527	-4,010	-3,958	-2,684	34,449	-309	286,370
1995	-6,566	368	-1,972	-931	-10,248	-1,764	-3,344	-3,190	4,251	23,414	-18	286,259
1996	-8,380	315	-246	-1,263	-14,711	-5,942	-2,638	-1,160	13,902	20,665	-542	315,008
Total	-84,019	5,123	-429	-3,275	-467,655	113,306	-143,740	-180,123	202,958	565,607	-7,753	9,233,589

Source: Statistics Canada, Demography Division, Population Estimates Section.

Newfoundland lost population in its exchanges with every other province, and Quebec would have been in the same situation had it not been for Newfoundland. The increase of 4,500 in Quebec's deficit between 1995 and 1996 was due primarily to exchanges with Ontario (Quebec lost 8,300 people to Ontario in 1996, 6,900 in 1995), Alberta (2,500 in 1996 and 600 in 1995) and British Columbia (3,500 in 1996 and 2,500 in 1995). Preliminary data for the first three months of 1997 point to a reversal for Ontario, which will probably have a positive balance, and an even higher deficit for Newfoundland and Quebec. After suffering substantial losses in the early 1990s, Manitoba and Saskatchewan have seen improvements in their migration balances, though they remain slightly in the red.

Appendices

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Newfoundland

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	549.4	4.5	7.0	0.5	0.2	0.0	12.4	13.0	-0.6	2.6
1975	553.9	7.3	8.0	0.6	0.2	0.1	12.3	11.4	0.9	2.6
1976	561.2	4.0	7.8	0.3	0.2	0.0	9.7	12.4	-2.7	1.6
1977	565.2	2.7	7.3	0.2	0.2	0.0	8.1	12.2	-4.0	1.0
1978	567.9	2.1	6.4	0.0	0.2	0.0	8.1	11.7	-3.5	1.0
1979	569.9	2.3	7.0	0.2	0.2	0.1	8.9	13.1	-4.2	1.0
1980	572.2	3.5	7.0	0.3	0.2	0.1	9.3	12.4	-3.1	1.0
1981	575.8	-0.6	6.9	0.1	0.2	0.1	8.5	14.8	-6.2	1.6
1982	575.1	4.2	5.8	-0.1	0.2	0.1	10.6	10.3	0.3	2.1
1983	579.4	2.0	5.4	-0.2	0.2	-0.2	7.6	8.7	-1.1	2.1
1984	581.4	-0.5	5.0	-0.1	0.2	0.1	5.7	9.3	-3.6	2.1
1985	580.9	-2.0	4.9	-0.1	0.2	0.0	6.0	11.0	-5.0	2.1
1986	578.8	-1.7	4.6	-0.2	0.2	0.2	7.7	12.4	-4.7	1.8
1987	577.1	-1.2	4.1	0.1	0.2	0.3	8.4	12.8	-4.4	1.5
1988	575.9	0.9	3.9	0.2	0.2	0.3	10.0	12.2	-2.2	1.5
1989	576.8	0.7	4.0	0.3	0.1	0.4	10.1	12.7	-2.6	1.5
1990	577.5	1.5	3.7	0.4	0.1	-0.1	10.2	11.4	-1.1	1.5
1991	578.9	1.8	3.4	0.3	0.1	-0.4	9.9	10.9	-1.1	0.6
1992 (PD)	580.7	3.2	3.1	0.5	0.1	2.0	8.1	10.7	-2.6	...
1993 (PD)	583.9	-1.7	2.5	0.5	0.1	-1.5	6.9	10.3	-3.4	...
1994 (PD)	582.2	-4.6	2.3	0.3	0.1	-1.1	6.3	12.5	-6.2	...
1995 (PD)	577.6	-5.0	1.9	0.3	0.1	-0.8	7.0	13.5	-6.6	...
1996 (PR)	572.6	-6.6	1.8	0.3	0.1	-0.5	8.6	17.0	-8.4	...
1997 (PR)	566.0
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	549.4	8.2	12.6	-4.4	18.6	6.0	0.6	23.6	0.9	
1975	553.9	13.1	14.3	-1.2	20.1	5.8	0.5	20.5	1.1	
1976	561.2	7.0	13.9	-6.8	19.8	5.9	0.4	22.1	0.5	
1977	565.2	4.7	12.8	-8.1	18.4	5.5	0.4	21.5	0.3	
1978	567.9	3.6	11.3	-7.6	16.7	5.5	0.3	20.5	-0.1	
1979	569.9	4.1	12.3	-8.2	17.8	5.5	0.4	23.0	0.4	
1980	572.2	6.1	12.2	-6.0	18.0	5.8	0.4	21.5	0.5	
1981	575.8	-1.1	12.0	-13.1	17.6	5.6	0.4	25.7	0.2	
1982	575.1	7.3	10.0	-2.7	15.9	5.9	0.4	17.9	-0.1	
1983	579.4	3.5	9.4	-5.9	15.4	6.0	0.3	14.9	-0.4	
1984	581.4	-0.9	8.7	-9.5	14.7	6.1	0.2	16.0	-0.2	
1985	580.9	-3.5	8.5	-12.1	14.7	6.1	0.2	18.9	-0.2	
1986	578.8	-3.0	7.9	-10.9	14.0	6.1	0.3	21.4	-0.4	
1987	577.1	-2.1	7.2	-9.3	13.5	6.3	0.3	22.2	0.2	
1988	575.9	1.5	6.8	-5.3	13.0	6.2	0.4	21.1	0.3	
1989	576.8	1.2	7.0	-5.8	13.4	6.4	0.4	22.0	0.5	
1990	577.5	2.6	6.4	-3.9	13.2	6.7	0.4	19.7	0.6	
1991	578.9	3.0	5.8	-2.8	12.4	6.6	0.4	18.9	0.6	
1992 (PD)	580.7	5.5	5.4	0.1	11.9	6.5	0.3	18.4	0.9	
1993 (PD)	583.9	-2.9	4.3	-7.2	11.0	6.7	0.2	17.6	0.9	
1994 (PD)	582.2	-7.9	3.9	-11.9	10.9	7.0	0.2	21.6	0.5	
1995 (PD)	577.6	-8.6	3.3	-12.0	10.2	6.8	0.2	23.5	0.6	
1996 (PR)	572.6	-11.7	3.2	-14.9	10.1	6.9	0.3	29.8	0.5	
1997 (PR)	566.0	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Prince Edward Island

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	115.4	1.8	0.9	0.2	0.1	0.0	5.2	3.8	1.4	0.7
1975	117.2	1.2	0.9	0.1	0.1	0.0	4.6	3.8	0.8	0.7
1976	118.4	1.1	0.8	0.1	0.1	0.0	4.3	4.0	0.3	0.2
1977	119.5	1.8	0.9	0.1	0.1	0.0	3.9	3.3	0.6	-0.1
1978	121.3	1.2	1.0	0.0	0.1	0.0	3.5	3.5	0.0	-0.1
1979	122.5	1.0	0.9	0.2	0.1	0.0	3.4	3.6	-0.2	-0.1
1980	123.5	0.1	0.9	0.1	0.0	0.0	3.0	4.1	-1.1	-0.1
1981	123.6	0.2	0.9	0.0	0.1	0.0	3.5	4.3	-0.8	0.0
1982	123.8	1.0	0.9	0.1	0.1	0.0	3.4	3.4	0.0	0.1
1983	124.8	1.6	0.9	0.0	0.0	0.0	3.3	2.5	0.8	0.1
1984	126.4	1.3	0.8	0.0	0.0	0.0	3.1	2.5	0.5	0.1
1985	127.8	0.9	0.9	0.0	0.0	0.0	2.8	2.8	0.0	0.1
1986	128.7	0.2	0.8	0.1	0.0	0.1	2.5	3.0	-0.5	0.4
1987	128.8	0.7	0.8	0.1	0.0	0.0	3.1	2.8	0.3	0.6
1988	129.6	0.9	0.9	0.1	0.0	0.0	3.5	3.1	0.4	0.6
1989	130.5	0.3	0.8	0.1	0.0	0.0	3.3	3.4	-0.1	0.6
1990	130.8	0.2	0.9	0.1	0.0	0.0	2.8	3.1	-0.3	0.6
1991	131.0	0.1	0.7	0.0	0.0	0.0	2.9	3.3	-0.4	0.2
1992 (PD)	131.1	1.1	0.7	0.1	0.0	0.0	2.8	2.6	0.2	...
1993 (PD)	132.2	1.3	0.6	0.1	0.0	0.0	2.5	1.9	0.5	...
1994 (PD)	133.5	1.4	0.6	0.1	0.0	0.0	2.7	2.0	0.7	...
1995 (PD)	134.9	1.2	0.6	0.1	0.0	0.1	2.6	2.2	0.4	...
1996 (PR)	136.0	0.9	0.4	0.1	0.0	0.0	3.0	2.7	0.3	...
1997 (PR)	137.0
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	115.4	15.6	7.3	8.3	16.7	9.4	0.2	32.5	1.6	
1975	117.2	10.2	7.4	2.8	16.4	9.0	0.2	32.2	1.1	
1976	118.4	9.3	7.1	2.2	16.3	9.2	0.2	33.6	1.1	
1977	119.5	14.6	7.7	7.0	16.4	8.7	0.2	27.2	0.8	
1978	121.3	9.8	8.1	1.7	16.3	8.2	0.1	28.4	0.4	
1979	122.5	8.3	7.4	0.9	15.7	8.3	0.1	29.4	1.7	
1980	123.5	0.7	7.5	-6.7	15.8	8.4	0.1	33.3	1.0	
1981	123.6	2.0	7.3	-5.3	15.3	8.0	0.1	34.4	0.3	
1982	123.8	7.7	7.6	0.2	15.5	7.9	0.1	27.1	0.6	
1983	124.8	13.1	6.8	6.2	15.2	8.4	0.1	19.7	0.0	
1984	126.4	10.6	6.6	3.9	15.4	8.7	0.1	20.0	0.1	
1985	127.8	6.9	7.0	-0.1	15.7	8.7	0.1	22.2	0.2	
1986	128.7	1.2	6.3	-5.0	15.0	8.7	0.1	23.2	0.7	
1987	128.8	5.8	6.5	-0.7	15.1	8.6	0.1	21.5	0.9	
1988	129.6	6.8	6.7	0.2	15.2	8.6	0.1	23.5	0.7	
1989	130.5	2.6	6.5	-3.9	14.8	8.3	0.1	26.4	0.7	
1990	130.8	1.4	6.7	-5.2	15.4	8.7	0.1	23.7	1.1	
1991	131.0	0.7	5.3	-4.6	14.4	9.1	0.1	25.2	0.4	
1992 (PD)	131.1	8.2	5.6	2.6	14.1	8.5	0.1	19.7	0.5	
1993 (PD)	132.2	9.8	4.6	5.2	13.2	8.6	0.1	14.5	0.7	
1994 (PD)	133.5	10.7	4.5	6.2	12.8	8.3	0.1	14.9	0.6	
1995 (PD)	134.9	8.5	4.4	4.1	12.9	8.5	0.1	16.2	0.6	
1996 (PR)	136.0	6.8	3.3	3.5	12.2	9.0	0.1	19.7	0.6	
1997 (PR)	137.0	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Nova Scotia

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	818.1	6.6	6.0	1.9	0.3	-0.1	27.2	25.6	1.6	3.2
1975	824.7	9.6	6.3	1.5	0.3	0.1	25.6	21.1	4.5	3.2
1976	834.2	5.8	5.9	1.4	0.3	-0.1	23.0	22.6	0.4	2.1
1977	840.0	4.1	5.4	1.0	0.3	-0.1	19.9	21.2	-1.3	1.3
1978	844.2	4.9	5.7	0.4	0.3	-0.1	19.5	19.6	-0.1	1.3
1979	849.1	3.7	5.6	0.8	0.3	0.1	18.4	20.3	-1.8	1.3
1980	852.8	3.3	5.4	1.2	0.3	0.2	18.5	21.0	-2.5	1.3
1981	856.1	3.5	5.1	0.9	0.3	0.6	19.3	21.7	-2.5	0.9
1982	859.6	7.5	5.4	0.8	0.2	0.2	18.8	17.3	1.6	0.6
1983	867.1	9.4	5.4	0.3	0.2	0.2	18.3	14.5	3.9	0.6
1984	876.5	8.7	5.5	0.6	0.2	0.0	17.3	14.4	3.0	0.6
1985	885.2	4.8	5.1	0.5	0.2	-0.2	16.7	16.9	-0.2	0.6
1986	890.0	4.4	5.1	0.6	0.2	0.0	17.1	17.8	-0.7	0.8
1987	894.4	3.1	5.0	0.7	0.3	0.3	17.6	19.8	-2.2	1.0
1988	897.5	5.8	4.8	0.9	0.2	0.8	19.2	19.1	0.1	1.0
1989	903.2	6.5	5.0	1.0	0.2	0.7	20.4	19.8	0.6	1.0
1990	909.8	5.4	5.5	0.9	0.2	-0.2	18.6	18.7	-0.1	1.0
1991	915.2	5.1	4.8	0.5	0.3	-1.2	19.0	17.9	1.0	0.4
1992 (PD)	920.2	6.4	4.3	1.5	0.4	-0.2	18.1	17.8	0.4	...
1993 (PD)	926.6	5.2	4.0	2.2	0.4	-0.2	15.5	16.7	-1.1	...
1994 (PD)	931.8	3.2	3.3	2.6	0.4	-0.4	15.1	17.8	-2.7	...
1995 (PD)	935.1	4.3	3.0	2.9	0.4	-0.1	15.4	17.4	-2.0	...
1996 (PR)	939.4	5.3	2.7	2.6	0.4	-0.2	18.1	18.3	-0.2	...
1997 (PR)	944.7
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	818.1	8.1	7.4	0.7	15.8	8.4	1.2	31.2	2.3	
1975	824.7	11.5	7.6	3.9	15.8	8.2	1.1	25.5	1.8	
1976	834.2	6.9	7.0	-0.1	15.3	8.3	1.0	27.0	1.6	
1977	840.0	4.9	6.4	-1.5	14.7	8.3	0.9	25.2	1.2	
1978	844.2	5.8	6.7	-0.9	14.8	8.1	0.8	23.2	0.5	
1979	849.1	4.4	6.5	-2.2	14.6	8.0	0.8	23.8	1.0	
1980	852.8	3.9	6.3	-2.4	14.5	8.2	0.8	24.6	1.4	
1981	856.1	4.1	6.0	-1.9	14.1	8.1	0.8	25.3	1.0	
1982	859.6	8.7	6.2	2.5	14.3	8.0	0.8	20.0	0.9	
1983	867.1	10.8	6.1	4.6	14.2	8.1	0.7	16.6	0.4	
1984	876.5	9.8	6.2	3.6	14.1	7.8	0.7	16.3	0.7	
1985	885.2	5.4	5.8	-0.4	14.0	8.2	0.7	19.1	0.5	
1986	890.0	4.9	5.7	-0.8	13.9	8.1	0.7	20.0	0.7	
1987	894.4	3.5	5.6	-2.1	13.5	7.9	0.7	22.1	0.8	
1988	897.5	6.4	5.3	1.1	13.5	8.2	0.7	21.2	1.0	
1989	903.2	7.2	5.5	1.7	13.8	8.3	0.8	21.9	1.1	
1990	909.8	5.9	6.0	-0.1	14.1	8.1	0.7	20.5	1.0	
1991	915.2	5.6	5.2	0.4	13.1	7.9	0.7	19.5	0.6	
1992 (PD)	920.2	6.9	4.7	2.2	12.9	8.2	0.7	19.3	1.7	
1993 (PD)	926.6	5.6	4.3	1.3	12.4	8.1	0.6	17.9	2.4	
1994 (PD)	931.8	3.5	3.6	-0.1	11.9	8.3	0.5	19.1	2.8	
1995 (PD)	935.1	4.6	3.2	1.3	11.4	8.2	0.5	18.5	3.1	
1996 (PR)	939.4	5.6	2.9	2.7	11.1	8.2	0.6	19.5	2.8	
1997 (PR)	944.7	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

New Brunswick

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	663.0	10.1	6.2	0.9	0.6	0.0	22.9	18.7	4.2	1.8
1975	673.1	14.0	6.6	0.9	0.6	0.1	24.2	16.6	7.6	1.8
1976	687.2	8.1	6.6	0.7	0.6	0.0	18.9	17.3	1.6	1.4
1977	695.3	5.0	6.3	0.1	0.5	0.0	15.5	16.4	-0.9	1.1
1978	700.4	3.0	5.6	-0.4	0.5	0.0	14.3	16.0	-1.6	1.1
1979	703.4	3.2	5.7	0.2	0.5	0.1	14.3	16.5	-2.2	1.1
1980	706.6	1.2	5.3	0.5	0.5	0.2	13.2	17.4	-4.2	1.1
1981	707.9	0.1	5.4	-0.1	0.5	0.4	13.8	18.6	-4.8	1.3
1982	708.0	6.0	5.3	-0.3	0.4	-0.2	14.8	12.7	2.2	1.4
1983	714.0	6.3	5.3	-0.2	0.4	0.0	13.2	10.9	2.3	1.4
1984	720.3	4.6	5.1	-0.3	0.4	-0.1	12.0	11.2	0.8	1.4
1985	724.9	2.0	4.9	-0.4	0.5	0.0	11.5	13.1	-1.6	1.4
1986	726.9	1.3	4.3	-0.3	0.4	0.1	11.4	14.3	-2.9	0.4
1987	728.1	3.0	4.2	-0.2	0.4	0.1	13.2	15.0	-1.8	-0.3
1988	731.2	4.1	4.2	-0.2	0.4	0.6	13.7	14.9	-1.2	-0.3
1989	735.2	4.9	4.2	0.0	0.4	0.1	15.0	15.0	0.0	-0.3
1990	740.1	5.9	4.4	0.0	0.4	-0.1	14.2	13.2	1.0	-0.3
1991	746.1	3.7	4.0	-0.2	0.4	-0.6	12.8	12.9	-0.1	-0.1
1992 (PD)	749.8	2.8	3.8	-0.2	0.5	-0.2	12.0	13.1	-1.1	...
1993 (PD)	752.6	2.9	3.2	-0.2	0.4	-0.1	11.0	11.5	-0.5	...
1994 (PD)	755.4	2.5	3.1	-0.3	0.5	-0.2	10.7	11.2	-0.5	...
1995 (PD)	757.9	1.8	2.6	-0.4	0.5	0.0	11.2	12.1	-0.9	...
1996 (PR)	759.7	1.0	2.3	-0.3	0.5	-0.2	12.4	13.6	-1.3	...
1997 (PR)	760.7
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	663.0	15.2	9.3	5.8	17.1	7.8	1.0	28.0	1.3	
1975	673.1	20.7	9.8	10.9	17.3	7.6	1.1	24.4	1.3	
1976	687.2	11.8	9.6	2.2	17.1	7.5	0.8	25.0	1.0	
1977	695.3	7.2	9.1	-1.8	16.5	7.4	0.7	23.4	0.2	
1978	700.4	4.3	8.0	-3.7	15.4	7.4	0.6	22.8	-0.6	
1979	703.4	4.6	8.1	-3.4	15.4	7.3	0.6	23.4	0.3	
1980	706.6	1.8	7.5	-5.8	15.0	7.5	0.6	24.6	0.7	
1981	707.9	0.2	7.6	-7.4	14.8	7.3	0.6	26.3	-0.1	
1982	708.0	8.4	7.4	1.0	14.8	7.3	0.6	17.8	-0.4	
1983	714.0	8.8	7.4	1.4	14.7	7.3	0.5	15.2	-0.3	
1984	720.3	6.3	7.0	-0.7	14.3	7.3	0.5	15.5	-0.4	
1985	724.9	2.8	6.7	-4.0	13.9	7.2	0.5	18.0	-0.5	
1986	726.9	1.8	6.0	-4.2	13.5	7.5	0.4	19.6	-0.4	
1987	728.1	4.2	5.7	-1.6	13.1	7.4	0.5	20.5	-0.3	
1988	731.2	5.5	5.7	-0.2	13.1	7.4	0.5	20.3	-0.2	
1989	735.2	6.6	5.7	1.0	13.1	7.5	0.6	20.4	0.0	
1990	740.1	8.0	5.9	2.1	13.2	7.3	0.5	17.7	-0.1	
1991	746.1	5.0	5.4	-0.4	12.7	7.3	0.5	17.3	-0.2	
1992 (PD)	749.8	3.7	5.0	-1.3	12.5	7.5	0.4	17.5	-0.3	
1993 (PD)	752.6	3.8	4.3	-0.5	12.0	7.7	0.4	15.3	-0.3	
1994 (PD)	755.4	3.2	4.0	-0.8	11.9	7.8	0.4	14.9	-0.5	
1995 (PD)	757.9	2.4	3.5	-1.1	11.3	7.8	0.4	16.0	-0.5	
1996 (PR)	759.7	1.4	3.0	-1.6	10.8	7.8	0.4	17.9	-0.3	
1997 (PR)	760.7	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Quebec

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	6,261.4	59.5	42.9	20.1	6.3	-0.3	39.3	51.2	-11.9	-2.3
1975	6,320.9	64.2	50.2	16.1	6.3	1.7	34.5	46.8	-12.3	-2.3
1976	6,385.1	52.2	53.3	18.4	6.2	-0.5	31.6	52.4	-20.8	4.5
1977	6,437.3	12.0	53.7	9.0	5.5	-0.3	24.4	71.0	-46.5	9.4
1978	6,449.3	17.6	51.8	3.8	5.4	-0.5	24.5	57.9	-33.4	9.4
1979	6,466.9	33.3	55.3	10.5	5.1	1.8	23.6	53.7	-30.0	9.4
1980	6,500.2	43.3	53.9	15.1	4.7	3.3	21.9	46.2	-24.3	9.4
1981	6,543.5	42.6	52.6	13.4	4.2	4.8	23.6	46.1	-22.5	9.8
1982	6,586.1	22.9	47.3	11.8	4.8	-2.8	19.9	48.1	-28.2	10.1
1983	6,609.0	27.6	43.9	7.0	4.3	1.6	22.3	41.4	-19.1	10.1
1984	6,636.6	33.0	43.4	5.8	4.3	0.6	25.2	36.2	-10.9	10.1
1985	6,669.6	40.5	40.6	7.2	4.1	4.6	25.4	31.4	-6.0	10.1
1986	6,710.1	60.0	37.7	12.4	4.0	13.9	26.0	29.0	-3.0	5.0
1987	6,770.1	59.0	36.2	21.1	3.5	7.1	26.0	33.4	-7.4	1.4
1988	6,829.1	77.0	38.8	20.7	3.0	22.9	27.8	34.8	-7.0	1.4
1989	6,906.0	73.0	44.1	28.7	2.9	7.2	29.5	37.8	-8.4	1.4
1990	6,979.0	69.4	49.6	35.5	2.6	-7.4	26.9	36.4	-9.6	1.4
1991	7,048.4	76.7	48.2	45.1	3.1	-6.1	24.5	37.6	-13.0	0.6
1992 (PD)	7,125.1	79.3	47.3	42.3	3.2	-3.6	25.5	35.3	-9.8	...
1993 (PD)	7,204.4	65.6	40.7	38.9	3.1	-9.6	24.5	32.0	-7.4	...
1994 (PD)	7,270.1	52.9	39.2	21.8	3.1	-0.9	22.7	33.0	-10.3	...
1995 (PD)	7,323.0	52.1	34.7	20.2	3.1	4.4	23.1	33.4	-10.2	...
1996 (PR)	7,375.1	39.6	32.0	22.9	3.1	-3.6	24.8	39.5	-14.7	...
1997 (PR)	7,414.8
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	6,261.4	9.5	6.8	2.6	13.6	6.8	2.4	8.1	3.2	
1975	6,320.9	10.1	7.9	2.2	14.7	6.8	2.0	7.4	2.5	
1976	6,385.1	8.1	8.3	-0.2	15.0	6.7	1.8	8.2	2.9	
1977	6,437.3	1.9	8.3	-6.5	15.1	6.7	1.4	11.0	1.4	
1978	6,449.3	2.7	8.0	-5.3	14.8	6.7	1.4	9.0	0.6	
1979	6,466.9	5.1	8.5	-3.4	15.2	6.7	1.3	8.3	1.6	
1980	6,500.2	6.6	8.3	-1.6	14.9	6.7	1.2	7.1	2.3	
1981	6,543.5	6.5	8.0	-1.5	14.5	6.5	1.3	7.0	2.0	
1982	6,586.1	3.5	7.2	-3.7	13.8	6.6	1.1	7.3	1.8	
1983	6,609.0	4.2	6.6	-2.5	13.3	6.7	1.2	6.3	1.1	
1984	6,636.6	5.0	6.5	-1.6	13.2	6.7	1.3	5.4	0.9	
1985	6,669.6	6.0	6.1	0.0	12.9	6.8	1.3	4.7	1.1	
1986	6,710.1	8.9	5.6	3.3	12.6	7.0	1.3	4.3	1.8	
1987	6,770.1	8.7	5.3	3.4	12.3	7.0	1.3	4.9	3.1	
1988	6,829.1	11.2	5.7	5.6	12.6	7.0	1.4	5.1	3.0	
1989	6,906.0	10.5	6.3	4.2	13.3	7.0	1.4	5.4	4.1	
1990	6,979.0	9.9	7.1	2.8	14.0	6.9	1.3	5.2	5.1	
1991	7,048.4	10.8	6.8	4.0	13.7	6.9	1.2	5.3	6.4	
1992 (PD)	7,125.1	11.1	6.6	4.5	13.4	6.8	1.2	4.9	5.9	
1993 (PD)	7,204.4	9.1	5.6	3.4	12.8	7.1	1.1	4.4	5.4	
1994 (PD)	7,270.1	7.3	5.4	1.9	12.4	7.0	1.0	4.5	3.0	
1995 (PD)	7,323.0	7.1	4.7	2.4	11.9	7.2	1.0	4.5	2.8	
1996 (PR)	7,375.1	5.4	4.3	1.0	11.6	7.2	1.1	5.3	3.1	
1997 (PR)	7,414.8	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Ontario

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	8,158.7	120.1	63.7	82.6	17.3	-1.2	89.5	111.7	-22.2	20.2
1975	8,278.7	106.1	65.2	64.6	17.5	4.1	80.9	106.0	-25.1	20.2
1976	8,384.8	92.2	62.1	41.3	17.3	-1.7	88.7	99.2	-10.5	16.2
1977	8,477.0	98.2	61.3	27.3	15.4	-1.2	98.6	90.0	8.6	13.4
1978	8,575.2	72.6	59.8	12.3	15.2	-1.7	86.6	86.2	0.4	13.4
1979	8,647.8	76.0	60.2	26.1	14.4	4.0	83.5	98.9	-15.3	13.4
1980	8,723.9	74.0	60.6	41.1	13.0	7.6	74.2	109.1	-34.9	13.4
1981	8,797.9	96.3	59.3	32.2	11.9	17.5	80.6	100.2	-19.7	5.0
1982	8,894.1	120.4	61.2	25.4	13.4	-0.1	89.1	69.5	19.6	-1.0
1983	9,014.5	123.6	62.3	13.5	12.3	1.7	88.2	55.4	32.8	-1.0
1984	9,138.1	131.3	66.6	16.7	11.9	-1.6	89.1	52.4	36.7	-1.0
1985	9,269.4	132.2	65.5	16.6	12.4	3.4	88.4	54.9	33.4	-1.0
1986	9,401.7	174.1	66.0	27.9	11.4	24.7	100.1	57.1	42.9	-1.1
1987	9,575.8	206.4	66.5	65.4	10.8	22.2	104.7	64.4	40.3	-1.2
1988	9,782.2	235.2	67.4	72.2	9.5	70.0	91.4	76.5	14.9	-1.2
1989	10,017.4	218.6	74.4	87.3	9.3	47.6	87.3	88.5	-1.2	-1.2
1990	10,236.0	165.4	80.1	96.8	8.4	-6.0	75.2	90.3	-15.1	-1.2
1991	10,401.4	167.5	78.6	98.2	9.9	-9.7	71.2	81.2	-10.0	-0.5
1992 (PD)	10,568.9	165.7	77.4	119.2	9.9	-27.3	68.0	81.5	-13.5	...
1993 (PD)	10,734.6	141.5	72.0	115.4	9.6	-42.8	62.3	75.1	-12.8	...
1994 (PD)	10,876.1	159.4	69.6	97.7	9.6	-13.0	66.0	70.5	-4.5	...
1995 (PD)	11,035.5	159.4	67.8	95.7	9.7	-11.9	68.5	70.3	-1.8	...
1996 (PR)	11,194.9	138.8	59.0	97.7	9.6	-21.5	72.8	78.8	-5.9	...
1997 (PR)	11,333.7
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	8,158.7	14.6	7.7	6.9	15.1	7.4	6.1	13.6	10.1	
1975	8,278.7	12.7	7.8	4.9	15.1	7.3	5.4	12.7	7.8	
1976	8,384.8	10.9	7.4	3.6	14.6	7.2	5.9	11.8	4.9	
1977	8,477.0	11.5	7.2	4.3	14.4	7.2	6.5	10.6	3.2	
1978	8,575.2	8.4	6.9	1.5	14.0	7.1	5.6	10.0	1.4	
1979	8,647.8	8.8	6.9	1.8	14.0	7.1	5.4	11.4	3.0	
1980	8,723.9	8.4	6.9	1.5	14.1	7.2	4.7	12.5	4.7	
1981	8,797.9	10.9	6.7	4.2	13.8	7.1	5.0	11.3	3.6	
1982	8,894.1	13.4	6.8	6.6	13.9	7.1	5.5	7.8	2.8	
1983	9,014.5	13.6	6.9	6.7	14.0	7.1	5.4	6.1	1.5	
1984	9,138.1	14.3	7.2	7.0	14.3	7.0	5.4	5.7	1.8	
1985	9,269.4	14.2	7.0	7.2	14.2	7.1	5.3	5.9	1.8	
1986	9,401.7	18.4	7.0	11.4	14.1	7.2	6.0	6.0	2.9	
1987	9,575.8	21.3	6.9	14.5	13.9	7.0	6.2	6.7	6.8	
1988	9,782.2	23.8	6.8	16.9	13.9	7.1	5.4	7.7	7.3	
1989	10,017.4	21.6	7.3	14.2	14.4	7.0	5.1	8.7	8.6	
1990	10,236.0	16.0	7.8	8.3	14.6	6.9	4.3	8.8	9.4	
1991	10,401.4	16.0	7.5	8.5	14.4	7.0	4.0	7.7	9.4	
1992 (PD)	10,568.9	15.6	7.3	8.3	14.1	6.9	3.8	7.7	11.2	
1993 (PD)	10,734.6	13.1	6.7	6.4	13.7	7.0	3.4	6.9	10.7	
1994 (PD)	10,876.1	14.5	6.4	8.2	13.4	7.1	3.6	6.4	8.9	
1995 (PD)	11,035.5	14.3	6.1	8.2	13.2	7.1	3.7	6.3	8.6	
1996 (PR)	11,194.9	12.3	5.2	7.1	12.3	7.0	3.9	7.0	8.7	
1997 (PR)	11,333.7	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Manitoba

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	1,014.3	7.2	8.9	4.5	1.4	-0.1	30.2	35.6	-5.4	2.1
1975	1,021.5	8.6	8.8	4.5	1.4	0.2	28.4	32.5	-4.1	2.1
1976	1,030.1	6.4	8.5	3.2	1.3	-0.1	25.1	28.7	-3.7	2.9
1977	1,036.5	5.3	8.5	2.8	1.2	-0.1	21.6	25.3	-3.8	3.4
1978	1,041.8	-2.5	8.1	1.3	1.2	-0.1	18.7	28.2	-9.6	3.4
1979	1,039.3	-4.9	8.0	3.0	1.1	0.2	18.8	32.6	-13.8	3.4
1980	1,034.5	0.3	7.6	6.1	1.0	0.4	19.0	30.4	-11.3	3.4
1981	1,034.8	7.8	7.4	3.4	1.0	0.7	22.7	26.3	-3.6	1.2
1982	1,042.6	13.7	7.6	3.2	0.8	0.2	20.9	19.4	1.5	-0.4
1983	1,056.2	12.7	8.1	1.8	1.0	0.4	18.5	17.5	1.0	-0.4
1984	1,069.0	11.7	8.4	2.3	0.8	-0.2	17.2	17.2	0.0	-0.4
1985	1,080.7	9.4	8.3	1.6	0.9	-0.1	17.2	19.0	-1.8	-0.4
1986	1,090.1	7.0	8.1	1.9	0.9	0.2	17.4	20.5	-3.0	1.0
1987	1,097.0	5.3	8.2	2.8	0.9	0.1	18.1	22.9	-4.8	2.0
1988	1,102.3	1.8	7.9	3.0	0.8	0.7	16.1	24.7	-8.6	2.0
1989	1,104.1	1.4	8.5	3.7	1.0	0.2	17.1	27.1	-10.0	2.0
1990	1,105.6	3.5	8.5	4.6	0.9	0.2	16.9	25.5	-8.6	2.0
1991	1,109.1	2.9	8.3	3.5	1.2	-1.7	16.1	23.6	-7.6	0.8
1992 (PD)	1,112.0	4.9	7.6	3.0	1.1	-0.4	15.9	22.3	-6.4	...
1993 (PD)	1,116.8	5.5	7.4	2.7	1.1	-0.4	14.6	19.8	-5.2	...
1994 (PD)	1,122.3	6.0	7.3	1.8	1.1	-0.2	15.4	19.4	-4.0	...
1995 (PD)	1,128.3	5.2	6.5	1.2	1.1	-0.1	15.5	18.9	-3.3	...
1996 (PR)	1,133.5	6.2	6.0	2.2	1.1	-0.4	16.4	19.0	-2.6	...
1997 (PR)	1,139.7
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	1,014.3	7.0	8.7	-1.7	17.0	8.3	1.4	35.0	4.5	
1975	1,021.5	8.4	8.5	-0.1	16.7	8.2	1.3	31.7	4.4	
1976	1,030.1	6.1	8.2	-2.0	16.2	8.0	1.1	27.8	3.1	
1977	1,036.5	5.1	8.2	-3.1	16.1	7.9	0.9	24.4	2.7	
1978	1,041.8	-2.4	7.8	-10.2	15.8	8.0	0.8	27.1	1.3	
1979	1,039.3	-4.7	7.7	-12.4	15.7	7.9	0.8	31.4	2.9	
1980	1,034.5	0.3	7.3	-7.0	15.5	8.2	0.8	29.4	5.9	
1981	1,034.8	7.5	7.1	0.3	15.5	8.3	1.0	25.3	3.3	
1982	1,042.6	13.0	7.3	5.8	15.4	8.1	0.9	18.5	3.1	
1983	1,056.2	12.0	7.6	4.4	15.6	8.0	0.8	16.5	1.7	
1984	1,069.0	10.9	7.8	3.1	15.5	7.7	0.7	16.0	2.2	
1985	1,080.7	8.7	7.7	1.0	15.8	8.1	0.7	17.5	1.5	
1986	1,090.1	6.4	7.4	-1.0	15.6	8.1	0.7	18.7	1.7	
1987	1,097.0	4.8	7.5	-2.7	15.4	7.9	0.7	20.8	2.5	
1988	1,102.3	1.7	7.2	-5.5	15.4	8.2	0.6	22.4	2.7	
1989	1,104.1	1.3	7.7	-6.4	15.7	8.0	0.6	24.5	3.4	
1990	1,105.6	3.2	7.7	-4.5	15.7	8.0	0.6	23.1	4.1	
1991	1,109.1	2.6	7.5	-4.9	15.6	8.1	0.6	21.3	3.1	
1992 (PD)	1,112.0	4.4	6.8	-2.5	14.9	8.1	0.6	20.0	2.7	
1993 (PD)	1,116.8	4.9	6.6	-1.7	14.9	8.3	0.5	17.7	2.4	
1994 (PD)	1,122.3	5.3	6.5	-1.2	14.6	8.1	0.5	17.2	1.6	
1995 (PD)	1,128.3	4.6	5.7	-1.1	14.2	8.5	0.5	16.7	1.0	
1996 (PR)	1,133.5	5.4	5.3	0.2	13.7	8.4	0.6	16.7	1.9	
1997 (PR)	1,139.7	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Saskatchewan

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	909.8	2.7	7.3	0.8	0.7	0.0	28.0	32.8	-4.8	1.3
1975	912.5	15.3	7.6	1.6	0.7	0.1	30.0	23.4	6.6	1.3
1976	927.8	13.0	8.2	1.2	0.7	0.0	26.2	22.4	3.8	0.8
1977	940.7	10.6	9.0	1.1	0.6	0.0	22.2	21.8	0.4	0.4
1978	951.3	5.6	8.8	0.4	0.6	0.0	19.3	23.0	-3.7	0.4
1979	956.9	8.1	9.6	1.8	0.5	0.1	21.1	24.6	-3.5	0.4
1980	965.0	8.1	9.4	2.8	0.5	0.2	20.7	25.0	-4.4	0.4
1981	973.1	11.3	9.7	1.4	0.5	0.3	23.2	23.7	-0.5	0.1
1982	984.4	12.9	9.5	1.0	0.5	0.0	21.0	19.3	1.7	-0.1
1983	997.3	14.0	10.2	0.5	0.5	0.1	19.5	17.0	2.5	-0.1
1984	1,011.3	12.9	10.3	1.1	0.5	0.2	17.3	16.6	0.7	-0.1
1985	1,024.2	6.6	10.1	0.5	0.6	0.3	15.8	20.8	-5.0	-0.1
1986	1,030.8	2.8	9.5	1.0	0.5	0.4	15.9	22.9	-7.0	1.5
1987	1,033.6	-0.4	9.2	1.1	0.5	0.4	15.7	24.7	-9.0	2.6
1988	1,033.2	-8.1	8.7	1.3	0.5	0.4	13.6	30.0	-16.3	2.6
1989	1,025.1	-10.6	8.7	1.2	0.5	0.2	15.3	33.9	-18.6	2.6
1990	1,014.5	-8.4	8.0	1.5	0.5	0.1	16.1	32.0	-15.9	2.6
1991	1,006.1	-2.7	7.2	1.6	0.5	-1.4	17.4	26.9	-9.5	1.1
1992 (PD)	1,003.3	1.4	7.2	1.6	0.5	-0.1	17.3	25.1	-7.7	...
1993 (PD)	1,004.7	3.2	6.1	1.4	0.5	-0.3	16.3	20.8	-4.5	...
1994 (PD)	1,007.9	3.3	5.7	1.2	0.5	-0.2	16.9	20.8	-4.0	...
1995 (PD)	1,011.2	3.4	5.0	0.9	0.5	0.2	16.9	20.1	-3.2	...
1996 (PR)	1,014.6	5.2	5.0	0.8	0.5	0.0	19.2	20.4	-1.2	...
1997 (PR)	1,019.7
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	909.8	3.0	8.0	-5.1	16.6	8.6	1.3	36.0	0.9	
1975	912.5	16.6	8.3	8.3	16.6	8.3	1.3	25.5	1.7	
1976	927.8	13.9	8.7	5.2	17.1	8.4	1.2	24.0	1.2	
1977	940.7	11.2	9.5	1.7	17.5	8.0	1.0	23.1	1.2	
1978	951.3	5.9	9.2	-3.3	17.3	8.1	0.8	24.1	0.4	
1979	956.9	8.4	10.0	-1.6	17.6	7.7	0.9	25.6	1.9	
1980	965.0	8.4	9.7	-1.3	17.6	7.9	0.9	25.8	2.9	
1981	973.1	11.5	9.9	1.6	17.6	7.7	1.0	24.2	1.5	
1982	984.4	13.0	9.6	3.4	17.9	8.3	0.9	19.5	1.1	
1983	997.3	14.0	10.2	3.8	17.8	7.6	0.8	16.9	0.5	
1984	1,011.3	12.7	10.1	2.6	17.7	7.6	0.7	16.3	1.1	
1985	1,024.2	6.4	9.9	-3.4	17.7	7.8	0.6	20.2	0.5	
1986	1,030.8	2.7	9.2	-6.4	17.0	7.8	0.6	22.2	1.0	
1987	1,033.6	-0.4	8.9	-9.3	16.5	7.6	0.6	23.9	1.1	
1988	1,033.2	-7.9	8.4	-16.3	16.3	7.9	0.5	29.1	1.3	
1989	1,025.1	-10.4	8.6	-19.0	16.3	7.8	0.6	33.2	1.1	
1990	1,014.5	-8.3	8.0	-16.3	15.9	8.0	0.6	31.7	1.5	
1991	1,006.1	-2.7	7.2	-9.9	15.2	8.1	0.6	26.8	1.6	
1992 (PD)	1,003.3	1.4	7.2	-5.8	14.9	7.8	0.6	25.0	1.6	
1993 (PD)	1,004.7	3.2	6.1	-2.9	14.2	8.1	0.6	20.7	1.4	
1994 (PD)	1,007.9	3.2	5.7	-2.4	13.9	8.2	0.6	20.6	1.2	
1995 (PD)	1,011.2	3.3	4.9	-1.6	13.3	8.4	0.6	19.9	0.9	
1996 (PR)	1,014.6	5.1	5.0	0.1	12.8	7.8	0.7	20.1	0.8	
1997 (PR)	1,019.7	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Alberta

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	1,745.5	42.4	18.6	4.6	4.4	-0.1	75.4	60.6	14.8	-0.1
1975	1,787.9	56.4	20.2	7.4	4.5	0.7	76.7	53.2	23.5	-0.1
1976	1,844.2	74.0	21.5	6.6	4.5	-0.2	83.5	49.3	34.2	-7.4
1977	1,918.2	76.2	22.8	4.6	4.1	-0.1	82.8	50.5	32.3	-12.5
1978	1,994.4	73.1	23.5	1.3	4.1	-0.2	82.6	50.6	32.0	-12.5
1979	2,067.5	86.5	24.9	5.2	4.0	0.7	96.1	56.9	39.2	-12.5
1980	2,154.1	103.9	27.0	12.4	3.7	1.2	106.7	59.8	46.9	-12.5
1981	2,257.9	90.0	29.8	11.6	3.6	2.5	107.6	67.3	40.2	-2.3
1982	2,347.9	43.4	32.1	8.8	4.1	-0.4	72.7	68.8	4.0	5.0
1983	2,391.4	7.2	33.0	1.5	4.0	0.0	45.9	72.1	-26.2	5.0
1984	2,398.6	2.2	31.4	2.3	3.9	0.2	39.3	69.9	-30.6	5.0
1985	2,400.8	22.1	30.6	0.5	4.3	1.2	49.9	59.5	-9.6	5.0
1986	2,422.9	14.5	30.2	2.4	3.7	2.5	49.5	69.8	-20.3	3.9
1987	2,437.4	11.2	28.8	4.6	3.8	4.6	45.3	72.9	-27.6	3.0
1988	2,448.6	35.3	28.2	7.5	3.6	4.7	54.8	60.3	-5.5	3.0
1989	2,483.9	44.8	29.5	9.8	3.3	1.9	64.7	61.3	3.4	3.0
1990	2,528.7	52.0	28.9	12.4	3.1	-0.4	67.4	56.3	11.1	3.0
1991	2,580.7	37.3	28.3	8.4	3.8	-7.4	61.2	55.7	5.5	1.3
1992 (PD)	2,618.0	40.9	27.4	10.2	3.8	-1.5	57.0	56.0	1.0	...
1993 (PD)	2,658.9	33.7	25.0	11.1	3.7	-3.7	49.7	52.0	-2.4	...
1994 (PD)	2,692.6	33.6	24.2	10.2	3.8	-1.9	51.0	53.7	-2.7	...
1995 (PD)	2,726.3	38.6	23.0	6.9	3.8	0.6	53.8	49.5	4.3	...
1996 (PR)	2,764.9	44.9	21.4	6.1	3.8	-0.2	65.2	51.3	13.9	...
1997 (PR)	2,809.8
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	1,745.5	24.0	10.5	13.5	16.9	6.4	3.6	34.3	2.6	
1975	1,787.9	31.0	11.1	19.9	17.4	6.3	3.6	29.3	4.1	
1976	1,844.2	39.3	11.4	27.9	17.6	6.2	3.9	26.2	3.5	
1977	1,918.2	39.0	11.7	27.3	17.6	5.9	3.8	25.8	2.3	
1978	1,994.4	36.0	11.5	24.5	17.4	5.9	3.8	24.9	0.6	
1979	2,067.5	41.0	11.8	29.2	17.5	5.7	4.3	27.0	2.5	
1980	2,154.1	47.1	12.3	34.8	18.0	5.8	4.8	27.1	5.6	
1981	2,257.9	39.1	12.9	26.1	18.5	5.6	4.8	29.2	5.0	
1982	2,347.9	18.3	13.5	4.8	19.0	5.5	3.2	29.0	3.7	
1983	2,391.4	3.0	13.8	-10.8	19.0	5.3	2.0	30.1	0.6	
1984	2,398.6	0.9	13.1	-12.1	18.4	5.3	1.7	29.1	1.0	
1985	2,400.8	9.1	12.7	-3.5	18.2	5.5	2.1	24.7	0.2	
1986	2,422.9	6.0	12.4	-6.4	18.0	5.6	2.1	28.7	1.0	
1987	2,437.4	4.6	11.8	-7.2	17.2	5.5	1.9	29.8	1.9	
1988	2,448.6	14.3	11.4	2.9	17.1	5.6	2.2	24.5	3.0	
1989	2,483.9	17.9	11.8	6.1	17.3	5.5	2.6	24.5	3.9	
1990	2,528.7	20.3	11.3	9.0	16.8	5.5	2.7	22.1	4.8	
1991	2,580.7	14.4	10.9	3.5	16.5	5.6	2.4	21.4	3.2	
1992 (PD)	2,618.0	15.5	10.4	5.1	15.9	5.6	2.2	21.2	3.9	
1993 (PD)	2,658.9	12.6	9.3	3.3	15.1	5.7	1.9	19.4	4.1	
1994 (PD)	2,692.6	12.4	8.9	3.5	14.7	5.8	1.9	19.8	3.8	
1995 (PD)	2,726.3	14.1	8.4	5.7	14.2	5.8	2.0	18.0	2.5	
1996 (PR)	2,764.9	16.1	7.7	8.4	13.6	5.9	2.4	18.4	2.2	
1997 (PR)	2,809.8	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

British Columbia

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	2,420.4	69.5	16.3	24.0	4.7	-0.2	84.2	61.5	22.7	-2.0
1975	2,489.9	41.6	17.1	19.7	4.8	0.8	61.1	64.0	-2.9	-2.0
1976	2,531.5	32.1	17.1	11.8	4.8	-0.3	59.3	60.8	-1.5	-0.3
1977	2,563.6	43.8	18.1	7.1	4.3	-0.2	62.8	47.3	15.5	1.0
1978	2,607.5	45.6	18.2	3.8	4.3	-0.3	65.4	44.7	20.7	1.0
1979	2,653.1	65.5	19.2	9.2	4.1	0.8	76.6	43.4	33.2	1.0
1980	2,718.5	83.4	20.7	18.2	3.8	1.5	80.0	39.8	40.2	1.0
1981	2,801.9	65.3	21.6	15.5	3.4	3.3	70.4	48.8	21.6	0.1
1982	2,867.2	34.8	22.0	10.9	3.9	-0.6	45.9	47.9	-2.0	-0.6
1983	2,901.9	38.3	23.1	6.4	3.7	0.5	43.9	39.9	4.0	-0.6
1984	2,940.3	36.0	23.2	4.5	3.8	0.4	42.0	38.5	3.5	-0.6
1985	2,976.2	28.6	21.8	3.6	3.9	1.8	42.6	45.8	-3.2	-0.6
1986	3,004.8	33.9	20.8	4.3	4.0	4.5	49.5	48.6	0.9	0.6
1987	3,038.7	57.7	20.0	12.0	3.7	5.8	60.9	43.3	17.6	1.5
1988	3,096.4	74.0	20.4	17.5	3.2	8.5	67.5	41.6	25.9	1.5
1989	3,170.4	88.2	20.8	19.3	3.2	9.0	79.4	42.0	37.4	1.5
1990	3,258.6	87.7	22.0	22.5	3.1	2.8	78.4	39.7	38.7	1.5
1991	3,346.3	75.1	21.6	25.1	3.3	-9.0	74.5	39.9	34.6	0.6
1992 (PD)	3,421.3	93.8	21.5	30.0	3.4	-0.7	78.6	39.0	39.6	...
1993 (PD)	3,515.1	95.8	20.3	38.9	3.4	-4.3	75.2	37.6	37.6	...
1994 (PD)	3,610.9	100.9	21.1	42.0	3.4	0.0	74.5	40.1	34.4	...
1995 (PD)	3,711.8	89.1	20.4	37.1	3.5	4.7	67.1	43.7	23.4	...
1996 (PR)	3,800.9	85.2	18.7	43.1	3.4	-0.8	69.4	48.7	20.7	...
1997 (PR)	3,886.1
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	2,420.4	28.3	6.6	21.7	14.4	7.8	4.1	25.1	9.8	
1975	2,489.9	16.6	6.8	9.8	14.5	7.6	3.0	25.5	7.9	
1976	2,531.5	12.6	6.7	5.9	14.1	7.4	2.8	23.9	4.6	
1977	2,563.6	17.0	7.0	10.0	14.2	7.2	3.0	18.3	2.8	
1978	2,607.5	17.3	6.9	10.4	14.2	7.2	3.1	17.0	1.4	
1979	2,653.1	24.4	7.2	17.2	14.3	7.2	3.5	16.2	3.4	
1980	2,718.5	30.2	7.5	22.7	14.5	7.0	3.7	14.4	6.6	
1981	2,801.9	23.0	7.6	15.4	14.6	7.0	3.2	17.2	5.5	
1982	2,867.2	12.1	7.6	4.4	14.8	7.2	2.1	16.6	3.8	
1983	2,901.9	13.1	7.9	5.2	14.7	6.8	1.9	13.7	2.2	
1984	2,940.3	12.2	7.9	4.3	14.8	7.0	1.8	13.0	1.5	
1985	2,976.2	9.6	7.3	2.3	14.4	7.1	1.9	15.3	1.2	
1986	3,004.8	11.2	6.9	4.3	13.9	7.0	2.1	16.1	1.4	
1987	3,038.7	18.8	6.5	12.3	13.6	7.1	2.6	14.1	3.9	
1988	3,096.4	23.6	6.5	17.1	13.7	7.2	2.8	13.3	5.6	
1989	3,170.4	27.4	6.5	21.0	13.6	7.2	3.3	13.1	6.0	
1990	3,258.6	26.6	6.7	19.9	13.8	7.1	3.2	12.0	6.8	
1991	3,346.3	22.2	6.4	15.8	13.5	7.1	3.0	11.8	7.4	
1992 (PD)	3,421.3	27.0	6.2	20.8	13.3	7.1	3.1	11.3	8.6	
1993 (PD)	3,515.1	26.9	5.7	21.2	12.9	7.2	3.0	10.6	10.9	
1994 (PD)	3,610.9	27.5	5.8	21.8	12.8	7.1	2.9	10.9	11.5	
1995 (PD)	3,711.8	23.7	5.4	18.3	12.5	7.0	2.6	11.6	9.9	
1996 (PR)	3,800.9	22.2	4.9	17.3	12.1	7.2	2.7	12.7	11.2	
1997 (PR)	3,886.1	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Yukon

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	21.1	0.6	0.4	0.0	0.0	0.0	2.8	2.7	0.1	-0.1
1975	21.7	0.7	0.3	0.0	0.1	0.0	2.8	2.5	0.2	-0.1
1976	22.4	0.3	0.3	0.0	0.0	0.0	2.6	2.9	-0.4	-0.3
1977	22.7	0.8	0.3	0.0	0.0	0.0	2.8	2.7	0.1	-0.4
1978	23.5	0.6	0.4	0.0	0.0	0.0	2.7	2.8	-0.2	-0.4
1979	24.1	0.4	0.4	0.0	0.0	0.0	2.4	2.8	-0.4	-0.4
1980	24.5	0.4	0.3	0.0	0.0	0.0	2.3	2.7	-0.4	-0.4
1981	24.9	-0.5	0.4	0.0	0.0	0.0	2.7	4.1	-1.4	-0.3
1982	24.4	-0.5	0.4	0.0	0.1	0.0	1.6	2.8	-1.2	-0.3
1983	23.8	-0.1	0.4	0.0	0.0	0.0	1.6	2.4	-0.8	-0.3
1984	23.8	0.6	0.4	0.0	0.0	0.0	1.6	1.7	-0.1	-0.3
1985	24.4	0.2	0.3	0.0	0.0	0.0	1.6	2.0	-0.4	-0.3
1986	24.6	0.8	0.4	0.0	0.0	0.0	2.2	2.0	0.2	-0.2
1987	25.4	0.7	0.4	0.0	0.0	0.0	2.3	2.2	0.1	-0.2
1988	26.1	1.0	0.4	0.0	0.0	0.0	2.4	2.1	0.3	-0.2
1989	27.1	0.6	0.4	0.1	0.0	0.0	2.3	2.3	0.0	-0.2
1990	27.8	0.6	0.4	0.0	0.0	0.0	2.2	2.2	0.0	-0.2
1991	28.4	1.1	0.5	0.0	0.0	0.0	2.4	1.9	0.5	-0.1
1992 (PD)	29.5	0.7	0.4	0.1	0.0	0.0	2.3	2.1	0.2	...
1993 (PD)	30.2	-0.3	0.4	0.0	0.0	0.0	1.6	2.4	-0.8	...
1994 (PD)	29.8	0.2	0.3	0.1	0.0	0.0	1.8	2.0	-0.2	...
1995 (PD)	30.0	1.0	0.3	0.0	0.0	0.0	2.3	1.7	0.7	...
1996 (PR)	31.0	0.5	0.3	0.0	0.0	0.0	2.1	1.9	0.2	...
1997 (PR)	31.5
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	21.1	28.4	17.8	10.6	23.1	5.3	0.1	125.3	-0.3	
1975	21.7	30.9	13.4	17.5	18.5	5.1	0.1	113.7	0.0	
1976	22.4	12.7	14.4	-1.7	19.9	5.5	0.1	129.2	-0.7	
1977	22.7	35.2	14.2	21.0	18.8	4.5	0.1	119.1	-1.4	
1978	23.5	25.5	15.0	10.5	18.8	3.7	0.1	119.0	-1.3	
1979	24.1	15.8	15.4	0.5	20.6	5.2	0.1	116.3	-0.3	
1980	24.5	17.1	14.1	3.0	19.3	5.2	0.1	109.9	1.4	
1981	24.9	-21.8	16.0	-37.9	21.8	5.7	0.1	165.7	1.0	
1982	24.4	-21.9	16.9	-38.7	21.8	4.9	0.1	117.4	-1.7	
1983	23.8	-2.4	17.9	-20.4	22.7	4.7	0.1	99.3	0.5	
1984	23.8	25.6	17.1	8.6	21.5	4.5	0.1	70.6	-0.4	
1985	24.4	9.7	13.9	-4.2	18.9	5.0	0.1	82.8	-0.3	
1986	24.6	31.3	14.8	16.5	19.3	4.5	0.1	80.4	-0.2	
1987	25.4	28.1	14.3	13.8	18.5	4.2	0.1	85.7	0.8	
1988	26.1	36.0	14.5	21.6	19.6	5.1	0.1	78.9	1.0	
1989	27.1	23.6	14.0	9.5	17.5	3.5	0.1	85.5	2.1	
1990	27.8	22.9	15.7	7.2	19.8	4.1	0.1	80.1	0.9	
1991	28.4	36.8	15.7	21.1	19.6	3.9	0.1	64.7	0.3	
1992 (PD)	29.5	23.3	13.8	9.5	17.7	3.9	0.1	71.1	1.9	
1993 (PD)	30.2	-11.3	12.8	-24.2	16.9	4.1	0.1	79.8	1.3	
1994 (PD)	29.8	5.1	10.6	-5.6	14.8	4.1	0.1	68.0	1.8	
1995 (PD)	30.0	34.1	10.3	23.9	15.4	5.1	0.1	54.2	0.7	
1996 (PR)	31.0	17.2	10.3	6.9	14.2	3.9	0.1	61.4	0.7	
1997 (PR)	31.5	..	..	..	..	..	..	..	..

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1974-1997
(figures in thousands and rates per 1,000)

Northwest Territories

Year	Population as of January 1	Increase		Net International Migration ¹	Returning Canadians	Net Non-permanent Residents	Interprovincial Migration			Residual ²
		Total	Natural				In	Out	Net	
1974	41.2	1.3	0.8	0.2	0.0	0.0	4.3	4.2	0.2	-0.1
1975	42.4	1.7	1.0	0.2	0.0	0.0	4.3	3.9	0.4	-0.1
1976	44.1	0.6	1.0	0.1	0.0	0.0	4.1	4.9	-0.8	-0.3
1977	44.7	0.4	1.0	0.1	0.0	0.0	4.4	5.4	-1.0	-0.3
1978	45.1	0.5	1.0	0.1	0.0	0.0	3.9	4.8	-1.0	-0.3
1979	45.6	0.7	1.1	0.1	0.0	0.0	3.7	4.6	-0.8	-0.3
1980	46.3	0.6	1.1	0.1	0.0	0.0	3.4	4.3	-0.9	-0.3
1981	46.9	1.8	1.1	0.1	0.0	0.0	4.2	4.1	0.2	-0.4
1982	48.6	2.2	1.1	0.0	0.0	0.0	3.8	3.2	0.6	-0.4
1983	50.8	1.7	1.3	0.0	0.0	0.0	3.4	3.4	0.0	-0.4
1984	52.5	1.7	1.2	0.0	0.0	0.0	3.5	3.5	0.1	-0.4
1985	54.2	1.1	1.2	0.0	0.0	0.0	3.4	4.0	-0.6	-0.4
1986	55.3	-0.1	1.3	0.0	0.0	0.0	3.1	4.9	-1.8	-0.4
1987	55.2	0.6	1.3	0.0	0.0	0.0	3.5	4.7	-1.2	-0.4
1988	55.8	1.1	1.3	0.0	0.0	0.1	3.5	4.3	-0.8	-0.4
1989	56.9	1.3	1.2	0.0	0.0	0.0	3.7	4.1	-0.4	-0.4
1990	58.3	1.9	1.4	0.0	0.0	0.1	3.8	3.8	0.0	-0.4
1991	60.1	1.7	1.4	0.1	0.0	-0.1	3.7	3.6	0.1	-0.2
1992 (PD)	61.8	1.0	1.3	0.0	0.0	-0.1	3.4	3.7	-0.3	...
1993 (PD)	62.8	1.4	1.3	0.1	0.0	0.0	3.1	3.2	0.0	...
1994 (PD)	64.2	1.3	1.3	0.1	0.0	0.0	3.2	3.3	-0.1	...
1995 (PD)	65.5	0.8	1.4	0.0	0.0	0.0	2.9	3.5	-0.7	...
1996 (PR)	66.3	0.6	1.3	0.0	0.0	0.0	3.1	3.8	-0.7	...
1997 (PR)	66.9	**	**	**	**	**	**	**	**	...
Year	Population as of January 1	Growth Rate			Birth Rate	Death Rate	Interprovincial Migration Rate		Rate of Net International Immigration	
		Total	Natural	By Flow ³			In	Out		
1974	41.2	31.1	20.0	11.1	24.9	4.9	0.2	100.4	3.9	
1975	42.4	38.2	22.2	16.0	27.2	5.0	0.2	90.6	3.6	
1976	44.1	13.1	21.9	-8.8	26.6	4.8	0.2	110.5	3.2	
1977	44.7	9.8	22.1	-12.3	26.5	4.5	0.2	119.7	2.0	
1978	45.1	10.3	22.0	-11.7	26.5	4.5	0.2	106.4	1.8	
1979	45.6	15.3	23.5	-8.1	27.9	4.5	0.2	99.1	2.4	
1980	46.3	12.2	22.8	-10.7	28.0	5.1	0.1	92.4	1.5	
1981	46.9	37.5	23.2	14.4	27.3	4.1	0.2	84.9	1.5	
1982	48.6	44.0	22.7	21.3	27.4	4.7	0.2	65.2	0.6	
1983	50.8	31.9	24.2	7.7	28.9	4.7	0.1	66.5	0.4	
1984	52.5	32.1	22.6	9.5	27.1	4.4	0.1	65.5	0.6	
1985	54.2	19.5	22.3	-2.9	26.3	3.9	0.1	73.1	-0.2	
1986	55.3	-1.8	23.0	-24.8	27.3	4.3	0.1	88.9	-0.2	
1987	55.2	11.5	23.9	-12.4	27.4	3.6	0.1	84.5	0.1	
1988	55.8	19.6	23.7	-4.1	27.6	3.9	0.1	76.4	0.4	
1989	56.9	23.4	21.4	2.0	25.7	4.3	0.1	71.2	-0.2	
1990	58.3	31.8	22.9	8.9	26.8	3.8	0.1	63.5	-0.4	
1991	60.1	27.9	22.9	5.0	26.8	3.9	0.1	58.5	1.1	
1992 (PD)	61.8	16.1	20.8	-4.7	24.9	4.1	0.1	59.7	0.8	
1993 (PD)	62.8	21.5	20.4	1.0	24.5	4.1	0.1	49.8	1.5	
1994 (PD)	64.2	20.6	20.6	0.0	24.4	3.7	0.1	51.1	1.0	
1995 (PD)	65.5	11.6	21.0	-9.4	24.5	3.4	0.1	53.6	0.2	
1996 (PR)	66.3	9.4	19.8	-10.4	23.3	3.5	0.1	56.9	-0.2	
1997 (PR)	66.9	**	**	**	**	**	**	**	**	

¹ Immigration: From Employment and Immigration Canada and after 1993, Citizenship and Immigration Canada. Emigration: Estimates based on Family Allowance and Income Tax files. Net: Emigrants subtracted from immigrants.

² The residual is the distribution over five years of the error of closure at the end of the census period. This error is equal to the difference between the number expected in the census by the components method and the enumeration corrected for net under-enumeration. This "error" encompasses errors on the components and on the net under-enumeration of the censuses.

³ Takes into account non-permanent residents, returning Canadians and the residual.

(PD) Final postcensal estimates based on 1991, as of December 30, 1997.

(PR) Updated postcensal estimates based on 1991, as of December 30, 1997.

Note: All other data are based on final intercensal estimates. Calculations made on unrounded numbers.

Source: Statistics Canada, Demography Division, *Annual Demographic Statistics, 1997*, catalogue no. 91-213-XPB and calculations by the author.

Table A2. Nuptiality

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Yukon	N.W.T.	Canada
	Number of Marriages												
1978	3,841	939	6,560	5,310	45,936	67,491	8,232	7,139	18,277	21,388	194	216	185,523
1979	3,737	893	6,920	5,355	46,341	67,980	7,769	7,272	18,999	22,087	181	277	187,811
1980	3,783	939	6,791	5,321	44,848	68,840	7,869	7,561	20,818	23,830	200	269	191,069
1981	3,758	849	6,632	5,108	41,005	70,281	8,123	7,329	21,781	24,699	235	282	190,082
1982	3,764	855	6,486	4,923	38,354	71,595	8,264	7,491	22,312	23,831	225	260	188,360
1983	3,778	937	6,505	5,260	36,144	70,893	8,261	7,504	21,172	23,692	243	286	184,675
1984	3,567	1,057	6,798	5,294	37,433	71,922	8,393	7,213	20,052	23,397	212	259	185,597
1985	3,220	956	6,807	5,312	37,026	72,891	8,296	7,132	19,750	22,292	185	229	184,096
1986	3,421	970	6,445	4,962	33,083	70,839	7,816	6,820	18,896	21,826	183	257	175,518
1987	3,481	924	6,697	4,924	32,616	76,201	7,994	6,853	18,640	23,395	189	237	182,151
1988	3,686	965	6,894	5,292	33,519	78,533	7,908	6,767	19,272	24,461	209	222	187,728
1989	3,905	1,019	6,828	5,254	33,325	80,377	7,800	6,637	19,888	25,170	214	223	190,640
1990	3,791	996	6,386	5,044	32,060	80,097	7,666	6,229	19,806	25,216	218	228	187,737
1991	3,480	876	5,845	4,521	28,922	72,938	7,032	5,923	18,612	23,691	196	215	172,251
1992	3,254	850	5,623	4,313	25,841	70,079	6,899	5,664	17,871	23,749	221	209	164,573
1993	3,163	885	5,403	4,177	25,021	66,575	6,752	5,638	17,860	23,447	180	216	159,317
1994	3,318	850	5,373	4,219	24,986	66,693	6,585	5,689	18,096	23,739	169	241	159,958
1995	3,404	877	5,329	4,252	24,238	67,583	6,703	5,799	18,044	23,597	207	218	160,251
1996	3,194	924	5,392	4,366	23,968	66,208	6,448	5,671	17,283	22,834	197	206	156,691

Source: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Marriages*, catalogue no. 84-212.

Table A3.1 Age-Specific First Marriage Rates (per 1,000) for Male Cohorts, 1947-1979, Canada

Age	Year of Birth																																
	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
	Year of 17th Birthday																																
	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964
17	0.3	0.3	0.3	0.3	0.3	0.3	0.56	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.9	1.1	1.6	1.5	2.0	2.4	3.3	3.8	4.4	4.8	4.6	4.2	4.3	4.0	3.8	3.9	3.9	3.9	4.0
18		1.6	1.7	1.7	1.8	2.3	2.4	2.8	2.6	2.7	2.8	3.3	3.6	3.9	4.4	5.9	6.5	8.2	9.2	10.7	12.6	14.6	17.7	18.9	19.9	21.1	18.3	17.9	17.2	16.9	17.8	18.1	18.3
19			4.6	5.0	5.1	5.2	5.9	6.5	7.1	7.4	8.0	8.1	8.9	9.9	10.9	12.9	15.9	18.9	21.6	24.1	27.4	31.1	35.0	39.4	42.6	45.6	46.5	42.2	41.7	39.8	41.0	44.2	44.6
20				8.9	9.9	10.8	10.5	12.4	13.9	15.1	16.4	16.7	16.8	19.2	21.2	23.6	27.8	33.3	38.3	42.2	47.0	50.9	56.0	58.6	67.2	72.9	77.0	79.2	73.3	73.6	73.4	77.4	82.8
21					16.0	17.9	18.7	18.8	21.1	23.1	26.4	28.8	28.4	29.0	31.8	36.2	39.9	45.2	51.8	57.4	63.5	67.6	71.1	75.0	77.6	90.1	93.8	102.9	109.9	109.5	114.0	120.1	127.6
22						23.5	26.3	27.4	27.9	30.3	34.6	37.9	40.1	40.8	41.1	44.9	49.8	53.9	58.4	65.1	68.4	75.2	77.8	78.6	81.0	85.1	95.3	103.3	111.2	119.2	117.3	130.3	140.0
23							33.2	35.1	36.2	37.0	39.2	44.8	50.1	50.2	51.4	52.3	54.5	59.9	63.1	64.0	68.9	72.0	76.3	75.8	77.0	78.8	80.8	89.9	94.8	103.2	111.0	109.2	130.7
24								40.0	43.3	44.1	44.0	47.5	51.0	56.6	56.7	57.2	56.7	58.5	62.7	63.9	64.7	65.5	67.4	69.2	68.7	68.0	68.7	70.0	77.3	82.0	86.9	92.0	92.1
25									46.9	47.5	48.7	48.1	50.0	54.0	58.5	59.7	57.7	56.1	56.3	59.0	59.6	57.3	58.4	60.0	60.0	58.7	57.8	58.6	58.1	63.2	65.1	68.6	71.4
26										46.1	48.5	47.7	48.0	51.0	54.5	54.6	53.1	48.9	49.3	51.9	49.6	49.5	50.4	49.7	48.4	47.5	46.1	47.0	46.0	48.7	50.0	52.7	
27											44.0	44.6	45.2	43.3	44.0	45.4	48.6	47.6	46.0	43.9	42.5	43.8	42.3	40.3	40.5	40.6	39.6	38.4	37.1	37.0	36.4	37.9	38.8
28												40.0	40.3	39.5	37.7	38.6	38.9	41.9	40.5	38.6	36.0	34.3	35.6	34.2	33.6	33.0	32.3	31.4	30.4	30.1	29.9	28.5	29.4
29													34.9	35.0	33.5	33.1	32.5	33.4	34.9	33.8	32.5	30.5	28.6	29.7	28.4	27.8	26.4	26.3	25.3	24.0	22.7	22.7	22.3
30														29.2	29.4	28.5	27.7	27.7	27.1	28.8	27.9	26.4	24.8	23.5	23.3	22.6	22.1	21.0	20.3	19.8	18.8	18.3	17.7
31															24.0	24.5	23.5	22.5	22.4	22.5	23.1	21.9	21.0	19.9	17.5	18.4	17.9	17.4	16.2	15.6	15.1	14.2	13.8
32																20.0	19.9	18.5	18.7	18.0	18.2	17.9	17.4	15.7	14.5	14.8	14.7	13.0	12.9	12.0	11.6	10.9	
33																	16.3	15.7	15.4	15.3	14.5	15.0	14.9	14.3	13.9	12.8	11.6	11.7	11.2	10.9	10.0	9.5	9.1
34																		13.8	13.4	12.6	12.3	11.9	11.8	12.5	11.8	11.6	10.2	9.3	9.5	8.7	8.5	7.8	7.7
35																			11.5	10.8	10.5	9.8	9.9	9.7	9.9	9.7	9.5	8.5	7.5	7.6	7.4	6.7	6.4
36																				8.7	8.2	8.2	8.1	8.0	7.9	8.0	7.3	7.1	6.4	6.1	5.7	5.5	
37																					7.3	7.1	6.8	6.5	6.3	6.4	6.6	6.1	5.4	5.0	4.6	4.4	
38																						6.0	5.9	5.8	5.5	5.3	5.0	5.3	5.1	5.0	4.6	3.9	3.5
39																							5.2	4.8	4.6	4.5	4.4	4.2	4.0	4.2	4.3	3.7	3.7
40																								4.2	4.1	3.9	3.5	3.3	3.2	3.3	3.5	3.4	3.3
41																									3.5	3.3	3.0	2.8	2.6	2.7	2.4	2.9	2.8
42																										2.7	2.7	2.4	2.3	2.3	2.1	2.2	2.4
43																											2.2	2.1	2.0	1.9	1.8	1.7	1.9
44																												1.8	1.7	1.6	1.7	1.7	1.7
45																												1.7	1.5	1.3	1.2	1.3	

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, unpublished data, Demography Division, Population Estimates Section and calculations by the author.

Table A3.2 Age-Specific First Marriage Rates (per 1,000) for Female Cohorts, 1947-1981, Canada

Age	Year of Birth																																				
	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947		
	Year of 15th Birthday																																				
	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962		
15	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.6	0.6	0.5	0.6	0.6	1.1	2.0	2.4	2.4	2.7	3.5	3.4	3.3	3.5	3.5	3.2	3.3	3.4	3.4	4.1	4.2	5.4		
16		0.6	0.9	1.0	1.1	1.3	1.5	1.6	1.8	2.0	2.2	2.4	3.0	3.6	3.9	4.5	4.9	5.8	6.5	7.6	9.1	11.2	13.7	15.5	17.0	18.2	17.3	17.7	16.7	15.7	16.5	16.8	17.6	19.5	21.6		
17			2.1																																		
18				2.4	2.6	2.7	3.1	3.8	4.7	4.6	4.8	5.5	6.0	7.5	8.3	9.4	10.9	12.5	14.9	16.7	19.2	23.2	26.8	32.3	35.2	38.8	40.8	39.0	40.6	38.6	39.7	40.8	41.0	44.8	48.7		
19				8.3	9.2	9.5	10.4	11.0	13.3	15.2	16.0	16.5	18.0	21.5	24.0	25.3	33.6	37.8	43.8	48.3	52.9	59.8	66.2	75.2	79.5	84.1	89.2	82.4	82.7	82.0	81.7	84.5	88.0	93.6			
20					15.3	17.1	18.6	18.2	21.2	23.5	26.2	29.1	31.2	32.3	37.3	39.9	43.1	48.0	54.5	61.3	67.6	71.4	76.6	82.4	87.9	97.3	102.3	110.6	114.9	108.7	108.7	108.6	110.3	116.5	123.1		
21						24.3	26.1	28.5	29.0	31.3	35.8	40.7	44.9	45.6	47.7	50.3	56.1	59.2	64.2	72.3	77.3	82.9	85.8	88.7	92.5	92.7	103.7	110.4	117.3	124.5	121.1	121.5	126.1	132.8	141.3		
22							33.4	36.8	38.5	39.3	41.9	47.0	53.7	57.1	59.2	59.6	61.2	66.6	70.9	71.9	77.8	79.7	84.4	85.4	87.1	86.3	86.5	96.9	103.4	111.7	119.8	122.2	126.7	134.6	143.0		
23								41.3	44.6	46.9	47.4	50.4	55.6	63.0	64.6	65.8	64.3	66.6	69.6	70.5	71.0	72.6	75.0	74.9	75.9	73.2	73.9	74.4	81.5	85.4	90.8	95.7	96.2	105.8	115.9		
24									49.5	50.9	52.9	53.2	56.7	61.3	66.3	66.6	66.8	64.6	62.7	66.1	65.6	63.9	64.6	63.7	63.5	62.1	59.5	59.9	58.2	63.3	65.2	67.6	70.6	70.1	83.0		
25										52.1	56.1	54.6	54.2	56.4	58.7	64.6	64.4	62.1	58.5	56.4	57.4	55.9	53.5	52.9	50.5	50.6	48.0	45.9	45.4	44.5	48.3	48.5	48.8	49.7	48.4		
26											52.3	53.3	53.2	51.7	53.3	54.2	57.2	56.5	54.4	50.4	47.2	48.1	45.5	42.5	41.3	40.4	39.4	36.9	35.4	34.9	34.3	35.5	35.2	34.9	35.4		
27												46.6	47.6	47.1	44.4	44.4	46.6	48.4	45.9	43.6	39.0	37.9	38.6	35.9	33.9	32.3	30.7	29.2	28.3	26.8	27.2	26.3	26.4	25.2	24.9		
28													40.6	40.1	39.8	36.8	37.5	38.0	39.4	36.0	35.1	31.8	29.5	29.2	28.0	25.9	25.1	23.8	23.6	21.4	20.9	20.3	19.9	19.5	18.4		
29														33.9	32.4	31.4	30.4	31.1	30.3	31.2	29.4	27.4	25.2	22.0	22.6	21.9	20.1	19.1	18.2	17.5	16.4	15.8	15.2	14.7	14.7		
30															26.5	26.6	25.6	25.5	24.1	23.8	24.7	23.2	22.1	19.7	17.1	17.7	16.7	15.8	15.3	14.5	13.6	12.6	12.1	11.8	10.9		
31																21.6	21.3	20.3	19.7	19.7	19.0	19.5	18.8	16.8	15.3	13.7	14.0	13.6	12.1	11.7	11.1	10.5	9.6	9.2	9.1		
32																	17.0	16.5	15.9	15.7	15.3	14.5	15.2	14.0	13.1	11.4	10.3	10.4	10.3	9.5	8.8	8.4	7.6	7.4	6.8		
33																		13.6	13.8	13.2	12.4	11.9	11.7	12.0	11.1	10.1	9.0	7.8	8.1	7.8	7.5	7.0	6.4	6.1	5.8		
34																			11.0	10.9	10.1	10.0	9.9	9.4	9.1	8.8	8.1	7.2	6.5	6.6	6.4	5.8	5.4	5.4	4.9		
35																				8.8	8.2	8.4	8.1	7.9	7.5	6.9	6.3	5.7	5.4	5.1	4.5	4.3	4.0	4.0	4.0		
36																					7.1	7.2	7.0	6.5	6.4	6.3	6.1	5.7	5.4	5.1	4.2	4.2	3.9	3.6	3.2		
37																						5.8	5.3	5.0	4.8	5.1	4.8	4.6	4.4	3.8	3.4	3.3	2.9	2.9	2.9		
38																							4.7	4.6	4.2	4.2	4.0	3.7	3.8	3.7	3.5	3.2	2.6	2.5	2.2	2.2	
39																								4.0	3.7	3.2	3.6	3.3	3.1	2.8	3.1	2.8	2.5	2.3	2.2	2.2	
40																									3.2	3.0	2.8	2.7	2.6	2.6	2.6	2.6	2.2	2.1	1.9	1.9	
41																										2.8	2.5	2.4	2.2	2.2	2.2	2.0	2.0	2.0	1.7	1.7	
42																											1.9	1.8	1.8	1.9	1.7	1.7	1.6	1.6	1.5	1.5	1.4
43																												1.7	1.7	1.6	1.4	1.6	1.5	1.5	1.4	1.4	1.4
44																													1.4	1.4	1.4	1.2	1.3	1.1	1.1	1.1	1.1
45																													1.2	1.1	1.0	1.2	0.9	0.9	0.9	0.9	0.9
46																													1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, unpublished data, Demography Division, Population Estimates Section and calculations by the author.

Table A4. Divorce

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Yukon	N.W.T.	Canada
Number of Divorces													
1980	555	163	2,314	1,326	13,898	22,441	2,282	1,836	7,580	9,464	82	76	62,017
1981	569	187	2,285	1,334	19,193	21,680	2,399	1,932	8,418	9,533	75	66	67,671
1982	625	205	2,281	1,663	18,579	23,640	2,392	1,815	8,882	10,164	117	67	70,430
1983	711	215	2,340	1,942	17,364	23,073	2,642	2,000	8,758	9,347	88	85	68,565
1984	590	195	2,263	1,427	16,845	21,635	2,611	1,988	8,454	8,988	100	74	65,170
1985	561	213	2,337	1,360	15,814	20,851	2,313	1,927	8,102	8,330	96	72	61,976
1986	687	199	2,609	1,729	19,026	27,549	2,982	2,479	9,556	11,299	94	95	78,304
1987	1,117	275	2,759	1,995	22,098	39,095	3,923	2,968	9,535	12,184	142	109	96,200
1988	906	269	2,494	1,673	20,340	32,524	3,102	2,501	8,744	10,760	82	112	83,507
1989	1,005	248	2,527	1,649	19,829	31,298	2,912	2,460	8,237	10,658	82	93	80,998
1990	1,016	281	2,419	1,699	20,474	28,977	2,798	2,364	8,489	9,773	81	92	78,463
1991	912	269	2,280	1,652	20,274	27,694	2,790	2,240	8,388	10,368	67	86	77,020
1992	867	227	2,304	1,633	19,695	30,463	2,657	2,325	8,217	10,431	117	98	79,034
1993	930	227	2,376	1,606	19,662	28,903	2,586	2,239	8,612	10,889	94	102	78,226
1994	933	249	2,286	1,570	18,224	30,718	2,746	2,354	8,174	11,437	97	92	78,880
1995	982	260	2,294	1,456	20,133	29,352	2,677	2,320	7,599	10,357	112	94	77,636
1996	1,060	237	2,228	1,450	18,078	25,035	2,603	2,216	7,509	10,898	115	99	71,528
Mean Duration of Marriage for Persons Divorced in the Year ¹													
1980	12.1	12.8	11.1	11.7	11.8	11.8	10.8	11.1	10.5	11.8	11.8	12.6	11.5
1981	11.8	12.4	11.3	11.8	11.8	11.9	11.0	10.5	10.5	11.7	11.2	9.0	11.5
1982	11.7	12.3	11.0	11.8	11.6	11.9	11.2	10.7	10.5	11.8	11.8	11.1	11.5
1983	11.1	12.6	11.0	11.8	11.4	11.9	10.9	10.4	10.6	11.8	11.5	11.2	11.4
1984	11.9	13.2	11.5	12.3	11.5	11.9	10.9	10.9	10.8	12.4	12.3	10.4	11.6
1985	11.4	12.8	11.4	11.9	11.7	12.0	10.7	10.7	11.0	12.3	11.5	10.3	11.6
1986	11.7	12.5	11.3	11.8	11.5	11.7	11.1	10.7	10.9	12.1	11.8	10.9	11.5
1987	11.3	11.7	11.1	11.7	11.3	11.6	10.5	10.4	10.9	11.8	11.7	11.0	11.4
1988	11.7	12.4	11.0	11.7	11.1	11.5	10.6	10.6	11.0	11.7	11.4	10.4	11.3
1989	11.7	11.5	11.3	11.5	11.0	11.3	10.3	10.8	11.0	11.5	11.5	10.5	11.2
1990	11.3	11.9	11.3	11.1	10.8	11.2	10.5	10.6	11.0	11.5	11.4	10.1	11.1
1991	11.4	12.8	11.0	11.4	11.0	10.9	10.3	10.8	10.8	11.3	11.1	9.0	11.0
1992	10.9	12.0	11.2	11.0	10.7	10.9	10.4	10.6	10.8	11.1	10.7	9.3	10.9
1993	11.7	11.8	10.9	11.5	10.5	10.8	10.4	10.6	10.6	10.9	10.6	10.0	10.7
1994	11.3	12.4	11.0	11.1	10.6	10.6	10.4	10.5	10.6	10.7	10.8	10.7	10.7
1995	11.2	12.1	11.1	11.5	10.4	10.8	10.5	10.6	10.8	10.6	10.1	10.1	10.7
1996	11.3	12.2	11.3	11.5	10.4	11.0	10.5	10.6	10.5	10.6	10.2	10.0	10.8

¹ Excludes divorces for marriages of a duration greater than 25 years.

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Divorces*, catalogue no. 84-213 and calculations by the author.

Table A5. Births and Fertility

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Yukon	N.W.T.	Canada
Live Births													
1982	9,173	1,924	12,325	10,489	90,800	124,856	16,123	17,722	45,036	42,747	525	1,362	373,082
1983	8,929	1,907	12,401	10,518	88,154	126,826	16,602	17,847	45,555	42,919	540	1,491	373,689
1984	8,560	1,954	12,378	10,360	87,839	131,296	16,651	18,014	44,105	43,911	519	1,444	377,031
1985	8,500	2,008	12,450	10,121	86,340	132,208	17,097	18,162	43,813	43,127	464	1,437	375,727
1986	8,100	1,928	12,358	9,788	84,634	133,882	17,009	17,518	43,739	41,967	483	1,507	372,913
1987	7,769	1,955	12,110	9,588	83,791	134,617	16,953	17,034	42,110	41,814	478	1,523	369,742
1988	7,487	1,977	12,182	9,617	86,612	138,066	17,030	16,763	42,055	42,930	521	1,555	376,795
1989	7,762	1,937	12,533	9,667	92,373	145,338	17,321	16,651	43,351	43,769	480	1,479	392,661
1990	7,604	2,014	12,870	9,824	98,048	150,923	17,352	16,090	43,004	45,617	556	1,584	405,486
1991	7,166	1,885	12,016	9,497	97,310	151,478	17,282	15,304	42,776	45,612	568	1,634	402,528
1992	6,918	1,850	11,874	9,389	96,146	150,593	16,590	15,004	42,039	46,156	529	1,554	398,642
1993	6,421	1,754	11,568	9,049	92,391	147,848	16,709	14,269	40,292	46,026	508	1,559	388,394
1994	6,337	1,716	11,099	8,978	90,578	147,068	16,480	14,038	39,796	46,998	442	1,580	385,110
1995	5,859	1,754	10,726	8,563	87,417	146,263	16,113	13,499	38,914	46,820	470	1,613	378,011
1996	5,766	1,667	10,488	8,176	85,464	138,355	15,546	12,993	37,902	46,382	443	1,550	364,732
Age-Specific Fertility Rates (per 1,000)													
1993: 15-19	26.5	30.7	30.4	31.1	17.2	22.3	43.4	44.1	33.1	22.5	41.2	99.2	24.7
20-24	66.8	83.9	74.7	80.1	75.1	62.8	92.6	104.8	87.6	70.8	100.0	167.0	73.0
25-29	96.4	122.1	108.6	107.5	121.9	110.7	129.0	134.4	118.3	106.6	115.8	138.5	114.7
30-34	54.6	79.6	71.0	60.9	80.0	92.5	90.5	79.1	84.7	84.1	75.7	91.5	84.9
35-39	15.0	26.3	23.7	17.5	24.2	34.5	29.4	25.8	29.9	32.7	41.0	28.0	29.5
40-44	1.9	3.4	2.9	2.5	3.6	5.2	4.0	3.8	4.4	5.3	3.0	6.4	4.4
45-49	0.1	0.0	0.1	0.0	0.1	0.2	0.2	0.1	0.2	0.2	0.0	1.5	0.1
1994: 15-19	25.7	29.1	30.1	32.7	17.4	22.4	43.0	46.4	32.9	22.2	43.7	104.2	24.8
20-24	67.3	83.5	73.5	78.8	74.5	62.3	93.8	104.7	84.7	69.9	85.5	152.9	72.2
25-29	93.8	113.6	104.8	110.3	120.5	110.2	127.7	131.5	119.7	106.4	95.8	136.2	113.9
30-34	60.3	78.3	70.2	61.4	80.9	93.1	90.0	81.8	86.2	86.4	70.3	94.7	85.9
35-39	14.1	29.2	23.3	17.3	25.3	35.3	29.8	24.3	30.8	34.2	38.5	46.9	30.4
40-44	1.6	4.2	2.5	2.1	3.7	5.6	4.7	3.5	4.7	5.7	8.8	6.6	4.7
45-49	0.1	0.0	0.2	0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.0	0.7	0.1
1995: 15-19	24.1	29.4	27.4	31.8	16.9	22.4	41.7	43.9	32.0	22.1	34.1	101.1	24.2
20-24	63.0	78.8	72.9	76.9	72.3	61.1	93.1	100.7	84.3	67.2	99.1	154.3	70.5
25-29	88.0	118.4	101.1	99.7	115.7	106.6	122.1	128.3	115.7	102.1	111.6	145.7	109.7
30-34	57.7	88.4	71.3	63.6	81.1	94.7	90.1	79.9	86.6	86.8	81.3	99.8	86.8
35-39	14.8	25.8	22.6	17.3	25.8	37.1	31.8	24.3	31.0	34.2	31.3	39.6	31.3
40-44	1.4	4.2	2.9	2.3	3.9	5.9	4.7	3.4	4.4	5.8	7.1	8.7	4.8
45-49	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.3	0.0	1.3	0.2

Table A5. Birth and Fertility - concluded

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Yukon	N.W.T.	Canada
Fertility Rates by Birth Order (per 1,000 women)													
1993: 1	20.3	22.2	23.5	22.7	24.1	25.1	26.9	23.7	24.6	24.7	28.2	34.0	24.6
2	15.9	20.1	18.6	18.2	19.8	20.5	20.8	21.4	21.4	19.0	17.6	24.4	20.0
3	5.9	10.8	7.5	6.5	7.5	8.3	10.4	11.6	10.0	7.8	9.9	17.4	8.3
4	1.3	3.5	2.2	1.9	2.0	2.5	4.5	4.9	3.5	2.3	4.6	10.5	2.6
5 +	0.7	1.6	0.8	0.8	0.9	1.2	3.3	3.5	2.1	1.1	2.2	10.0	1.3
1994: 1	20.3	21.4	22.9	22.9	23.2	24.7	26.9	24.1	24.8	24.9	22.7	31.5	24.2
2	16.2	19.8	18.2	18.2	19.6	20.4	20.5	20.6	20.9	19.1	19.5	25.9	19.9
3	5.6	10.2	6.9	6.4	7.6	8.2	10.4	11.3	9.7	7.6	8.2	17.6	8.2
4	1.3	3.3	2.1	1.8	2.2	2.5	4.0	4.7	3.4	2.3	3.2	10.2	2.6
5 +	0.6	1.7	0.9	0.7	0.9	1.3	3.3	3.5	2.0	1.1	2.1	11.1	1.4
1995: 1	19.5	22.9	21.9	22.2	22.6	24.3	26.3	23.4	24.0	24.9	25.8	32.7	23.7
2	15.1	19.0	17.5	17.5	18.7	20.3	19.8	20.0	20.5	18.4	19.0	26.5	19.4
3	4.9	10.0	6.7	5.9	7.3	8.1	10.2	10.6	9.2	7.1	7.8	17.7	7.9
4	1.4	3.9	2.2	1.7	2.1	2.5	4.1	4.2	3.3	2.2	4.0	9.3	2.5
5 +	0.6	1.7	0.9	0.7	0.9	1.3	3.2	3.3	2.0	1.0	2.1	10.6	1.4
Total Fertility Rate (women aged 15-49) ¹													
1982	..	1.89	1.64	1.66	1.48	1.59	1.80	2.14	1.89	1.65	1.96	2.81	1.64
1983	..	1.83	1.63	1.65	1.43	1.59	1.83	2.10	1.90	1.65	2.16	3.00	1.62
1984	..	1.84	1.60	1.61	1.43	1.62	1.82	2.08	1.86	1.68	2.07	2.80	1.63
1985	..	1.86	1.60	1.57	1.40	1.60	1.85	2.08	1.86	1.65	1.83	2.66	1.61
1986	..	1.78	1.58	1.53	1.37	1.60	1.83	2.02	1.85	1.61	1.92	2.81	1.60
1987	1.53	1.82	1.55	1.51	1.37	1.58	1.83	1.98	1.82	1.60	1.88	2.82	1.58
1988	1.47	1.85	1.57	1.53	1.43	1.59	1.85	1.99	1.84	1.64	1.98	2.90	1.60
1989	1.53	1.83	1.62	1.55	1.53	1.63	1.92	2.05	1.90	1.65	1.85	2.70	1.66
1990	1.52	1.93	1.68	1.58	1.64	1.67	1.95	2.07	1.88	1.68	2.16	2.79	1.71
1991	1.44	1.85	1.58	1.54	1.65	1.66	1.97	2.03	1.88	1.67	2.13	2.85	1.70
1992	1.39	1.82	1.58	1.53	1.65	1.67	1.91	2.02	1.85	1.65	1.92	2.69	1.69
1993	1.31	1.73	1.56	1.50	1.61	1.64	1.95	1.96	1.79	1.61	1.88	2.66	1.66
1994	1.31	1.69	1.52	1.51	1.61	1.65	1.95	1.96	1.80	1.62	1.71	2.71	1.66
1995	1.25	1.73	1.49	1.46	1.58	1.64	1.92	1.90	1.77	1.59	1.82	2.75	1.64

¹ Number of children per woman.

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Births*, Catalogue No. 84-210, Demography Division, Population Estimates Section and calculations by the author.

Table A6. Mortality

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Yukon	N.W.T.	Canada
Deaths													
1980	3,345	1,035	7,004	5,297	43,512	62,746	8,436	7,651	12,710	19,371	128	238	171,473
1981	3,230	992	6,958	5,139	42,684	62,838	8,648	7,523	12,823	19,857	141	196	171,029
1982	3,385	980	6,941	5,197	43,497	63,696	8,490	8,202	12,968	20,707	118	232	174,413
1983	3,498	1,050	7,047	5,206	44,275	64,507	8,521	7,611	12,588	19,827	113	241	174,484
1984	3,520	1,109	6,913	5,272	44,449	64,703	8,290	7,710	12,730	20,686	108	237	175,727
1985	3,557	1,110	7,315	5,230	45,707	66,747	8,756	8,031	13,231	21,302	123	214	181,323
1986	3,540	1,121	7,255	5,458	46,892	67,865	8,911	8,061	13,560	21,213	113	235	184,224
1987	3,629	1,116	7,112	5,408	47,616	68,119	8,710	7,808	13,316	21,814	108	197	184,953
1988	3,591	1,112	7,412	5,450	47,771	70,679	9,100	8,100	13,894	22,546	136	220	190,011
1989	3,718	1,089	7,516	5,496	48,305	70,907	8,819	7,920	13,854	22,997	95	249	190,965
1990	3,884	1,143	7,388	5,426	48,420	70,818	8,863	8,044	14,068	23,577	115	227	191,973
1991	3,798	1,188	7,255	5,469	49,121	72,917	8,943	8,098	14,451	23,977	114	237	195,568
1992	3,798	1,114	7,544	5,609	48,824	73,206	8,980	7,793	14,679	24,615	117	256	196,535
1993	3,890	1,145	7,559	5,806	51,711	75,853	9,299	8,164	15,338	25,764	123	260	204,912
1994	4,050	1,114	7,770	5,917	51,366	77,487	9,148	8,308	15,613	25,939	124	241	207,077
1995	3,935	1,153	7,687	5,938	52,734	78,479	9,658	8,495	15,895	26,375	157	227	210,733
1996	3,928	1,268	7,751	5,896	52,336	79,099	9,497	8,765	16,391	27,536	120	272	212,881 ¹
Infant Deaths (age less than 1 year)													
1980	110	22	135	116	953	1,175	184	193	500	442	9	29	3,868
1981	98	25	139	114	807	1,073	191	203	452	424	8	28	3,562
1982	99	15	106	110	800	1,041	146	186	442	423	11	22	3,401
1983	95	16	116	112	676	1,013	173	180	383	377	10	31	3,182
1984	79	16	97	81	645	992	144	169	425	378	7	25	3,058
1985	92	8	98	97	626	961	170	200	352	349	5	24	2,982
1986	65	13	104	81	604	969	157	157	393	355	12	28	2,938
1987	59	13	90	67	594	888	142	155	315	359	5	19	2,706
1988	70	14	79	69	563	910	132	140	347	362	3	16	2,705
1989	64	12	73	69	632	985	115	134	325	360	2	24	2,795
1990	70	12	81	71	612	946	138	123	346	344	4	19	2,766
1991	56	13	69	58	578	953	111	126	285	298	6	20	2,573
1992	49	3	71	59	522	886	113	110	304	286	2	26	2,431
1993	50	16	82	65	529	922	118	115	268	264	4	15	2,448
1994	52	11	67	48	506	878	115	125	294	297	1	23	2,417
1995	46	8	52	41	477	870	123	123	274	280	6	21	2,321
1996	38	8	59	40	396	802	104	112	236	237	0	19	2,051

¹ The total includes 22 deaths for which the province of residence is unknown.

Source: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Deaths*, catalogue no. 84-211.

Table A7. Life Expectancy at Different Ages, Canada, 1994 and 1995

Age	1994 Table (trennial) ¹		1995 Table (trennial) ²	
	Males	Females	Males	Females
0	75.09	81.10	75.39	81.25
1	74.61	80.56	74.89	80.68
5	70.71	76.64	70.98	76.76
10	65.77	71.69	66.04	71.82
15	60.84	66.75	61.11	66.87
20	56.08	61.86	56.34	61.98
25	51.36	56.96	51.61	57.07
30	46.63	52.07	46.87	52.18
35	41.92	47.20	42.15	47.30
40	37.26	42.37	37.48	42.48
45	32.65	37.61	32.87	37.72
50	28.13	32.96	28.33	33.06
55	23.80	28.44	23.99	28.54
60	19.74	24.11	19.91	24.21
65	16.03	19.99	16.18	20.08
70	12.73	16.14	12.86	16.21
75	9.82	12.58	9.95	12.66
80	7.44	9.48	7.51	9.53
85	5.58	6.92	5.62	6.94
90	4.38	5.03	4.35	5.04

¹ Calculated by using the average of deaths in 1993, 1994 and 1995.

² Calculated by using the average of deaths in 1994, 1995 and 1996.

Sources: Statistics Canada, Health Statistics Division, Health Status and Vital Statistics Section, *Births*, catalogue no. 84-210, Demography Division, Population Estimates Section and calculations by the author.

Table A8. Landed Immigrants in Canada by Country of Birth, 1981-1996

	1981	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
EUROPE	44,784	22,518	36,486	39,187	50,844	50,561	46,651	43,338	45,487	37,985	39,871	39,058
British Isles ¹	18,912	4,612	7,650	7,906	7,358	6,897	6,383	5,831	5,928	4,762	4,538	4,363
Portugal	3,292	1,981	5,904	6,294	7,952	7,740	5,837	2,700	1,563	770	784	663
France	1,681	1,124	1,486	1,819	2,128	1,996	2,619	3,105	3,347	2,516	3,010	2,433
Greece	924	555	750	595	798	604	618	593	537	338	242	239
Italy	2,057	785	1,123	961	1,204	1,066	775	663	690	533	492	485
Poland	4,093	5,283	7,132	9,360	16,042	16,536	15,737	11,918	6,924	3,552	2,433	2,159
Other	13,825	8,178	12,441	12,252	15,362	15,722	14,682	18,528	26,498	25,514	28,372	28,716
AFRICA	5,901	5,189	9,047	9,604	12,482	13,845	16,530	20,113	17,515	14,184	15,226	15,789
ASIA	50,759	42,417	69,081	83,283	95,292	113,978	122,228	141,816	149,343	142,997	129,635	145,226
Philippines	5,978	4,203	7,420	8,651	11,907	12,590	12,626	13,737	20,488	19,456	15,679	13,527
India	9,415	7,481	10,635	11,942	10,738	12,572	14,248	14,228	21,668	18,533	18,137	23,349
Hong Kong (B.C.C.)	4,039	4,318	12,618	18,355	15,694	23,134	16,425	27,927	27,242	33,676	24,842	24,122
China	9,798	4,178	6,611	7,903	9,001	14,193	20,621	22,160	19,689	23,313	20,887	24,947
Middle East ²	5,409	6,947	10,904	12,325	17,697	23,826	25,561	21,816	18,798	18,797	18,794	18,793
Other	16,120	15,290	20,893	24,107	30,255	27,663	32,747	41,948	41,458	29,222	31,296	40,488
NORTH AMERICA and CENTRAL AMERICA	10,183	12,412	13,691	11,495	11,899	13,042	18,899	18,676	14,371	8,734	7,209	8,517
United States	8,695	6,094	6,547	5,571	5,814	5,067	5,270	5,891	6,446	5,128	4,291	5,034
CARIBBEAN, BURMUDA	8,797	8,948	11,210	9,481	10,967	11,784	13,046	15,142	16,699	10,030	10,022	9,211
AUSTRALASIA	1,020	449	539	528	634	725	735	918	1,013	739	668	689
SOUTH AMERICA	6,114	6,546	10,833	7,210	8,595	8,602	10,468	10,240	9,511	7,941	7,482	5,953
OCEANIA	1,024	740	1,144	1,140	1,186	1,692	2,213	2,479	1,808	1,265	861	823
Other	36	5	67	1	102	1	11	120	5	5	5	5
Total	128,618	99,219	152,098	161,929	192,001	214,230	230,781	252,842	255,747	223,875	210,974	225,266

¹ Includes England, Ireland, Scotland, Wales and the Channel Islands.

² Includes Turkey, Bahrein, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, Arab Emirates, Yemen Arab Republic and the Democratic Republic of Yemen.

Note: Preliminary data as of January 29, 1998.

Sources: Employment and Immigration Canada, *Immigration Statistics* and after 1993, Citizenship and Immigration Canada, unpublished data.

Table A9. Canadian Population as of July 1st, 1995 and 1996, by Age and Sex
(in thousands)

Age	1995		1996	
	Males	Females	Males	Females
0	195.5	185.3	189.5	180.6
1	198.5	188.5	196.6	186.6
2	202.8	192.4	199.8	189.7
3	208.9	199.3	204.1	193.6
4	210.7	199.6	210.2	200.5
5	211.7	201.6	212.4	201.3
6	204.2	194.8	212.9	202.8
7	199.0	190.4	205.4	196.0
8	199.5	192.0	200.2	191.6
9	205.8	197.5	200.8	193.2
10	206.4	197.7	207.1	198.7
11	204.4	195.8	207.8	198.9
12	203.4	194.7	206.0	197.3
13	204.2	195.1	205.2	196.4
14	206.3	196.8	206.2	196.8
15	206.2	195.2	208.1	198.5
16	202.6	191.9	208.0	196.8
17	200.4	190.1	204.4	193.8
18	201.6	192.9	202.4	192.3
19	204.7	196.1	203.7	195.5
20	205.9	198.2	206.8	199.0
21	200.4	194.5	207.9	201.2
22	203.8	197.6	202.3	197.3
23	209.3	203.6	205.7	200.1
24	218.7	214.8	211.1	206.0
25	221.9	217.5	220.6	217.3
26	220.3	216.7	224.0	219.9
27	222.0	217.9	222.5	219.3
28	228.5	223.5	224.4	220.6
29	242.7	236.4	230.7	226.0
30	261.8	254.6	245.0	238.7
31	271.1	262.5	264.0	257.0
32	275.8	267.5	273.3	265.0
33	273.5	265.7	277.7	269.8
34	276.2	269.3	275.0	267.8
35	272.2	266.7	277.7	271.3
36	266.5	261.8	273.4	268.6
37	264.9	260.2	267.7	263.5
38	258.9	256.6	266.2	261.8
39	249.3	247.8	260.0	258.0
40	247.3	247.7	250.4	249.2
41	238.6	240.6	248.0	248.9
42	229.2	231.4	239.3	241.5
43	224.4	223.7	229.8	232.3
44	221.6	220.2	225.0	224.4
45	218.6	215.7	222.1	220.9
46	214.7	213.2	219.0	216.2

**Table A9. Canadian Population as of July 1st 1995 and 1996, by Age and Sex
(in thousands) - Concluded**

Age	1995		1996	
	Males	Females	Males	Females
47	214.6	211.5	214.9	213.6
48	214.5	212.1	214.7	211.6
49	185.9	183.7	214.5	212.4
50	173.1	171.3	185.5	183.8
51	167.5	166.6	172.7	171.3
52	162.5	161.4	167.1	166.6
53	151.6	150.9	162.1	161.5
54	145.4	145.9	151.1	150.9
55	136.9	137.3	144.9	145.9
56	132.7	133.8	136.3	137.3
57	127.6	128.8	132.1	133.7
58	123.1	125.5	126.8	128.6
59	123.8	126.2	122.2	125.3
60	121.1	124.0	122.7	125.9
61	118.6	121.1	120.0	123.7
62	120.1	124.0	117.2	120.6
63	120.2	124.6	118.6	123.5
64	117.8	124.7	118.5	123.8
65	114.4	122.4	116.0	123.8
66	108.1	118.2	112.5	121.4
67	105.9	118.1	106.0	116.9
68	101.6	116.0	103.5	116.8
69	98.5	116.9	99.0	114.5
70	94.2	114.2	95.8	115.1
71	89.6	111.5	91.4	112.4
72	84.7	108.0	86.7	109.5
73	81.9	106.9	81.4	105.8
74	75.9	101.7	78.6	104.6
75	69.7	95.3	72.6	99.3
76	57.7	82.1	66.5	93.0
77	53.1	76.3	54.6	79.6
78	49.1	72.9	49.8	73.6
79	46.1	70.2	45.8	70.0
80	43.8	68.4	42.6	66.9
81	38.7	63.4	40.2	65.2
82	33.8	56.5	35.4	60.0
83	28.8	50.9	30.7	53.2
84	24.8	46.1	25.8	47.5
85	21.0	40.1	22.0	42.7
86	17.4	35.1	18.4	36.7
87	14.4	30.6	15.1	31.8
88	11.5	26.2	12.3	27.5
89	9.3	22.2	9.8	23.2
90 +	30.5	83.6	31.9	88.1
Total	14,676.6	14,940.8	14,847.3	15,122.0

1995: Revised postcensal estimates.

1996: Revised postcensal estimates.

Source: Statistics Canada, Demography Division, Population Estimates Section.

Part II

Effects of the Social Environment of Elderly Persons on their Socio-Economic Condition

Edited by

Jean Dumas

with the collaboration of Laurent Martel

From “*Living Arrangements of Older Persons in Canada: Effects on their Socio-Economic Conditions*” by Légaré, J.; Martel, L.; Stone, L.O. and H. Denis, 1998, United Nations/Economic Commission for Europe, Population Activities Unit/Statistics Canada, ISBN: 02-1-100779-8, ISSN: 1014-4994.

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INTRODUCTION

In the 1950s, much was written about population aging. Its mechanisms, phases and implications were described and explained in sometimes remarkable works by demographers. For a long time, though, only the scientific community took any notice. Projections of square-shaped population structures superseding the traditional age pyramids were too far in the future to attract the attention of the policy makers of aging societies. They were much more interested in the fact that more children were being born every year. More births meant more economic activity, increasing construction and expanding consumption. Politicians did not begin to notice the demographic changes until schools became too large, young people started having difficulty entering the labour market, and the elderly population began getting bigger. Then they started to recognise the costs that accompany ageing and how quickly those costs were growing and would grow in the future. Indifference was replaced by concern, a concern still felt by many.

During the century now coming to a close, the structure of Canada's population has changed, chiefly as a result of the slow decline in fertility, which has narrowed the base of the age pyramid and broadened its peak. This steady evolution was interrupted for about 20 years by a still-unexplained phenomenon—the baby boom. Between 1946 and 1965, fertility and natality hit levels considered irretrievably lost, resulting in the famous explosion of births.¹ While fertility finally subsided, around 1970, to the levels it would have reached if the secular trend had continued unbroken, the huge cohorts born in the boom period swept through the age structure like a wave, and nothing is likely to stop this population bulge from attaining the 65-85 age range in the 2030s.

Though it started later than in most European countries, the ageing of Canada's population is nothing new. Its slow progress was halted by the baby boom, but the trend has picked up speed since 1975. Between 1950 and 1990, the elderly population grew faster than the total population. Over that period, the number of people aged 65 and over tripled, climbing from just over 1 million to more than 3.2 million, while the total population merely doubled. The latest projections suggest that the elderly population will treble again in the next 40 years. Until 2010, the ageing process will remain fairly slow, since the people turning 65 will be from the small cohorts born during the Depression and the Second World War.² Starting in 2011, it will accelerate

¹ The crude birth rate rose from 22.0 per 1,000 at the beginning of the Second World War to 28.2 in 1957, and the number of births increased from 250,000 to 480,000 (1959) over the same period.

² Until the first baby boom generations reach age 65, their large numbers will help slow the aging process (as measured by the percentage of elderly people in the total population).

each year as one by one the large cohorts of baby-boomers join the ranks of the elderly. It is important to keep in mind that difficulties stemming from ageing process are not so much a question of level as the speed at which this level is reached. Because of their great inertia, society's machinery and institutions have difficulty responding to rapid change. In Canada it took 40 years for the 65-and-over group to grow from 7.8% of the population (1951) to 11.6% (1991), an increase of nearly 50%; by 2030—assuming the projections are correct—the elderly will make up 23% of the population, a jump of 98%. By way of comparison, the proportion of senior citizens in the total population of France will have taken a century to grow from 10% to 25%, whereas in Canada the same process will have occurred in half of a century.

As to what will happen after that, it would be foolhardy to make specific predictions. One can only speculate on the basis of tenuous information about falling mortality and the child-bearing behaviour of women not yet born. At most, one can imagine that, according to the stable population model, the ageing process will level off, and a balance will be reached between mortality and fertility. One thing that is certain to occur in the medium term is the cessation of natural increase. There is every indication that by 2020 the number of deaths each year will equal the number of births. Population growth will then depend completely on immigration from other countries.

The Ageing of the Ageing Process

For a long time, what demographers call top-down ageing—ageing caused by rising life expectancy among people 65 and over, and by large birth cohorts arriving at age 65—was insignificant; now it has gathered impressive momentum. It is increasing the number of elderly people and their proportion of the total population. The 65-and-over group is becoming both too large and too heterogeneous to remain an undivided block. Numerically, of course, but also in percentage terms, the 80-and-over group is growing in relation to the total elderly population. In 1950, there were 149,000 people aged 80 or over, and they made up only 16% of the elderly population; in 1991 there were 643,000, or 21%. And by 2030 they will number nearly 2 million, accounting for more than a quarter (26%) of the population aged 65 and over. At the current level of knowledge, 80 is the age at which people start developing more disabilities and handicaps, which raises concerns about our society's capacity to meet future demand for health-care services.

However, this description of the ageing process is all too brief to enable the reader to grasp the changes that are occurring and will occur in the characteristics of the elderly population.

For more than a century, female mortality has been lower than male mortality. As a result, there are more women than men in the elderly population. In the mid-1990s, there were 72 men for every 100 women in the 65-and-

Table 1. Main Demographic Indicators, Canada, 1951, 1991 and 2031¹

	1951	1991	2031
Total Population	14,009,400	28,120,100	41,216,000
Growth (in percent)	1.7	1.0	..
Total Fertility Rate	3.5	1.7	1.7
Life Expectancy at Birth :			
Males	66.3	74.6	78.5
Females	70.8	81.0	84.0
Infant Mortality Rate (per 1,000)	38.5	6.8	..
Percent of Population Aged 65 and Over	7.8	11.6	22.7
Percent of Population Aged 80 and Over	1.1	2.4	5.6
Median Age	27.7	32.5	41.6
Sex Ratio at Age 65 and Over	103.1	72.3	80.2

¹ Medium Growth Scenario.

Sources: Statistics Canada, *Canada Yearbooks*, Catalogue no. 11-402E, *Report on the Demographic Situation in Canada*, 1992, 1993, 1994, 1995 and 1996, Catalogue no. 91-209E and Cansim.

over group, and the ratio will probably remain under 1 until at least the middle of the next century. That is the situation the elderly must live with: women, many of them widows, already outnumber men, and they will do so by an even larger margin in the future. It is true that in the last couple of decades, the gap between male and female life expectancies has narrowed somewhat. This trend reversal is usually attributed to the growing similarity of men's and women's lifestyles. If male and female life expectancies were to converge, it would have a major impact: all other things being equal, it would shorten the average period of widowhood, which is especially critical because the risks of losing one's independence are so high late in life. This possibility is merely academic, however, since the life-expectancy gap is not the only difference responsible for loneliness among elderly women. The effects of marital break-up and the continuing age difference between the spouses, at least, must also be factored in.

The Economic and Social Context

Canada's modern social programs were introduced during the period of strong economic and demographic expansion. The prosperity brought by a large, growing labour force and vigorous demand for goods and services dispelled all doubts about the viability of a "pay as you go" system to assist the elderly and other disadvantaged people. In very short order, however, the picture changed, perhaps more quickly for Canada than for other industrialised countries. International competition emerged in industries that

Canadians thought were shielded, just as technological inventions boosted productivity in nations whose workforce was burgeoning as a result of rapid demographic change. At the same time, Canada's population growth was slowing, and the ageing process was gathering steam. In the wake of this transformation, the tacit social contract between the generations was bound to be called into question (Table 1).

Pensions and Health Care

Before describing the situation of elderly people in Canada as depicted by the 1991 Census, we will provide a brief overview of the current pension and health-care systems.

Pensions

The modern pension system dates back to 1952. It has three parts.

The first part, known as the Old Age Security/guaranteed Income Supplement (OAS/GIS) program, established in 1952, automatically provides Canadian men and women with a minimum income from the age of 65 on, as long as they have lived in Canada for a minimum number of years.³ This program is based on the "pay as you go" principle. The pension benefits come out of income tax revenues.

The system also comprises two means of saving for retirement.

The first of these programs, known as the Canada Pension Plan (CPP) concerns former workers and, in Quebec, the *Régime de rentes du Québec* (RRQ)⁴, established in 1966, also operates on a "pay as you go" basis. Each worker and his/her employer are required to contribute to the plan during the worker's employment. At retirement, the employee receives one quarter of the average of his/her pensionable earnings which are dependent on the number of years of contributions and the current year maximum pensionable earning. In the event of the contributor's death, the surviving spouse may receive 60% of that amount. Full pension (depending on whether the individual has made sufficient contributions) is paid at age 65, but early benefits are available at age 60, but on a reduced basis, for those no longer working. Conversely the start of benefits can be postponed to age 70 and the pension is increased accordingly.

The other means of saving is through pension plans set up by employers for their workers and personal saving arrangements called Registered Retirement

³ High income individuals have their OAS pension reduced or even eliminated, while those with low income receive all or part of the GIS. Equity is preferred to equality.

⁴ In the text, these funds will be designated by C/QPP.

Table 2. Main Economic and Social Indicators, Canada, 1961 to 1996

	1961	1971	1981	1991	1996
Gross Domestic Product per Inhabitant (in dollars)	2,242	4,417	14,297	24,057	26,625
Unemployment Rate (in percent)	7.2	6.2	7.5	10.3	9.7
Labour Force (in thousands)	6,518	8,639	12,332	14,408	15,145
Cost of Living Index	23.9	31.9	75.5	126.2	135.6
Government Deficit (in millions of dollars)	..	-1,474	-16,819	-34,962	..
Public Expenses for Health (percentage of GDP)	2.4 ¹	5.0 ²	5.8	6.9 ³	..

¹ In 1960.

² In 1970.

³ In 1990.

Sources: Statistics Canada, *Canada Yearbook*, 1994 and 1995, Catalogue no. 11-402E and Cansim.

Savings Plan (RRSP) since 1957. Although such plans are optional, the federal government has for years been encouraging individuals to take advantage of them through tax incentives.

All these programs provide the majority of senior citizens with a measure of financial security after their working life. Nothing is perfect, however, and some segments of the elderly population are less comfortable than others. Chapters 2 and 3 contain an analysis of these disparities, their scope, their causes and the ways in which people cope with financial insecurity.

The Health-Care System

Public health-care expenditures accounted for 6.9% of gross domestic product in 1990 (Table 2). While the federal government determines general policies, health care is a provincial jurisdiction; consequently, responsibility for implementing health policies and managing health-care programs lies with the provincial governments. Canada is recognised as being among the industrialised nations, the country that provides its citizens with the best health care. Governments monitor the latest trends and allocate their health-care budgets to the segments of society that need them most. For example, some hospitals have begun altering the range of services they offer. A number of them are developing special programs to care for people suffering from the physical effects of ageing and to treat diseases that are especially common late in life.

CHAPTER 1 - LIVING ARRANGEMENTS OF THE ELDERLY

Like the rest of the population, elderly people have seen more change in their living arrangements over the past few decades than in hundreds of years

Table 3. Percentage Distribution of Population Aged 50 and Over by Age Group and Type of Household, Canada, 1991

Age	In an Institution	In Private Households		
		Alone	Family	Non Family
50-59	1.1	10.1	81.8	7.0
60-69	1.8	17.0	75.1	6.1
70-74	3.5	25.7	66.3	4.5
75-79	7.2	31.3	57.4	4.1
80-84	15.3	35.6	45.3	3.8
85 and Over	36.1	28.8	32.3	2.8
60 and Over	6.3	23.0	65.6	5.1
65 and Over	8.1	26.0	61.3	4.6
80 and Over	24.2	32.7	39.7	3.4

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

before that. In the past, it was customary for one of the children—often either the eldest son or the youngest daughter—to take their parents in when they grew old. Now the parents, even if they are widowed, want to remain independent as long as they can. As a result, the number of one-person households has increased substantially. At the time of the 1991 Census, nearly one quarter of the 65-and-over age group—about 800,000 people—lived alone (Table 3). Of course, two thirds of the total were living with family, and very few (1 in 20) were living with people to whom they were not related. In the 80-and-over group, one person in three, or close to half of those living in private households, were living alone.

Since 1991, things probably have not changed much. We can say, again on the basis of the figures in Table 3, that in all, 92%⁵ of the population aged 65 and over lives in private households. The remaining 8% live in collective dwellings, which can be divided into two categories:

- 1 - institutional dwellings: health-care institutions, orphanages, correctional and penal institutions, and religious communities;
- 2 - commercial or communal dwellings: lodging or rooming houses, hotels, nursing homes, military residences and other non-religious communities.

This chapter is about the living arrangements of senior citizens, which can be broken down by type of household. The first part of the chapter deals with the institutional population, most of which is cared for by governmental or para-governmental agencies; the second part concerns senior citizens in

⁵ 26% + 61% + 5%.

private households. It is important to keep in mind that **the unit of analysis here is the elderly person as such and not the household of which that person is a member.** That is what makes the interest of the study: it is the first of its kind to go beyond an examination of the elderly as heads of household and focus on all senior citizens in their immediate social surroundings to depict them by categories.

Table 4. Distribution of Institutionalized Population Aged 70 and Over by Age Group and Sex, Canada, 1991

Age	Males	Females	Total
70-74	3.2	3.8	3.5
75-79	5.8	8.2	7.2
80-84	11.5	17.6	15.3
85-89	22.1	33.0	29.5
90 and Over	37.3	54.0	49.6
80 and Over	17.2	27.9	24.2

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

The Institutional Elderly Population in Canada⁶

Since 1971, the proportion of the 65-and-over population living in institutions in Canada has remained steady at about 8%. In 1991, there were 255,460 elderly people in institutions, and 180,220 of them, or 70.6%, were women. Overall, 9.8% of all elderly women were living in institutions, compared with 5.7% of elderly men. Part of this discrepancy is due to the fact that women have a longer life expectancy and different marriage patterns than men.

The older the age group, the larger the percentage of people placed in institutions becomes (Table 4). While the proportion is fairly small below the age of 80, it increases rapidly after that age, reaching a high of 37% for men and 54%, more than half, for women in the 90-and-over group. Hence, 80 would appear to mark the threshold for this major change in living arrangements. It is the age at which health problems become much more common.

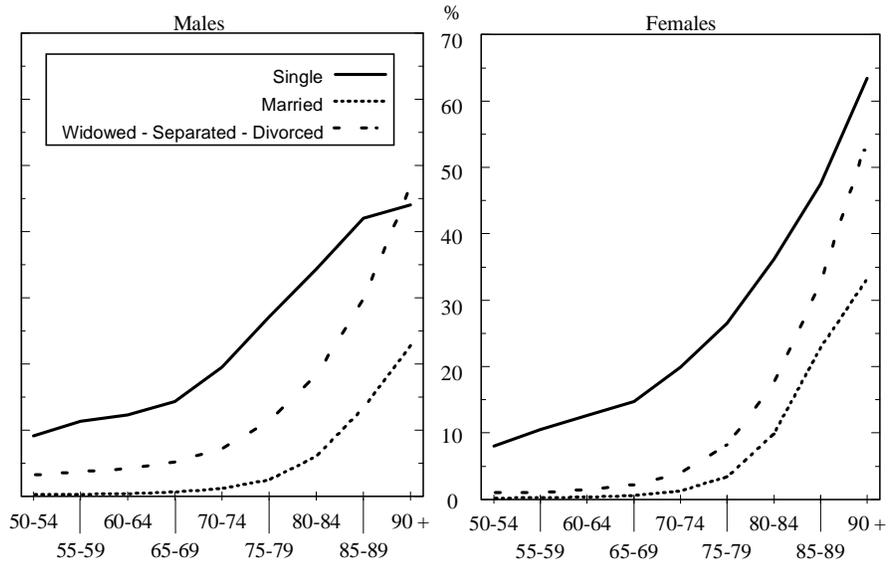
In 1987, Stone and Fletcher demonstrated that, disregarding disability, social support and income levels, age was a good indicator of senior citizens' living arrangements and of their chances of being institutionalised.

If age is the only variable we consider, we find significant disparities between the sexes. As soon as we factor marital status into the equation, those differences vanish. Figure 1 clearly shows that the differences are minimal for men and women of the same marital status.

Institutionalisation is most prevalent among never-married people of both sexes, regardless of age. People who have lost their spouse through death,

⁶ The data used in this section are taken from special tabulations prepared by Statistics Canada for a study of the Canadian population living in collective dwellings (Smith, 1996).

Figure 1. Percentage Distribution of the Institutionalized Population by Age Group, Sex and Marital Status, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

These charts are not presented in the usual format, but the classic “bar charts” format would have made them impossible to interpret.

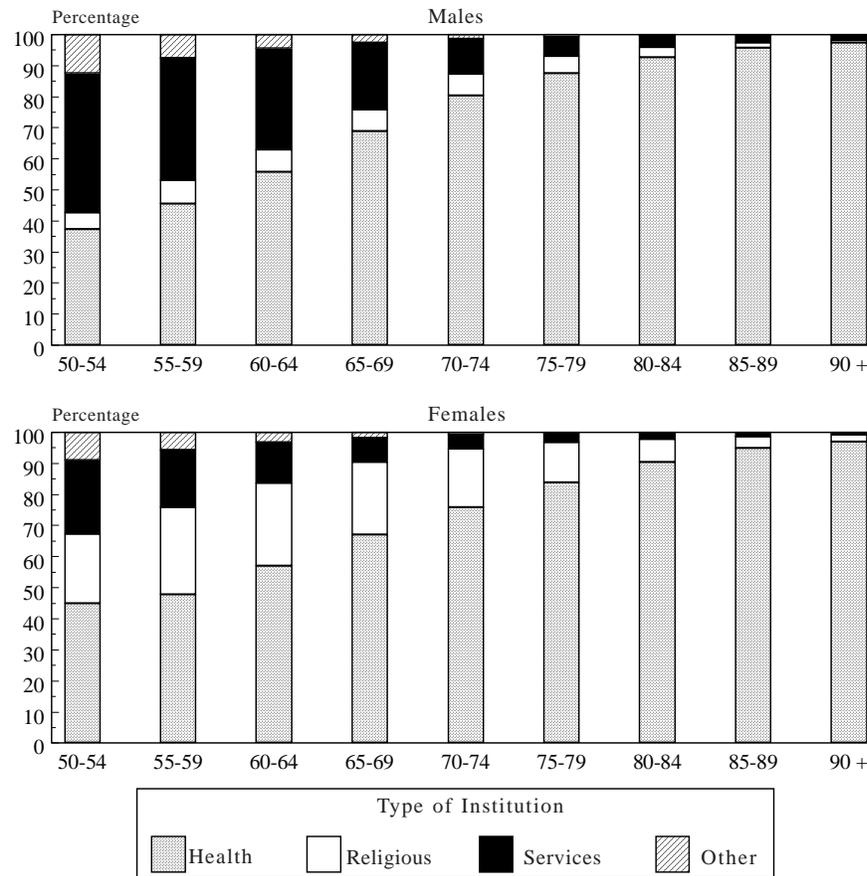
separation or divorce have the second highest proportion. Conversely, very few married men and women under age 80 live in collective dwellings. This suggests there is a strong link between being “alone” and living in an institution.

Our analysis so far has dealt with the institutional population, regardless of the type of collective dwelling. Part of that population undoubtedly consists of members of religious groups and other people serving the community, most of whom have never married.

Population in Health-Care Institutions

However, in view of Canada’s situation, given a rapidly ageing population and the restraints on public finances, the elderly population living in health-care institutions is of most interest. The people in that group place the greatest burden on the public purse, and it is important to know who and how many they are.

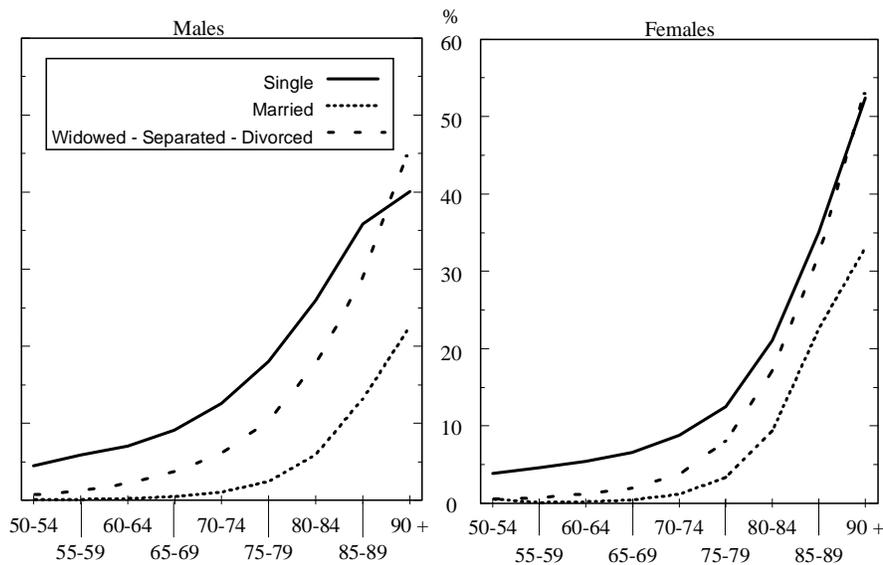
Figure 2. Percentage Distribution of the Institutionalized Population by Age Group and Sex, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

As Figure 2 shows, there are only small differences between the percentages of men and women aged 50 and over living in health-care institutions. Fewer than half of the institutionalized 50-64 age group reside in such facilities. A large percentage of women in the group live in religious communities, while the majority of the men stay in commercial or communal facilities. From age 65 upward, however, the proportion of institutionalized men and women living in health-care institutions increases to almost 100% in the 80-and-over group. So it is an exaggeration to say, as some do, that all senior citizens live in health-care institutions. Some of them do live in collective dwellings, but the latter are not health-care facilities.

Figure 3. Percentage Distribution of Population in Health Institutions by Age Group, Sex and Marital Status, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Some elderly people have no choice but to rely on the formal support network—i.e. on health professionals and quasi-professionals—to cope with activity limitations, handicaps and incapacitating illnesses. This is the case in particular for those who have a small informal support network (spouse, children, other relatives, friends and neighbours).

Figure 3 shows, not surprisingly, that the never-married, widowed, divorced and separated groups have the highest percentages of health-care institution residents, and that, as in Figure 1, there is little or no difference between the men and women of the same marital status. Figure 3 also suggests that age 80 marks the beginning of true old age or, as Peter Laslett calls it, the Fourth Age.

Governments have instituted health and social services policies to foster prevention through awareness and to assist the informal support network in caring for the elderly.⁷ With the help of that network, elderly people are able

⁷ Angus, D.E “Future Horizons for Health and Health Care: A Policy Perspective” in *Vers le XXème siècle; Tendances socio-économiques et enjeux politiques au Canada*, proceedings of the Colloquium organized by the Canadian Federation of Demographers, St. Paul University, Ottawa, October 23-25, 1995, p. 11-22.

to remain at home longer. However, the statistics indicate that some seniors,⁸ primarily those who are alone or have health problems, continue to depend on the formal support network. As it was clearly seen, the determining factor is marital status.

In the future, health care for the elderly will be affected by two opposing trends: on one hand, as Manton and al. pointed out in 1997, recent successes in controlling certain diseases or mitigating their effects will delay the institutionalisation of elderly people, while on the other, the greater prevalence of marriage breakdown and, in particular, the decline in the number of children since the 1970s will weaken the informal support network. Hence, the number of senior citizens with no relatives to help them is certain to grow during the first half of the next century, and neighbours and friends will be called upon more frequently to assist the elderly. Personal care will probably continue to be provided by close relatives (spouse and children). It is also likely that the formal support system will be asked more often to deliver personal care that is currently being given by the informal support network.

A word of caution is in order regarding institutionalisation and how it is measured. The percentage of people living in institutions can be misleading as an indicator of public health since it varies not only with the health status of the total population but also with the number of spaces available in institutions, as pointed out by De Jong-Gierveld and van Solinge.

It is also worth noting, before we move on to private households, that the census unfortunately does not provide data on length of stay in institutions. Institutions are often classified as either short-term or long-term care facilities. Length of stay in long-term care facilities is not independent of population ageing. Assuming the stay supply is constant, the fact that the average age of the long-term care population is climbing—i.e. patients are being admitted to long-term care institutions later in life—suggests that the average stay is probably shorter than it was in the 1960s or 1970s, when the average age of residents was lower because they were admitted earlier. This change is certainly affecting the type of care and services the institutions have to deliver: the patient population does not have the same morbidity profile, since some types of debilitating diseases emerge in extreme old age.

One final point needs to be made about the characteristics of the institutional population. For elderly people of the same age, the probability of being institutionalised depends not only on health status but also on previous living arrangements; for example, persons living alone are at greater risk.

⁸ In 1991, about 6% of the elderly population in Canada did not have an informal support network (Martel, 1998).

Living Arrangements of the Non-Institutional Elderly Population

Governments have introduced policies to help keep elderly people at home. The policies are supposed to be an effective way of meeting the rising costs of public health care, but they put even more pressure than before on the informal support network. Angus, Auer, Cloutier and Albert in 1995, Speare and Avery in 1993 and Spitze and Logan in 1992 showed that the informal network provided 80% of the assistance received by the elderly. Other studies, such as those by Chappell in 1991, Stinner et al. in 1990 and Cafferata in 1987, demonstrated that the presence of close relatives reduced the risks of morbidity and even mortality among the elderly. By facilitating the provision of assistance through the informal network, governments are helping older people to remain independent longer and postponing the time when they will have to be cared for by the formal support system.

However, not everyone over the age of 50 has an informal support network. The percentage of people living alone increases with age, while the percentage living in family households declines; very few people of any age live in non-family households (Table 3). Some 10% of the 50-54 age group live alone, compared with more than 35% of the 80-84 group.

These differences in population distribution suggest once again, as if further proof were needed, that marital status largely determines the living arrangements of elderly people. As Table 5 shows, the never-married proportion varies little across the age groups. The proportion of married people, on the other hand, decreases through the break-up of the couple. While only 6% of men aged 50 and over are widowers, more than 26% of their female counterparts are widows. The corresponding figures for women 60 and over and 85 and over are 37% and 80% respectively. For married people, the reverse is true. Proportionally more men than women are married, because they die before their spouses, who are younger, and because widowed or divorced men tend to remarry more quickly than widowed or divorced women. In the 50-and-over group, 83% of men are married, compared with only 60% of women. By age 85, the proportions are 60% for men and a mere 10% for women. These discrepancies in marital status affect the living arrangements of both sexes. Also worth noting is the fact that the proportion of separated or divorced people declines with age. The reason for this is that in addition to differences in the frequency of remarriage, there is a generation effect at play: divorce is more common in the younger cohorts than in the older ones, and if the trend continues, the phenomenon will become more pronounced.

Finally, the role that cohort fertility plays in determining the number of close relatives that elderly people have is also worth examining. In 1991, 13% of the cohorts aged 65 to 74 were childless, compared with 21% of the 85-and-over cohorts. The cohorts responsible for the baby boom will probably have a better chance of getting help from their children since they had large

Table 5. Percentage Distribution of Population Aged 50 and Over by Age Group, Sex and Marital Status, Canada, 1991

Age	Single	Married	Widowed	Separated or Divorced	Total
Males					
50-54	5.8	85.1	1.1	8.0	100.0
55-59	5.4	85.5	1.8	7.3	100.0
60-64	5.7	84.1	3.6	6.6	100.0
65-69	5.7	83.0	6.0	5.3	100.0
70-74	4.7	82.0	8.9	4.4	100.0
75-79	4.6	78.5	13.7	3.2	100.0
80-84	4.6	70.8	21.4	3.2	100.0
85 and Over	5.3	58.0	34.0	2.7	100.0
50 and Over	5.4	82.7	5.8	6.1	100.0
60 and Over	5.3	80.9	8.8	5.0	100.0
Females					
50-54	4.9	78.2	5.1	11.8	100.0
55-59	5.0	74.8	10.0	10.2	100.0
60-64	4.9	68.9	17.5	8.7	100.0
65-69	5.2	60.7	27.2	6.9	100.0
70-74	5.5	49.1	40.4	5.0	100.0
75-79	6.1	36.3	54.1	3.5	100.0
80-84	6.7	22.8	67.9	2.6	100.0
85 and Over	7.2	11.6	80.0	1.2	100.0
50 and Over	5.3	60.3	26.7	7.7	100.0
60 and Over	5.6	51.2	37.4	5.8	100.0

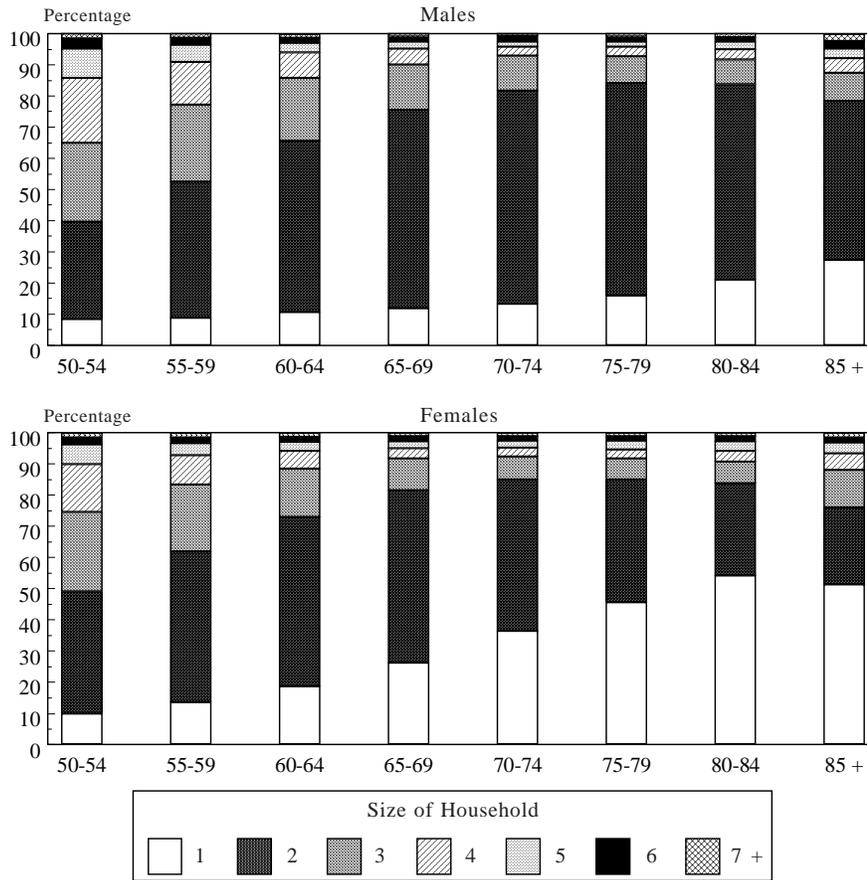
Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

families. In fact, Martel argues in his 1998 study that at age 65, only 7% of baby-boomer parents will have no descendants to rely on. The baby-boomers themselves, on the other hand, having had smaller families, will have fewer children to assist them when they get older. This, of course, is simply the demographic perspective. In reality, social life is much more complex.

Household Size

The available data can tell more about the families of elderly people who do not reside in institutions. For example, there are substantial differences between the household sizes of elderly men and women. When households are divided into two categories by size (1-3 persons, and 4 or more persons), there is no difference: the pattern from age 50 on is the same for both sexes (Figure 4). However, when we look at the distribution within the first category (households with 1-3 members), we find a marked difference between the sexes: about twice as many women live alone (one-person households), while a majority of men are members of two-person households.

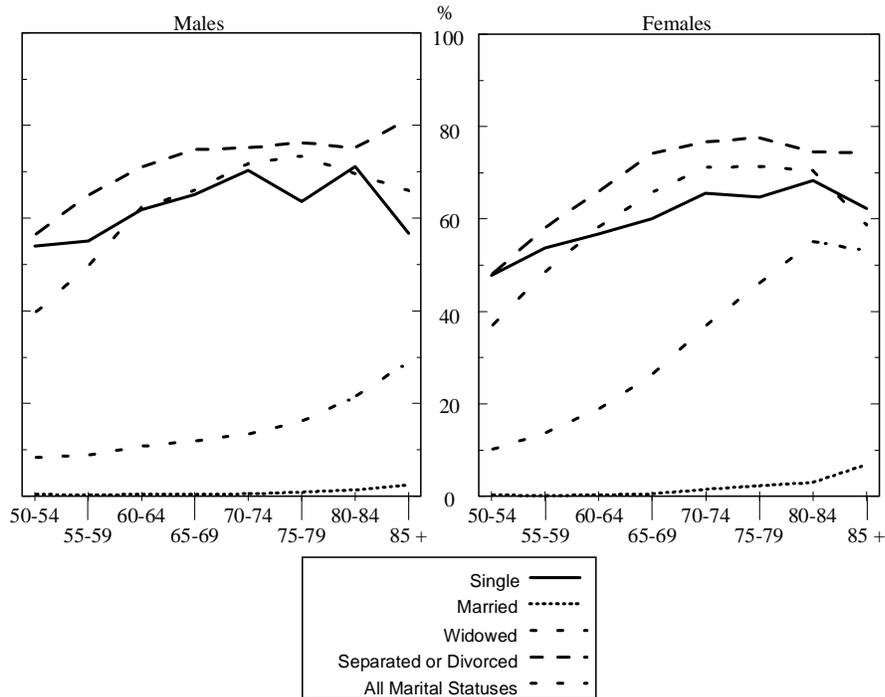
Figure 4. Percentage Distribution of Population by Age Group, Sex and Size of Household, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

The way in which the proportion of households with four or more members changes from age group to age group reflects the changes that occur with ageing. Larger households are still fairly common among people in the 50-64 age groups because many of those people are the heads of nuclear families with some of the children still living at home (see Figure 8). As the children leave, the proportion of households with four or more members is smaller in each successive age group, bottoming out at less than 10% in the 80-84 group. Surprisingly, the proportion is higher in the next group, possibly because parents are being taken in by their children, and because the people in the group have decided to move in with family members or even strangers either for economic reasons, for security, or simply for peace of mind.

Figure 5. Proportion of Persons Living Alone by Age Group, Sex and Marital Status, Canada, 1991



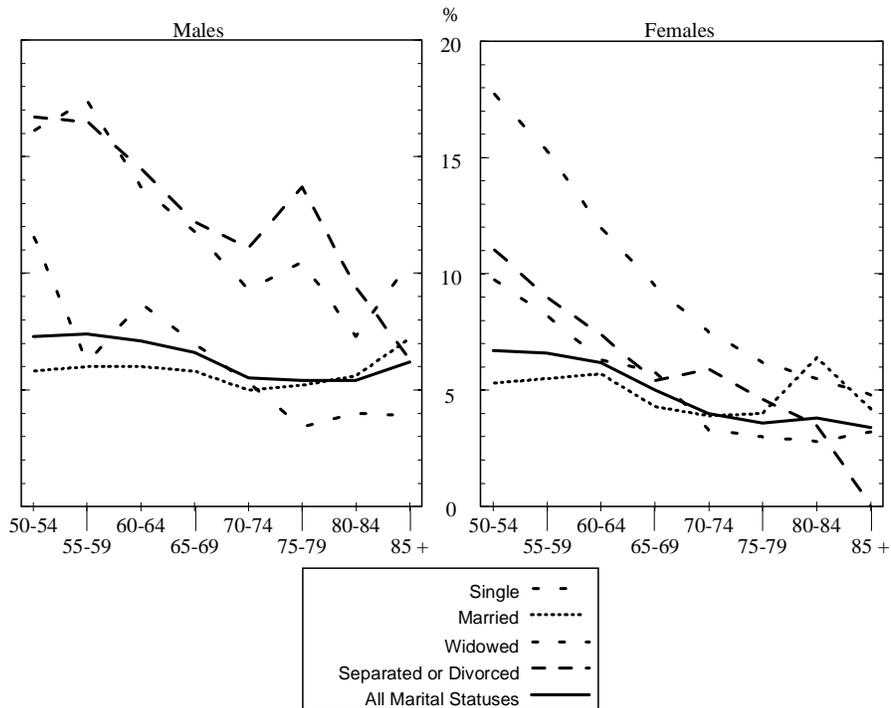
Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

The type of assistance and how frequently it is provided depend on who the provider is. Hence it is worth studying the composition of households with one or more elderly members. The data indicate that few married people, of either sex, live alone in advanced old age (Figure 5).

In fact, this situation occurs only when one spouse has had to be institutionalised because of serious disability. The proportion of people living alone rises from 50% in the 50-54 group to 70% very late in life. Solo living is mostly the lot of widowed, divorced, separated or never-married. The proportion of never-married people, especially never-married women, is higher in non-family households (Figure 6).

Nevertheless, very few elderly people live in non-family households. For all marital statuses combined, regardless of age or sex, the proportion of people aged 50 and over who live in that type of household ranges from 6% to 8%.

Figure 6. Proportion of Persons Living with Non-Relatives by Age Group, Sex and Marital Status, Canada, 1991



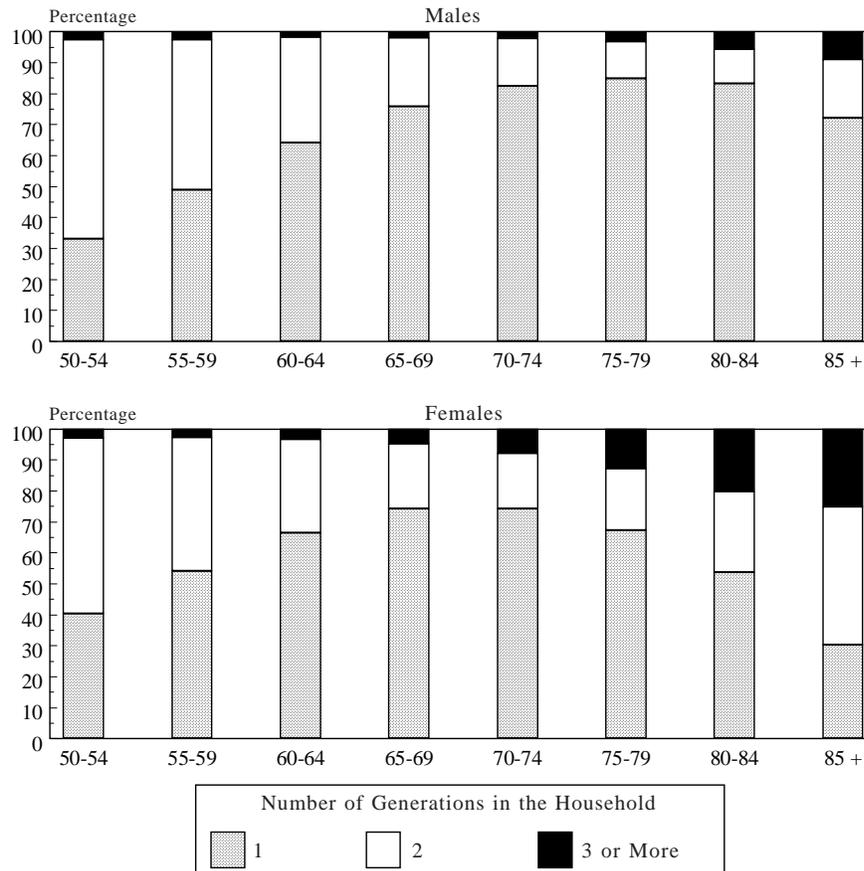
Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Separated or divorced men choose such living arrangements more frequently than separated or divorced women. These findings are consistent with results reported in other studies, including de Jong-Gierveld and Dykstra in 1997. Those studies show that separated or divorced women who are not living alone have a greater tendency than men in the same situation to live with their children, i.e. in family households.

Number of Generations

Elderly people who live in non-family households (mostly never-married, separated or divorced men) share their daily lives with friends of the same generation. Analysis of the data reveals, however, that when non-family households are classified by the number of generations living in them (one,

Figure 7. Percentage Distribution of People Living in Family Households by Age Group, Sex and Number of Generations Present, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

two or three)⁹, they are distributed almost evenly across the three categories (about 2% each).¹⁰

The vast majority of elderly people living in family households share their living space with people of their own generation (usually the spouse) or an adjacent generation (a child) (Figure 7).

⁹ For more details consult the United Nations publication for which the title appears at the bottom of the title page for Part 2.

¹⁰ An example of this type of arrangement would be an elderly person living in a household with an unrelated woman and her daughter. Such a household would be classified as a family household in the census.

The term “Generation” has several meanings:

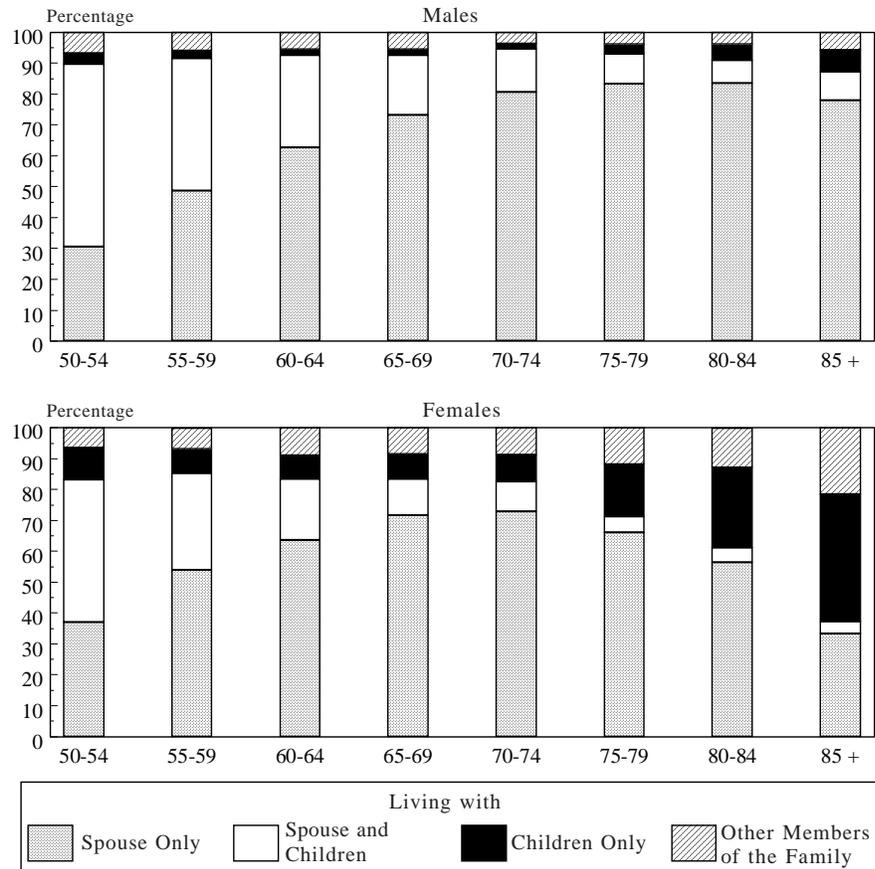
- 1 - The most common meaning is that of a group of persons who are about the same age. Generally the distance between generations is the average interval that separates parents and their children. In the text, 25 years was chosen when dealing with the cohabitation of people of different generations.
- 2 - The demographic meaning is restricted to people born in the same year.

Between the ages of 50 and 65, the two sexes exhibit much the same behaviour. From age 70 on, however, a majority of men live in family households whose members belong to the same generation. A majority of those men are married, which means that the proportion of elderly men whose spouses are still alive outweighs the proportion of elderly women who still have their husbands. And if women live in households whose members are from at least two generations, it is probably because they are living with their children and grandchildren. If life expectancy continues to climb in the future, it should be reasonable to assume that the number of multigenerational families should grow substantially. But this is far from a certainty if the elderly continue to value independence from their children.

Figure 8 delivers information about the characteristics of people who live in the households of the elderly. It shows that in general, an elderly man will tend to live with his children as long as his wife is there too. Of course, there are proportionally more husbandless women than wifeless men living with their children or grandchildren, especially in advanced old age. The few family households whose members are from three or more generations are composed of children and grandchildren, but in the upper age groups, usually only one grandparent is still alive.

Elderly people living with family members other than their descendants or with non-relatives rarely live in one- or two-generation households (approximately 10%). It is more common for them to live in three-generation households (about 25%). The characteristics of people living in the family households of the elderly suggest that men without their wives have difficulty fitting into their children's and grandchildren's families.

Figure 8. Percentage Distribution of Population Aged 50 and Over Living in Family Households of One or Two Generations by Age Group, Sex and Living Arrangements, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Conclusion

Marital status is the characteristic that weighs most heavily in senior citizens' choice of living arrangements. The presence of a spouse is the greatest source of support a person can have in later life. Today's more frequent marriage breakdown and low fertility will combine to weaken the informal support network of tomorrow's elderly. Friends, neighbours and the formal support network will probably be called upon to provide more assistance than they are providing today.

Because of increasing longevity, the different generations are being forced to coexist more now than in the past. But they seldom live together. It looks as if intergenerational support will grow in the future, but it will take as yet unknown forms if the elderly persist in keeping their increasingly long held independence.

CHAPTER 2 - LABOUR FORCE PARTICIPATION AND RETIREMENT

From the perspective of doing paid work, retirement and the labour market are opposites. Both concepts were shaped during the industrialisation period. Today, everyone views retirement as this part of life when a person essentially stops earning money and spends the rest of his or her life consuming the assets he or she previously accumulated in one form or another. In Canada, as in every other Western country, retirement lasts much longer nowadays than it did at the turn of the century. There are two reasons for this change.

One reason is demographic. Life expectancy at birth has risen in recent years because of an increase in life expectancy in old age. As a result of the latter increase, individuals are remaining in the elderly age group longer than before. Similarly, the advance in life expectancy at birth, due in part to lower mortality in the young age groups, means that more people than before will reach old age. In combination, the two phenomena increase substantially the number of years that survivors of a birth cohort collectively live as senior citizens (Table 6). Hence, a previously unknown period stretching from the end of the individual's "economically" active life to the sharp decline in vital functions that accompanies advanced age has crept into the human life cycle. The British sociologist Peter Laslett refers to this period as the *Third Age*. By extension, the final period of life, which usually involves disabilities and a loss of independence, can be thought of as the *Fourth Age*. It is old age in the real sense of the term.

The other reason is economic. In the closing years of this century, the demand for labour has been profoundly affected by the technological progress and the many inventions we have seen over the past few decades. Businesses have had to update their lines of products and services and their manufacturing processes, and they have made major changes to keep up with new demands. Workers specialising in certain types of products have seen their usefulness diminished as their skills have become less valuable to employers. New manufacturing technologies have made many jobs redundant, and it is of the interest of employers in economically prosperous countries to offer attractive early retirement packages to the now less valuable incumbents of those jobs when they are still relatively young. The number of companies and organizations undergoing downsizing is doubling, especially in the social services, as budget

Table 6. Number of Survivors at Age 65 in the Life Table and Life Expectancy at Age 65 by Sex for Cohorts from 1801 to 1941

Cohorts	Survivors at Age 65		Life Expectancy at Age 65 in Years	
	Males	Females	Males	Females
1801	27,448	31,092	10.6	11.5
1821	29,640	34,115	10.9	11.8
1841	31,959	37,017	11.4	12.5
1861	35,901	40,968	12.9	13.8
1881	44,909	49,331	13.5	15.7
1901	51,561	59,715	14.0	18.7
1921	63,984	74,131	15.9	21.2
1941	74,502	83,380	18.0	22.4

Source: Bourbeau and al., 1997.

cuts also eliminate jobs. For all these reasons, about 60% of people in the 60-64 age group are unemployed or out of the labour force.

The longer period of retirement and the larger numbers of retired people resulting from the changes described above may cause problems in some cases, depending on the demographic and economic circumstances in which they arise. The employed have to support an ever-growing number of people who do not work because they are either retired or unemployed.

This trend will be exacerbated, particularly in Canada, by the decline in the proportion of adults due to the small birth cohorts that first made their appearance in the early 1970s. In numbers of births, subsequent cohorts were 20% smaller on average than the cohorts of their baby-boomer parents. On the other hand, a larger proportion of women in the smaller cohorts entered the labour market when they reached adulthood. Will there—as some analysts, including Fellegi in 1988, suggested—be enough women in that group to offset the decline in the number of workers who contribute to pension funds? Nobody knows whether it is the beginning of a trend or simply a transitory fluctuation, but since 1993 and 1994, female participation rates have levelled off or even dipped slightly. It might seem paradoxical that a society would readily part with people of working age and at the same time worry about the decrease in the adult population caused by lower fertility. But this paradox is largely due to the fact that workers are not interchangeable and that recycling has its limits.

This important question of dependency ratios will be studied in greater detail following an analysis of labour market participation by people aged 50 and over and of their retirement patterns.

In an effort to understand their labour market behaviour and this economic well being in relation to their living arrangements, various characteristics of

older people will be examined. For example, it will appear that the length of time a person remains employed is influenced by the size and nature of his or her family.

Concepts

The line between employment and retirement is becoming increasingly blurred, as both working and retiring are taking many diverse and varied forms. In this study, a person who is working full time or part time or looking for work is considered to be “in the labour force”. The “retired” category includes everybody who reported receiving pension income other than benefits provided automatically by the government under its programs for senior citizens (primarily Old Age Security, guaranteed income supplement and other government transfers). In other words, the term “retired” applies only to people who used to be in the labour market.

People are not entitled to full benefits under government programs (Old Age Security, guaranteed income supplement and so on) until age 65. Consequently, if, for ease of reference, we had to choose a dividing line between the working period of one’s life and retirement, that is the age we would select, and this is the age that is recognized in most industrialised nations. A person can of course retire earlier and collect benefits from a private pension plan if he or she qualifies. One can also retire anytime after age 60 and receive C/QPP benefits, but they are reduced by an amount based on the time between one’s retirement and one’s 65th birthday. Despite these penalties, participation rates for people under 65 have fallen sharply in the past two decades (Légaré et al., 1991). Whether by choice or by necessity, Canadians are departing from the labour force earlier and earlier.

Labour Force Participation After Age 50

Using data from the 1991 Census of Canada, a breakdown of the population by labour market activity can be obtained. As shown in Table 7, the population is first divided into two major categories: those who are in the labour force, and those who are not. Then the first category is split into those who are employed (full time or part time), and those who are looking for work (essentially the unemployed). The second category consists of people who are retired, as the term is defined above, and others.

In 1991, about 76% of men aged 60 and over and close to 90% of women in the same age range did not have paid employment (Table 7). While a large majority of men fell into the “retired” category (59%), less than half of the women were in the same situation (46%). Unemployment was low for both sexes, for the simple reason that not many people in that age group are still in the labour force. In the 65-and-over group, the proportion of retired men was 71%, 13 percentage points higher than the proportion in the 60-and-

Table 7. Percentage Distribution of Population Aged 60 and Over by Labour Force Activity and Sex, Canada, 1991

Age	In Labour Force		Not in Labour Force		Total
	Employed	Unemployed	Retired	Others	
	Males				
60 and Over	24.3	3.1	58.8	13.8	100.0
65 and Over	13.2	0.7	71.3	14.8	100.0
	Females				
60 and Over	10.3	0.9	45.7	43.1	100.0
65 and Over	5.0	0.4	51.4	43.2	100.0

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

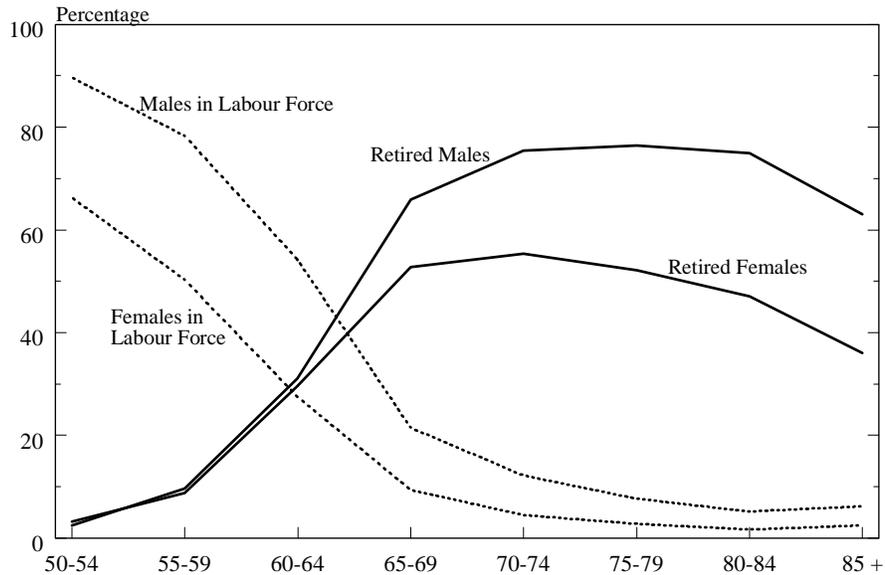
over group. For women, the proportion was less than six percentage points higher in the 65-and-over group (51%) than in the 60-and-over group. These differences in percentage and percentage-point change between the sexes stem from the fact that the female cohorts represented in Table 7 participated less in the labour force during their lives.

The percentages of men and women in each category are plotted in Figure 9. The lines show how the percentage of people in the labour force declines between the 50-54 age group and the 55-59 group. The biggest change, however, is between the 60-64 group and the 65-69 group: the proportion of men in the labour force drops from 54% to 22%, and the proportion of women from 28% to 9%. Conversely, the proportion of “retired” people (the proportion receiving a pension, rather than the proportion not in the labour force) climbs from 31% to 66% for men and from 30% to 53% for women. The figure suggests that a large percentage of people retire a little before the age of 65. In fact, that age has been decreasing since the 1970s. According to a recent Statistics Canada study, the average age at retirement is now 62, compared with 65 in 1971.¹¹ In other words, the period between the time when people actually retire and the time when they are entitled to government pensions is becoming longer.

The fact that the percentage of retired women increases by a smaller amount between the 60-64 group and the 65-69 group than the percentage of retired men reflects once again the fact that few women contributed to pension plans during the years in which men were able to do so because they were employed. According to 1991 data (Table 7), 49% of women aged 60

¹¹ Gower D (1997). “Retirement Age and Statistical Estimation” in *Perspectives on Labour and Income*, Vol. 9, Catalogue no. 75-001-XPE, p. 13-20.

Figure 9. Distribution of the Population in Labour Force and Retired Population by Age Group and Sex, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

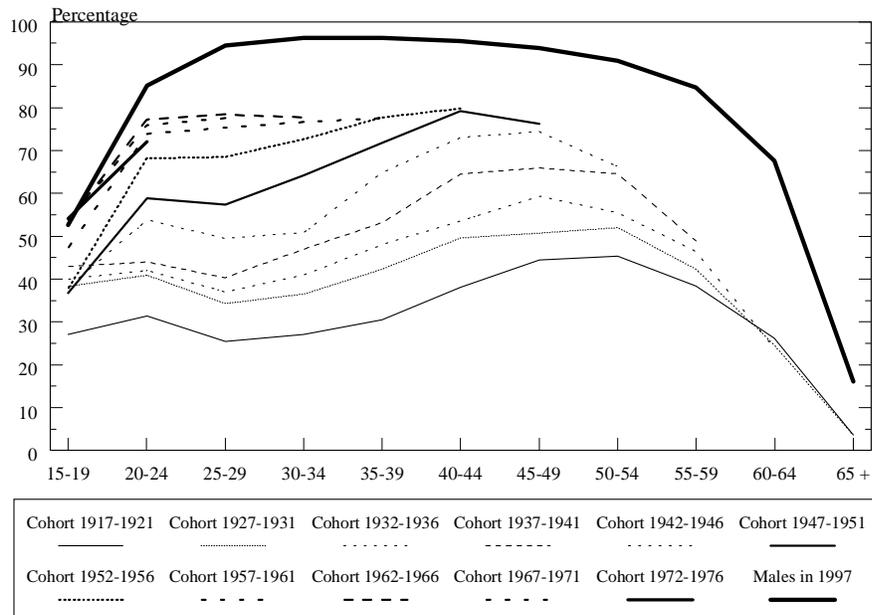
and over who were not in the labour force were not retired. That is because they were “housewives”. This observation is supported by the results of the 1994 General Social Survey: half of elderly women reported that their principal occupation was “homemaker” (Lindsay, 1997). The survey data also showed that more than 20% of women of that generation had never been in the labour force.

The graph for retired men bends downward beyond the 80-84 age group because members of that generation were unable to contribute to the C/QPP, which did not exist at the time.¹² There are significant differences in retirement behaviour between men and women around the age of 65. Moreover, the situation is changing rapidly because it is largely due to a generation effect.

With their increasing presence in the labour market, younger female cohorts are behaving less like their elders and more like male cohorts. Though visible in census data, this trend can be seen even more clearly in the movement of quarterly participation rates based on Labour Force Survey (LFS) data. The

¹² The C/QPP program was introduced in 1966.

Figure 10. Proportion of Women in the Labour Force by Age Group for Various Cohorts, Canada



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

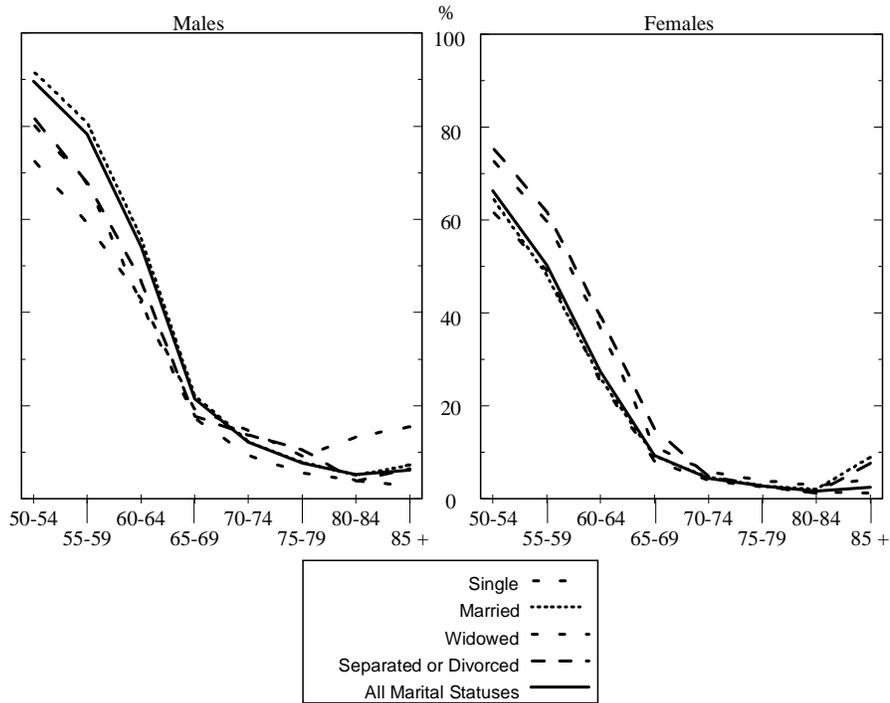
rates have increased substantially over the past 30 years. More recently, however, they slowed down and levelled off; now they are showing signs of declining (figure 10).

Another generation effect is probably behind an oddity that is just barely visible in Figure 9: a larger proportion of people in the 85-and-over group reported being employed than in the 80-84 group. The reason for this is probably that many very elderly people worked in primary industries, especially agriculture. Those people tend to regard themselves as still “active” in the labour force, even though their participation is merely symbolic in most cases.

According to the Census, only a small proportion of people over 50 years of age were unemployed: 3.9% of men and 2.3% of women. The actual counts, 118,800 men and 80,800 women, are much lower than in other age groups, especially the young adult groups.

In Chapter 3, it will be seen how difficult it is to measure with any precision how much paid work is done by people aged 65 and over. The curves in

Figure 11. Labour Force Participation Rates of Population Aged 50 and Over by Age Group, Sex and Marital Status, Canada, 1991



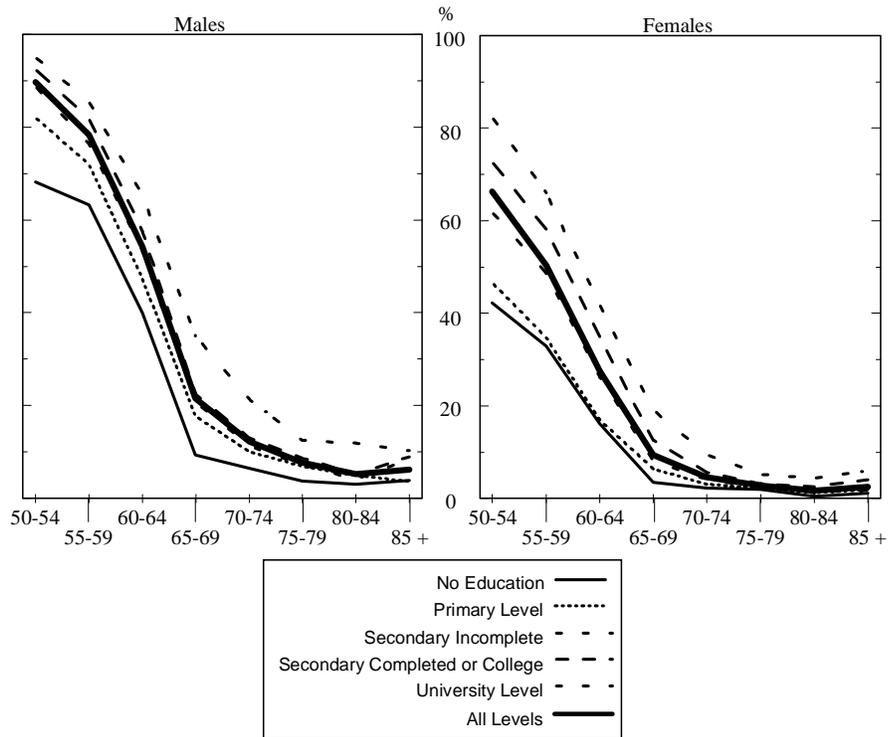
Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Figure 9 indicate that in the 65-69 and subsequent age groups, the percentages of people who are in the labour force are low, but they are far from zero, especially for men.

Marital Status

Graphs of the participation rates of the 50-and-over population, broken down by marital status, are presented in Figure 11. For the age groups before 65-69, the lines are quite distinct. The participation rates for never-married and divorced women are far higher than the rates for widows and married women. The logical explanation for this difference is that never-married and divorced women have to earn a living, whereas married women and widows do not because they can live off their husband's employment income, pension or estate. The much lower participation rates of never-married men could be due to poor health or handicaps, which may be why they never married. We might also speculate, in the case of widowed, separated and divorced

Figure 12. Labour Force Participation Rates of Population Aged 50 and Over by Age Group, Sex and Level of Education, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

men, that the end of their marriages caused some instability that put them at a disadvantage in the labour market, or, in the case of separated and divorced men, that the loss of their jobs led to their marital problems.

Education

Participation rates fluctuate more, and more systematically, with level of education. As Figure 12 clearly shows, from age 50 on, the lower the level of schooling is, the lower the participation rate is. In the 50-54 group, only about 70% of poorly educated men are still in the labour force, compared with 95% of highly educated men. The rates for women follow the same pattern. There is something paradoxical in these findings. Since income is, in general, positively correlated with level of education, one might expect that people who are poorly educated and therefore have low incomes would remain in the labour force longer than better educated people. But that is not

the case, probably because their low level of schooling makes them unsuitable at an earlier age for many types of jobs, or because they are prematurely exhausted by hard work.

There is no difference between the sexes in the order of the lines representing the various levels of education. The gaps between the lines are roughly the same for both sexes in the 65-69 group, but they are much wider for men in the 50-54 group. While female participation rates show a steady, almost linear decline between the 50-54 and the 65-69 age groups, male rates remain comparatively high in the 60-64 group and then decrease appreciably in the subsequent group. This difference may be related to the occupational differences between the sexes. In any case, participation rates after age 65 are substantially higher among highly educated people—even more so for men than for women—than among people with less education.

To properly interpret these relationships between level of education and age, it is necessary to take generation effects into account. Lindsay (1997) pointed out that there are twice as many university graduates and half as many poorly educated people in the generation aged 45 to 64 as in the generation aged 65 and over. However, it cannot be concluded that the relationship between level of education and participation rates in the upper age groups is fixed and that, since each succeeding generation has a higher level of education, people in the future will retire from the labour force at an increasingly advanced age.

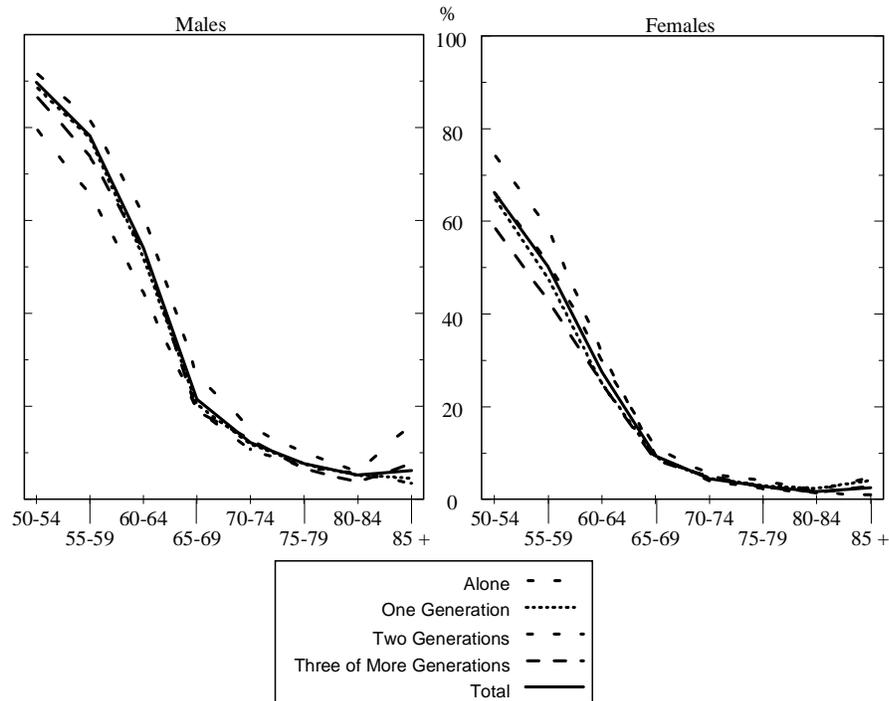
Number of Generations

Marital status and education have provided a satisfactory “explanation” of the variations in participation rates in the upper age groups. Now we will see how much influence the family—i.e. the composition of the household—has on the participation rates of older people. Some data are provided in Figure 13.

Men and women living alone¹³ have similar participation rates in every age group; hence, the comments made in the analysis of marital status also apply here. However, there is an important difference between the sexes in the relative positions of the graph lines. The rates for women who do not live alone are below the rates for women who do live alone, while the opposite is true for men. The possible reasons mentioned earlier—that women who are alone have a greater need to earn a living—still apply. According to some sociologists, women who are now in the upper age groups are paying with their solitude for the comfortable standard of

¹³ In the legends of Figure 13, one, two and three or more refer, as the title indicates, to the number of generations, rather than the number of individuals, in the household. People living alone are a special case within the one generation category.

Figure 13. Labour Force Participation Rates of Population Aged 50 and Over by Age Group, Sex and Number of Generations in the Household, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

living provided by their high level of education.¹⁴ Men who live alone and are not in the labour force are proportionally more numerous, and some of them have been living in that situation for a long time, probably for health reasons. Many of them probably have comfortable pensions and no dependants. The participation rates for men who live in two-generation households are somewhat higher than the rates for other men, probably because some older men still have dependent children. Conversely, those who live in households of three or more generations are probably being supported by their children.

Part-Time Work

Older men have higher full-time participation rates in all age groups than older women. That is no surprise since part-time work, even in the younger age groups, has always been more common among women than among men.

¹⁴ Goldscheider and Waite (1986), cited in Beaujot R. "Family Over the Life Course", Statistics Canada. 1995. Catalogue no. 91-543.

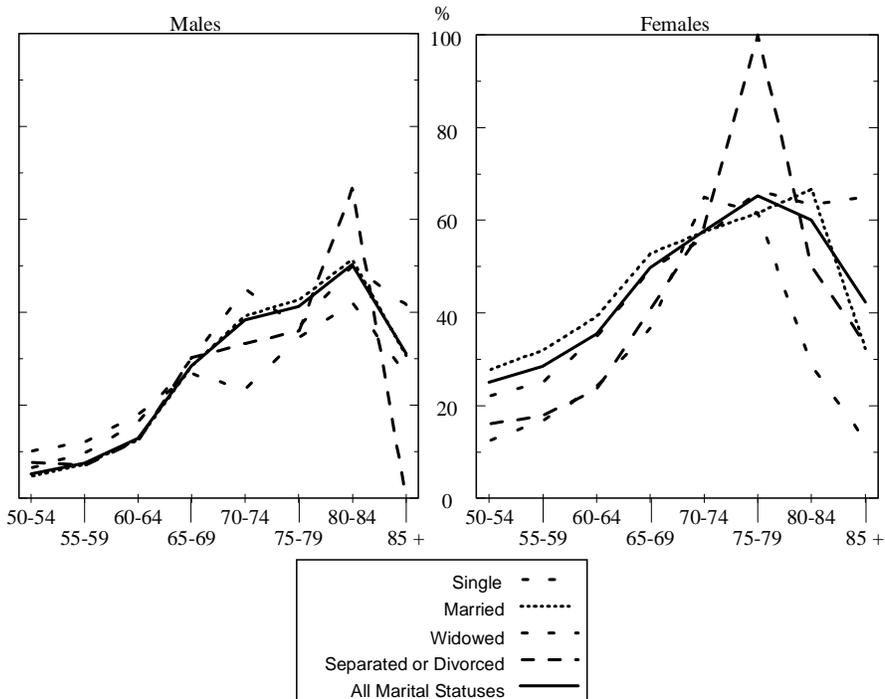
Table 8. Percentage of the Labour Force Aged 50 and Over Working Part Time, by Age Group and Sex, Canada, 1991

Age Group	Males	Females
50-54	5.2	25.0
55-59	7.6	28.5
60-64	13.0	35.5
65-69	28.5	49.8
70-74	38.4	57.7
75-79	41.3	65.2
80-84	50.3	60.1
85 and Over	31.1	42.3
60 and Over	20.6	41.8
65 and Over	33.2	53.2

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

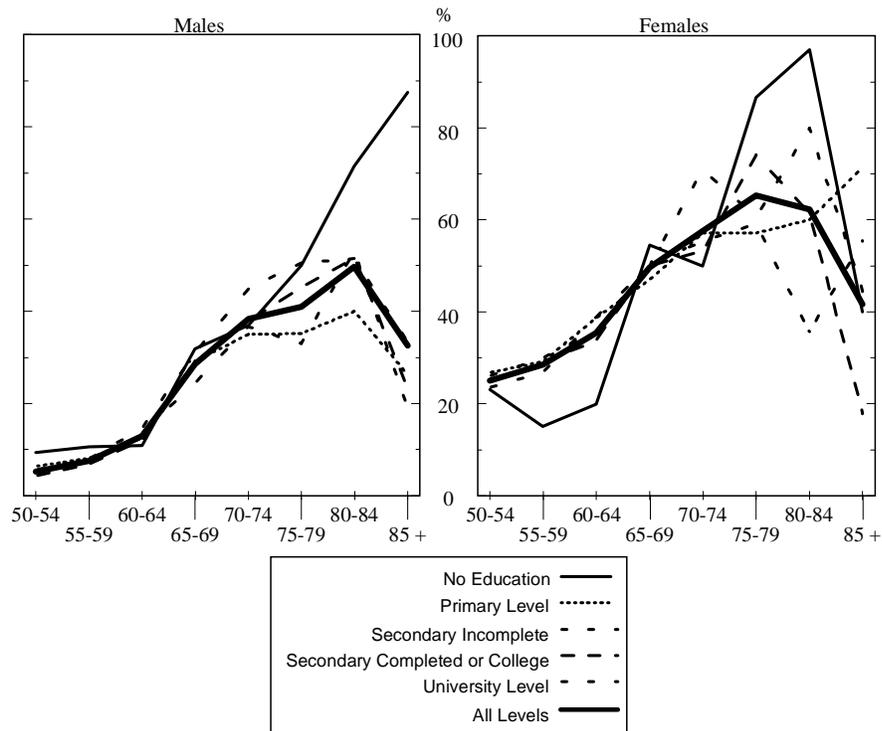
Table 8 leaves no doubt: in every age group, the gap between the sexes is quite large, as we expected. But there is something more interesting: the part-time percentage for both sexes increases significantly between the 60-64 group and the 65-69 group. And the percentage continues to rise in subsequent age groups. In all likelihood, as Quinn and Burkhauser suggest, this phenomenon is due to people's inclination to retire gradually rather than abruptly. However, this conclusion has to be tempered by the fact that, as mentioned earlier, the restructuring of many businesses has resulted in involuntary part-time work.

Figure 14. Population Aged 50 and Over Working Part Time as a Proportion of the Total Labour Force by Age Group, Sex and Marital Status, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Figure 15. Population Aged 50 and Over Working Part Time as a Proportion of the Total Labour Force by Age Group, Sex and Level of Education, Canada, 1991

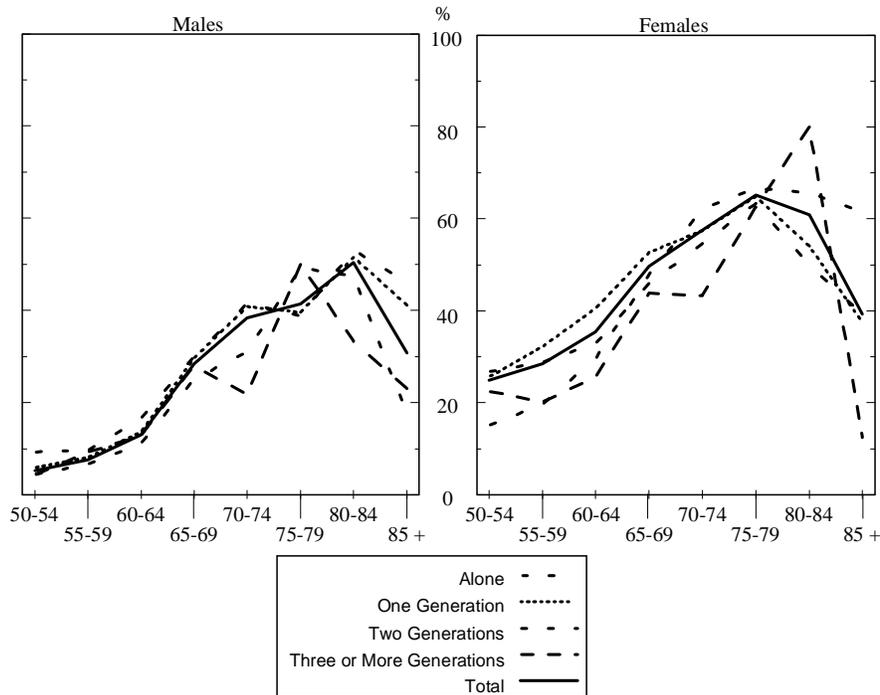


Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

The relative positions of the lines representing marital status in Figure 14 tend to support the hypothesis that the need to earn income affects female participation rates: never-married, divorced and separated women have lower part-time rates than other women. The behaviour of the lines in Figure 15 indicates that level of education has no effect whatsoever on part-time participation rates. On the other hand, the need to work in order to keep one's financial independence, as discussed earlier, is reflected once again in the

One could be surprised by the table legend which shows one curve for living alone and one for households with one, two, three generations, etc. It must be understood that there are households where two or three people from the same generation are living together. Thus there is no contradiction.

Figure 16. Population Aged 50 and Over Working Part Time as a Proportion of the Total Labour Force by Age Group, Sex and Number of Generations in Household, Canada, 1991



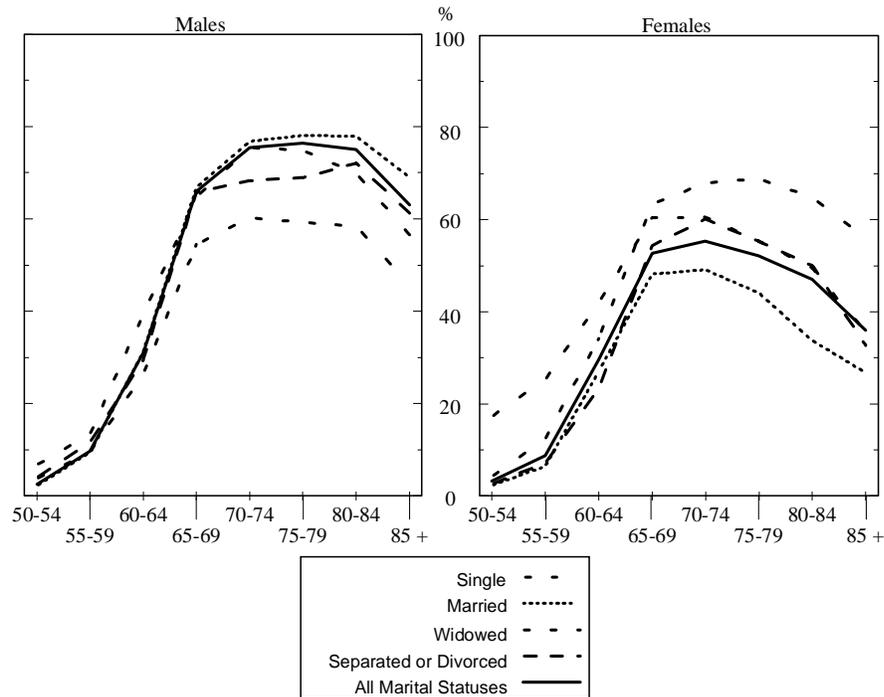
Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

lines in Figure 16: they show that women under age 60 who live alone have the lowest part-time participation rates. There is no similar pattern in the rates for men.

Retirement

Retirement represents not only a movement out of the labour force, but a corresponding transition to the stage of being retired. This section is drafted from that point of view. So, the focus in this section will be on the counts and percentages of retired people by age group, based on Census tables. It can be expected that the two sets of results complement one another quite effectively. As it appears in Figure 9, the proportion of people who were not in the labour force climbed sharply between the 60-64 group and the 65-69 group.

Figure 17. Percentage Distribution of Retired Persons by Age Group, Sex and Marital Status, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Marital Status

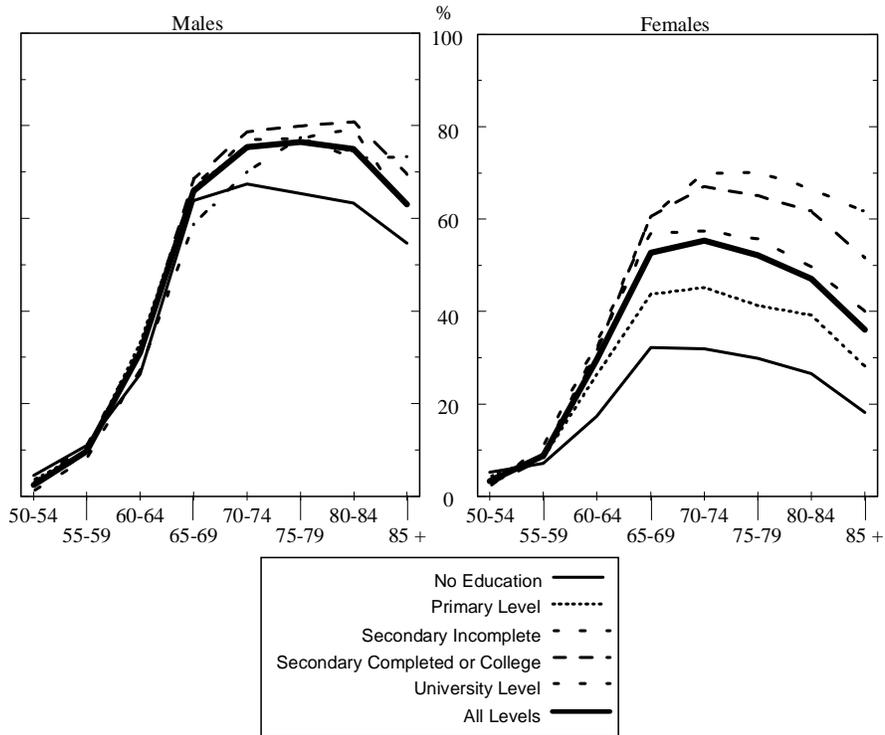
From the 65-69 group on (Figure 17), almost three quarters of all men are receiving C/QPP benefits, compared with only 50% of women.

Once again, this difference stems from the fact that fewer women entered the labour market at ages where they could have done so. The groups with the highest proportions of women receiving pensions in all age groups are widows, because they are collecting part of their husbands' pensions, and never-married women, because they were in the labour force. As expected, the reverse is true for men, because, as explained above, some men are unable to work for health reasons.

Education

Many uneducated men and women find themselves without a pension when they get older. According to calculations not presented here, the

Figure 18. Percentage Distribution of Retired Persons by Age Group, Sex and Level of Education, Canada, 1991



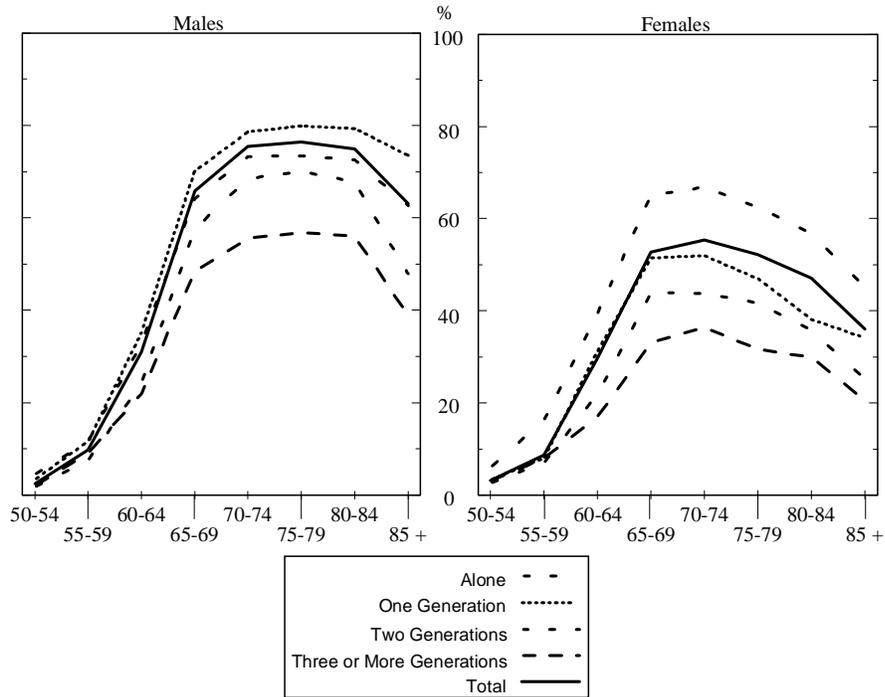
Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

uneducated were the group with the highest proportion of older people who do not receive a pension (66% of women and 30% of men). Many of them did not contribute to pension plans, having not worked for different reasons as poor health, or because they have been on welfare for long periods. Yet the correlation between a low percentage of retired people and level of education is found only in the uneducated group. There are no differences in the percentages of retired people with other levels of schooling, as if the time they spent on the labour market had overridden the differences in education (Figure 18).

Number of Generations

The curves in Figure 19 reveal a distinct trend: the larger the number of generations in a household, regardless of age group, the lower the proportion

Figure 19. Percentage Distribution of Retired Persons, by Age Group, Sex and Number of Generations in Household, Canada, 1991



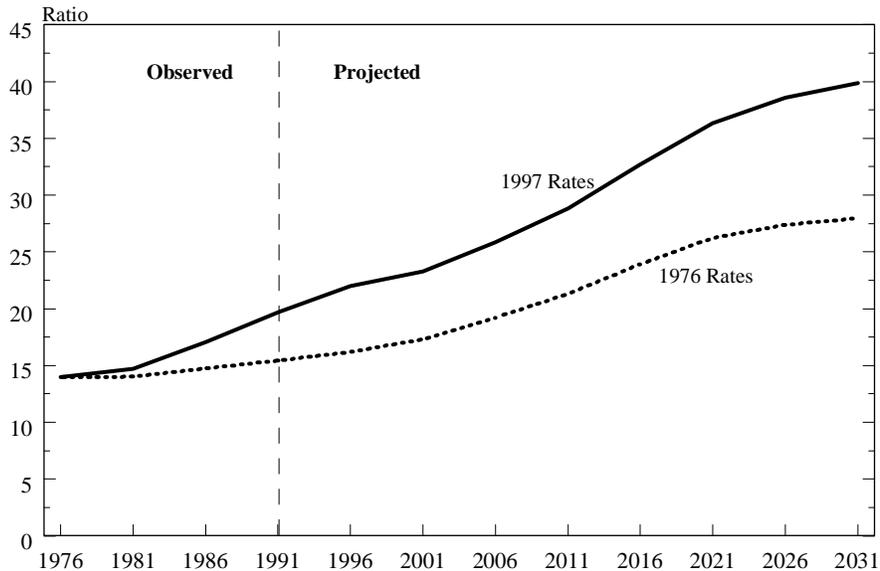
Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

of retired people. This situation may be due to the need to share living expenses with children and grandchildren. Women receiving a pension have a much greater tendency to live alone than other women.

Dependency Ratios

The conventional demographic dependency ratio is the population aged 0-14 plus the population aged 65 and over, divided by the population aged 15-64. This very crude indicator continues to be used in international comparisons because the data required to compute it are easy to obtain. Of more value to us, however, would be an indicator that takes labour market activity into account, since in the various age groups, some people contribute to pension plans while others collect benefits. The indicator we use here is the ratio of the 55-and-over population that is not in the labour force to the 15-and-over population that is in the labour force. Although the economist's

Figure 20. Dependency Ratio for Males Aged 55 and Over Not in Labour Force, Canada, 1976-2031



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

ceteris paribus is inappropriate here because of factors such as increased productivity, the ratio does take unemployment and early retirement into account. Since the generation effect seriously distorts the ratio for the female population, we will confine our analysis to the male ratio (figure 20).

In Canada in 1991, there were approximately 20 people aged 55 and over who were not in the labour force for every 100 people aged 15 and over who were in the labour force.

The ratio was only 14% in 1976. It is expected to climb to 29% in 2011, 50% higher than in 1991, and by 2031 it likely will be 40%, double its 1991 value. The solid line in the Figure 20 represents the dependency ratio projected with 1997 participation rates. The dotted line shows what the dependency ratio would have been if participation rates had remained at 1976 levels. The space between the two lines represents the change in participation rates, and the space between the dotted line and the 1976 ratio (14%) represents solely the effect of population ageing. A number of European countries have already reached those levels, but their historical, cultural and economic circumstances are so different that we cannot learn much from their experiences. Given the Canadian data, some experts believe that our social security systems in

the areas of pensions and health care need to be reviewed and updated. Steps have already been taken to improve the financial security of the C/QPP. Since 1987 the C/QPP contribution rate has been increasing and recent changes will see that rate almost triple early in the next century from the original rate. Also, C/QPP benefits have been marginally reduced and OAS cost have been reduced. Since 1989 high income seniors have seen their OAS reduced or even eliminated; this review will involve changes in the criteria governing who qualifies for benefits and who contributes, as well as how much the contributions will be. In the same vein, it has been suggested that the age at which a person qualifies for Old Age Security programs should be raised; in fact, some industrialised countries have already taken this step, as Kinsella and Gist reported in 1995.

Conclusion

The current trend is clearly toward earlier retirement. On the other hand, over time, succeeding generations are increasingly educated, and the analysis has shown that well-educated older people stay longest in the labour force. This observation suggests that proposals to raise the age of retirement have a certain logic to them. Today's adults would do well to take note of the situation. Because they will have small numbers of children, an increasing number of them will probably, all other things remaining equal, be forced to stay in the labour market and forego earlier retirement.

Whether they decide to help their fellow men and women for free or remain in the labour force, the elderly are an asset to this country. As long as they are healthy, they will want to remain as active as possible. Thus, volunteer work and paid work by senior citizens are likely to become more prevalent.

CHAPTER 3 - THREE: SOURCES OF INCOME¹⁵

The economic status of the elderly in Canada has improved appreciably in the past few decades. A recent study by Statistics Canada revealed that Canadians aged 65 and over were the main beneficiaries of the tax changes introduced between 1973 and 1995 (Corak, 1998). Oja and Love in 1988 and Lesemann in 1990 also showed that elderly people's purchasing power is now greater than or at least equal to that of working people, whereas after the last war it was lower. This improvement is partly due to the introduction of income security programs by governments, to the requirement that every worker

¹⁵ Average income expressed in 1991 dollars. The averages were computed by taking the total income reported in the census for each age and category and dividing it by the number of people at that age and in that category.

The source of the data for income tables is an original data base drawn from the public use micro data file of the 1991 census.

The numbers appearing in each cell were obtained by dividing the sum of the incomes reported in the census by the number of respondents in the category including those with zero income.

Given that the base was obtained from a sample, the figures are not the same as those found in other Statistics Canada publications. As for the average, they are “per capita”, and are derived from respondents who indicated positive, negative or nul income. Standard practice in other Statistics Canada publications is to calculate averages only for those with non-zero incomes.

contribute to a pension plan and, since at least the mid-1970s, to the strong incentives for people to have private savings plans. There nevertheless remain serious disparities between different groups of senior citizens.

The financial situation of the elderly remains closely tied to the type of work they did while they were on the labour market. Two key factors are how long the person contributed to a pension plan and therefore when he or she actually retired. Another is the person’s perception of retirement. Yet an elderly person’s standard of living also depends heavily on the number of people in the household he or she lives in. If the elderly person’s income is inadequate, he or she may benefit from the affluence of other household members. The information in this study will enable us to use certain characteristics of elderly people’s family and friends to produce a more detailed picture of their financial circumstances. This in turn allows us to answer some important questions about the diversity of senior citizens’ sources of income, about the sources of income of elderly people who live alone, and about the advantages of living with others to lower the cost of living.

Concepts

Because of the socio-economic system that has evolved in industrialised countries, there is an increasingly common belief that elderly people should normally receive incomes from not just three sources, but four. These sources are the “four pillars” described by experts studying the economic circumstances of older people (The Geneva Paper, 1996). Such diversification provides greater financial security in case one of the sources declines.

Elderly people in Canada can have four sources of income:

- 1 - They are entitled to Old Age Security benefits, which the federal government pays to all but a few people aged 65 and over (the exceptions are mostly related to residency in Canada);
- 2 - They may receive a pension
 - a) from a public pension plan if they had paid employment at some point in their working life (pay-as-you-go plan);
 - b) from a pension plan set up by their employer (essentially a funded plan);
- 3 - They may receive income from personal savings. Today, such savings are often in the form of RRSPs; those who do receive RRSP benefits do so because they planned for their retirement and had the financial means during their working lives to make the necessary investments. Until recently this was not common practice for people in the labour force, but the government is making this form of saving easier, and the incentives seem to be starting to produce results;¹⁶
- 4 - They may earn income if they remain employed.

Income of the Population Aged 50 and Over

Figure 21 shows that the average total income of men decreases fairly substantially between ages 50 and 69, whereas the average total income of women remains much steadier during that period. Men's income is nearly cut in half, dropping from about \$39,000 a year between ages 50 and 54 to just over \$20,000 at age 80. Women's income, though far lower on average than men's, stays virtually unchanged at approximately \$15,000 a year over the same period.

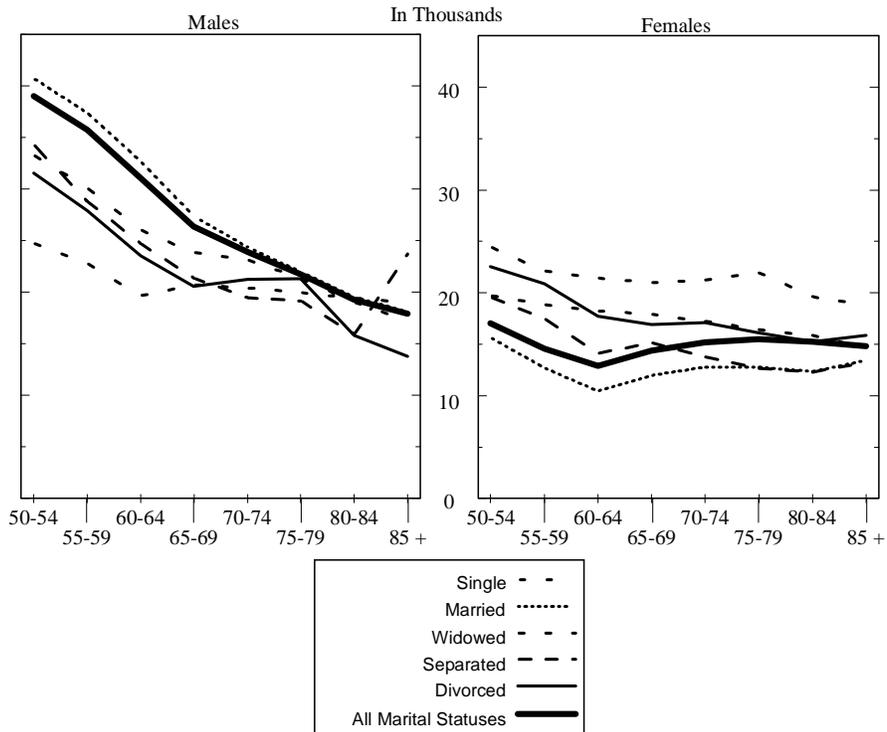
Thus, the transition from working life to retirement results in a greater loss of income for men. Women, especially those who were never in the labour force, may even have a higher income after they turn 65, since they become eligible for benefits under the government's Old Age Security program.

Marital Status

It is also interesting to look at average income by marital status, as the patterns for the two sexes are quite different. Never-married women are the women with the highest average income, whereas the reverse is true for men. Very few men are not in the labour force at some point between the ages of 15 and 65; men who never married were probably unable to work for the same reason they did not marry. Never-married women had to work to support

¹⁶ Karen Maser, "Who saves for retirement", in *Perspectives on Labour and Income*, Winter 1995. Catalogue No. 75-001E.

Figure 21. Total Average 1990 Income (in Dollars) for Population Aged 50 and Over by Age Group, Sex and Marital Status, Canada, 1991



Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

themselves. As a result, they are in the most comfortable financial situation. Conversely, married women have the lowest average income, since they are usually able to depend on their husband's income for their living. This conclusion is supported by the statistics in Figure 21, which shows that married men have the highest average income. For both sexes, the incomes of widowed, separated and divorced people fall between the two extremes.

This brief description of average personal incomes does not, however, provide enough information to enable us to determine the extent to which older people are in difficult financial straits.

Income sources of the population aged 50 and over

Table 9 provides more information. It shows, for each age group, the percentage distribution of people by the number and type of sources of income they receive.

Table 9. Percentage Distribution of People Aged 50 and Over by Age Group, Sex and Income Source, Canada, 1991

Age Group	No Income	One Source of Income					Several Sources of Income					
		Work	Pension	State	Other	Total	Work and Pension	Work and State	State and Pension	Two Others	Total 2 Sources	Total 3 Sources or More
Males												
50-54	2.01	32.16	0.93	4.19	1.28	38.56	1.08	22.56	0.72	19.77	44.13	15.31
55-59	2.51	31.08	3.08	5.05	2.11	41.32	2.21	12.88	1.63	24.19	40.91	15.26
60-64	2.62	20.76	7.77	5.35	1.84	35.72	3.90	5.92	4.72	28.45	42.99	18.67
65-69	0.94	2.34	1.36	6.59	0.48	10.77	0.61	2.67	23.64	5.38	32.30	56.00
70-74	0.38	0.09	0.11	7.54	0.22	7.96	0.05	1.81	27.17	2.21	31.24	60.42
75-79	0.35	0.01	0.06	9.73	0.10	9.90	■	1.90	25.54	3.66	31.10	58.66
80-84	0.27	0.08	0.05	12.17	0.05	12.35	■	1.25	24.01	5.34	30.60	56.78
85 +	0.68	■	0.11	18.71	0.26	19.08	■	3.00	23.33	9.41	35.74	44.51
65 +	0.59	0.93	0.57	8.61	0.28	10.39	0.25	2.16	25.01	4.37	31.79	57.24
Females												
50-54	16.31	32.01	1.12	4.64	6.02	43.79	1.00	7.81	0.83	21.64	31.28	8.61
55-59	20.35	23.17	3.06	5.47	9.53	41.23	1.44	5.18	1.54	21.11	29.27	9.15
60-64	14.36	10.73	6.50	11.08	7.72	36.03	1.84	2.92	7.10	23.05	34.91	14.70
65-69	1.98	1.07	0.97	19.25	0.98	22.27	0.20	1.91	20.81	11.37	34.29	41.45
70-74	0.56	0.07	0.07	20.30	0.15	20.59	0.02	1.48	22.02	11.27	34.79	44.07
75-79	0.40	0.02	0.08	22.46	0.06	22.62	■	1.20	20.46	13.08	34.74	42.22
80-84	0.29	0.02	0.05	24.98	0.02	25.07	■	1.15	19.48	15.18	35.81	38.83
85 +	0.55	0.03	0.19	31.80	0.08	32.10	■	1.88	15.11	21.11	38.10	29.23
65 +	0.98	0.39	0.39	21.75	0.40	22.93	0.08	1.56	20.50	12.83	34.97	41.12

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

First, far more women than men under age 65 have no income. They have never been in the labour force, but they are probably not indigent; in all likelihood, most of them are supported by their husbands.

The proportion of men and women under 65 who have only one source of income is just about equal. That source is usually employment, except in the case of women aged 60 to 64. In the latter group, those who receive benefits from the government are as numerous as those whose only source of income is employment. This suggests that some of them already regard themselves as retired. On average, women under 65 who have only one source of income receive between \$10,000 and \$17,000 a year, while men in the same category fare twice as well, with incomes of \$25,000 to \$33,000 (Table 10).

The fact that a smaller percentage of women under 65 report having two different sources of income is another indication of their less comfortable financial situation. When men report two sources of income, it is either a combination of salary and government transfers such as family allowance or Unemployment Insurance benefits, or a combination of salary and investment

Table 10. Average and Median¹ 1990 Income (in Dollars) for Persons Aged 50 and Over by Age Group, Sex and Number of Income Sources, Canada, 1991

Age Group	Number of Income Sources				
	1	2	3	4	Average Income
Males					
50-54	32,574	42,899	49,712	49,302	39,025
	<i>30,000</i>	<i>37,225</i>	<i>42,490</i>	<i>43,681</i>	<i>35,000</i>
55-59	29,726	41,187	43,675	45,409	35,768
	<i>26,000</i>	<i>34,544</i>	<i>36,947</i>	<i>38,797</i>	<i>30,565</i>
60-64	24,845	35,068	38,043	40,791	31,086
	<i>20,233</i>	<i>28,000</i>	<i>31,158</i>	<i>33,928</i>	<i>25,287</i>
65-69	14,305	19,213	28,378	48,713	26,410
	<i>9,296</i>	<i>14,518</i>	<i>23,579</i>	<i>37,697</i>	<i>20,000</i>
70-74	9,121	15,682	26,600	50,302	23,888
	<i>9,004</i>	<i>12,770</i>	<i>21,600</i>	<i>36,855</i>	<i>17,588</i>
75-79	8,783	14,642	25,049	49,798	21,735
	<i>9,004</i>	<i>11,749</i>	<i>19,040</i>	<i>35,289</i>	<i>14,996</i>
80-84	9,156	13,691	22,369	49,228	19,290
	<i>9,077</i>	<i>11,148</i>	<i>16,650</i>	<i>32,294</i>	<i>13,202</i>
85 +	9,217	14,401	22,651	50,388	17,903
	<i>9,077</i>	<i>10,747</i>	<i>15,783</i>	<i>32,954</i>	<i>11,656</i>
65 +	11,129	16,598	26,252	49,329	23,688
	<i>9,077</i>	<i>12,650</i>	<i>21,000</i>	<i>49,329</i>	<i>16,958</i>
Females					
50-54	16,850	23,940	25,357	29,568	17,041
	<i>13,108</i>	<i>20,412</i>	<i>20,638</i>	<i>26,075</i>	<i>13,000</i>
55-59	13,913	22,106	25,471	32,491	14,572
	<i>10,000</i>	<i>18,000</i>	<i>21,136</i>	<i>27,294</i>	<i>10,000</i>
60-64	10,466	17,555	20,262	23,676	12,915
	<i>6,830</i>	<i>12,460</i>	<i>16,095</i>	<i>19,928</i>	<i>8,514</i>
65-69	7,510	11,643	19,082	32,154	14,367
	<i>7,000</i>	<i>9,960</i>	<i>14,846</i>	<i>26,987</i>	<i>10,723</i>
70-74	7,761	12,131	20,137	36,280	15,213
	<i>7,838</i>	<i>10,746</i>	<i>15,587</i>	<i>28,331</i>	<i>11,308</i>
75-79	8,338	12,859	20,742	37,366	15,495
	<i>9,077</i>	<i>10,813</i>	<i>15,637</i>	<i>28,284</i>	<i>11,376</i>
80-84	8,851	13,188	20,990	33,555	15,278
	<i>9,077</i>	<i>10,926</i>	<i>15,300</i>	<i>25,546</i>	<i>11,239</i>
85 +	9,702	13,951	21,436	36,647	14,813
	<i>9,669</i>	<i>11,348</i>	<i>15,401</i>	<i>30,338</i>	<i>10,928</i>
65 +	8,124	12,380	20,095	33,948	14,958
	<i>8,404</i>	<i>10,746</i>	<i>15,323</i>	<i>27,481</i>	<i>11,075</i>

¹ The numbers represented in this table are the average incomes. The numbers in italics represent the median income.

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

income. Their average total income ranges between \$35,000 and \$43,000, while women with two sources of income receive an average of only \$18,000 to \$24,000 a year (Table 10).

Few men and women under 65 report income from three or more sources. Those who do have the highest average incomes: over \$45,000 for men and over \$25,000 for women (Table 10).

Many women are better off economically after they turn 65, since they are then eligible for the Old Age Security benefit. As the program is almost universal, very few people over 65 report having no income. On the other hand, because of the circumstances they are in before turning 65, about twice as many women as men have only one source of income. In almost every case, for both women and men, the source of that income is Old Age Security benefits. The women in that situation have an average total income of only \$6,156 per year (Table 11). While the income figures alone suggest that women are more likely to be living in poverty, the picture changes significantly when living arrangements are taken into account.

Roughly the same proportion of elderly men and women report having two sources of income. In most cases, one of them is Old Age Security benefits, and the other is a public or private pension plan. On average, men and women in this situation receive \$14,767 and \$9,786 respectively (Table 11). Unlike men, however, a significant percentage of women who report having two different sources of income probably receive a combination of Old Age Security benefits and investment income (Table 9, "Two other" column).

A majority of men, but not of women, report having three or more sources of income. Men in this situation receive an average of \$26,000 (which makes them the most affluent senior citizens), while women receive \$20,000 (Table 10). When the combination involves OAS, retirement plans and investments, the amounts are slightly smaller (\$14,000 for women and \$20,000 for men (Table 11).

So far, we have looked at the financial situation of elderly people without regard for their living arrangements. The figures suggest that those most likely to be in financial difficulty are women under age 65 not living in a couple, who have no own income (essentially women separated and divorced) or people aged 65 and over who receive only Old Age Security benefits.

Income and Living Arrangements

From now, the analysis will be expanded to include living arrangements, i.e. the number of persons in the household. As it turns out, this changes the picture significantly. To highlight general characteristics, some of the five-year age groups have been combined.

The first observation we should make is that only a small percentage of women under 65 have no income and live alone, in contrast with those who are living with others (Table 12). It can only be supposed that a large percentage of the former must have worked to support themselves.

Table 11. Average and Median¹ 1990 Income (in Dollars) for Persons Aged 50 and Over by Age Group, Sex and Income Source, Canada, 1991

Age Group	Income Source				
	State ²	State and Pension ³	State, Pension and Private Savings ⁴	State, Pension, Private Savings and Work ⁵	Average Income
Males					
50-54	1,387 ■	2,059 ■	4,004 780	39,017 35,000	39,025 35,000
55-59	1,502 ■	4,130 ■	6,963 1,475	35,768 30,565	35,768 30,565
60-64	1,613 ■	7,803 2,187	11,675 6,000	31,086 25,287	31,086 25,287
65-69	5,279 4,798	15,205 12,433	19,675 15,571	26,410 20,000	26,410 20,000
70-74	6,260 4,928	16,018 12,830	20,855 16,051	23,888 17,588	23,888 17,588
75-79	6,228 5,159	14,381 11,426	19,846 14,328	21,735 14,996	21,735 14,996
80-84	6,456 5,724	12,372 10,371	17,887 12,818	19,290 13,202	19,290 13,202
85 +	6,882 6,614	10,662 9,436	16,252 11,149	17,903 11,656	17,903 11,656
65 +	5,929 4,850	14,767 11,786	19,608 14,804	23,688 16,958	23,688 16,958
Females					
50-54	830 ■	1,254 ■	3,042 130	17,041 13,000	17,041 13,000
55-59	864 ■	1,993 ■	4,439 600	14,572 10,000	14,572 10,000
60-64	1,640 ■	4,108 ■	7,242 4,000	12,915 8,514	12,915 8,514
65-69	5,153 4,352	8,966 8,090	12,470 9,954	14,367 10,723	14,367 10,723
70-74	6,232 5,218	10,277 9,297	14,368 11,015	15,213 11,308	15,213 11,308
75-79	6,659 6,062	10,320 9,523	14,865 11,179	15,495 11,376	15,495 11,376
80-84	7,122 7,038	10,054 9,556	14,822 11,115	15,278 11,239	15,278 11,239
85 +	7,837 8,222	9,945 9,669	14,304 10,753	14,813 10,928	14,813 10,928
65 +	6,156 5,312	9,786 9,088	13,864 10,747	14,958 11,075	14,958 11,075

¹ The numbers represented in this table are the average incomes. The numbers in italics represent the median income.

² The income coming from the state includes Family Allowances, Federal Child Tax Benefits, the Old Age Security Pension and Guaranteed Income Supplement, Unemployment Insurance Benefits and other income from government sources.

³ Pensions include benefits from the Canada Pension Plan and the Quebec Pension Plan as well as retirement pensions from private sources.

⁴ Private savings include income from investments as well as other private sources.

⁵ Work income includes wages and salaries and other income from independent work.

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Table 12. Percentage Distribution of the Number of Income Sources for People Aged 50 and Over by Age Group, Sex and Living Arrangement, Canada, 1991

Age Group	Number of Income Sources									
	None	1	2	3 or More	Total	None	1	2	3 or More	Total
	Males					Females				
	Living Alone									
50-64	2.4	48.3	37.3	12.0	100.0	2.6	38.1	38.9	20.4	100.0
65-79	0.2	12.5	36.2	51.1	100.0	0.1	13.7	32.9	53.4	100.0
80 and Over	■	15.6	34.7	49.7	100.0	■	20.4	36.1	43.5	100.0
65 and Over	0.2	13.2	35.9	50.8	100.0	0.1	15.4	33.7	50.8	100.0
	Living with One or Two People									
50-64	2.1	40.2	42.5	15.2	100.0	18.4	40.4	31.6	9.6	100.0
65-79	0.3	7.9	30.2	61.6	100.0	1.0	24.4	35.8	38.8	100.0
80 and Over	0.2	11.9	30.5	57.4	100.0	0.4	33.2	38.4	28.1	100.0
65 and Over	0.3	8.4	30.2	61.0	100.0	1.0	25.6	36.1	37.4	100.0
	Living with 3 People or More									
50-64	3.1	30.5	45.4	21.0	100.0	23.0	42.4	27.1	7.5	100.0
65-79	4.2	21.3	38.2	36.4	100.0	6.1	37.9	33.3	22.7	100.0
80 and Over	2.7	31.2	39.4	26.7	100.0	2.5	46.2	34.0	17.3	100.0
65 and Over	3.9	22.9	38.4	34.8	100.0	5.3	39.8	33.5	21.5	100.0

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

Other women with no source of income are able to rely on the income of other household members, usually their spouse. The same observation does not apply to men. The proportion of men with no income is roughly the same among those who live alone as among those who live in multi-person households. Table 13 shows that of all women aged 50 and over, those who live alone have the highest average income, regardless of age group.

Among men under age 65, those who live alone are the most likely to have only one source of income (48.3). In contrast to women, men under age 65 who live alone, have the lowest average income (Table 13).

Among people aged 65 and over who report having no income, the percentage of men and women who live in households with four or more members is slightly higher than the percentage who live in smaller households. Average incomes are lowest in households with four or more members: \$11,315 for women and \$17,817 for men (Table 13). It seems clear that living with others is a way of sharing certain basic expenses.

In addition, it is often individuals in the same situation—i.e. living in households with four or more members—who report having only one source of income. Clearly, older people with no income or only one source of income

Table 13. Average and Median¹ 1990 Income of Persons Aged 50 and Over by Age Group, Sex and Size of Household, Canada, 1991

Age Group	Number of Income Sources				
	1	2	3	4	Average Income
	Males				
50-54	32,298 <i>28,000</i>	37,879 <i>34,145</i>	40,297 <i>36,000</i>	40,721 <i>35,550</i>	39,025 <i>35,000</i>
55-59	28,893 <i>22,378</i>	36,418 <i>31,000</i>	37,342 <i>32,823</i>	35,473 <i>30,000</i>	35,768 <i>30,565</i>
60-64	24,031 <i>17,955</i>	32,647 <i>26,600</i>	32,559 <i>27,109</i>	28,226 <i>23,000</i>	31,086 <i>25,287</i>
65-69	23,129 <i>15,777</i>	28,036 <i>21,553</i>	26,508 <i>20,432</i>	19,870 <i>14,947</i>	26,410 <i>20,000</i>
70-74	22,783 <i>15,018</i>	24,904 <i>18,623</i>	22,743 <i>16,872</i>	18,129 <i>12,439</i>	23,888 <i>17,588</i>
75-79	22,258 <i>14,342</i>	22,571 <i>15,970</i>	19,540 <i>14,015</i>	15,432 <i>11,636</i>	21,735 <i>14,996</i>
80-84	19,702 <i>13,289</i>	19,951 <i>13,837</i>	18,699 <i>12,517</i>	13,817 <i>10,547</i>	19,290 <i>13,202</i>
85 +	18,301 <i>12,399</i>	18,694 <i>11,748</i>	16,485 <i>11,239</i>	14,813 <i>10,192</i>	17,903 <i>11,656</i>
65 +	21,929 <i>14,318</i>	24,892 <i>18,143</i>	23,588 <i>17,320</i>	17,817 <i>12,491</i>	23,688 <i>16,958</i>
	Females				
50-54	23,137 <i>20,800</i>	17,207 <i>13,135</i>	16,127 <i>12,000</i>	15,345 <i>11,628</i>	17,041 <i>13,000</i>
55-59	21,304 <i>18,000</i>	14,131 <i>9,564</i>	13,223 <i>8,569</i>	12,165 <i>7,464</i>	14,572 <i>10,000</i>
60-64	19,556 <i>15,095</i>	11,914 <i>7,358</i>	11,105 <i>6,871</i>	9,347 <i>5,995</i>	12,915 <i>8,514</i>
65-69	19,162 <i>13,755</i>	12,976 <i>9,312</i>	12,537 <i>9,146</i>	10,808 <i>9,077</i>	14,367 <i>10,723</i>
70-74	18,599 <i>13,459</i>	13,591 <i>9,805</i>	13,131 <i>10,154</i>	11,431 <i>10,123</i>	15,213 <i>11,308</i>
75-79	17,981 <i>12,939</i>	13,857 <i>10,091</i>	13,246 <i>10,219</i>	11,559 <i>10,123</i>	15,495 <i>11,376</i>
80-84	17,167 <i>12,416</i>	13,415 <i>10,147</i>	13,923 <i>10,598</i>	11,303 <i>10,123</i>	15,278 <i>11,239</i>
85 +	16,010 <i>11,763</i>	14,277 <i>10,568</i>	13,416 <i>10,537</i>	12,217 <i>10,123</i>	14,813 <i>10,928</i>
65 +	18,094 <i>13,000</i>	13,392 <i>9,780</i>	13,008 <i>10,123</i>	11,315 <i>10,124</i>	14,958 <i>11,075</i>

¹ The numbers represented in this table are the average incomes. The numbers in italics represent the median income.

Source: Statistics Canada, according to the 1991 Census of Canada and calculations by the authors.

are most vulnerable to financial difficulties. For almost all of them, that single source of income is Old Age Security, which amounts to only about \$6,000 a year (Table 11).

While women who live with at least three other people are least likely to have three or more sources of income, women living alone are the most affluent: about 85% of them have at least two sources of income, and half of them have at least three. The corresponding figures for women who live with one or two other people are 73.5% and 37.4%. Since more never-married women living alone were employed at one time or another, they generally had the opportunity to contribute to private pension plans and invest some of their savings for retirement. Similarly, widowed or divorced women who live alone are often supported by income from their deceased or former husbands. Hence women who live alone are the most financially independent women, even in their old age.

Men who live with one or two other people seem to be the most comfortable: 61% of them report having three or more sources of income. The corresponding figures for men who live alone and men who live with at least three other people are 51% and 35%. The figures in Table 13 support these findings: they show that men living in two- or three-person households report the highest incomes. In most cases, those men are living with their spouse.

In conclusion, the popular notion that an old woman is a poor woman is probably an exaggeration. The analysis has shown that although women generally have lower incomes than men, many of them benefit from the affluence of their husbands. It was also demonstrated that women who live alone have taken steps to provide themselves with adequate retirement income. The most financially vulnerable older people are probably those who live in complex, multi-member households. This suggests that income is a major determining factor in the lifestyle of the elderly. Thus, the fact that the proportion of people aged 65 and over who live alone has increased substantially over the past 20 years in Canada can probably be attributed to an improvement in their financial situation.

CONCLUSION

For a number of decades now, Canada, like the rest of the Western world, has “chosen” to age rather than grow. The rest of the world is probably doing the same thing. Having long neglected the transformation of its age pyramid, it is now faced with the need to adjust to situations created by the process. These are felt acutely at a time when changes in economic conditions, production facilities, global competition and a number of new social behaviour patterns are transforming the country at a rate which few other countries which preceded it in this process have experienced. Ageing, which has yet to reach its maximum rate, is creating concern as well as conditions that are at times difficult for some segments of society. An ageing population is of course only one ingredient among others in the evolution of our country. In this respect, the pessimist view which sees Canada’s future crushed under the weight of an ageing population

is no more scientifically valid than the optimistic confidence in the untapped potential of the country. Nevertheless, in these times of transition, the present and immediate future require constant description and analysis if we are to grasp as precisely as possible the situation of people involved in these transformations, and if we are to discern out what might be done to influence the outcomes.

Our objective was to study the economic and social conditions of senior citizens using information from the 1991 census. The original contribution of the study was to take into consideration the human environment of senior citizens, including the number of people within households, the number of generations brought together, not only when seniors head the household, but when they are members of it.

While the data shows that substantial progress has been made in promoting the welfare of senior citizens, in Canada, some segments of society have been left in precarious circumstances. This applies mostly to single or divorced women who were never part of the labour market and who, not having contributed, now find themselves without any income until they reach the age of 65 and become eligible for old age security.

Before the interesting findings of the study are dealt with, it should be emphasized that the reduced time spent at work during a lifetime, which in our day and age is due to later entry into the labour market and earlier retirement from it, fits into a historical continuum. The ancestors, grandparents and parents of those who are approaching their fifties have successively devoted less and less time, on the average, to ensuring their subsistence. Because of an increased life expectancy, more and more people are thus facing a long period of inactivity before they reach old age. As a result, and more so than in the past, the financial situation of senior citizens is of great importance and their domestic circumstances play a role in structuring their life.

The analysis clearly shows that marital status rather than age or gender plays a decisive role in the quality of life of people over the age of 60. As an aggravating source of solitude, recent patterns of family behaviour such as divorce and fewer children have had a significant impact on the independence of senior citizens and there may well be an increase in this trend in the years to come.

The study has shown, however, that ageing people care little for living in non-family households. This would lead us to think that the increase in life expectancy might mean greater coexistence of generations within society, but that the sharing of accommodation by members of different generations might remain a rare phenomenon even within the family. For example, women who are now aged 75 or more are living independent of their relatives.

The financial situation of people who have left the labour market varies greatly as a result of choices made earlier on during their life when social

and economic conditions were being transformed. Public authorities are showing unequivocally by their policies that the welfare state is a thing of the past. Mandatory retirement at age 65 is long gone, and this can be seen somewhat as a precursor of the change in responsibilities between citizens and the state. More and more governments are encouraging people to manage their own old age through individual savings. They are suggesting that, as time goes on, caring for senior citizens will increasingly come under the informal network of friends and relatives. It was felt useful to outline, within this complex reality, a few major patterns of behaviour and to give some idea of their magnitude so that stakeholders might assess present and future social challenges. In spite of some dark spots, the general picture is one of a society seeking a new equilibrium that will provide senior citizens with a comfortable life. Society will of course have to face the inevitable increase in the number of senior citizens as baby-boomers enter the final period of their lives and make increasing demands on the working age population to meet their needs.

While this study certainly did not throw light on all aspects of the economic and social circumstances surrounding senior citizens, it is to be hoped that the questions it raises will encourage researchers to carry out further research on better living conditions.

It was found that ageing women who are single, divorced or separated remain in the labour market longer than others, and everything would seem to indicate that they are doing so by necessity.

The study has confirmed that educated people remain longer than others in the labour market. Since successive generations are more and more educated, it may well be that they will gradually take greater advantage of paid work to meet their needs. Women, are increasingly present in the labour market and their contributions will allow them to retire on an equal footing with men before the old age security pension kicks in.

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Glossary¹

Census year: A neologism patterned after «fiscal year». In Canada, it refers to the 12-month period between June 1 of one year to May 31 of the following year. It can equally designate the year during which a census is held.

Cohort: A group of individuals or couples who experience the same event during a specified period.

Cohort, fictitious: An artificial cohort created from portions of actual cohorts present at different successive ages in the same year.

Crude rate: Relates certain events to the size of the entire population. For example, the crude birth rate for Canada is the ratio of the number of births in Canada in a year to the size of the Canadian population at mid-year. Crude death rates and crude divorce rates are calculated in the same way.

Current index: An index constructed from measurements of demographic phenomena and based on the events reflecting those phenomena during a given period, usually a year. For example, life expectancy in 1981 is a current index in the sense that it indicates the average number of years a person would live if he or she experienced 1981 conditions throughout his or her life.

Dependency ratio: A ratio that denotes the dependency on the working population of some or all of the non-working population.

Endogamy: Marriage within a specific group.

Endogenous: Influences from inside the system.

Excess mortality: In differential mortality, the excess of one group's mortality rate over another's.

Exogamy: Marriage outside of a specific group.

Fertility: Relates the number of live births to the number of women, couples or, very rarely, men.

Infant mortality: Mortality of children less than a year old.

Intensity : Frequency of occurrence of an event among members of a given cohort.

¹ For further information consult the following: International Union for the Scientific Study of Population (1980). **Multilingual Demographic Dictionary**, Ordina Editions, Liège and Van de Walle, Étienne. **The Dictionary of Demography**, ed. Christopher Wilson. Oxford, England, New York, New York, United States of America.

Intercensal: The period between two censuses.

Life expectancy: A statistical measure derived from the life table that indicates the average years of life remaining for a person at a specified age, if the current age-specific mortality rates prevail for the remainder of that person's life.

Life table: A detailed description of the mortality of a population giving the probability of dying and various other statistics at each age.

Natural increase: A change in population size over a given period as a result of the difference between the numbers of births and deaths.

Neonatal mortality: Mortality in the first month after birth (part of infant mortality).

Net migration: Difference between immigration and emigration for a given area and period of time.

Parity: A term used in reference to a woman or a marriage to denote the number of births or deliveries by the woman or in the marriage. A two-parity woman is a woman who has given birth to a second-order child.

Population growth: A change, either positive or negative, in population size over a given period.

Population movement: Gradual change in population status over a given period attributable to the demographic events that occur during the period. Movement here is not a synonym for migration.

Post-neonatal mortality: Mortality between the ages of one month and one year.

Prevalence: Number of cases existing at one point in time.

Probability of dying: Probability of a survivor of exact age x dying before age $x+n$. Its notation is ${}_nq_x$.

Probability of survival: Probability of a survivor of exact age x surviving at least to age $x+n$. Its notation is ${}_np_x$ and it is the complement of the probability of dying ($1 - {}_nq_x$).

Proportion ever married: A measure of the prevalence of marriage in a generation or a fictitious cohort. It is usually equivalent to the proportion remaining single at an age such as 50 after which first marriages are rare.

Standardized Rates: Mathematical transformations designed to make it possible to compare different populations with respect to a variable, e.g., fertility or mortality, where the influence of another variable, e.g., age, is held constant.

Structure: Arrangement of a population by different demographic characteristics such as age, sex or marital status.

Tempo: Distribution over time, within the cohort, of the demographic events corresponding to the investigated phenomenon.

Total Fertility Rate, Total Divorce Rate, etc.: A period measure obtained by the summation of the series of age-specific or duration-specific rates. It represents the behaviour of the members of the fictitious cohort.