

1974 World Population Year

# THE POPULATION OF CANADA

C. I. C. R. E. D. Series

# THE POPULATION OF CANADA: A REVIEW OF THE RECENT PATTERNS AND TRENDS

Edited by

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#### April, 1974

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#### **Editor's Preface**

The contents of this document are basically results of the work of several members of Statistics Canada staff who have served as authors of the various chapters. With the agreement of these persons formal authorship is attributed under each chapter heading, or credit for original drafts of materials is noted at the appropriate places. This project resulted from an undertaking by the Chief Statistician of Canada that Statistics Canada staff would prepare one of the national monographs being published under the auspices of CICRED in celebration of World Population Year. The responsibility for authorship of the contents of this document rests with the chapter authors and the editors. Statistics Canada manuscript processing facilities have been made available for use in this project.

The editorial work on this volume substantially exceeds the degree of alteration of authors' texts that is currently typical of edited volumes, especially as there were rigid limits on the size of the final volume. When the initial chapter manuscripts were submitted by the authors, the total size of these chapters was over twice the required length. Accordingly, they had to undergo major reductions in size, as well as in coordination of writing style and consistent formatting of tables and charts. Furthermore, there was a very short amount of time in which to carry out these changes.

Excellent co-operation was received from Statistics Canada manuscript processing services. Special thanks are due to Frances Aubry and her staff, who along with the junior editor shouldered the burden of a vast array of minute checks and verifications. Since none of us are experienced editors, however, various errata will likely emerge in due course. The senior editor accepts personal responsibility for these errors.

It should be noted that the Population Studies Center of the University of Michigan generously made available office space and other facilities in support of the senior editor's work on this document.

The chapters by M.V. George were completed while he was on the staff of the Cairo Demographic Centre as a United Nations expert. Thanks are due to the Centre for providing him the necessary facilities in this respect.

Leroy O. Stone Consultant on Demographic Research Statistics Canada March 1, 1974 . ·

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### SYMBOLS USED IN TABLES

- = nil or zero.
- . = figures not available.
- . . = figures not appropriate or not applicable.

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#### **CHAPTER ONE**

#### **POPULATION GROWTH**

by

#### M.V. George

# 1.1 GROWTH OF CANADA'S POPULATION IN THE EARLY PERIODS

The opening up of a new continent in the beginning of the 17th century and the gradual evolution from a sparsely settled agricultural and rural society to an industrial and urban society form the background for the historical population growth in Canada. Lack of historical statistics of population makes it difficult to trace the growth of population in detail from its earliest stages. Most of the data available for the earlier periods relate to the non-aboriginal population. Hence, discussion of population growth in 'the 17th and 18th centuries can be done using the estimates of European population only.

It is estimated that the population of the area known as Canada (excluding Newfoundland) grew from about 17 Europeans and an unknown number of native Indians in 1611 to 2.4 million in 1851 and to 3.7 million at the first Dominion Census of Canada in 1871. Estimates indicate that there were about 136,000 Indians in 1851. The total population passed the 5 million mark around 1901, the 10 million mark around 1931 and the 20 million mark around 1966. At the 1971 census, the total population count was 21.6 million. The population growth to 1971 represents an increase of 17.9 million during the preceeding 100 years.

The population has grown steadily since the beginning of European settlement. However, the growth rates were highly irregular, particularly the rates in the early settlement years. The immigrant population grew very rapidly while the native population remained almost stationary or declined as a result of attrition resulting from warfare and diseases. Between 1681, when the settlers passed the 10,000 mark, and 1851 the average annual growth rate in each decade of the non-native population varied between 1.6 per cent and 4.5 per cent. The average annual growth for the whole period was 3.2 per cent. Although estimates of the components of growth for the early periods are not available, immigration and emigration were the chief ones.

#### 1.2 GROWTH OF POPULATION AFTER 1851

Fairly reliable census data are available at regular intervals for the study of population growth from 1851. The data for 1851 and 1861 are aggregates of separate censuses for the provinces. From 1871 a population census of Canada has been taken every ten years up to 1951, and every five years since then. Table 1.1 shows that the population increased more than two-fold during the second half of the last century, rising to 5.4 million in 1901 from 2.4 million in 1851. A four-fold increase has taken place during the first 70 years of the present century. Part of the increase shown for 1901-71 results from Newfoundland joining Canada in 1949. Newfoundland had a population of 522,000 in 1971.

Census vear	Population	Change preceding	over census	Average annual growth		
	('000)	Number ('000)	Per cent	ratel (per cent)		
1851	2.436		} 	 		
1861	3.230	793	32.6	2.9		
1871	3.689	460	14.2	1.3		
1881	4,325	636	17.2	1.6		
1891	4,833	508	11.8	1.1		
1901	5,371	538	11.1	1.1		
1911	7,207	1,835	34.2	3.0		
1921	8,788	1,581	21.9	2.0		
1931	10,377	1,589	18.1	1.7		
1941	11,507	1,130	10.9	1.0		
19512	14,009	2,503	21.8	1.7		
1956	16,081	2,071	14.8	. 2.8		
1961	· 18,238	2,157	13.4	2.5		
1966	20,015	1,777	9.7	1.9		
1971	21,568	1,553	7.8	1.5		

TABLE 1.1 Growth of Population, Canada, 1851-1971

<sup>1</sup> The average annual growth rate is computed using the exponential equation  $Pn/Po = e^{rn}$ , where Po is the initial population; Pn, the population at the end of the period(n years); n is the time in years and r is the average growth rate over n years.

<sup>2</sup> Including Newfoundland in 1951 but not in 1941. Excluding Newfoundland in both years, the increase amounted to 2,141,000 or 18.6 per cent.

Sources: 1941 Census of Canada, Vol. I, Tables 1 and 2; 1966 Census of Canada Vol. I, Table 1; and 1971 Census of Canada, Statistics Canada 92-702, Table 1. As Table 1.1 shows, the growth was not evenly distributed over decades. Before 1901, the average annual growth rates varied from 2.9 per cent in 1851-61 to 1.1 per cent in 1891-1901. Three major trends characterize the growth rates in the century: (1) a downward trend from 1911 to 1941, (2) an upward trend from 1941 to 1956, and (3) a steady downward trend since 1956. Each trend represents a distinctive combination of the components of reproductive change and net international migration.

The marked fluctuations in the intercensal growth rates and the lack of any consistent long-term trend in the rates partly reflect the influence of migration. In the last 120 years about 10 million persons have come here from abroad. Except for the Eskimos and Indians, who form only a negligible proportion of the total population, all Canadians have been immigrants or descendants of immigrants.

#### 1.3 CONTRIBUTION OF NATURAL INCREASE AND MIGRATION TO POPULATION GROWTH

In Table 1.2 data on the components of population growth are combined systematically in the form of population "balance sheets" and are presented for intercensal periods, from 1851 to 1971. In preparing the balance sheets here, no adjustment has been made for differential errors in population counts, the possible underregistration of births and deaths and the errors in migration statistics. The effect of error in any of these components would be particularly influential on the residual item emigration.

Table 1.2 shows that natural increase has been numerically dominant over net migration. Except in 1901-11, over 70 per cent of the intercensal total population increase was due to natural increase. In fact, in the four intercensal periods between 1861 and 1901 and in 1931-41, when there were net losses due to migration, natural increase was the sole factor of growth. It must be borne in mind that the dominance of natural increase occurred in a population composed mainly of immigrants *and their descendants*. In addition to the natural increase among the native-born descendants of immigrants, the immigrants of one period contribute to the natural increase of that and later periods.

The direct contribution of migration to population growth depends on the initial population size and the amounts of immigration and emigration. After 1861 there was a long period of slow growth which lasted until the beginning of the 20th century. This slow growth rate towards the

Population at the end of the census period ('000)	3,230	3,689	4,325	4,833	5,371	7,207	8,788	10,377	11,507	13,648	16,081	18,238	20,015	21,568	
Ratio of net migration to total growth	23.0	- 32.6	- 8.5	- 28.7	- 24.2	44.1	19.7	14.5	- 8.1	7.9	28.9	22.3	14.6	29.8	
Net migration ( '000 )	182	- 150	- 54	- 146	- 130	810	311	230	- 92	169	598	482	259	463	
Emi- gration ('000)	170	410	404	826	380	740	1,089	970	241	379	185	278	280	427	
Immi- gration ( '000 )	352	260	350	680	250	1,550	1,400	1,200	149	548	783	760	539	890	
- Ratio of natural increase to total, growth	77.0	132.6	108.5	128.7	124.2	55.9	80.3	85.5	108.1	92.1	71.1	7.77	85.4	70.2	
Natural increase ( '000 )	611	610	690	654	668	1.025	1.270	1,360	1,222	1,972	1,473	1,675	1,518	1,090	
Deaths ( '000 )	670	760	790	870	880	006	1,070	090'1	1,072	1,214	633	687	731	766	
Births ( '000 )	1,281	1,370	1,480	1,524	1,548	1,925	2,340	2,420	2,294	3,186	2,106	2,362	2,249	1,856	Junda Manha
Total population increase ( '000 )	793	460	636	508	538	1,835	1,581	1,589	1,130	2,141	2,071	2,157	1,777	1.553	for 1041 51 or
Intercensal	1851-61	1861-71	1871-81	1881-91	1061-1681	1901-11	1911-21	1921-31	1931-41	1941-51 <sup>1</sup>	1951-56	1956-61	1961-66	1966-71	

TABLE 1.2 Components of Population Growth in Canada, 1851-1971

Figures for 1941-51 exclude Newfoundland.

Sources: 1931 Census of Canada, Vol. I, Table 2a; 1966 Census of Canada, Vol. I, Table 1; 1971 Census of Canada, Statistics Canada 92-702, Table 1; Camu, Weeks and Sametz, 1969, Table 1; and Fleming, Technical Memorandum(General Series) No. 14, 1967. Chart -- 1.1



#### Annual Growth of Population Through Natural Increase and Net-Migration, Canada, 1928-1971

(Rate per 1,000 population)

Source: M.E. Fleming, Technical Memorandum (general series) No. 14, D.B.S. Census Division, 1967.

end of the last century was partly due to heavy emigration resulting in a net migration loss (Table 1.2). Emigrants included both Canadian-born and foreign-born population. While many immigrants continued to come to Canada during this period, a large number of them re-emigrated to the United States.

The beginning of the present century witnessed a flood of immigration, which helped to raise the population increase to 3.0 per cent per annum during 1901-11, the highest rate recorded since 1851. Over 1.5 million immigrants entered Canada in this decade, as many as had arrived during the previous 40 years. As a result, 44 per cent of the total population increase during this period was due to migration. Following this decade the contribution of migration registered a steady decline until it reached a low point in 1931-41. After the depression decade the population registered accelerated growth until 1951-61. An upsurge in immigration was an important contributory factor in the high growth rate during this period. After 1956-57 the contribution of migration to annual population growth varied between 37.8 per cent in 1966-67 and 4.6 per cent in 1961-62, with corresponding variations in the migration rates. The contribution of net migration to population growth has shown a steady downward trend since 1966-67.

#### **1.4 IMMIGRATION AND EMIGRATION**

Data in Table 1.2 reveal clearly the important influence of immigration and emigration on the demographic history of Canada. Some aspects of this influence have already been outlined earlier. The following comments will mainly extend that discussion with special reference to the post-World War II period. In the post-World War II period Canada gained people consistently through immigration. Table 1.3 shows that the total intake of immigrants amounted to 1.5 million during 1951-61 and 1.4 during 1961-71.

A striking aspect of the migration phenomenon has been the wide fluctuations in the number of immigrants arriving in each year. These annual fluctuations were the result of many factors both in Canada and abroad. Economic conditions in Canada and the sending countries are generally considered to be the most important determinants of population movements. In addition, political conditions and immigration regulations are relevant forces responsible for the ebb and flow of past immigration. The unprecedented volume in 1957, for example, was due to the Hungarian



Arrivals	7,576 7,576 8,504 12,801 71,719 64,127 15,414 95,414 95,414 95,517 73,912 194,391	164,498 168,868 154,227 109,946 109,946 109,946 124,851 124,851 106,928 104,111 106,928 104,111	74,586 93,151 112,606 112,606 146,758 1946,758 1946,758 122,8743 122,8743 183,974
Year	1942 1943 1944 1946 1946 1948 1948 1948 1950	1952 1953 1954 1955 1955 1956 1959 1960 1960	1962 1963 1964 1965 1966 1966 1967
Àrrivals	375,756 375,756 400,870 150,887 36,665 35,914 72,910 41,845 107,698 138,824 91,728	64,224 133,729 134,907 135,982 135,982 156,783 104,806 104,806 27,530	20,591 14,382 12,476 11,277 11,277 11,643 15,101
Year	1912 1913 1914 1916 1916 1918 1918 1918 1920	1923           1923           1924           1926           1926           1927           1928           1929           1929           1930	1933           1933           1934           1935           1935           1935           1936           1938
Arrivals	112,458 133,624 103,824 79,169 69,152, 84,526 84,526 91,600 75,067 82,165	30,996 29,633 29,633 20,829 18,790 16,835 31,900 44,543 31,900 41,681 81,681 81,681	89,102 138,660 131,252 141,465 211,653 272,409 143,326
Year	1882 1883 1884 1886 1886 1886 1887 1888 1889 1890 1890	1892 1893 1894 1895 1896 1897 1897 1899 1899 1900	1902 1903 1904 1906 1906 1908
Arrivals	29,307 29,464 37,263 25,296 22,296 33,854 12,339 6,276 6,276	18,294 21,000 24,779 18,958 11,427 11,427 11,427 11,427 12,765 12,765 12,765 12,765 24,706 24,706	36,578 50,050 39,373 27,382 25,633 25,633 25,633 29,807 29,807
Year	852 853 853 855 855 855 855 855 855 855 856 850 850	862 863 864 865 865 866 867 869 869 871	1872           1873           1873           1874           1875           1876           1877           1878           1878           1878

Source: Manpower and Immigration M 22-1/1971, 1972.

TABLE 1.3 Immigrant Arrivals to Canada by Calendar Year, 1852-1971

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Revolution and Suez crisis that brought thousands of people to this country. Thereafter, immigration dropped and remained rather at a low level until 1965 when again the flow increased to a peak exceeding 200,000 in 1967. This rise reflected the great expansion of the economy in the mid 1960's. New immigration regulations geared to the manpower needs of the country were introduced in 1967. However, in the last four years since 1967, immigration declined presumably due to unfavourable economic conditions with high unemployment throughout the country.

#### CHAPTER TWO

#### COMPONENTS OF GROWTH: MORTALITY, FERTILITY AND MIGRATION

by

#### M.V. George\*

Population growth in a given country is determined by the three components: births, deaths, and migration. Births minus deaths, the natural increase, constitute the principal component of population increase in most countries. In the case of Canada, like a few other countries in the world, such as Australia and New Zealand, migration also accounts for a substantial change in population. Table 1.2 summarizes the role of these three factors in the demographic history of Canada.

#### 2.1 MORTALITY

**2.1.1** General Mortality Trends – The crude death rate of Canada was 7.3 per thousand population in 1971. Fifty years ago, it was about 11.6 per thousand<sup>1</sup> indicating a drop of 37 per cent. Chart 2.1 shows the mortality trend after removal of the effect of the changing age composition. From this standardized mortality curve, as well as those for males and females in Chart 2.2, it may be inferred that although the downward trend has been continuing, its pace has slowed substantially during the past two decades.

This deceleration in mortality decline is also evident from Table 2.1, which shows data on the expectation of life at birth. The official life table for Canada reported an expectation of life at birth of 68.8 years for males and 75.2 years for females in 1965-67. These values represent gains of about nine years for men and thirteen years for women, over the corresponding levels in 1930-32. The gains were substantial before 1955-57, averaging an increase of 0.3 year per annum among males and 0.4 year among females.

<sup>\*</sup> The author is grateful to Dr. K.S. Gnanasekaran for his contributions in completing the sections on mortality and migration in this chapter.



#### Crude and Standardized Death Rate, Canada, 1921-1970

Source : DBS 84-202, 1952 and 1970

Chart - 2.2

Standardized Death Rate, by Sex, Canada, 1921–1970



Chart-2,1

	М	ale	Fen	nale	
Canada and Regions	Expectation of life at birth	Average annual gain since prece- ding period	Expectation of life at birth	Average annual gain since prece- ding period	Sex differ- entials1
Canada2 1930-32 1940-42 1950-52 1955-57 1960-62 1965-67	60.0 63.0 66.3 67.6 68.4 68.8	0.3 0.3 0.2 0.1	62.1 66.3 70.8 72.9 74.2 75.2	 0.4 0.5 0.4 0.3 0.2	2.1 3.3 4.5 5.3 5.8 6.4
Atlantic Provinces2 1930-32 1940-42 1950-52 1955-57 1960-62 1965-67 <sup>3</sup>	60.2 61.7 66.6 67.9 68.6 68.5	0.2 0.5 0.3 0.1 – 0.0	61.9 64.6 70.5 72.9 73.9 74.9	0.3 0.6 0.5 0.2 0.2	1.7 2.9 3.9 5.0 5.3 6.4
Québec 1930-32 1940-42 1950-52 1955-57 1960-62 1965-67	56.2 60.2 64.4 66.1 67.3 67.9	0.4 0.4 0.3 0.2 0.1	57.8 63.1 68.6 71.0 72.8 73.9	0.5 0.5 0.5 0.4 0.2	1.6 2.9 4.2 4.9 5.5 6.0
Ontario 1930-32 1940-42 1950-52 1955-57 1960-62 1965-67	61.3 64.6 66.9 67.8 68.3 68.7	0.3 0.2 0.2 0.1 0.1	63.9 68.4 71.9 73.6 74.4 75.5	0.4 0.4 0.3 0.2 0.2	2.6 3.8 5.0 5.8 6.1 6.8
Prairie Provinces 1930-32 1940-42 1950-52 1955-57 1960-62 1965-674	63.5 65.4 68.4 69.3 69.8 70.1	0.2 0.3 0.2 0.1 0.1	65.5 68.2 72.3 74.2 75.7 76.3	0.3 0.4 0.4 0.3 0.1	2.0 2.8 3.9 4.9 5.9 6.2
British Columbia 1930-32 1940-42 1950-52 1955-57 1960-62 1965-67	62.2 63.7 66.7 68.1 68.9 69.2	0.2 0.3 0.3 0.2 0.1	65.3 69.0 72.4 73.9 75.4 75.8	0.4 0.3 0.3 0.3 0.1	3.1 5.3 5.7 5.8 6.5 6.6

#### TABLE 2.1 Expectation of Life at Birth and Average. Annual Gains (in years) by Sex, Canada and Regions, 1930-32 to 1965-67

lExcess in years of female life expectancy over male life expectancy at birth.

<sup>2</sup>Excluding Newfoundland in 1930-32 and 1940-42.

<sup>3</sup>Figures are the weighted average of the expectation of life at birth in Newfoundland, Prince Edward Island, Nova Scotia and New brunswick.

<sup>4</sup>Figures are the weighted average of the expectation of life at birth in Manitoba, Saskatchewan and Alberta.

Sources: DBS 84-518, 1967, Table 8; and DBS 84-527, 1971.

Another significant aspect of the historical trend has been the widening gap between the average length of life for the two sexes. What was in 1930-32 a small margin of two years, has since gradually grown to a difference of over six years between the average life expectancy of men and women.

**2.1.2** Death Rate by Age and Sex – The general age pattern of mortality has remained constant over the years – a U-shaped curve. The death rate declines from birth to about age 10, increases gradually from age 10 to 45, and then increases rapidly throughout the rest of the age range. However, within the general age pattern of mortality there have been marked changes as shown by Table 2.2. In the case of age specific rates, the highest reduction in mortality has occurred for males under 15 and for females under 40. For children 1-4, the mortality decline between 1926 and 1970 has been especially great. The downward trend for every age group has slackened substantially during recent years; and for certain age groups the death rates have almost levelled off.

The infant mortality rate during this period has fallen by over 78 per cent since 1926, and in 1966-70 this rate stood at 22.3 for males and 17.6 for females. The major portion of this total decline in infant mortality occurred between 1926 and 1960. Much of the reduction in the infant death rate has been due to declining mortality from diarrhoea and enteritis, influenza, bronchitis, pneumonia, and the virtual elimination of whooping cough by 1951.

**2.1.3** Disease Specific Mortality Trends – In Canada, each death has been classified since 1921 according to its principal cause. Today, heart diseases, cancer and accidents have, in that order, been responsible for most deaths.

Two fifths of the total deaths occurring in Canada are due to diseases of the circulatory system. Within this group, the main cause is coronary heart disease which accounts for 80 per cent of deaths of the group, or about one third of all deaths in the country. This disease occurs more among males than females at almost all ages. Over the years, the death rate from circulatory diseases has recorded a steady decline for all ages among men and women. However, the decline has been far greater at the younger ages among both males and females than at the older ages. Among the older ages the decline has been somewhat greater for females than males. Further decline in mortality from this group of causes will depend on the effects of such factors as changes in diet habits, smoking, exercise and medical 'break-throughs'.

Age		1936-40	1946-50	1956-60	1966-70	Percentage decline 1926-30 to 1966-70
			M	ale		
						i –
Under 1 year	103.2	71.5	49.2	33.1	22.3	78.4
1- 4 years	8.5	5,5	2.7	1.4	1.0	88.2
5-9 "	2.6	I.8	1.2	0.7	0.6	76.9
10-14 "	2.0	1.4	0.9	0.6	0.5	75.0
15-19 "	2.9	2.0	1.5	1.2	1.3	55.2
20-29 "	3.7	2.6	1.9	1.6	1.7	54.1
30-39 "	4.3	3.4	2.5	2.0	1.9	55.8
40-49	6.8	6.0	5.4	4.6	4.6	32.4
50-59 ····	12.9	12.8	20.0	12.4	12.3	4./
70 years and over	96.0	93.0	29.9	86.6	27.8	7.0
70 years and over		75.0	67.2			7.0
			Fen	nale		
Under 1 year	82.8	56.6	38.7	26.1	17.6	78.7
1- 4 years	7.5	4.7	2.2	1.2	0.8	89.3
5-9 "	2.3	1.6	0.8	0.5	0.4	82.6
10-14 "	1.9	1.2	0.7	0.4	0.3	84.2
15-19 "	2.8	1.7	1.1	0.5	0.5	82.1
20-29 "	4.0	2.6	1.5	0.7	0.6	85.0
30-39 "	4.9	3.6	2.1	1.2	1.1	77.5
40-49 ''	6.6	5.3	4.1	2.9	2.7	59.1
50-59 ''	11.4	10.4	8.7	7.0	6.4	43.9
60-69 <i>"</i>	26.5	24.3	21.1	17.7		46.4
10 years and over	92.3	80.2	/8.8	/0./	68.2	20.1

TABLE 2.2 Average Death Rates (per 1,000 population), by Sex and Age,Canada,11926-30 to 1966-70

<sup>1</sup>Excluding Newfoundland prior to 1949 and Yukon and Northwest Territories prior to 1950.

Source: DBS 84-202, 1962 and 1970

Cancer as the second major cause of death accounts currently for one-fifth of all deaths in Canada. In 1950, it claimed about one-eighth of the total deaths. Over 1950-69, the cancer mortality rate has gone up among males but has declined for females. Cancer has been and is primarily a disease of the middle and older ages. About 80 per cent of cancer deaths occur among persons over 50 years of age. Cancer death rates are generally higher among males than females in all age groups excepting the ages 30 to 54 which record higher rates for women. This is mainly due to a large number of deaths from breast and genito-urinary cancer in the reproductive years.

Mortality due to accidents, poisonings and violence is becoming increasingly important in Canada as in other industrialized countries. Included in this group are motor vehicle accidents, accidental falls, drownings, fire, poisonings and suicides. This group of causes accounted for about nine per cent of all deaths in 1967. Excepting the young age groups and females aged 70 and over, the trend in accident mortality has been upward among both men and women. The rise for adult females has been sharper than that for males. Nevertheless, the male accident mortality rate continues to be higher than the female rate.

**2.1.4** Mortality Trends by Province – Table 2.1 presents the long- term trend in mortality in the various provinces and compares them with that of Canada. Historically, the Prairie provinces, namely, Manitoba, Saskatchewan and Alberta have had the lowest mortality and have enjoyed the highest expectation of life at birth. British Columbia and Ontario also belong to the group of provinces that have a life expectancy above the national average.

#### 2.2 FERTILITY

2.2.1 Historical Fertility – Registration of births was introduced only in 1921. However, a historical study of fertility has been made possible by a number of scholars, notably Nathan Keyfitz and Jacques Henripin, on the basis of the information available from censuses and other records. Estimates of the crude birth rate for Canada suggest that the Canadian fertility rate before 1871 was as high as it is today among the developing countries of the world. It was then perhaps one of the highest known in history among the western European countries.

Table 2.3 presents estimates of the general fertility rate (that is, number of births in a year per 1,000 women in the reproductive ages 15 to 49). The general fertility rate of Canada was 189 per thousand women in 1871, but it declined to 144 by 1891. It then remained stable until 1911, when it again started to drop and reached a level of 120 per thousand women in 1921. The total drop amounted to 36 per cent during 1871-1921.

	British Columbia		:	:	:	:	1	202	204	184	149	84
	Saskat- chewan		:	:	:	:	:	:	:	550	229	135
•	Manitoba	1	:	:	:	:	:	366	242	209	167	125
)	Ontario		:	329	212	204	161	149	121	108	112	98
	Québec		271	:	196	187	180	173	163	160	161	155
	Nova Scotia		. :	:	:	174	174	148	138	132	128	105
	Canada		:	;	203	193	189	160	144	145	144	120
	Year		1831	1842	1851	1861	1871	1881				1921

Source: Henripin, 1972, Table 2.1.

,

NOTE: Annual number of births per 1,000 women aged 15-49 years

TABLE 2.3 General Fertility Rates, Canada and Selected Provinces, 1831 to 1921

- 15 -

Birth statistics collected from 1921 yield the total fertility rates (this rate is the sum of the age specific fertility rates) for Canada which are depicted in Chart 2.3. This chart shows three distinct trends after 1921: (1) a downward trend from 1926 to 1937; (2) an upward trend between 1938 and 1959; and (3) a steady downward trend after 1959.





Chart -- 2.3

In 1927, the total fertility rate for Canada was about 3.3; that is to say, a cohort of women subject to the 1927 age-specific fertility rates throughout their childbearing years would have 3.3 children per woman if there were no deaths in the cohort. In the course of the next ten years, the rate declined steadily and reached a low level of 2.6 children per woman in 1937.

In 1938, however, the decline in the fertility trend was reversed. By 1947, the total fertility reached almost 3.6 children per woman, which was slightly higher than the level attained in 1921. The upward trend continued for many years and reached an even greater peak of over 3.9 children per woman in 1959. Over the period 1937-59, the total fertility rate increased by 2.2 per cent per year, which contrasts with a decline of 1.6 per cent per annum in the period 1921-37. The higher fertility reflected in essence the rise in marriages after World War II and the 'catching up' of births postponed by many families during the war years.

Underneath these historical trends in the total fertility rate were important changes in the fertility performance of women at different ages. Chart 2.4 shows the age pattern of fertility in different years. During the downward phase from 1921 to 1937, the fertility rate declined at every age (see Table 2.4) and the decline was sharpest in the late maternal ages 45 to 49. The upward fertility trend from 1937 to 1959 was marked by a steep rise in the fertility of young women while the fertility among women 40 to 49 continued its downward trend. The fertility in the mid-maternal age group 30 to 39 increased during the 1937-59 period but fell short of the level experienced in 1921.

The most dramatic trend in Canadian fertility history took place after 1959 when the fertility rate dropped unexpectedly. Furthermore, the decline continued persistently to 1967 when the total fertility rate fell below the low level of 2.6 children observed during the Depression. The decline was continuing through 1971 when a total fertility rate of just 2.2 children was recorded.



Age Specific Fertility Rates, Canada, 1921 to 1971



.

Sources: Henripin, 1972, Table E-2; DBS 84-202, 1952, Table 13; Statistics Canada 84-201, Table 6.

	Aver	age Annual Cha	nge, Canada, 19	21, 1937, 1959 a	nd 1971		
Jo est		Fertilit	y rate		annu	Average al percentage ch	Inge
women	1921	1937	1959	1971	1921-37	1937-59	1959-71
15-19 years	38.0	25.6	60.4	40.1	- 2.0	6.2	- 2.8
20-24	165.4	113.6	233.8	134.6	- 2.0	4.8	- 3.5
25-29 "	186.0	142.2	226.7	142.3	- 1.5	2.7	- 3.1
30-34 "	154.6	123.4	147.7	77.4	- 1.3	0.7	- 4.0
35-39 "	110.0	85.3	87.3	33.6	- 1.4	0.1	- 5.1
40-44 "	46.7	34.7	28.5	4.4	- 1.6	- 0.8	- 7.0
45-49 ** · · · · · · · · · · · · · · · · · ·	6.6	4.2	2.7	0.6	- 2.3	- 1.6	- 6.5
				•			
Total fertility rate	3,536	2,646	3,935	2,190	- 1.6	2.2	- 3.7

Source: DBS 84-202, 1952, Table 13; and Statistics Canada 84-201, 1971, Table B6,

TABLE 2.4 Age-Specific Fertility Rates per 1,000 Women, Total Fertility Rates and Average Annual Change, Canada, 1921, 1937, 1959 and 1971 - 19 -
The decline in the 1930's took place mainly as a consequence of the economic hardships resulting from the Great Depression, but the anomaly of the decline since 1959 is that it occurred at a time when the economic outlook had been favourable for high birth rates. The explanation of the phenomenon therefore becomes a complex matter. Changes in the age structure of the population, marriage rates, timing of births, as well as macro and micro socio-economic changes influencing the attitudes of individuals and families towards fertility are all relevant to the latest decline.

**2.2.2** Influence of Marriage Trends – Although there has been a steady increase in the rate of illegitimate births in Canada, most of the births take place within marriage. Only 9 per cent of the total live births in 1968 were illegitimate (DBS, Vital Statistics, 1968, p. 13). In this context, it is important to know how much of the observed changes in fertility rates can be attributed to the marriage factor and how much is the result of a real decline in fertility.

The effect of differences in marriage age can be clearly seen in the historical changes that occurred in the proportions of women ever- married at various ages. The trends shown by the data are summarized in the following comments. The data indicate that, except for the age groups under 25, the proportion ever-married decreased for all age groups in the 1931-41 decade. Among the increases in the proportion ever-married that occurred in the period 1941-56, the most notable is that in the age groups under 30. There was also an increase in proportion ever-married for all age groups above age 25 between 1956 and 1961. There was a decrease in the proportions of women ever-married for the age groups under 25 years between 1961 and 1966.

With the information available, it is difficult to measure precisely the role of marriage on changes in the level and age pattern of fertility. However, using the data on proportions currently married among women and marital fertility rates (births per currently married women by age)<sup>2</sup> an approximate estimate of the effect of changes in marriage patterns can be made. Assuming that all births are legitimate, total fertility is a function of marital fertility and proportion of women currently married. Therefore, by keeping one of these factors constant and varying the other factor, it is possible to estimate the effect of each separately on the change in the total fertility between two points in time <sup>3</sup>. It is assumed for this calculation that the higher the proportions of women married, the higher the risk of childbearing.

The results of these calculations for various periods are presented in Table 2.5. The residual component may be explained mostly by the effect of illegitimate fertility<sup>4</sup>. The increase in the proportion of the residual factor for the last period may be attributed to the increase in the illegitimacy rate from 4.5 per cent in 1961 to 9 per cent in 1968. The results in Table 2.5 indicate that the post-war fertility recovery was mainly due to changes in the proportion married; and the recent decline in fertility was chiefly because of reduction in marital fertility rates. Thus, most of the decline in fertility in the 1960's may be considered as a change in fertility *within* marriage, and a reflection of real changes in fertility levels and age-specific fertility patterns.

Item	1931-41	1941-56	1956-68
Total fertility	- 11.5	36.2	- 36.4
Nuptiality	- 0.2	26.4	- 3.2
Marital fertility	- 10.8	9.4	- 36.6
Residual	- 0.5	0.4	. 3.4

TABLE 2.5 Separate Contribution of Nuptiality and Age-Specific Marital
Fertility Rates on Changes in Total Fertility, Canada,
1931-41, 1941-56 and 1956-68

Note: For explanation of the computational procedure, see text, Section 2.2.2. The change in total fertility here refers to the percentage change in total fertility rate (TFR) for the period concerned. Thus the percentage change for the period 1931-41, for example, will be:

 $\frac{(TFR1941 - TFR1931)}{TFR1931} 100$ 

Source: DBS 84-202, 1968

**2.2.3** Differential Fertility – So far the discussion has been confined to fertility variations at the national level. Because Canada is a large nation of different ethnic, religious and social groups, it is valuable to know how far a convergence towards a more homogeneous fertility pattern among various regions and socio-economic groups has emerged and contributed to the recent fertility decline. In his comprehensive fertility study, Henripin has gone into the details of fertility differentials in Canada and it is proposed here to pin-point the spectacular variations in fertility that have occurred in the regions of Canada and to consider fertility differentials between (1) Roman Catholic and Protestant women and (2) working and non-working women.

The period total fertility rates for the provinces of Canada since 1938 are presented in Table 2.6. Although there has been a general fall in the fertility rates for all the provinces in recent years, the decline was spectacular for Québec. This suggests that Québec has contributed a large share of the overall recent fertility decline. The crude birth rate in Québec dropped by 50.2 per cent from 29.7 in 1957 to 14.8 in 1971, the lowest among the provinces.

Province	1938	1948	1958	1968	1971
Canada	2,701	3,441	3,880	2,441	2,190
Newfoundland					
Prince Edward Island	3,122	4,415	4,430	3,178	2,890
Nova Scotia	2,940	3,725	4,073	2,709	2,501
New Brunswick	3,624	4,649	4,486	2,811	2,670
Québec	3,261	3,805	3,938	2,179	1,889
Ontario	2,273	3,097	3,680	2,434	2,221
Manitoba	2,390	3,123	3,675	2,712	2,542
Saskatchewan	2,844	3,466	4,167	3,005	2,688
Alberta	2,735	3,621	4,321	2,795	2,435
British Columbia	2,081	2,978	3,895	2,418	2,135
Yukon			5,373	3,580	3,143
Northwest Territories			7,530	6,425	4,881

TABLE 2	2.6	Total	Fertility	Rates,	Canada	and	Provinces,	1938,	1948,	1958,
				196	8 and 19	071				

Sources: DBS 84-202, 1950 and 1968, Table B6; and Statistics Canada 84-201, 1971, Table 6.

In view of the fact that at the time of the 1961 census, 88 per cent of the population of Québec was Roman Catholic (constituting 56 per cent of the Roman Catholic population of Canada) a brief examination of the trend in the Catholic and non-Catholic fertility differentials may shed some light on the fertility decline in Québec and Canada in general. The fertility data for Catholics and Protestants based on the 1961 census are given in Table 2.7. This table shows an increase in the fertility rates among Protestants for the cohorts with completed fertility who were born between 1907-11 and 1922-26, while there was a consistent decline in the Catholic fertility rates among corresponding cohorts. Although substantial fertility differentials existed between Catholics and the Protestants in the past, the differentials have narrowed significantly for the younger cohorts. A recent study has considered the overall fertility differentials between Catholics and Protestants, and also the rural-urban residence and ethnic differences between the two groups. This study concluded that the dominant trend of Canadian Catholic fertility has clearly been downward (Long, 1970, p. 146). The 1971 census data that can show the change in the level and pattern of fertility differentials between Catholics and Protestants since 1961 were not ready at the time of drafting this text. The available evidence, however, indicates that the recent decline in the overall fertility rate of Canada represents possibly a further fertility decline among the Catholics. Because the French Canadians in Québec represent the majority of Catholics, the decline in Catholic fertility may be viewed as an interplay of religious, cultural, regional and ethnic influences.

Age of woman in 1961	Year of birth of woman	All religions	Catholics	Protestants
65 years and over	Before 1897	4,038	5,731	3,171
60-64 years	1897-1901	3,650	4,966	2,839
55-59 ''	1902-06	3,385	4,499	2,630
50-54 ''	1907-11	3,154	4,143	2,495
45-49 "	1912-16	3,110	3,950	2,566
40-44 "	1917-21	3,231	3,983	2,744
35-39 "	1922-26	3,102	3,590	2,757
30-34 "	1927-31	2,775	3,019	2,588
25-29 "	1932-36	2,178	2,278	2,120
20-24 ''	1937-41	1,327	1,347	1,346
15-19 "	1942-46	735	740	752

TABLE 2.7. Number of Live-Born Children per 1,000 Women Ever-Married, by Age Cohort and Selected Religion of Women, Canada, 1961

Source: Henripin, 1972, Tables 4.3 and 6.21.

Another important factor affecting fertility is the increase in the proportion of women in the labour force. The following main trends have emerged in Canada. The proportion of women (aged 14 and over) in the labour force has increased from 23.9 per cent in 1957 to 30.7 per cent in 1967. The proportion of married women in the labour force has increased from 22.5 per cent in 1961 to 30.5 per cent in 1967 (Allingham, 1968, p. 9). The implications of a continued upward trend in the employment of women are difficult to understand, but the greatest potential effect on fertility may be achieved through a delay or postponement of childbearing among women who continue working after marriage.

Age of woman in 1961Year of birth of womanLabour force status of womanRatio1 $65$ years and over			the second se		
Mgo of woman in 1961       Diff of woman of woman       In hor of woman       In habour force       Ratio <sup>1</sup> 65 years and over       Before 1897       3,026       4,088       .740         60-64 years       1897-1901       2,907       3,802       .765         55-59       1902-06       2,694       3,600       .748         50-54       1907-11       2,488       3,419       .728         45-49       1912-16       2,387       3,413       .699         40-44       1917-21       2,392       3,553       .673         35-39       1922-26       2,229       3,393       .657         30-34       1927-31       1,870       3,023       .619         25-29       1932-36       1,248       2,438       .512         20-24       1937-41       625       1,593       .392         15-19       1942-46       335       .862       .389	Age of	Year of	Labour fo of wo	orce status oman	
65 years and overBefore $1897$ $3,026$ $4,088$ $.740$ $60-64$ years $1897-1901$ $2,907$ $3,802$ $.765$ $55-59$ " $1902-06$ $2,694$ $3,600$ $.748$ $50-54$ " $1907-11$ $2,488$ $3,419$ $.728$ $45-49$ " $1912-16$ $2,387$ $3,413$ $.699$ $40-44$ " $1917-21$ $2,392$ $3,553$ $.673$ $35-39$ " $1922-26$ $2,229$ $3,393$ $.657$ $30-34$ " $1927-31$ $1,870$ $3,023$ $.619$ $25-29$ " $1932-36$ $1,248$ $2,438$ $.512$ $20-24$ " $1937-41$ $625$ $1,593$ $.392$ $15-19$ " $1942-46$ $335$ $862$ $.389$	woman in 1961	birth of woman	In labour force	Not in labour force	Ratio <sup>1</sup>
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	65 years and over	Before 1897	3,026	4,088	.740
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	60–64 years	1897-1901	2,907	3,802	.765
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	55-59 ''	1902-06	2,694	3,600	.748
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	50-54 "	1907-11	2,488	3,419	.728
40-44       "	45-49 "	1912-16	2,387	3,413	.699
35-39       "	40-44 "	1917-21	2,392	3,553	.673
30-34       "	35-39 ''	1922-26	2,229	3,393	.657
25-29         "	30-34 "	1927-31	1,870	3,023	.619
20-24         "	25-29 ''	1932-36	1,248	2,438	.512
15-19 " 1942-46 335 862 .389	20-24 "	1937-41	625	1,593	.392
	15-19 "	1942-46	335	862	.389

#### TABLE 2.8 Number of Live-Born Children per 1,000 Women Ever-Married, by Age Cohort and Labour Force Status of Women, and Ratio of the Fertility of Women in the Labour Force to that of Women Not in Labour Force, Canada, 1961

<sup>1</sup>Fertility of women in labour force divided by that of women not in labour force.

Source: Henripin, 1972, Table 10.2.

Table 2.8 shows the average number of children ever born per 1,000 ever married women in 1961, for economically active and inactive women by age. The data clearly show substantial differences in the fertility level between the active and non-active women; the former had lower fertility rates in all the age groups. Also, the fertility differentials between the two groups increased with the reduction in the age of women. It has been noted that the presence or absence of a young child is the most important single attribute affecting the wife's participation in the labour force until age 44 (Allingham, 1968, p. 21). Since the presence of a young child is more common among the young married women than among older women, it is likely that the fertility differentials between active and non-active women will be greatest among the younger women. If couples decide to postpone the first birth for a few years, the wife is very likely to be in the labour force.

A recent fertility inquiry in Metropolitan Toronto showed that nearly one-half of the women using contraceptives were using the oral pill and that about two-thirds of the present oral users began to use them for the first time after January 1965. It was also observed that women with no children and those with four or more children had a clear preference for the pill over the other methods of contraception (Kantner, et al; 1968). Such a preference for the pill among contraceptive users is consistent with the fertility decline among young and older women observed earlier. A major effect of the use of the pill might have been longer postponement of births and avoidance of unwanted conceptions more successfully by the couples. The more liberal use of contraceptives does not, however, explain why couples preferred a particular waiting period after marriage or after a birth has occurred. The answer to this question lies in the social, economic and psychological factors affecting the motivations of the couples and their fertility expectations. One answer may be that women increasingly want to play the dual role of mother and worker.

# 2.3 MIGRATION

**2.3.1** Age-Sex Composition – Migration is normally age and sex selective and the available data suggest that the immigrants in the earlier decades were predominantly young male adults. During the depression and war years from 1933 to 1946, the immigrants were predominantly females. The post-war pattern of immigration shows a large number of women and children, that is families, and consequently the sex ratio was more balanced though still slightly in favour of males.

Labour Force – Even more significant than the impact on the 2.3.2 Canadian population as a whole, immigration has contributed markedly to the quantity and quality of the labour force of Canada. During the periods of high immigration, as in the 1950's, it accounted for more than one half of the total labour force increase. In the 1960's, this relative contribution appeared to fall as a result of increased domestic contribution from the 'baby-boom' cohorts. The most important contribution of post-war immigration however, has been and continues to be the large number of professional and highly qualified people entering Canada. Table 2.9 which presents the intended occupation of all immigrants from 1946 to 1971 reveals the drastic increases in the professional and skilled categories of the immigrants. In the 1950's a large proportion of immigrants belonged to occupational groups of farmers, manufacturing and mechanical tradesmen; that is, skilled, semi-skilled and labourer groups. Since 1969, one third of the immigrants have been in managerial and professional categories.

Occupational groups	1946-55	1956-68	1969	1970	1971	1946-71
					·	
Total	100.0	100.0	100.0	100.0	100.0	100.0
Managerial	0.7	1.9	3.0	4.0	5.7	1.7
Professional	7.0	18.9	31.9	28.8	26.6	16.1
Clerical	7.4	12.3	14.5	15.6	16.2	11.0
Transportation trades	2.2	1.5	0.8	0.8	1.0	1.7
Communication trades <sup>1</sup>	0.2	0.5	0.3	0.3	0.2	0.4
Commercial sales workers	4.0	3.3	3.3	3.3	3.4	3.6
Financial sales workers <sup>1</sup>	0.1	0.3	0.6	· 0.6	0.6	0.3
Service & recreation workers <sup>2</sup>	10.9	12.6	10.7	10.1	10.4	11.7
Farmers	21.7	5.6	2.7	2.7	3.5	10.9
Construction trades	8.3	9.0	7.1	7.7	6.5	8.5
Fishers, trappers, loggers	2.0	0.3	0.2	0.1	0.1	0.9
Miners	1.6	0.6	0.5	0.4	0.4	0.9
Manufacturing and mechanical						
trades	23.3	22.3	20.7	20.6	19.9	22.4
Labourers	9.2	- 10.3	2.4	2.1	2.2	8.9
Others	1.4	0.6	1.3	2.9	3.3	1.1

TABLE 2.9 Percentage Distribution of Post-War Immigrants Destined to Labour Force by Intended Occupational Groups, Canada, 1946-71

<sup>1</sup>Available as a separate group since 1953 only.

<sup>2</sup>Includes domestic servants.

Source: Hawkins, 1972, Table 5.

**2.3.3** Place of Origin and Distribution – In the post-war period, immigration to Canada, as in the earlier decades, has been largely from Europe and particularly from the United Kingdom and Italy. The third largest source of immigration has been the United States. The large European migration has been due to Canada's historical ties with Europe and her active promotion and encouragement of immigrants from these European countries. The movement from the United States may be attributed to the proximity and close economic ties that exist between these two countries. Only a very small number of Asian, African, West Indian and other non-Europeans were admitted prior to 1962 as indicated by Table 2.10.

	,	-				,
Country of birth	1946-55	1956-68	1969	1970	1971	1946-71
Total	1,222,319	1,883,294	161,531	147,713	121,900	3,536,757
Albania <sup>1</sup>		287	21	14	8	330
Algeria <sup>2</sup>		2.854	196	169	124	3.343
Argentina <sup>1</sup>	97	2,490	377	234	205	3,403
Australia	6.388	24.668	2.628	2.515	1.542	37.741
Austria	21,167	15.005	598	494	360	37.624
Belgium	15.078	14 732	769	485	363	31 427
Bermudal	12,070	835	122	85	98	1 140
Brazill	102	2 0 3 8	320	273	217	2 950
Britain	338 561	468 998	28 700	23 688	14 230	874 267
Bulgarial	550,501	704	20,770	25,000	14,250	074,207
Canada	8 948	11 251	1134	1 1 40	1 222	23 605
Carlan	0,740	1 1/10	215	212	352	1 780
China	15 423	29.622	5 185	3 3 9 7	3 604	57 321
Crashoslavakia	17,001	15 571	5 020	1 703	5,074	30 070
Denmark 3	6 3 5 0	22 277	650	486	347	30.114
Equal	0,359	15 223	1 9 2 0	1 2 7 3	000	10 724
Egypt		1 081	51	1,275	17	11,334
Estonia	1 874	11.487	777	604	450	18 22/
France	24 422	11,402	3612	2 0 5 8	2 0 5 0	78 001
Garmany Fad Bas	122 742	120 767	4 208	3 2 2 0	2,009	262.020
General	14 807	75 623	7 106	6 4 4 0	4 822	100 000
Hong Kongl	14,077	10 555	3 3 5 4	2 2 50	7,022	18 740
Hungant	16 542	51 235	1 132	1 023	2,561	70 779
Looland	10,542	282	1,152	1,025	047	10,773
India	4 3 8 1	25 280	6736	7 080	6 30 1	427
Iron	4,501	1.085	130	168	0,501	49,790
Iraland	15 041	27 133	1.627	1 4 10	054	46 165
Include	10,041	6 275	559	595	3J4 417	40,105
Israel <sup>2</sup>	122 225	211 514	10.685	8650	5 027	470.020
Italy	133,223	2 724	10,065	0,009	5,957	470,020
Japan	12 416	1,800	10	20	630	0,346
	13,410	1,809	40	29	720	13,338
Leoanon*		0,104	031 22	579	139	0,3/3
	11,034	1,210	22	12	21	12,990
Luxemoourg <sup>1</sup>		0105	22	51	2	0.135
Maila <sup>1</sup>		0,195	381	307	242	9,125
Mexico	220		349	43/	304	3,407
Morocco <sup>2</sup>		8,522	010	514	284	9,936
See footnote(s) at end of t	able.	<b>i</b> 1	1	1		I

<b>TABLE 2.10</b>	Country of	of Birth a	of Post-War	Immigrants,	Canada,	1946-71

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Country of birth	1946-55	1956-68	1969	1970	1971	1946-71
Netherlands	107,790	56,598	2,412	1,843	1,262	169,905
New Zealand	2,346	7,395	895	947	640	12,223
Norway	6,047	6,174	321	252	149	12,943
Pakistan <sup>}</sup>		3,676	885	1,010	961	6,532
Philippines <sup>4</sup>		10,904	3,138	3,305	4,213	21,560
Poland	101,433	34,987	1,563	1,403	1,527	140,913
Portugal <sup>1</sup>		67,413	7,917	8,594	9,776	93,700
Romania	13,143	7,146	453	488	377	21,607
St. Pierre & Miquelon <sup>1</sup>		300	18	15	22	355
Saudi Arabia <sup>1</sup>		63	9	11	11	94
Spain <sup>1</sup>		12,904	998	913	620	15,435
Sweden I		4,417	316	290	337	5,360
Switzerland	7,139	15,557	1,606	1,576	843	26,721
Syria <sup>1</sup>		1,829	392	316	277	2,814
Tunisia <sup>2</sup>		1,261	144	108	83	1,596
Turkey <sup>1</sup>		7,104	671	491	442	8,708
South Africa <sup>1</sup>		9,133	819	829	774	11,555
USSR	23,458	9,223	394	406	349	33,830
United States	70,739	139,124	19,258	20,859	20,723	270,703
Yugoslavia	24,055	51,570	5,462	6,892	3,547	91,526
Africa, n.e.s. <sup>5</sup>	4,375	6,301	2,339	1,124	1,199	15,338
Asia, n.e.s. <sup>5</sup>	3,678	12,031	2,268	3,619	3,726	25,322
Central America n.e.s.5	226	641	168	219	187	1,441
Europe, n.e.s. <sup>5</sup>	36,572	247	34	14	14	36,881
South America, n.e.s. <sup>5</sup>	3,219	12,323	3,461	3,999	4,176	27,178
West Indies	5,169	43,795	13,803	13,286	11,202	87,255
Other Countries, n.e.s. <sup>5</sup>	20,512	4,200	752	999	886	27,349

### TABLE 2.10 Country of Birth of Post-War Immigrants, Canada, 1946-71 - Concluded

<sup>1</sup>Before 1956, Republic of South Africa was included with "Africa British"; Egypt with "Africa not British"; Saudi Arabia, Ceylon, Iran, Lebanon, Syria with "Asia not British"; Pakistan with "India"; Bermuda, Hong Kong, Malta with "Other Countries British"; Albania, Bulgaria, Estonia, Luxembourg, Portugal, Spain, Sweden, Turkey with "Europe not British"; St. Pierre & Miquelon, West Indies not British with "Other Countries not British"; Argentina, Brazil with "South America not British".

<sup>2</sup>Before 1957, Algeria, Morocco, Tunisia were included with "Africa not British".

<sup>3</sup>Before 1952, Denmark, Finland were included with "Europe not British"; Israel with "Asia not British".

<sup>4</sup>Before 1961, Philippines were included in "Other Countries not British". <sup>5</sup>n.e.s. means "not elsewhere specified".

Source: Manpower and Immigration M22-1/1971, 1972, Table 15.

Following the 1962 and 1967 immigration regulations which removed several restrictions on immigration from non-European countries, a new pattern in Canadian immigration is emerging. Since 1967, the admission of immigrants from the West Indies has increased considerably, averaging over 10,000 per year between 1969 and 1971 in contrast to less than 5,000 per year from 1956 to 1968. Also, immigration from Asia has been increasing steadily during this period. Two major external forces may explain this new pattern. First, the potential immigration from Europe has lessened due to the present economic situation of expanding opportunities for migrant workers within the European Common Market. Secondly, the potential highly qualified immigration available in developing countries has increased; particularly from those that have inherited a well-developed educational system under former British rule.

Immigration to Canada is not evenly distributed across Canada. The bulk of the immigrants settle in Ontario, followed by Québec and British Columbia. Furthermore a large majority of them are absorbed into Toronto and Montréal. The pull toward these two cities for immigrants in search of professional jobs and skilled occupations is as strong as ever. .

# CHAPTER THREE

# **POPULATION COMPOSITION**

by

#### J. Norland (Yam), A. Siggner, and S.T. Wargon\*

Population composition constitutes a major topic in demography. The study of population composition involves analysis of the distribution of population among the categories of such variables as age and sex, marital status, education, ethnicity, religion, etc. Population composition is significant in studying other major topics of demography. For example, both natality and the related changes in population size depend, *inter alia*, on the size and proportion of the female population in the childbearing ages, an issue pertaining to population composition by age and sex. Similarly, international and sub-national comparisons involving mortality, nuptiality, labour force, income, etc., become meaningful particularly if population composition by variables such as age and sex, marital status, educational level and labour force status are taken into account.

#### 3.1 AGE AND SEX

Age and sex are usually considered as being the most fundamental aspects of population composition. The importance of these variables stems from the fact that "almost any measurement that can be taken of human beings ...... will show substantial variation by sex and age" (Bogue, 1969, p. 147). Data and studies related to age-sex are pertinent, for example, to *research* involving fertility patterns, economic development, crime trends, etc.; to *national planning* involving defence, social welfare, education, etc.; and to *economic activities* of the private sector involving the actuarial industry, marketing of various commodities, etc.

One technical point concerning Canada's regions should be clarified at the outset. The conventional subdivision of Canada comprises the following six regions: Atlantic (Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick), Québec, Ontario, the Prairies (Manitoba, Saskatchewan and Alberta), British Columbia, and the Northern Territories (Yukon and Northwest Territories). In this section pre-1951 data appearing

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under the label 'Atlantic' exclude Newfondland. Additionally, the Northern Territories are not shown separately in the tables and graphs, because of the small population involved. The data for the Territories are, however, included in the total shown under the label 'Canada'.

**3.1.1** The Sex Structure of Canada's Population, 1851-1971 — The 1971 Census of Canada enumerated 10,795,000 males and 10,773,000 females. The corresponding sex ratio (that is, the number of males per 1,000 females) was 1,002, indicating an almost balanced sex composition. The time series reported in Chart 3.1, indicates that the sex ratios recorded in the decennial censuses of 1851 through 1961 fluctuated in the range 1,022 - 1,129. The balanced sex composition in 1971, therefore, constitutes an unprecedented departure from the male-dominant populations observed in the past.

Judging by the decennial census data, the general trend of the sex ratio in Canada over the last 120 years showed three distinct phases. Between 1851 and 1881 the sex ratio declined from a level above 1,050 to 1,025. A second phase followed, in which the sex ratio climbed from 1,025 in 1881 to a record high of 1,129 in 1911. In the third phase, the sex ratio declined from the 1911 level to a record low of 1,002 in 1971.

Migration, rather than natural increase, has generated the high sex ratio found in the pre-1961 censuses, and was particularly responsible for the climbing sex ratio between 1881 and 1911. This hypothesis is supported by both 'flow data' on intercensal immigrants entering Canada and 'stock data' on the foreign-born population enumerated in the various censuses. Since 1931, however, the impact on Canada's age structure of both the immigration waves and the foreign-born population has declined. For example, immigration rates (mean annual rates for intercensal periods) have remained since 1931 below 10 per 1,000 population, compared with 28 per 1,000 during the period 1904-11. The sex ratio of the intercensal immigrants since 1931, to cite a second example, has varied between 788 and 1,150, compared with the range of 1,721-2,588 observed between 1911 and 1931.

The overall trends of mortality and natality are also relevant to the decline in Canada's sex ratio over most of this century. Natality usually introduces into the population a component with a sex ratio of approximately, 1,057. Compared with the sex ratios of 1,022 and 1,002 which were observed in the last two decennial censuses, it is clear that natality operated to halt the decline in the population sex ratio. The falling birth rates during the decade 1961-71, however, diminished this effect considerably and thus increased the relative effect of those factors which 'pushed' the population sex ratio to lower levels. Foremost among these factors is mortality. In 1961-71, for example, the sex ratio of the deceased population was 1,411. While an analysis of the determinants of this high sex ratio is beyond the scope of this paper, it should be mentioned that during all the intercensal periods of this century, mortality



The national sex ratio, 1851-2001, and regional sex ratios, 1901-1971

Census Year

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Chart – 3.1

Source: Yam, Technical Memorandum No. 9, January 1974.

in Canada has been extracting from the population a strongly male-dominant component, and that the male-dominance has increased considerably over time.

The Sex Structure of Selected Canadian Sub-Populations - In 3.1.2 1971, Canada's regions, with the exception of the Northern Territories, showed relatively little deviation from the national sex ratio of 1,002. The range of the 1971 regional sex ratios extended from 987 in Québec to 1,025 in the Prairie region, and to 1,128 in the Northern Territories. The picture was very different in 1911, when the range of the sex ratios extended from 1,020 in Québec to 1,786 in British Columbia and to 1,910 in the Northern Territories. The 1911 data were strongly affected by the male-dominant waves of in-migrants (internal as well as international) who settled in Canada's west during the decade preceding that census. Subsequent censuses showed a convergence of the regional sex ratios towards the national mean (Chart 3.1), but a distinct geographical pattern has persisted for several decades: highest ratios in the Northern Territories; levels above the national mean in British Columbia, the Prairie region and the Atlantic region; and levels below the national mean in Ontario and Québec.

Other sub-national differences of interest concern urban/rural residence. The 1971 census data indicate that sex ratios below the national mean were recorded in Canada's Census Metropolitan Areas (CMAs) and urban areas, while the population in areas classified as non-CMA and rural were characterized by sex ratios above the national mean. These differentials are explained by the different economic opportunities offered in the urban/rural categories mentioned. For example, the large cities and the CMAs offer more employment in the services industry than do rural farm areas, and hence the attraction of female-dominant internal migration to the large cities and the CMAs.

3.1.3. The Canadian Age Composition: Broad Age Groups, 1851-1971 — The following review focusses on the three 'broad age groups', that is, children (ages 0-14), adults (ages 15-64) and aged persons (ages 65 and over). In the course of the century following Confederation the total population increased by a factor of 5.8, but the rate differed from one broad age group to another. In 1971 there were only 4.2 times as many children as in 1871, compared with 6.7 times as many adults and 12.9 times as many aged persons. These data reflect the major changes in the percentage distribution by broad age group over the period 1851 to 1971, as reported in Table 3.1.

	Sex Failo7		1.051	1,057	1,030	1,025	1,037	1,050	1,129	1,064	1,074	1,052	1,024	1,022	1,002	total
	Median ago6	20 20 2	17.23	18.24	18.80	20.07	21.43	22.73	23.80	23.97	24.75	27.08	27.68	26.29	26.26	ven for 1
	Aged to	ratio5	0,059	0.071	0,088	0.106	0.125	0.147	0.141	0.139	0.176	0.240	0.256	0.225	0.273	figure gi
		Aged <sup>4</sup>	0.051	0.056	0.067	0.072	0.077	0.083	0.075	0.079	0.088	0.102	0.125	0.131	0.130	rom the
	ependency ratios	Child <sup>3</sup>	0,857	0.780	0.760	0.677	0.615	0.568	0.529	0.566	0.503	0.424	0.490	0.581	0.475	slightly fi
	Ω	Total <sup>2</sup>	806.0	0.836	0.827	0.749	0.692	0.651	0,603	0.644	0.592	0.526	0.615	0.712	0.604	leviates s
		65 years and over	2.7	3,0	3.7	4,1	4.6	5.0	4.7	4.8	5.6	6.7	7.8	7.6	8.1	1871, 6
	ercentage istribution	15-64 years	52.4	54.5	54.7	57.2	59.1	60.6	62.4	60.8	62.8	65.5	61.9	58.4	62.3	1861 and
roups	α-p	0-14 years	6,44	42.5	41.6	38.7	36.4	34,4	33.0	34.4	31.6	27.8	30.3	33.9	29.6	r 1851,
by age g		65 years and over	65	98	135	178	220	271	335	420	576	768	1,086	16£'1	1,744	source fo
Population	tribution	15-64 years	1,277	1,757	2,021	2,473	2,856	3,254	4,495	5,344	6,519	7,540	8,672	10,655	13,443	in the s
	merical dis ('000)	0-14 years	1,095	1,371	1,536	1,674	1,757	1,847	2,377	3,023	3,282	3,199	4,251	6,192	6,381	as given
	N	All ages l	2,437	3,226	3,692	4.325	4,833	5,371	7,207	8,788	10,377	11,507	14,009	18,238	21,568	groups,
	Census year		[85]	1861	1871	1881		1901	1911	1921	1931	1941	1951	1961		The sum over all age

TABLE 3.1 Selected Statistics of the Age-Sex Composition of the Population of Canada, 1851-1971

2 sum over all age groups, as given in the source for 1851, 1861 and 18/1, deviates slightly from the figure giv 2 population.

pulation.

 $\frac{2}{3}$  (Persons aged 0-14 + persons aged 65 and over)/Persons aged 15-64.

3Persons aged 0-14/Persons aged 15-64.

<sup>4</sup>Persons aged 65 and over/Persons aged 15-64.

Spersons aged 65 and over/Persons aged 0-14.

<sup>6</sup>Fifty per cent of the population lies below the median age; the median age is given in years and fractions of years. 7(Males/Females) 1,000.

Sources: Urquhart and Buckley, 1965, p. 16; 1941 Census of Canada, Vol. I, Table 12; 1961 Census of Canada, Vol. 1 (Part 2), Table 20; and 1971 Census of Canada, Statistics Canada 92-714, Table 7.

Judging by the decennial census data in Table 3.1, and disregarding minor fluctuations, the general trend of the age composition in Canada over the last 120 years showed three distinct phases. In the first, encompassing the decades between the censuses of 1851 and 1941, the percentage of children declined from a level of 45 per cent to a record low of 28 per cent; the percentage of adults increased from 52 per cent to a record high of 66 per cent; and the percentage of aged persons increased from about 3 per cent to 7 per cent (around the year 1921 these trends were partially reversed). The second phase was delineated by the censuses of 1941 and 1961; the percentage of children climbed from 28 per cent to 34 per cent and the percentage of adults fell from 66 per cent to 58 per cent. While these data indicate a clear trend reversal, the percentage of the aged continued to increase, climbing from 6.7 per cent to 7.6 per cent. Finally, the censuses of 1961 and 1971 showed resumption of the trends which prevailed prior to 1941, and thus marked the third phase. During the decade 1961-71, the percentage of children fell from 34 per cent to 30 per cent, the percentage of adults increased from 58 per cent to 62 per cent, and the percentage of aged persons increased from 7.6 per cent to 8.1 per cent.

Notwithstanding the reversal recorded between the censuses of 1941 and 1961, the 1971 age structure was distinguished by its low percentage of children (29.6 per cent, compared with the range 27.8 to 44.9 per cent observed in previous decennial censuses); by its high percentage of adults (62.3 per cent, compared with 52.4 to 65.5 per cent in the past); and by its unprecedented high percentage of aged persons (8.1 per cent, compared with 2.7 to 7.8 per cent in the past).

The economic implications of Canada's changing age composition are reflected by the dependency ratios shown in Table 3.1, and in Chart 3.2. The dependency ratios do not actually measure economic dependence, because the rates of participation in the labour force by age and sex differ from one population to another and change considerably over time. Nonetheless, the dependency ratios are valuable indicators reflecting the potential economic burden on the labour force.

The data show that over the period 1851 to 1941 the child dependency ratio fell from 0.86 to 0.42 (that is, by more than 50 per cent), and the aged dependency ratio doubled, climbing from 0.05 to 0.10. The increase in the aged dependency ratio, however, was more than counterbalanced by the declining child dependency ratio, and consequently the total dependency ratio fell during this period from 0.91 to 0.53.

Between 1941 and 1961, the child dependency ratio climbed from 0.42 to 0.58, the latter level being even above the one recorded in 1901. Furthermore, the aged dependency ratio increased as well (though only marginally), causing the total dependency ratio to increase from 0.53 in 1941 to 0.71 in 1961.

5

Ratio Ratio 1.00 1.00 0.90 0.90 0.80 0.80 0.70 0.70 Total Dependency Ratio 0.60 0.60 Child Dependency Ratio 0.50 0.50 0.40 0.40 0.30 0.30 ged-to-Child . Ratio 0.20 0.20 Dependency Ratio 0.10 0.10

31

41 51 61

•

1971 81 91 2001

0.00

## Selected parameters of age structure, Canada, 1851-2001

81

1901

11 21 Census Year

91

71

0.00

1851 61

Source: Same as Chart 3.1.

Finally, over the decade 1961-71, the child dependency ratio declined again, while the increase in the adult population held the aged dependency ratio on a constant level. As a result, the total dependency ratio fell considerably during this decade, attaining the level of 0.60 in 1971 (compared with 0.71 in 1961 and 0.53 in 1941).

The explanation of these trends and of the minor fluctuation around 1921 is based on an examination of the developments which the components of population change underwent. Natality is the immediate and most significant factor affecting an age pyramid's base: when birth rates decline, aging occurs, and when birth rates increase, a process of rejuvenation takes place. The Canadian data mirror this general finding.

The immediate impact of typical immigration waves on the age pyramid is felt most at the pyramid's center, particularly at the age group 20-35. For example, the percentage of the 1961-71 immigrants in the age group 15-64 was 74 per cent, compared with 58 per cent in the 'initial' 1961 population; the percentage of the intercensal immigrants in the age group 20-35 was 48 per cent, compared with 20 per cent in the 1961 population.

In addition to the immediate impact on the adult population, immigration also generates secondary and tertiary effects involving the other broad age groups. The secondary effect of immigration on the age composition stems from its contribution to higher birth rates. The tertiary effect of immigration on the age composition induces or intensifies the process of aging at the apex. Most immigrants, as seen above, are young adults, but thirty or forty years after their migration they inevitably enter the aged population. In Canada, the tertiary effects became evident only since the 1941 census; prior to that date the difference between the proportion of the aged foreign-born and that of the aged native-born was small. Thus, in 1931 there were 6.7 aged foreign-born persons per 100 foreign-born, compared with 5.2 aged native-born persons per 100 native-born. In 1971 the corresponding percentages were 19.3 and 6.1.

Only a brief discussion of the effects of mortality and emigration on the population age composition will be given here. The degree by which mortality rates declined over the period 1931-71 differed markedly from one broad age group to another. Nonetheless, mortality is not a significant element in explaining the processes of aging and rejuvenation which we have outlined.

With regard to emigration, the expected effects on the age composition may be inferred from the previous discussion of immigration. Specifically, the primary effect of emigration is usually to decrease the weight of the age groups 20-34. It is likely that the impact of emigration on the population age composition was considerable prior to 1931, when annual emigration rates often reached 10 per 1,000. Since 1931, however, emigration rates have not exceeded one third of this figure, and their effect could not have been of much significance.

# 3.2 MARITAL STATUS

3

Data on marital status provide significant input to the study of nuptiality, and indirectly also to the study of fertility and population growth. For a given population a combination of vital statistics and data on composition by marital status may be transformed into nuptiality tables providing synthetic indicators of 'age at marriage' and 'propensity to marry'. It has been shown, however, that subject to certain assumptions, estimates of these and other indicators may also be obtained from marital status data alone (Hajnal, 1953). The analysis in this section will bear heavily on these estimated indicators and the remainder of this introduction, therefore, is devoted to a brief explanation of the methodology involved.

Among the many aspects of nuptiality, first marriages assume special significance because they usually mark the establishment of new families and separate households. Within the context of first marriages, one focuses as a rule on those contracted by persons 15 to 49 years old. Not only does this age range cover the vast majority of single people who marry, but more significantly it also coincides with the child-bearing ages. Unless otherwise specified, therefore, the following discussion refers to the age span 15-49 only, assuming that all first marriages occur within it. It is also assumed that the available marital status data are cross-classified by sex and 5-year age groups.

The proportion single within each sex and age group, as recorded in a given census, reflects the experience of a population born over a period of 35 years. Assume, however, that a theoretical population born during a given 5-year period is followed as it advances from the age group 15-19 to 45-49. In accordance with conventional techniques of constructing demographic models, assume that this population is closed to migration and that mortality is negligible between the ages 15 and 49. Assume further that the proportions single in each age group, as recorded in the census being studied, were experienced by the theoretical population in the course of its history. Denoting the proportion single in each age group by

 $S_{15-19}, S_{20-24}, \dots, S_{45-49}, S_{50-54},$ 

and subject to the above mentioned assumptions:

- The 'propensity to marry' may be measured by the indicator termed the *proportion ever-married* (PEM), given by:

(Occasionally, the terms *probability of ever marrying* and *percentage ever-married* are used in lieu of proportion ever married).

- The age at marriage distribution may be summarized by the indicator termed *mean age at marriage* (MAM), given by:

$$MAM = \left\{ 15 + 5(S_{15-19} + \dots + S_{45-49}) - 50(1-PEM) \right\} / PEM \dots (2)$$

ć

**3.2.1** Canada's Population by Marital Status and Sex, 1911-71 – The 1971 census enumerated 7,532,000 males aged 15 and over, of whom 32 per cent were single, 65 per cent married, 2.5 per cent widowed and one per cent divorced (Table 3.2; see also Chart 3.3). The 1971 census enumerated a slightly larger population of corresponding females, 7,656,000 persons, of whom 25 per cent were single, 64 per cent married, 10 per cent widowed and slightly over one per cent divorced.

Table 3.2 shows crude and standardized marital status distributions based on the censuses of 1911 to 1971. In the following review, all the percentages cited (unless otherwise specified) are standardized. In each of the censuses reported, the proportion of the single and the married groups combined accounted for 95 to 97 per cent of the male population and for 89 to 90 per cent of the female population. The remainder of the population in each sex group was either widowed or divorced. While the combined percentage for single and married populations varied very little over the period discussed, the relative weight of each of these two populations changed considerably. Changes of unusual magnitude occurred between 1941 and 1961, involving an increase in the propensity to marry, and a decrease in the age at marriage. Together these trends constitute what is known as the 'marriage boom'.

As indicated above, the combined proportion of the widowed and divorced populations changed little from one census to the next, but the relative weight of each of these two populations changed considerably. The percentages of the widowed population reveal a gradual but noticeable decrease over the period 1911-71. Significantly, as the percentage of widowed persons decreased in both the male and the female populations, the gap between the sexes increased (1911: 4.9 per cent widowed among males versus 11.0 per cent among females; 1971: 2.7 per cent among males versus 9.3 per cent among females). This finding is compatible with the trend noted above, concerning the growing gap in life expectancy between the sexes.

		Over	by Marital	Status and	Sex, Cana	ida, 1911-71	ļ			
,	Ĕ	otal	Sì	ıgle	Ma	rried	Wid	lowed	Div	orced
Census year	Crude	Standard- ìzed	Crude	Standard- ized	Crude	Standard- ized	Crude	Standard- ized	Crude	Standard- ized
					W	ales				
911 <sup>2</sup> 912 931 <sup>2</sup> 941 <sup>3</sup> 941 956 966	0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001	0001 00001 00001 00001 00001 00001 00001 00001 00001 00001 00001	45.0 39.2 39.8 32.8 30.8 30.8 31.4 31.6	40.8 38.8 40.0 35.4 33.4.6 33.4.6 33.4.6 33.4.6 33.5.7 32.5 31.2	51.5 56.7 56.9 56.4 65.4 65.3 65.3 65.3 64.9	542 542 5460 554 554 554 561 615 615 640 6510 6510 6510	6444666612 4000866692	9.74 9.79 9.78 9.79 9.79 9.79 9.79 9.79 9.79	0.1 0.2 0.3 0.3 0.3 0.3 0.1 0.1 0.1	0.1 0.2 0.3 0.3 0.4 1.0 0.3 0.3 0.1
					Fer	nales				
9112 9212 9312 9312 931 936 956 956	0.001 0.000000	0.000 0.000000	34.9 342.0 233.7 2	32.1 32.2 32.2 32.2 28.3 25.6 25.6 25.5 25.5 25.5 25.5 25.5 25.5	555.5 565.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.3 566.56	56.8 57.2 57.2 57.2 61.6 64.4 664.1 664.1	8888899900 600849900	9.5 9.7 9.7 9.7 9.7 9.7 9.5 9.7 9.5	0.1 0.1 0.2 0.4 0.5 1.3	001 00 00 00 00 00 00 00 00 00 00 00 00
		- 107 -					F			

TABLE 3.2 Crude and Standardized<sup>1</sup> Percentage Distribution of Population 15 Years of Age and

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<sup>1</sup>The age distribution of Canada's 1971 population (both sexes together) served as the standard for the computations shown in this table. <sup>2</sup>The data exclude individuals for whom age and/or marital status were not specified in the source.

Census of Canada, Vol. II, Table 1; 1956 Census of Canada Vol. I, Table 28; 1961 Census of Canada, Vol. II (part 3), Table 78; Sources: 1921 Census of Canada, Vol. II, Table 29; 1931 Census of Canada, Vol. III, Table 12; 1941 Census of Canada, Vol. III, Table 7; 1951 1966 Census of Canada, Vol. I, Table 34; and 1971 Census of Canada, Statistics Canada 92-730, Table 1.

Chart – 3.3

Percentage distribution by marital status, age group and sex, Canada,1971



LABLE 3.3 FULL	and the studie r	s er nonnunda	cuis of Age a		se aronh and	JCA, Callaua,	12-11-11-		
	11161	1921	11661	1941	1561	1956	1961	1966	1971
Age group					Males				
Total, 15 years and over	45.0	39.2	41.0	39.8	32.1	30.8	29.9	31.4	31.6
15-19 Years 20-24 Years 25-29 Years 30-34 Years 35-39 Years	98.8 55.3 35.2 35.2 35.2	99 819 819 819 819 819 819 819 819 819 8	99.7 52.6 29.1 19.5	83.7 83.7 29.7 21.1	35.14 19.6 19.6	98 325 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	98.7 695.7 17.4 13.0	98.8 270.0 15.1 15.1	98.4 67.6 13.5 13.3
45.49 50-54 50-54 60-64 60-64 65 years and over	15.1 12.8 10.6 10.6	1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12	1212 1212 1212 1212 1212 1212 1212 121	12230 12230 12230	2001111 1461-28		2001110 2011250		5.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2
MAM <sup>2</sup>	28.6 86.0	27.3 86.5	27.8 86.4	27.7 86.4	25.3 87.1	25.0 87.8	24.8 89.5	24.7 90.0	24.4 91.1
					Females				
Total, 15 years and over	34.9	32.0	34.0	33.0	25.7	23.7	0.62	24.7	25.0
15-19 years 20-24 years 25-29 years 30-34 years 40-44 years	93.0 59.7 232.4 232.5 12.7	93.5 287.0 137.2 13.1 19.1 19.1 19.1 19.1 19.1 19.1 19.1	94.9 63.1 13.7 13.6	21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0	92.1 20.7 12.8 12.8 12.4 12.4 12.4	914 144 151 162 101 101 101 101 101 101 101 101 101 10	91.3 40.5 15.4 10.6 8 9	244 244 2645 2645 266 266 266 266 266 266 266 266 266 26	99 5.55 7.79 1.77 1.77 1.77 1.77 1.77 1.77 1.77
45.49 % 45.49 % 45.49 % 45.49 % 45.49 % 46.41	12.0 10.6 10.8 9.8	0.0 0.7 00.7 00.7 00.7 00.7 00.7	10.0 10.7 10.7 10.0	2.101 2.01 4.01 6.11	9.8 9.8 9.8	0.0 0.0 0.0 0.0	2.9 2.0 2.0 2.0 2.0 2.0 2.0	67.00 2.00 0.01 0.01	7.0 7.7 9.0 10.2 10.2
MAM <sup>2</sup>	24.3 88.1	23.7 88.8	24.6 89.6	24.8 89.3	22.5 88.7	21.8	21.4 90.1	21.8 91.3	22.0 92.6
<sup>1</sup> The data exclude individuals from <sup>2</sup> See text for an explanation of the	n whom age terms "MA	and/or mar M'' (Mean	ital status v age at marr	were not spe iage) and "	cified in the PEM" (Per	source. centage eve	r-married).		

TABLE 3.3 Percent of Sincle Population 15 Years of Age and Over by Age Group and Sex. Canada. 1911-71.

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Sources: Same as Table 3.2.

The percentage of divorced persons, though very small in all censuses since 1911, increased considerably over the period reviewed. Both males and females showed a continuous increase, and during the five-year period 1966-71 in particular, the percentage in either sex doubled. A comprehensive interpretation of this change is beyond the scope of this study. Suffice. it to note here that liberalization of divorce laws, changes in the population's attitudes, improved economic conditions and a possible decrease in misreporting may be considered as the major factors of the said increase.

As explained in the introduction to this section, the age at marriage and the propensity to marry may be summarized by means of the synthetic indicators MAM and PEM respectively. The pertinent data, covering the censuses of 1911 to 1971, are shown in the last two lines for each sex in Table 3.3. With regard to the censuses of 1911 to 1941, the data indicate a MAM ranging between 27.3 and 28.6 for males, and between 23.7 and 24.8 for females. Data for subsequent censuses indicate noticeable lower MAM's, the 1971 level being 24.4 for males and 22.0 for females. Interestingly, the MAM for males in 1971 was similar to that found for the female population prior to 1941, a fact which accentuates the extent of the decrease in the MAM.

Concerning the propensity to marry, Table 3.3 shows that the PEM's derived from the census data for 1911 to 1941 were in the range of 86.0 to 86.5 per cent for males, and 88.1 to 89.6 per cent for females. Thereafter, the PEM increased gradually, becoming 91.1 per cent for males and 92.6 per cent for females in 1971.

The trends of the MAM and the PEM constitute various facets of the population's marriage patterns. As reiterated in the course of the foregoing discussion, the values attained by the various indicators of nuptiality showed negligible variation prior to the 1941 census, but dramatic changes occured subsequently, reducing the age at marriage and increasing the propensity to marry for both sexes.

# 3.3 HOUSEHOLDS AND FAMILIES IN CANADA: RECENT TRENDS

**3.3.1** Introduction – In Canada, the federal decennial and quinquennial censuses are taken on a *de jure* basis, and the unit of enumeration is the household. The family, as distinguished from the household, is determined at the data-processing stage, by the grouping of individual members of the household according to specific definitions. Data compiled by the Canadian census for households and for families, are data for *residential units*, and they reveal aspects of how, and with whom, people in Canada live.

The *household* in the Canadian census is defined as a person, a family or a group of persons occupying one dwelling<sup>5</sup>. Hence the household data tell us how many Canadians live alone, how many live together in groups which originate in conjugal or blood ties or their equivalent (that is, in families), and how many live in groups created by the decisions of unrelated persons to share the same dwelling.

The definition of the 'census family' describes the family as consisting of a husband and wife, with or without never-married children, or a (lone) parent with one or more children who have never married, living together in the same dwelling<sup>6</sup>. The group thus defined is recognizable as the so-called 'nuclear' family, frequently the subject of contemporary social science and other literature.

The importance of the study of populations in terms of their organization into such household and family groupings is easily understood. The formation of households and families in any population, depends upon, and in turn influences, the basic demographic processes of fertility, nuptiality, migration and mortality, as well as a myriad of social, cultural and economic factors and events. This ineluctable relationship is comprehensible when we consider the role of the family as the basic and universal social institution, and the part it plays as the organizing principle of societies and of the lives of individuals, and as the reproductive unit through which populations and societies ensure their continuity.

Fertility and nuptiality in particular have played important roles in recent trends in household and family formation in Canada. Other aspects of the changing Canadian scene which have also figured in these trends include: (1) the considerable urbanization of Canada's population (Stone, 1967; Stone, 1969; George, 1970); (2) the transformation of Canada's economy in its industrial, occupational, and labour force structure, and in particular, the substantial increases over recent decades in the labour force participation of women (Ostry, 1967, 1968; Denton, 1970); (3) the changing character of the types and quantity of housing stocks available to Canadians (1961 Census of Canada, Vol. VII (Part 2), Ch. 4; Kalbach and McVey, 1971), and related social, economic and cultural factors. Detailed accounts of these aspects should be sought in the references cited.

**3.3.2** Trends in the Growth of Total, Household and Family Populations, and in Number of Households and Families – Reasonably comparable data permit us to trace the general outlines of trends in the formation of households and families as defined in the census of Canada, over the 40-year period spanning the decennial censuses of 1931 and 1971. Table 3.5 shows that the total and family populations and number of households grew at increasing rates for each of the first three decades of the forty-year period under consideration, and experienced highest rates of growth during

	umber of:	Childron3	per family	:	1.9	1.7	0.1	1.9	1.7
amilies <sup>2</sup>	Average n	Persons per	family	4.2	3.9	3.7	3.9	3.9	3.7
Census f	Persons in	census	(000,)	8,971	9,938	12,216	16,096	17,682	18,852
		Number	( 000, )	2,149.1	2,525.3	3.711.5	4,147.4	4,526.3	5,070.7
s1	Average number of	persons per household		4.4	4,3	4.0 9.5	3.9	3.7	3.5
rivate household	Persons in	private households	( 000, )	10,016	:	15.448	17,612	19,406	21,034
Pr		Number	( 000, )	2,252.7	2,575.7	3,923,6	4,554.7	5,180.5	6,041.3
	Total population	-	(000,)	10,363	11,490	16,009	18,238	20,015	21,568
	Census vear		1931 <sup>4</sup>	19414	1956	1961	1966	1971	

TABLE 3.4 Total Population, Household and Family Populations, Number of Households, and Average Number of Persons per Household, Number of Census Families and Average Number of Persons and of Children per Census Family, Canada, 1931-71

Figures for all years exclude collective households.

<sup>2</sup>See footnote<sup>9</sup> to text.

<sup>3</sup>Number of children refers to children 24 years and under enumerated at home.

<sup>4</sup>1931 and 1941 data exclude Newfoundland, Yukon and Northwest Territories. The number of households in 1951 excludes Yukon and Northwest Territories only.

<sup>5</sup>Note that for 1956, the number of private households is equal to the number of occupied dwellings, hence the number of persons in occupied dwellings is used. Sources: 1931 Census of Canada, Vol. V, Tables 1 and 57; 1941 Census of Canada, Vol. I, Table 107, Vol. V, Table 1, Vol. IX, Tables 7 and III, Table 1, p. 5-26 and Table XIII, p. 5-16; 1966 Census of Canada, Vol. I, Table 1; and 1971 Census of Canada, Statistics Canada 96; 1951 Census of Canada, Vol. X, Ch. XV, Table XII and Table 86; 1956 Census of Canada, Vol. I, Tables 33, 34 and 43, Vol. 92-702, Table I - Statistics Canadà 93-702, Table I - Statistics Canada 93-714, Table I and Statistics Canada 93-715, Table 13. 1951-61. On the other hand, the rate of growth of the number of census families was highest during 1941-51 at 30.2 per cent, and declined to 26.2 per cent in 1951-61. During 1961-71, rates of growth declined for all factors considered in Table 3.4, although the decline for number of households was negligible, from 33.6 per cent in 1951-61, to 32.6 per cent in 1961-71. The number of persons in private households<sup>7</sup> showed consistent increases over each decade, directly paralleling the absolute increases in the total population, as one would expect, since the difference between the total population and the private household population is small, consisting mainly of persons residing in collective households<sup>8</sup>.

	Total population	Private house- holds	Persons in private households	Census families	Persons in census families
	Pe	ercentage cl	nange, interc	ensal perio	ds ·
1931-41	10.9	14.3		17.5	10.8
1941-51	21.9	32.4		30.2	22.9
1951-61	30.2	33.6	29.2	26.2	31.8
1951-56	14.8	15.1		12.9	15.2
1956-61	13.4	16.1	14.0	11.7	14.3
1961-71	18.3	32.6	19.4	22.3	17.1
1961-66	9.7	13.7	10.2	9.1	9.9
1966-71	7.8	16.6	8.4	12.0	6.6
		Average an	nual percent	age change	:
1931-41	1.1	14		1.8	1.1
1941-51	2.2	3.2		3.0	2.3
1951-61	3.0	3.4	2.9	2.6	3.2
1951-56	3.0	3.0		2.6	3.0
1956-61	2.7	3.2	2.8	2.3	2.9
1961-71	1.8	3.3	1.9	2.2	1.7
1961-66	1.9	2.7	2.0	1.8	2.0
1966-71	1.6	3.3	1.7	2.4	1.3

TABLE 3.5 Percentage Change for Population, Households and Families, Canada, 1931-71

Source: Table 3.4.

Over the period under consideration, at each census date, more than four fifths of Canada's total population were reported as living in census families. From about 86 per cent in both 1931 and 1941, the family population as a per cent of the total population increased gradually in each subsequent census year, reaching a high of 88.3 per cent in 1966 and then declining to 87.4 per cent of the total population in 1971. Hence growth rates of the family population in each decade resembled those for the total and the private household populations. This decline in the family population proportion reported in 1971 was no doubt due to the decline in the child population (see the discussion of fertility in Chapter Two) as well as to the growth in the non-family population.

The number of private households showed considerable increases at each census date between 1931 and 1971, although the figures for households in 1931, 1941 and 1951 are not exactly comparable. In each of the last two decades the number of private households increased by more than 32 per cent. It is of some interest that increases (in both absolute numbers and growth rates) of private households were greater in the last half of the 1961-71 decade than during the first half. (See Tables 3.4 and 3.5.)

The number of census families<sup>9</sup> increased from 2,149,000 in 1931 to 5,070,700 in 1971 with consistent increases in every intercensal period (Table 3.4). However, the intercensal growth rate declined from a high of 30.2 per cent in 1941-51 to 26.2 per cent in 1951-61. During 1961-71, although the absolute number of families increased by well over 900,000, the growth rate at 22.3 per cent was lower than in the previous two decades.

The average number of persons per private household has decreased consistently with each census year, moving from 4.4 in 1931 to 3.5 in 1971. These figures illustrate a trend which is the inevitable result of greater increases in the number of *private households* than in the number of *persons in private households* over the period being considered.

The average number of persons per family declined from 4.2 in 1931 to a low of 3.7 in 1951, indicating that the increased rate of family formation noted during 1941-51 was not yet reflected in terms of a larger number of children in families. An increase may be noted in 1956, when an average family size of 3.8 was recorded. This average rose again to 3.9 in 1961, at which level it remained in 1966. The decline to 3.7 in 1971 was probably due in large part to the drastic decline in fertility during the 1961-71 period.

Comparable data for the size distribution of census families are available only from 1951, and are presented in Table 3.6. By definition, census families must have a minimum of two persons who are living in a husband-wife, or parent-unmarried child relationship. Since the number of one-parent families represents less than 10 per cent of all families, we are safe in assuming that the figures in Table 3.6 represent, in the main, couples with children.

TABLE	3.6 Size o	of Household	Is and Fam	illics as Me	asured by 1	Yumber of F	ersons, Ca	nada, 1951-'	E [	
	61	151	61	56	11	196	15	966	51	170
Number of persons	Number ( '000 )	Per cent	Number ( '000 )	Per cent	Number ( '000)	Per cent	Number ( '000 )	Per cent	Number ( '000 )	Per cent
					Hous	eholds				
Oral households1	3,409.3 712.1 712.1 688.0 688.0 688.2 688.2 154.5 154.5 154.5 154.5 154.5 154.5	100 200 200 200 200 200 200 200 200 200	3,923.6 3023.6 859.1 739.4 739.4 739.4 180.6 169.7 169.7 169.7 169.7	100 7.9 7.9 7.9 188 8 188 8 188 8 188 8 188 8 188 9 4 5 4 5 4 5 4 5 4 5 4 5 6	4,554.7 424.8 1,0124.8 80922 836.9 836.9 836.9 3729.2 189.4 189.4 96.0	1000 900 17,8 17,8 17,8 17,8 17,8 17,8 17,8 17,8	5,180.5 1,197.4 1,197.4 912.3 912.3 912.3 200.7 233.5 93.5	100.0 11.4 11.7 17.6 17.6 17.6 17.6 1.7 8 3.9 4.4 4.4 1.8	6,041.3 8,041.3 1,525.1.8 1,063.0 1,000.0000000000	100.0 13.4.0 17.3 17.3 1.1.6 3.9 3.9 3.9 1.1
• ł					Fan	nilies				
Total families           2 persons           3 r:sons           4 r:           6 r:sons           7 r:           8 r:sons           8 r:sons           9 persons and over	3,287.4 1,025.8 1,025.8 657.6 362.5 192.1 192.1 192.1 106.2 62.5 93.6	100.0 31.2 23.9 20.0 20.0 1.0 5.8 3.2 2.8 2.8 2.8	3,711.5 1,1255.3 816.5 759.1 455.9 245.4 130.0 130.0 173.6	100.0 20.3 20.3 20.3 6.6 20.3 5.6 2.3 2.0 2.0 2.8	4,147.4 1,199.5 856.8 8555.1 311.2 162.0 189.0 118.7	100.0 28.0 20.7 20.6 13.4 13.4 2.1 2.1 2.1	4,526.3 1,310.2 894.6 923.4 623.8 186.8 186.8 100.8 126.0	100.0 28.0 19.8 19.8 19.8 19.8 19.8 19.8 19.8 19.8	5,070.7 1,046.4 1,046.4 1,056.9 662.9 358.6 184.3 80.4 80.4 80.4	100.0 31.4 20.8 20.8 73.1 7.1 1.6 1.6

<sup>1</sup>Excluding Yukon and Northwest Territories in 1951.

Sources: 1956 Census of Canada, Vol. I, Table 34 and Vol. III, Table II, p. 5-4 and Table II, p. 6-7; 1961 Census of Canada, Vol. II (Part 1), Tables 13 and 44; 1966 Census of Canada, Vol. II, Tables 10 and 54; and 1971 Census of Canada, Statistics Canada 93-702, Table 3 and Statistics Canada 93-714, Table 2.

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Table 3.6 shows declining proportions of two-person families (that is, couples without children), from 31.2 per cent in 1951 to 28.9 per cent in 1966, followed by a rise to 31.4 per cent in 1971. The table also shows declines from 1951 to 1966 for the percentage of three-person families (couples with one child) and a slight increase in 1971; a remarkable stability in the percentage of four-person families (that is, couples with two children), and higher percentages of families with five, six and seven persons in 1971 than in 1951. The distribution for 1971 shows the effects of the decline in fertility during the 1960's.

In examining the trends in the size of households as measured by number of persons depicted in Table 3.6, one must keep in mind that households include one-, two-, and multiple-person non-(census) family households. The increase in households of one and two persons were consistent over the twenty-year period reviewed, and the significant increases in one-person households are treated in greater detail below.

**3.3.3** Trends in Household Type and Composition – Table 3.7 shows that there were increases in the absolute numbers of family households due entirely to the growth in one-family households although the relative size of the latter in relation to all private households was down from previous levels. There were consistent declines in the number and in the percentage of multiple-family households, which contributed to the reduction in the percentage that family-type households made up of total households over the period covered in Table 3.7. There were substantial increases in non-family households, although the growth in relative size was more substantial for the one-person than that for the multiple-person type of non-family households. Thus although in 1971 family households, at about 82 per cent, still constituted more than four fifths of total private households, this was somewhat smaller than the percentage which these households made up of the total in 1951.

The continuing growth in the number of one-family households, the decline of the 'doubling up' of families (which creates multiple-family households), and the spectacular increases in non-family households are due to a number of reasons, not the least of which is the availability of appropriate housing stock to accommodate the 'newer' household living arrangements. A detailed study of trends in housing in Canada still remains to be done, but such a study will undoubtedly show a trend toward the production of the kinds of housing units appropriate to smaller-sized families and persons living alone.

Type of household	19512	1956	1961	1966	1971
Total private households N	o. 3,409.3	3,923.6	4,554.7	5,180.5	6,041.3
P.0	C. 100.0	100.0	100.0	100.0	100.0
Family households N	o. 3,024.3	3,464.2	3,948.9	4,376.4	4,933.4
	C. 88.7	88.3	86.7	84.5	81.7
One family N	0. 2,794.9	3,259.5	3,781.0	4,246.8	4,812.4
P.0	C. 82.0	83.1	83.0	82.0	79.7
Two or more families N	o. 229.4	204.7	167.9	129.7	121.1
P.0	C. 6.7	5.2	3.7	2.5	2.0
Non-family households N	o. 385.0	459.4	605.8	804.1	1,107.9
	C. 11.3	11.7	13.3	15.5	18.3
One person N	o. 252.4	308.6	424.8	589.6	811.8
P.0	C. 7.4	7.9	9.3	11.4	13.4
Two or more persons N	o. 132.6	150.8	181.1	214.5	296.0
P.	C. 3.9	3.8	4.0	4.1	4.9

# TABLE 3.7 Numerical1 and Percentage Distribution of Private Households byType, Canada, 1951-71

<sup>1</sup>Numbers in thousands ('000).

<sup>2</sup>Excluding Yukon and Northwest Territories.

Sources: 1951 Census of Canada, Vol. X, Table VII, p. 401; 1956 Census of Canada, Vol. II, Table 28; and 1971 Census of Canada, Statistics Canada 92-703, Table 7.

Since 1956 Canadian census data have been prepared and published according to the relationship of members of households to the household head. These data permit us to view the composition of households, in regard to their 'nuclear family', other related, and non-related components. Table 3.8 shows that over the fifteen years between 1956 and 1971 the percentage of the household population consisting of heads has increased almost four percentage points. The corresponding percentage for wives of heads has increased by only one percentage point. The percentage of the household population comprised by sons and daughters of heads increased up to 1966, but decreased in 1971. Members of family nuclei (that is, household heads, their wives and children) constituted a higher proportion of total members of households at each census date to 1971. There were declines in the proportion for 'other related' and 'non-related' members of households, although the decline was greater for the latter group than for the former.

Household relationship	1956	1961	1966	1971
Total	100.00	100.00	100.00	100.00
"Nuclear family" members	86.75	89.20	90.87	91.50
Head	24.73	25.29	26.17	28.30
Wife	19.84	20.02	20.25	20.87
Son or daughter	42.18	43.89	44.46	42.33
"Related" members	5.38	4.45	3.87	3.84
Son-in-law or daughter-in-law	0.59	0.45	0.32	0.31
Grandchild	1.15	1.07	0.87	0.77
Father or mother	0.84	0.53	0.46	0.52
Brother or sister	0.95	0.78	0.73	0.83
Father-in-law or mother-in-law	0.69	0.62	0.56	0.50
Brother-in-law or sister-in-law	0.56	0.47	0.44	0.40
Other relatives	0.60	0.53	0.48	0.50
"Non-related" members	7.87	6.35	5.26	4.66
Non-relatives	7.87	6.35	5.26	4.66

TABLE 3.8	Pe	rcentag	ge .	Distribution	of	Popul	ation	by
Relationship	to	Head	of	Household,	C	anada,	1956	-71

Sources: 1956 Census of Canada, Vol. I, Table 59; 1961 Census of Canada, Vol. II (Part 1), Table 99; 1966 Census of Canada, Vol. II, Table 94; and 1971 Census of Canada, Statistics Canada 93-712, Table 86.

**3.3.4** Trends in Family Headship – Table 3.9 presents the numerical and percentage distribution of family heads by marital status for all census years over the twenty-year period 1951 to 1971. This table indicates that there was an increase, between 1951 and 1966, in the percentage for married family heads, but a slight decline from 1966 to 1971. There were consistent decreases in the percentages of widowed family heads, gradual and consistent increases in the percentages that divorced heads made up of total heads, and increases in the percentages for single heads.

The data would seem to indicate that the husband-wife family form continues to be as 'popular' as ever. It is important to understand, however, that contributions to the maintenance of high and fairly stable percentages of married family heads have been made by a number of factors, in addition to the basic one, namely that most people get married nowadays. These factors include improvement in longevity, which means people live longer and families are less broken by death than heretofore; an increase in the re-marriage of persons whose previous marriages have been dissolved by death or by divorce; and very likely also the inclusion of heads of 'informal' or consensual unions as married heads.

Marital status of head	1951	1956	1961	1966	1971
Total family heads No.	3,287.4	3,711.5	4,147.4	4,526.3	5,070.7
P.C.	100.0	100.0	100.0	100.0	100.0
Married family heads <sup>2</sup> No.	3,055.8	3,477.4	3,908.8	4,266.4	4,753.2
P.C.	93.0	93.7	94.2	94.3	93.7
Widowed family heads No. P.C.	216.6	216.9	213.7	227.0	222.6
	6.6	5.8	5.2	5.0	4.4
Divorced family heads No. P.C.	10.1	12.3	15.6	22.1	57.9
	0.3	0.3	0.4	0.5	1.1
Single (never-married)heads. No.	4.8	4.8	9.3	10.8	37.0
P.C.	0.1	0.1	0.2	0.2	0.7

 TABLE 3.9 Numerical<sup>1</sup> and Percentage Distribution of Families by Marital Status of Head, Canada, 1951-71

<sup>1</sup>Numbers in thousands ('000).

 $^{2}$ Married family heads include husband-wife families, that is, those in which both spouses were present at the time of enumeration. There were: in 1951, 2,961,700; in 1956, 3,393,100; in 1961, 3,800,000; in 1966, 4,154,400;, and in 1971, 4,591,900 husband-wife families.

Sources: 1951 Census of Canada, Vol. III, Table 136; 1956 Census of Canada, Vol. I, Table 56; 1966 Census of Canada, Vol. II, Table 79; and 1971 Census of Canada, Statistics Canada 93-716, Table 34.

Insofar as widowed and divorced heads are concerned, another way of looking at the figures in Table 3.9 would be to group the data for widowed and divorced heads, in order to properly evaluate the impact of family dissolution by death *and* by divorce. When we look at the figures in this way, it becomes clear that the percentage of families dissolved by both death and divorce is less in 1971 than it was in 1951, and that in the total of heads whose families have been broken, death has decreased in importance, while divorce has become more important.

The increase in divorced and single heads over the twenty-year period for which figures are presented in Table 3.9, and in particular, the spectacular increase in their numbers over the decade 1961-71, deserves some comment. An abrupt rise in the percentage of brides and bridegrooms who were divorced occurred in 1969, undoubtedly due to the passing of Canada's new Divorce Act in 1968, and it can be expected that these percentages will continue to increase in the future. As regards the single heads of families, although this category makes up the smallest proportion of total heads, their numbers have increased nine-fold in twenty years, from about 4,800 in 1951 to about 37,000 in 1971. During the first ten years of this twenty-year period, the number of single heads of families almost doubled, but during the last ten years, their number quadrupled.

Comparable data for 'husband-wife' families (that is, those families in which the husband and wife are both at home), and all other families (that is one-parent families), are available from 1951 on. There was a consistent increase in the *proportion* of husband-wife families up to 1966, and a small drop in 1971. The role of the recent increases over 1966-71, in divorced and single heads most likely accounted for this decline.

Due to traditional Canadian census practices, which designate the husband, if present at home, as the 'head' of the family<sup>10</sup>, over 90 per cent of those reported as heads of census families have always been male. Female heads of families have always constituted less than 10 per cent of total heads. However, in each marital status category of *one-parent family heads*, female heads of families outnumber males, and hence constitute a higher percentage of the total in each of these marital status categories of one-parent families, as shown in Table 3.10.

Family heads by						
marital status and sex	1941	1951	1956	1961	1966	1971
Total family heads T.	100.0	100.0	100.0	100.0	100.0	100.0
М.	91.0	92.4	93.4	93.4	93.4	92.5
F.	9.0	7.6	6.6	6.6	6.6	7.5
Total one-parent family heads T.	100.0	100.0	100.0	100.0	100.0	100.0
М.	26.3	23.0	23.5	21.6	19.2	21.0
F.	73.7	77.0	76.5	78.4	80.8	79.0
Married T.	100.0	100.0	100.0	100.0	100.0	100.0
Married (wife absent) M.	25.5	21.9	29.2	25.4	21.9	24.1
Married (husband absent) F.	74.5	78.1	70.8	74.6	78.1	75.9
Widowed T.	100.0	100.0	0.001	100.0	100.0	100.0
М.	27.4	23.5	21.7	19.7	17.7	17.1
F.	72.6	76.5	78.3	80.3	82.3	82.9
Divorced <sup>1</sup> T.	100.0	100.0	0.001	100.0	100.0	100.0
М.	19.7	18.1	18.0	16.8	15.8	19.4
F.	80.3	81.9	82.0	83.2	84.2	80.6
Single (never-married) T.	100.0	100.0	100.0	100.0	100.0	100.0
	27.3	27.9	21.6	29.4	31.1	33.8
F.	72.7	72.1	78.4	70.6	68.9	• 66.2

TABLE 3.10 Percentage Distribution of Total Family Heads by Sex, and of One-Parent Family Heads by Marital Status and Sex, Canada, 1941-71

<sup>1</sup>Permanently separated are included with the divorced in 1941.

Sources: 1941 Census of Canada, Vol. I, Table X, p. 443; 1951 Census of Canada, Vol. III, Table 136; 1956 Census of Canada, Vol. I, Table 56; 1966 Census of Canada, Vol. II, Table 79; and 1971 Census of Canada, Statistics Canada 93-716, Table 34.

## 3.4 BIRTHPLACE, ETHNICITY AND RELIGION

Canada's population is heterogeneous with respect to birthplace, ethnicity and religion. The following discussion describes the 1971 distributions by birthplace, ethnicity and religion, reviews the changes over the last century, and comments on the recent regional differentiation. Owing to space limitations, some fundamental topics, such as age-sex differentials by ethnicity, are omitted.
**3.4.1** Canada's Population by Birthplace – In 1971, 3.3 million Canadians (15.3 per cent of the total population) were enumerated as foreign-born and the remaining 18.3 million (84.7 per cent) as native-born. Table 3.11 reveals that between 1871 and 1971 the proportion of the native-born fluctuated in the range of 78 to 87 per cent. The change from one census to another was generated by differences between the native-born and the foreign-born with regard to natality, mortality and migration.

Census year	Canada	Atlantic Provinces <sup>1</sup>	Québec	Ontario	Prairie Provinces	British Columbia
1871         1881         1891         1901         1901         1911         1921         1931         1941         1951         1961	83.3 86.1 86.7 87.0 78.0 77.8 77.8 82.5 85.3 84.4	89.3 92.2 93.8 94.8 93.9 93.3 93.2 94.4 96.6 96.5	93.4 94.4 94.5 94.6 92.7 92.0 91.2 93.3 94.4 92.6	72.8 77.8 80.9 85.2 79.9 78.1 76.6 80.6 81.5 78.3	97.5 72.9 70.9 66.2 51.3 59.3 63.4 71.5 77.1 80.9	72.2 58.0 55.8 43.1 50.3 54.0 62.7 70.9 74.0
1971	84.7	96.4	92.0	78.3	84.6	77.3

TABLE 3.11 Per cent of Native-Born Population, Canada and Regions, 1871-1971

<sup>1</sup>Excluding Newfoundland prior to 1951.

Sources: 1961 Census of Canada, Vol. VII (Part 1), Table 1, p. 7-27; and 1971 Census of Canada, Statistics Canada 92-760, Table 1.

The 1971 data also indicate marked regional differences with regard to the proportion of the native- and the foreign-born populations (Table 3.11). The Canadian-born component constituted more than 95 per cent of the population in the Atlantic region (as well as in each of the provinces of that region), while in Ontario and British Columbia the proportion was approximately 77 per cent. The Prairie region and Québec assumed intermediate levels of 85 per cent and 92 per cent, respectively. The 1971 figures are strongly affected by the regional distribution of the post-World War II immigration waves, which 'favoured' Ontario and British Columbia. Not surprisingly, the pattern of regional differentiation was different in the past. For example, in the 1911 Census, following the immigration to Canada's west during the first decade of this century, the lowest regional proportion of Canadian-born was displayed in British Columbia (43 per cent) and the Prairies (51 per cent). As one examined the other regions from west to east, the proportion of the native-born increased.

This was also the general trend in all the censuses from 1901 to 1951. The continuous attrition of the foreign-born due to mortality, and the increased attraction of immigrants to Ontario after World War II, changed this 'neat' geographic pattern. In the censuses of 1961 and 1971 the proportion of the foreign-born in Ontario exceeded that in the Prairie region.

The Canadian censuses also provide detailed data on the distribution by country of birth of the foreign-born. This distribution shows an important characteristic also common to the distributions by ethnicity and religion which will be discussed subsequently: the vast majority of the population was concentrated in a handful of categories. For example, the 1971 data by country of birth indicate that the seven largest groups, each comprising 100,000 persons or more, accounted for 69.1 per cent of the foreign-born. These groups included persons born in the U.K. (933,000), Italy (386,000), the U.S.A. (310,000), Germany (211,000), Poland (160,000), the U.S.S.R. (160,000) and the Netherlands (134,000). Other groups, consisting of 50,000 individuals or more, included (by order of size) Greece, Yugoslavia, Portugal, Hungary, China and France. (See graphical presentation of these data in Chart 3.4.)

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**3.4.2 Canada's Ethnic Groups** — The concept of ethnicity does not lend itself easily to operational definitions that are both meaningful in socio-cultural terms and clearly understood by enumerator and respondent. For the purpose of this review suffice it to note that the ethnicity item in Canadian censuses attempts to classify the population according to a combination of cultural-linguistic criteria, as traced through the male line of ancestors. Inasmuch as only major trends are cited, the effect of factors related to definition may be disregarded even in connection with intercensal comparisons.

The ethnic origins reported in 1971 (Table 3.12) may be divided into a class of 'large' groups (each comprising 6 million persons and over), a class of 'medium' groups (250,000 to 1,500,000) and a class of 'small' groups (less than 200,000). The first category, roughly accounting for three quarters of Canada's population, included the two 'founding ethnic groups', that is, the British (9.6 million persons, or 45 per cent of Canada's population) and the French (6.2 million, or 29 per cent). The 'medium' ethnic groups, comprising another 20 per cent of Canada's population were (by rank order) German, Italian, Ukrainian, Dutch, Scandinavian, Polish, Indian and Eskimo, and Jewish. The remaining 6 per cent of the population were divided among the many smaller ethnic groups. (See also Chart 3.4.)





Sources: 1971 Census of Canada, Statistics Canada 92-760, Table 1, Statistics Canada 92-723, Table 2 and Statistics Canada 92-724, Table 10.

1871-1971
Canada,
Group,
Ethnic
Selected
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Population
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Distribution (
Percentage
12
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TABLE

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1971	100.0	2 2 2 44.6 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	28.7 6.1 1.4 1.5 1.5 1.8 1.8 1.8 1.8 2.7 2.7 6.3
1961	100.0	43.8 23.0 9.6 10.4	30.4 30.4 3.8 3.8 3.2 3.2 3.2 3.2 1.2 9.2 9.2
1951	0.001	47.9 25.9 10.3 11.0	30.8 4.4 1.1 3 1.9 3 1.9 3 2.0 2.8 2.8 7.9 7.9
1941	100.0	49.7 25.8 11.0 12.2	30.3 4.0 1.5 1.5 2.1 2.6 2.1 2.6 1.1 4.5
1931	100.0	51.9 26.4 11.9 13.0	282 4.6 1.4 1.4 2.2 2.2 4.5 1.2 2.2 2.2 4.5
1921	100.0	55.4 29.0 12.6 13.4	27:9 3.4 0.8 1.4 1.4 1.3 1.3 1.3 1.3 1.3 4.8
1161	100.0	55.5 26.0 14.9 14.2	28.6 5.6 5.6 0.6 1.1 0.8 0.5 1.6 1.0 1.5 1.5 3.2 3.2
1901	100.0	57.0 23.5 18.4 14.9	30.7 5.8 5.8 5.8 0.2 0.6 0.1 0.1 0.1 0.1 0.1 2.4 2.2
1881	100.0	58.9 20.4 16.2	30.0 5.9 6.7 0.7 2.5 [:8]
1871	100.0	60.5 20.3 15.8 15.8	31.1 5.8 5.8 5.8 0.9 0.9 0.7
Ethnic group	Total	British Isles English Irish Scottish	French

<sup>1</sup>Data on ethnicity were not compiled in the 1891 census.

<sup>2</sup>Data for 1971 on the English, Irish and Scottish are published officially only as an aggregate for the British Isles. <sup>3</sup>Data for 1951 and 1961 on the Polish and Jewish groups are deleted because they are considered. by the author, to be unreliable.

Sources: 1961 Census of Canada, Vol. VII (Part 1), Table 1, p. 6-49; and 1971 Census of Canada, Statistics Canada 92-723, Table 2.

The changes over the last century in both Canada's immigration policies and the international trends concerning migration, have changed the ethnic map of Canada considerably. As seen in Table 3.12, the British group declined from 60 per cent of the Canadian population in 1871 to 55 per cent in 1921 and to 45 per cent in 1971. On the other hand, the combined proportion of the Italian, Ukrainian, Dutch and Scandinavian groups increased from about one per cent in 1871 to 10 per cent in 1971. Interestingly, the relative weights of the French and the English groups, as recorded recently, were close to those recorded in 1871. According to the census of that year, the proportion of the French was 31 per cent, and after fluctuating mildly the proportion was found to be 29 per cent in 1971; similarly, 20 per cent were reported in 1871 as English, compared with 23 per cent in 1961 (data on the English group for 1971 have not been published separately).

The 1971 geographic distribution of the various ethnic groups was marked by a high degree of concentration. The extreme examples were the Eskimo group, with 65 per cent residing in the Northwest Territories (compared with less than 0.2 per cent of Canada's total population residing in that area), and the French group, with 77 per cent residing in Québec (compared with 28 per cent of Canada's total population residing in that province). The majority of several other groups was concentrated in Ontario, albeit not to the extent displayed by the French in Québec. Noteworthy examples are the Yugoslavs (67 per cent), the Finnish (65 per cent), the Portuguese (65 per cent), the Italians (63 per cent), the Greeks (54 per cent), and the Hungarians (50 per cent). These figures should be compared with the proportion of Canada's total population in Ontario, 36 per cent.

It is also of interest to note that while the majority of the 1971 population in the Atlantic region, Ontario and British Columbia was British (76 per cent, 59 per cent and 58 per cent, respectively), and while the majority of the 1971 population in Québec was French (79 per cent), no one ethnic group constituted a majority in the Prairie region or in any of its provinces.

**3.4.3** Canada's Population by Religious Denomination – The distribution by religious denomination in Canada resembles the distributions by birthplace and ethnicity in that the vast majority of the population falls into a small number of groups. In 1971, according to Table 3.13 and Chart 3.4, three quarters of the population pertained to the three largest denominations, namely, Roman Catholic (10 million persons, or 46 per cent, United Church (3.8 million, or 18 per cent) and Anglican (2.5 million, or 12 per cent). A group of six 'medium' denominations (that is, denominations with 250,000 to 1,000,000 adherents) accounted for another 3.8 million persons, or 18 per cent. This group included, by rank order, Presbyterian, Lutheran, Baptist, Greek Orthodox and Jewish; also included was the 'no

religion' category, accounting for 4.3 per cent of the population. The remaining seven per cent of Canada's population were divided among numerous smaller denominations, for example, Adventist, Buddhist, Hutterite, Jehovah's Witnesses, Mennonite, Mormon, Pentecostal, Salvation Army, Ukrainian Catholic and Uniterian, to name a few of the denominations with more than 10,000 adherents.

The proportion of the population recorded as Roman Catholic in 1871 (43 per cent) was close to that recorded in 1971 (46 per cent). Similarly, for the Anglican denomination the proportions were 14 per cent in 1871 and 12 per cent in 1971. The United Church, for which data are available since the 1931 census, comprised 20 per cent in 1931 and 18 per cent in 1971. It appears that the overall change affecting the major groups has been slight.

Other denominations, on the other hand, have undergone dramatic changes. The Presbyterian denomination maintained a level around 16 per cent between 1871 and 1921, but subsequent censuses indicated a consistent decline to the 4 per cent level recorded in 1971. The proportion of the Lutheran denomination, on the other hand, climbed from about one per cent in 1871 to almost four per cent in 1931 and fluctuated subsequently between three per cent and four per cent. Several groups that had a negligible population in 1871, or even half a century later, exceeded the half per cent mark in 1971; for example, the Jewish and Greek Orthodox denominations were virtually non-existent in 1871, while in 1971 the proportion of Canada's population in each exceeded one per cent.

The major determinants of these changes are differential fertility by religious group, change of affiliation and differential immigration. A quantitative statement concerning the relative contribution of each of these factors over the last century is beyond the scope of the present paper. Suffice it to note here that differential fertility is considered an important contributor to the absolute and relative increase in groups such as the Mennonites, Hutterites and Roman Catholics. The addition of new adherents is considered a significant contributor to the absolute and relative increase in denomination such as Jehovah's Witnesses. Immigration, however, is apparently the decisive factor in the interpretation of the data for most of the principal denominations. For example, the considerable growth of the Anglican denomination between 1901 and 1921 is attributed to the relatively heavy immigration from England during that period. Similarly, the immigration of Jews from Russia and Poland during the same period explains the growth of the Jewish denomination. The post-war immigration from predominantly Roman Catholic countries (Italy, Portugal, etc.), to cite another example, has contributed to the recent increase in the proportion of the Canadian population enumerated as Roman Catholic.

ted Religious Denomination <sup>1</sup> ,	
entage Distribution of Population by Selectu	Canada, 1871-1971
TABLE 3.13 Perce	

Religious denomination	1871	1881	1891	1061	1161	1921	1631	1941	1951	1961	1971
											-
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.001	100.0	100.0
man Catholic	42.9	41.9	41.6	41.7	39.4	38.7	39.5	41.8	43.3	45.7	46.2
ted Church <sup>2</sup>	1	]	I	I	]	Ι	19.5	19.2	20.5	20.1	17.5
dican	14.1	13.6	13.7	12.8	14.5	16.1	15.8	15.2	14.7	13.2	11.8
religion 3	:	:	:	:	;	0.2	0.2	0.2	0.4	0.5	4.3
sbyterian	16.2	15.8	15.9	15.8	15.6	16.1	8.4	7.2	5.6	4.5	4.0
heran	1.1	1.1	1.4	1.8	3.2	3.3	3.8	3.5	3.2	3.6	3.3
tist	6.8	6.9	6.4	5.9	5.3	4.8	4.3	4.2	3.7	3.3	3.1
ek Orthodox	I	i	I	1	1.2	1.9	1.0	1.2	1.2	1.3	1.5
ish	1		I	ł	1.0	1.4	1.5	1.5	1.5	1.4	1.3
others	18.9	20.7	21.0	22.0	19.8	17.5	6.0	6.0	5.9	6.4	7.0

<sup>1</sup>The religious denominations in this table are listed according to their 1971 rank order. <sup>2</sup>Established in 1925. <sup>3</sup> No religion' was specified as a separate category on the census questionnaire for the first time in 1971.

Sources: 1961 Census of Canada, Vol. VII (Part 1), Table 1, p. 11-22; and 1971 Census of Canada, Statistics Canada 92-724, Table 10.

Two other facts should be borne in mind concerning the interpretation of intercensal changes by religious denomination in Canada. Firstly, the United Church of Canada was established in 1925 and comprised the adherents of the Congregationalist and Methodist denominations, as well as part of the Presbyterian. This fact also explains the decline of the Presbyterian group from 16 per cent in 1921 to 8 per cent in 1931. Secondly, to a certain extent the changes between 1941 and 1951 are explained by the religious composition of the population of Newfoundland (which joined Canada in 1949). Thus, the 1941 census recorded 33,600 adherents of the Salvation Army, compared with 70,300 in 1951. The difference amounts to 36,700 persons, of whom 28,000 are accounted for by Newfoundland.

The geographic distribution of the religious denominations, like that of the ethnic groups, showed considerable concentration in 1971. The Roman Catholic group, 52 per cent of which resided in Québec, and the Presbyterian group, 62 per cent of which resided in Ontario, are examples of denominations with a majority concentrated in a single province. While these are indeed extreme cases, there are numerous examples of geographical 'preferences' on a smaller scale. Ontario, in particular, was the province of residence of 48 per cent of the Anglican, 45 per cent of the Jewish, and 45 per cent of the United Church denominations (compared with 36 per cent of the total population residing in Ontario).

#### 3.5 EDUCATION

In Canada, education is under provincial jurisdiction and each province is responsible for setting up its own system. There are many provincial differences. In the interest of space this section will concentrate on the Canada-level trends; however, the bibliography contains several recent studies on regional differences in enrolment for the interested reader.

**3.5.1** School Attendance and Enrolment – Table 3.14 shows that in 1921 just under half the population 5 to 24 years of age was attending school in Canada. By 1961, the percentage of school age population attending school had risen to 66 per cent. By 1971, however, the percentage of this age group attending school began to level off at 68 per cent.

The high birth rates of the 1950's and early 1960's, the heavy immigration to Canada in that period as well as provincial legislation which compelled students to remain longer in school all combined to account for the dramatic increase in school attendance in the post-war period.

Age group	19211	19311	19411	1951	1961	1971
5-24 years	49.3	51.9	50.5	52.2	65.6	67.6

#### TABLE 3.14 Per Cent of the Population 5-24 Years of Age Attending School, Canada, 1921-71

Excluding Newfoundland, Yukon and Northwest Territories.

Sources: 1961 Census of Canada, Vol. III (Part 1), Table III, p. 10-5 and Table IV, p. 10-8; and 1971 Census of Canada, Statistics Canada 92-716, Table 4 and Statistics Canada 92-720.

From 1951-52 to 1961-62 the number of children enrolled in elementary schools swelled by nearly 60 per cent from 2.2 million to 3.5 million, corresponding to the high birth rates during that period<sup>11</sup>. The following ten years witnessed a marked slow down in the rate of growth of enrolment in elementary schools, mainly as a result of the dramatic declines in the birth rate. The enrolment only grew by 20 per cent or by 700,000 between 1961-62 and 1970-71 (Zsigmond and Wenaas, 1970, pp. 90-91 and Statistics Canada 81-229, 1973, p. 90). As the provinces legislated longer compulsory education, enrolment of persons in elementary school as a percentage of persons in the 5 to 13 year age group grew from 96 per cent to over 100 per cent between 1951-52 and 1970-71<sup>12</sup>. (See Table 3.15.)

Secondary school enrolment has also increased significantly in the post-war period. Between 1951-52 and 1961-62 secondary enrolment increased from almost 395,000 to 895,000, an increase of 127 per cent. During the next ten years there was a further absolute increase of some 755,000 students. Secondary enrolment as a percentage of the population 14 to 17 years old grew from a mere 46 per cent to nearly 98 per cent between 1951-52 and 1970-71 (see Table 3.15).

Post-secondary school enrolment grew by leaps and bounds during the 1951-52 to 1970-71 period. At the beginning of this period there were only 90,000 students enrolled, but by 1961-62 enrolment at this level of schooling had increased by slightly over 100 per cent to 180,000. A further increase of 160 per cent occurred by 1970-71, bringing total enrolment to over 475,000 students. As a percentage of the population 18 to 24 years old, the per cent enrolled in post-secondary education increased from 6 per cent in 1951-52 to 18 per cent in 1970-71, a three-fold increase (see Table 3.15). It may be assumed from this increase that Canadians are putting a higher value on post-secondary education as it becomes more accessible to them.

TABLE 3.15 Full-Time Enrolment by Level of Education as a Percentage o	ſ
Relevant Age Groups, <sup>1</sup> Canada, 1951-52 to 1970-71	

Academic year	Total elementary	Secondary	Total post- secondary
	5-13 years <sup>2</sup>	14-17 years	18-24 years
1951-52	96.4	46.4	6.0
1956-57	97.2	56.2	7.1
1961-62	97.7	72.0	10.6
1966-67	100.8	87.8	14.2
1970-71	101.6	97.8	18.1

<sup>1</sup>These percentages are computed by taking the enrolment population in the academic year, which begins in September, and dividing it by the census population or intercensal estimates for June 1 preceding that academic year.

<sup>2</sup>Most of the children in elementary school are in the 5-13 year age group. However the data are not cross-classified by age and level of schooling. Therefore children younger and older than the extremes of the age group are counted in the enrolment figures but not in the population figures; hence the per cent may exceed 100.

Sources: Zsigmond and Wenass, 1970, Table A-3; and Education in Canada, Statistics Canada 81-229, Tables 2 and 3.

During the post-war period Canada has witnessed spectacular growth in full-time enrolment at all three levels of education. However if present demographic trends continue into the future, it is expected that elementary school enrolment will begin to taper off through the 1970's, secondary school enrolment will peak in the mid-1970's, post-secondary school enrolment will continue to grow throughout this decade.

**3.5.2** Educational Attainment of the Out-Of-School Population – The educational attainment of the population not attending school is an important indicator of the socio-economic composition of the population. However, comparable census data by age and level of schooling are not readily available prior to 1961.

Table 3.16 shows, for example, that the percentage of the out-of-school population in the age group 15-64 (which roughly corresponds to the labour force population) with elementary education dropped markedly from 42.5 to about 32 per cent between 1961 and 1971. Another major highlight of this table is the increase in the percentage of the out-of-school population with some university or a university degree. This percentage increased from 6.4 to 10.7 per cent in the 1961-71 period.

			Highest	level of sc	hooling	
Age group and census year	Total ('000)	No schooling	Elemen- tary	Secon- dary	Some univer- sity	Univer- sity degree
15 years of age and over	11,407	1.6	45.2	47.I	3.1	3.0
	13,168	1.8	35.4	53.0	5.2	4.7
15-64 years1961	9,659	1.1	42.5	50.0	3.3	3.1
1971	11,430	1.2	31.9	56.2	5.6	5.1

 TABLE 3.16 Percentage Distribution of the Population 15 Years of Age and

 Over and 15-64 Years of Age Not Attending School, by Highest Level of Schooling,

 Canada, 1961 and 1971

Sources: 1961 Census of Canada, Vol. VII (Part 1), Table XVII, p. 10-28; and 1971 Census of Canada, Statistics Canada 92-743.

Among the out-of-school population 15 years of age and over, the percentage of females with a university degree increased from 1.7 to 2.9 per cent between 1961 and 1971. The percentage of out-of-school males with a university degree was 4.2 per cent in 1961 and 6.5 per cent in 1971 (1961 Census of Canada, Vol. I (Part 2), Table 72 and 1971 Census of Canada, forthcoming data).

The general indication from these trends is that the rate of improvement in the educational quality mix of our population is continuing and should continue into the near future, given the present and expected increases of university and other post-secondary enrolment.

		•				
			Highest	level of sc	hooling	
Area and census year	Total , ('000)	No schooling	Elemen- tary	Secon- dary	Some univer- sity	Univer- sity degree
Canada 1961 1971	11,407 13,168	1.6 1.8	45.2 35.4	47.1 53.0	3.1 5.2	3.0 4.7
Newfoundland1961 1971	241 281	5.5 4.2	52.7 44.8	38.6 44.7	2.4 4.3	0.8 2.0
Prince Edward Island	61 65	0.9 1.4	47.0 40.7	47.7 49.0	2.9 5.9	1.5 3.0
Nova Scotia	438 470	1.5 1.5	40.7 34.0	52.7 55.8	2.8 4.7	2.3 4.0
New Brunswick	336 367	2.7	53.9 44.6	38.8 45.2	2.8 4.3	1.8
Québec	3,118	1.0	54.2	39.2	2.6	3.0
Ontario 1961	3,895	1.1	42.7	50.0	2.8	3.4
1971 Manitoba1961	4,766 569	2.9	40.4	50.5	3.6	2.6
1971 Saskatchewan	610 554	2.7 3.1	34.1 46.7	53.7 45.1	5.1 3.1	4.4 2.0
1971	558	3.1	38.0	49.9	5.6	3.4
Alberta 1961 1971	785 958	2.0 2.0	37.5 26.4	53.3 60.5	4.1 5.8	3.1 5.3
British Columbia1961 1971	1,027 1,385	1.5 1.7	32.1 24.6	58.0 61.9	5.1 6.9	3.3 4.9
Yukon	9 11	5.6 4.1	31.6 22.1	54.8 62.6	5.4 7.1	2.6 4.1
Northwest Territories	13	36.0	27.5	30.8	3.3	2.4
1971	10	23.2	27.2	50.7	5.0	4.0

#### TABLE 3.17 Percentage Distribution of the Population 15 Years of Age and Over Not Attending School, by Highest Level of Schooling, Canada and the Provinces, 1961 and 1971

Sources: 1961 Census of Canada, Vol. VII (Part 1), Table XIII, p. 10-23; and 1971 Census of Canada, Statistics Canada 92-743.

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### **CHAPTER FOUR**

### **REGIONAL POPULATION GROWTH AND DISTRIBUTION**

by

#### M.V. George

Population growth in a country generally varies widely among its geographic divisions and types of community of residence such as urban and metropolitan areas, resulting in shifts in the geographic distribution of the national population. The regional growth variations are due to differences in the components of growth, namely, births, deaths and migration (internal and international migration, if the population is not 'closed'). These in turn are influenced by various socio-economic, geographic, cultural and political factors. An attempt is made here to investigate briefly the interprovincial and rural/urban variations in the growth and distribution of population over time and to describe them in terms of their components. Special emphasis is given to the influence of internal migration on differential growth and distribution from the latter half of the 19th century to 1971.

#### 4.1 LONG-RUN TRENDS IN THE PROVINCIAL DISTRIBUTION AND GROWTH OF POPULATION

Considerable redistribution of population among the regions and provinces of Canada has taken place since the first settlement (see Tables 4.1 to 4.3). Almost all the population of 1851 was concentrated in Eastern and Central Canada (the Maritime provinces, Québec and Ontario). Since then the Maritime provinces have had a progressively smaller proportion of the total population. Québec and Ontario received most of the shift from Eastern Canada, registering a progressively higher share of the total population until the beginning of the westward movement in the second decade of this century. Population records of Saskatchewan and Alberta are not available before 1901, but it is believed that they had only some sparse settlement before this date (Camu, Weeks, and Sametz, 1964, Table 3.4). The rapid population growth of the Prairies after 1901 reflected the great expansion of agriculture in Canada. The growth rates for each province for each decade, between 1851 and 1971, presented in Table 4.1 reveal the time pattern of redistribution outlined in the foregoing remarks.

					Percentag	e change					
Ť	51 1861-71	1871-81	1881-91	-1681 -1901	1901-11	1911-21	1921-31	1931-41	1941-51	1951-61	1961-71
0	.6 14.2	17.2	11.8	1.11	34.2	21.9	18.1	9.01	21.8	30.2	18,3
	:	:	:	:	:	:	:	:	:	26.7	14.0
6	.02 16.3	15.8	0.2	- 5.3	- 9.2	- 5.5	- 0.7	8.0	3.6	6.3	6.7
6	.5 17.2	13.6	2.2	2.0	7.1	6.4	- 2.1	12.7	11.2	14.7	7.0
0	.1 13.3	12.5	0.0	3.1	6.3	10.2	5.2	12.0	12.7	15.9	6.1
- 17	.9 7.2	14.1	9.5	10.8	21.6	17.7	21.8	15.9	21.7	29.7	14.6
S C	.6 16.1	18.9	9.7	3.2	15.8	16.1	17.0	10.4	21.4	35.6	23.5
	;	146.8	145.0	67.3	80.8	32.2	14.8	4.2	6.4	18.7	7.2
	:	:	:	:	439.5	53.8	21.7	- 2.8	- 7.2	11.2	0.1
	:	:	:	;	412.6	57.2	24.3	8.8	18.0	41.8	22.2
9	.3 – 29.7	36.4	98.5	82.0	119.7	33.7	32.3	17.8	42.5	39.8	34.1
	<b>m</b>	17.6	75.3	- 79.7	- 68.2	- 18.1	9.2	20.0	32.5	33.3	29.3
1											

TABLE 4.1 Percentage Change in Population, Canada and the Provinces, 1851-1971

<sup>1</sup>Including the population of Newfoundland in 1951 but not in 1941; excluding Newfoundland in both years the rate amounted to 18.6 per

cent.

<sup>2</sup>The 1851 figure relates to 1848.

<sup>3</sup>Rates not calculated for these decades.

Sources: 1941 Census of Canada, Vol. I, Ch. I, Table II; 1961 Census of Canada, Vol. I (Part 1), Table 1; and 1971 Census of Canada, Statistics Canada 92-702, Table 1.

Province			Populati	on( '000	))	
Tornee	1951	1950	5 19	961	1966	1971
Canada	14,00	9 16,0	)81 1	8,238	20,015	21,568
Newfoundland Prince Edward Island Nova Scotia New Brunswick Québec Ontario Manitoba Saskatchewan Alberta British Columbia Yukon and Northwest Territories	36 9; 64; 4,05; 4,59; 77; 83; 94; 1,16; 2	1     2       8     3       6     4       7     8       2     8       0     1,1       5     1,2	415         99         595         555         528         405         350         381         123         398         32	458 105 737 598 5,259 6,236 922 925 1,332 1,629 38	493 109 756 617 5,781 6,961 963 955 1,463 1,874 43	522 112 789 635 6,028 7,703 988 926 1,628 2,185 53
		Percentag	ge change		Averag growt (per	e annual h rate <sup>1</sup> cent)
	1951-56	1956-61	1961-66	1966-7	1 1951-71	1966-71
Canada	14.8	13.4	9.7	7.	8 2.2	1.5
Newfoundland Prince Edward Island Nova Scotia New Brunswick. Québec Ontario Ontario Manitoba Saskatchewan Alberta British Columbia Yukon and Northwest Territories.	14.8 0.9 8.1 7.5 14.1 17.6 9.5 5.9 19.5 20.0 25.5	10.3 5.4 6.1 7.8 13.6 15.4 8.4 5.1 18.6 16.5 19.4	7.8 3.7 2.6 3.2 9.9 11.6 4.5 3.3 9.9 15.0 14.6	5. 2. 4. 10. 2. - 3. 11. 16. 23.	8         1.9           9         0.6           4         1.0           9         1.0           3         2.0           7         2.6           6         1.2           0         0.5           2         2.8           6         3.2           4         3.8	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

#### TABLE 4.2 Population and Percentage Change in Population Canada and the Provinces, 1951-71

<sup>1</sup>See Table 1.1, footnote<sup>1</sup> for method of calculations.

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Sources: 1966 Census of Canada, Vol. I, Table 1; and 1971 Census of Canada, Statistics Canada 92-702, Table 1.

1851-1971
Province,
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TABLE

Province	1851	1861	1871	1881	1891	1061	1161	1921	1691	1941	1951	1961	1791
Canada	100.0	0,001	0.001	100.0	0.001	100.0	0.001	100.0	0.001	100.0	100.0	100.0	0.001
Newfoundiand	:	:	:	:	:	:	:	:	:	:	2.6	2.5	2.4
Prince Edward Island	2.6	2.5	2.6	2.5	2.3	1.9	1.3	U'I	0.8	0.8	0.7	9.0	0.5
Nova Scotia	11.4	10.2	10.5	2.01	£.9	8.6	6.8	6.0	4.9	5.0	4.6	4.0	3.7
New Brunswick	8.0	7.8	7.7	7,4	6.6	6.2	4.9	4 4	3.9	4.0	3.7	3.3	6.5
Québec	36.5	34.4	32.3	31.4	30.8	30.7	27.8	26.9	27.7	29.0	29.0	28.8	28,0
Ontario	39.1	43.2	43.9	44.6	43.7	40.6	35.1	33.4	33.1	32.9	32.8	34.2	35.7
Manitoba	:	:	0.7	1.4	3,1	4.7	6.4	6.9	6.8	6.3	5.5	5.1	4.6
Saskatchewan	:	;	:	:	:	1.7	6.8	8.6	6.8	7.8	5.9	5.1	4.3
Alberta	:	;	:	:	:	<u>7</u>	5.2	6.7	7.1	6.9	6.7	7.3	7.6
British Columbia	2.2	1.6	0.1	2	5.1	3.3	5.5	6.0	6.7	1.7	8.3	8,9	10.1
Yukon and Northwest Territories	0.2	0.3	1.3	F.1	2.1	0.9	0.2	0.1	0.1	0.2	0.2	0.2	0.2

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Source: Same as Table 4.1.

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Except Nova Scotia and New Brunswick in 1931-41 and Nova Scotia and Prince Edward Island in 1861-71, the Atlantic provinces had lower growth rates than Canada in all the decades. These provinces, where the first settlement took place, experienced high out-migration as other provinces in Central and Western Canada developed. Québec grew faster than the country only in 1921-31 and 1931-41. Ontario had higher rates than Canada only before 1881 and after 1951. Barring 1851-61 and 1861-71 British Columbia had growth rates higher than the national rate in all the decades. Alberta had growth rates higher than the national rate in all decades except 1931-41 and 1941-51. Western provinces, particularly British Columbia had growth rates twice as high as the nation in a number of decades. However, the extremely high growth rates shown for some areas in the earlier periods are a function of very small population sizes.

**4.1.1 Population Redistribution** — The effects of the variations in population growth rates can be seen in the changing distribution of population among the provinces. Table 4.3 and Chart 4.1 present the changing provincial distribution of population from 1851 to 1971. Table 4.3 shows that Ontario and Québec are the most populous provinces of Canada, containing 75.6 per cent of the total population in 1851, 71.3 per cent in 1901 and 63.7 per cent in 1971. These two provinces contained over 70 per cent of the total population in the whole period between 1851 and 1901. The heavy concentration of population in the two provinces dropped by about eight percentage points between 1901 and 1911; but since 1911 these provinces have tended to maintain a fairly constant share of about 60 to 63 per cent of Canada's population. Québec registered a decline in its population share in 1961 and 1971.

In the 1901-11 decade, there was a spectacular rise in the proportion of the population in the four Western provinces, from 11.1 per cent to 23.9 per cent. These provinces continued to gain until 1931 when their share of Canada's population became 29.5 per cent. Since 1931 there has been a steady drop in their share caused mainly by a reduction in the percentage of the national population in Manitoba and Saskatchewan. Saskatchewan's population registered an absolute decline between 1966 and 1971. British Columbia had a steady increase in its population share from 1871 to 1971. Alberta, after a reduction in 1941 and 1951, showed a gain in 1961 and 1971. Thus, in recent decades there was a westward shift in the population of Canada, particularly to British Columbia and Alberta.



Source: Table 4.3.

Unlike the other provinces, the Maritimes (Prince Edward Island, Nova Scotia and New Brunswick) experienced a steady decline in their share of Canada's population, declining from 22.0 in 1851 to 7.1 per cent in 1971. Newfoundland has also had a steady decline in its share of Canada's population since it has become a part of Canada, from 2.6 per cent in 1951 to 2.4 per cent in 1971. As will be seen later, the decline in the population share of the Atlantic provinces may be attributed to the steady net outflow of people from there to the more prosperous Central Canada.

# 4.2 COMPONENTS OF POPULATION GROWTH IN THE PROVINCES

The foregoing analysis has shown that the rates of population growth in the provinces of Canada were changing, and the proportions of the national increase were shifting among the provinces during the 120 years from 1851 to 1971. These changes reflected a variety of factors such as the changing rates of natural increase, the transition from an agricultural to industrial economy, the direct and indirect effects of immigration and the flows of internal migration mainly in response to changing regional economic opportunities. This section attempts to examine the relative contribution of natural increase and net migration (internal and international migration) on provincial variations in population growth and distribution.

4.2.1 **Relative Contribution of Natural Increase and Net Migration to Provincial Population Growth** – As in the national population change, both natural increase and net migration have contributed to intercensal population change in the provinces. Vital Statistics and migration data are not available to decompose the components of growth for each province for the early periods. The analysis here is, therefore, confined to the period between 1931 and 1971 for which relevant data are available. Table 4.4 gives the rates of the components of decennial intercensal growth for the period concerned. The data given are obtained from two sources. For the decades 1931 to 1961, the rates are derived from the estimates by M.V. George 1970, Table 4.4. The estimates of interprovincial net migration given are the sum of the separate intercensal net migration estimates of the Canadian-born and foreign-born populations, and the estimates of natural increase are derived by subtracting the intercensal net migration from the total intercensal increase of population. The estimates for 1961-71 are obtained on the basis of birth and death statistics. The interprovincial net migration estimates here are derived by subtracting the natural increase from the total increase of population 1961-71. The data for 1931-61 are, therefore, not strictly comparable with those for 1961-71; but it is assumed that the difference in the estimation procedure will have little effect on the estimates of natural increase and net migration.

TABLE 4.4 Rates of Natural Increase, Net Migration and Total Population Increase,	Canada and the Provinces, 1931-41 to 1961-71	(Rate per 1,000 average population of the decade)
---	--	---

		Total in- crease		167	132	65	68	59	136	,210	70	۲.	200	162		343	1 92-702,
	1961-71	Net migra- lion		36	- 90	- 62	- 59	- 85	4	86	- 55	- 136	38	190	_	46	cs Canada
		Natural in- crease		131	222	127	127	144	132	124	125	137	162	101		297	la, Statisti
		Total in- crease	-	262	235	61	137	148	258	302	171	106	345	332		399	of Canad
	1951-61	Net migra- tion	 1	64	- 29	- 96	- 46	- 49	36	123	I	- 80	109	160		96	71 Census
e decade)		Natural in- crease		861	265	157	183	196	222	180	171	186	236	172		304	7; and 197
tion of th		Total in- crease		170	:	35	106	119	196	661	62	- 74	165	350		383	. 14, 1967
çe populat	1941-51	Net migra- tion		24	;	- 86	- 72	- 64	0	76	- 54	- 181	26	236		177	ndum No
(Rate per 1,000 avera		Natural in- crease		146	:	121	177	184	194	117	116	107	139	114		211	Memora
	1931-41	Total in- crease		103	:	17	119	114	147	66	41	- 28	84	163	-	223	Technical
		Net migra- líon		-	:	- 28	10	18	×	27	- 53	- 155	- 47	118		66	Fleming,
		Natural in- crease		104	:	105	109	132	139	72	94	126	132	46		124	Table 44;
		Province		Canada	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Québec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest	Territories	Sources: George, 1970. Table 1.

Table 4.4 shows substantial differences among the provinces in level and direction of natural increase and net migration. These differences have been responsible for the variations in the growth rates among the provinces and the consequent changes in the distribution of national population observed earlier. In all the provinces except British Columbia natural increase has been the dominant factor of population growth. None of the provinces lost population as a result of natural increase during 1931-71. Also, except in British Columbia for 1931-41, 1941-51 and 1961-71, net migration gains in the provinces did not exceed natural increase in any of the decades. The different pattern for British Columbia may be attributed to a combination of relatively high in-migration and low natural increase as a result of relatively low birth rates.

In 1961-71 Québec, Ontario, Alberta, British Columbia and Yukon and Northwest Territories were the only provinces to gain from net migration. However, there was a marked decline in the natural increase rates in all the provinces for the period 1961-71 which reflected the sharp fall in the birth rate during this period. In Saskatchewan the total growth rate was close to zero despite a natural increase of 127,000 in the last decade.

Correlation analysis shows that the association is much higher between rates of population growth and rates of net migration than between rates of population growth and natural increase. Thus migration has been the dominant factor in redistributing the population of Canada among provinces.

Internal Migration and Interprovincial Population Redistribution — 4.2.2 The contribution of migration to population growth and redistribution shown in the preceding section represents the combined effects of internal and international migration. However, the volume and effects of internal migration on Canada's population growth and distribution have been more significant than that of international migration, especially since 1901. In Canada, internal migration may be characterized by three predominant movements: (1) from East to West; (2) from the farms to the urban areas; and (3) between towns, particularly directed towards metropolitan areas. Paucity of pertinent data on internal migration in Canada has been a major deterrent for the analysis of this phenomenon. Until the 1961 census, the main sources of data for migration analysis were the data on place of birth by residence and the indirect estimates of intercensal net migration derived from residual methods. In 1961, an extraordinary mass of time-oriented data on migration became available making possible the study of levels and patterns of various types of migration, such as interregional, interprovincial, intraprovincial, intramunicipal and rural-urban migration. Such data have been collected in the 1971 census, but the migration tabulations are not yet released for analysis. The aim of this section is to indicate the salient patterns of internal migration in Canada using mainly the life-time migration estimates for the

period 1956-61. The 1961 census data refer to persons five years of age and over (omitting multiple moves and movers who had returned to their 1956 place of residence prior to June 1, 1961), and therefore do not give the total migration (see Stone, 1969, Appendix B).

The total number of persons residing outside the province of their birth at each Canadian census measures the extent of the interprovincial mobility of the population, giving a historical perspective of migration in Canada. Such data do not include migrants who returned to their province of birth, and thus provide only minimal counts of the survivors of life-time interprovincial migrants. The proportion of Canadian-born interprovincial life-time migrants in Canada was 12.3 per cent in 1961. The overall trend in the proportion of interprovincial migration in Canada since 1901 is upward, from 6.7 per cent in 1901 to 12.3 per cent in 1961.

Undoubtedly, the total mobility of population is much more than observed above based on place of birth by residence data. During 1956-61, 6.5 million or 42.4 per cent of the total population aged five years and over in 1961 changed residence within Canada. Of the total movers, about 60 per cent moved within the same municipality, 32 per cent moved within the same province, and 8 per cent moved between provinces.

Table 4.5 gives the amounts and rates of interprovincial migration of the total population (Canadian-born and foreign-born together) for the quinquennial periods 1956-61, 1961-66 and 1966-71. It should be noted that the estimates for the period 1956-61 and for the other two periods are not strictly comparable. The former are from the 1961 migration data for the population five years of age and over and the latter are based on the annual interprovincial migration estimates by Statistics Canada (Perreault, 1972, pp. 21-31). The quinquennial estimates are obtained by summing the annual estimates. The comparison of migration estimates between the 1956-61 period and the other two periods should, therefore, be done with caution. It is expected, however, that the data presented in Table 4.5 would help in identifying the changes in the pattern of migration and the gaining and losing provinces, as a result of migration, in the most recent periods.

The net migration estimates show that during the 1956-61 period, only three provinces – Ontario, Alberta and British Columbia – gained by internal migration. In terms of volume and rate, British Columbia had the highest gain followed by Ontario and Alberta. The net loss was highest in Saskatchewan followed by Nova Scotia and Manitoba. The pattern of interprovincial net migration in the next two five-year periods according to the annual estimates of migration, was almost similar to that of the preceding five-year period. In the two periods after 1961, British Columbia continued to exert the strongest pull with the highest net migration gain, followed by Ontario.

	Rate per 1,000 population in 1971	
1966-71	Net migration ( '000 )	- 14 - 23 - 23 - 107 - 124 - 124 - 82 - 82 - 21 - 21 - 33 - 33
	Total population in 1971 (*000)	522 112 789 635 6,028 7,703 7,703 7,703 7,703 7,703 2,185 2,185 53
	Rate per 1,000 population in 1966	- 22 - 23 - 49 - 32 - 34 - 10 - 10 - 76
1961-66	Net migration ('000)	- 11 - 2 - 37 - 37 - 4 - 33 - 42 - 142 - 142 - 100
	Total population in 1966 ('000)	493 493 756 617 5,781 6,961 963 963 1,874 1,874 1,874
	Rate per 1,000 population in 1961	- 11 - 11 - 11 - 11 - 1 - 18 - 18 - 18 -
1956-61 <sup>1</sup>	Net migration ('000)	
	Total population in 1961 ('000)	377 88 615 497 4,379 5,303 775 1,100 1,100 1,365
	Province	Newfoundland

TABLE 4.5 Amounts and Rates of Interprovincial Net Migration in Canada, 1956-61 to 1966-71

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<sup>1</sup>The 1961 figures refer to persons aged five and over in 1961.

Sources: George, 1970, Table 5.11; and Perreault, 1972, pp. 21-31.

From a predominantly rural background Canada has emerged as one of the world's most urbanized countries with 76.1 per cent of the population urban in 1971. On a global level, its present level of urbanization is reported to be the 10th highest recorded for countries with 2 million population and over (United Nations, Demographic Year Book, 1971, Table 5). This rapid transition from rural to urban reflects Canada's transformation from a primarily agricultural society into a highly urbanized and industrial one. Because of the changes in the definition of urban and rural population in the censuses, there are problems for the measurement of urban growth and population shifts from rural to urban areas over time<sup>13</sup>. However, the available data are adequate to study the overall trends in urban and rural population.

Before embarking on a statistical analysis of urban growth, the first thing to be settled is the census definition of urban which has undergone changes. Such changes were desirable for collecting meaningful data on urban population consistent with the changing times and conditions. In Canada the census definition of urban changed in 1951, 1956 and 1961. The 1961 census definition is the most satisfactory among the definitions so far adopted, and so the data used for analysis here are based on it. According to this definition, urban areas are comprised of (1) incorporated cities, towns and villages of 1,000 population and over (CTVs), (2) unincorporated towns and villages of 1,000 population and over, and (3) unincorporated suburbs adjacent to CTVs of 5,000 population and over with a population density of at least 1,000 persons per square mile (Stone, 1967, p. 222). The remainder constitutes the rural areas. The rural areas are further classified into rural non-farm and rural farm in the censuses of 1931 and later. A 'farm' for census purposes is defined as an agricultural holding of one or more acres with sales of agricultural products of \$50 or more in the previous years. All persons living on such holdings in rural areas are classed as 'rural farm' regardless of their occupation. The remainder of the rural areas constitutes the rural non-farm areas (1966 Census of Canada, Bulletin S-401, p.21). In the following discussion, the term 'urbanization' is used to refer both to the urban proportion and to an increase in this proportion (Davis, 1965, pp. 40-53). Thus, in order to become more urbanized during any period, the urban population must grow faster than the rural population.

**4.3.1** Historical Growth of Canada's Urban and Rural Population – In 1851 only about 13 per cent of the population was urban; nearly 87 per cent was rural. During each decade between 1851 and 1971, the urban population has grown much faster than the rural. In the periods 1941-51 and 1961-71, the rural population registered a decline; the decline in the latter decade was seven times greater than in the previous decade. Among the two categories of rural population (farm and non-farm), the farm segment has been

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TABLE

Vear	Per cent popul	of total ation	Ind o urbaniz	ex f ation <sup>2</sup>		ercentage change 1 population over oreceding decade	
	Urban	Rural	"Conven- tional"	"Modi- fied"	Total	Urban	Rural
1851	13.1	86.9	;	:	I	:	:
1861	15.8	84.2	20.6	3.1	33	62	28
1871	18.3	81.7	15.8	2.9	13	31	10
1881	23.3	76.7	27.3	6.1	17	50	01
	29.8	70.2	27.9	8.5	11	42	2
	34.9	65.1	17.1	7.3	12	32	4
	41.8	58.2	19.8	10.6	35	62	21
1921	47.4	52.6	13.4	9.6	22	34	13
1931	52.5	47.5	10.8	9.7	18	31	2
1941	55.7	44.3	6.1	6.7	11	18	ŝ
1951	62.9	37.1	12.9	16.3	19	34	
1961	70.2	29.8	11.6	19.7	30	45	5
1971	76.6	23.4	9.2	21.5	18	29	- 7
<sup>1</sup> For historical compare <sup>2</sup> Conventional index i	rison the figures f is obtained as follo	or Canada exclue ows: ( <u>F1-P0</u> ) 100;	de Newfoundlan where Po and P	d, Yukon and No 1 are percentages of	orthwest Territori of urban populatio	es. on in the first and	second censuses,

respectively. Modified index is calculated as follows: <u>(P1-P0</u>)100. Sources: Stone, 1967, Tables 2.1 and 2.2; and 1971 Census of Canada, Statistics Canada 92-709, Table 10.

responsible for the urban-rural differentials in rates of population growth (Stone, 1967, p.26). The size of the farm population has registered a steady decline since 1931, the first census which provided data on the two segments separately.

There was no sustained trend (upward or downward) in the decennial rates of urban population increase (Table 4.6). The rate varied between 18 per cent in 1931-41 to 62 per cent in 1851-61 and 1901-11. There were upswings and downswings in the rates which were somewhat similar to that for the decennial growth rate of the total population. In 1961-71 there was marked reduction in the rate of change of both total and urban populations.

There also have been fluctuations in the rates of rural population change. From 1851 the rate of rural population growth registered a steady decline up to 1891 followed by an increase until 1911. The rate of increase in rural population in 1901-11 was over five times the increase in the preceding decade and the second highest increase recorded between 1851 and 1961. This sudden increase may be attributed to the opening of the Prairies for settlement and the heavy immigration during this period. Since then the rate of rural population was downward except in 1951-61 when it increased by 5 per cent from minus one per cent in the preceding decade. The 1951-61 growth was due to the rural non-farm component, which grew rapidly. This rapid growth of rural non-farm population was substantially a growth of suburbs around cities, and especially around the larger cities. The drastic decline in the rural population in 1961-71 may be attributed to (1) the rapid fall in the rate of total population from 30 per cent in the preceding decade to 18 per cent (Table 4.6); (2) the reduction in suburbanization compared with the preceding decade; and (3) the flow of migration from rural to urban areas.

A distinction may be made here between the level or degree of urbanization and the speed of urbanization. The former refers to the proportion of the population which is urban at a particular time, and the latter refers to the *change* in the proportion urban. Table 4.6 shows that the level of urbanization in Canada has increased in every decade since 1851. In eight of the twelve decades from 1851 to 1971, the level increased by at least five percentage points per decade. The four decades in which the increase in the level was less than five were the 1851-61 and 1861-71 decades, the depression decade 1931-41 and 1961-71. The decades before 1871 represent the period before the 'take off' of industrialization in Central Canada (Stone, 1967 p. 33). The pace of urbanization is often measured by the conventional index which is obtained by taking the percentage change in the proportion urban. A major limitation of this index, especially for comparison, is that it is often influenced by the initial level of urbanization. In order to take care

of this limitation, a modified index suggested by Hope T. Eldridge may be used (see Vaidyanathan, 1973, p. 213; and Table 4.6, footnote <sup>2</sup>). According to the conventional index, the pace of urbanization in Canada has slackened in the 20th century, indicating a steady fall since 1951. However, the modified index shows a rapid pace of urbanization in recent decades.

**4.3.2** Regional Trends in Urbanization – Substantial variations exist in the urbanization level of the regions and provinces of Canada. Ontario and Québec are the most urbanized provinces, with 82.4 per cent and 80.6 per cent, respectively, of their population urban in 1971. The most rural province is Prince Edward Island with only 38.3 per cent of the population urban in 1971, almost one half of the proportion urban for the country as a whole. All other provinces contained more urban than rural people in 1971.

Long-term trends in the urbanization of each province and geographic region are shown in Table 4.7 and Chart 4.2. In 1851, Québec, Ontario and New Brunswick had almost the same level of urbanization, but by 1971 the level of urbanization in Ontario was 25.5 percentage points higher than in New Brunswick. The most spectacular transformation from a predominantly rural to urban population took place in Alberta, particularly during the past 20 years; the per cent urban changed from 47.6 in 1951 to 73.5 in 1971. The rapid urbanization in Alberta may be attributed to the expansion of oil and natural gas production and the associated industrialization there. For the entire period, 1851 to 1971, Ontario and Québec (except in 1891 for the latter) had higher levels of urbanization than Canada as a whole, and except for 1851 and the period 1891 to 1911, Ontario had the highest level of urbanization among the provinces. Between 1881 and 1891 British Columbia's level jumped from 18.3 per cent to 42.6 per cent and the province maintained its first rank until 1911. In 1971 all provinces had lower levels of urbanization than the national level excepting Ontario, Québec, and British Columbia (whose level was approximately equal to the national level). As observed earlier, Ontario, Québec and British Columbia received the largest amount of internal and international migrants. The main explanation for the provincial variations in the degree of urbanization may be found in the provincial differences of industrial development and associated economic opportunities.

**4.3.3** Metropolitan Growth – The dominant feature of urban growth in Canada in recent years has been the growth of the large cities and the spectacular development of metropolitan areas. The majority of the urban population lives in urban complexes with a population of 100,000 and over; in 1971, 10.2 million or 62 per cent of the total urban population lived in such

1851-1971
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	1851	1861	1871	1881	1891	1061	1161	1921	1931	1941	1951	1961	1791
Canada (excl. Newfoundland)	13.1	15.8	18.3	23,3	29.8	34.9	41.8	47.4	52.5	55.7	62.9	70.2	76.6
Canada (incl. Newfoundland)	:	:	:	:	:	:	:	:	:	:	62.4	69.7	76.1
Newfoundland	:	:	:	:	:	:	:	:	:	:	43,3	50.7	57.2
Prince Edward Island	:	5.6	9.4	2.01	13.1	14.5	16.0	18.8	19.5	22.1	25.1	32.4	38.3
Nova Scotia	2.7	7.6	8.3	14.7	19.4	27.7	36.7	44.8	46.6	52.0	54.5	54.3	56.7
New Brunswick	14.0	13.1	17.6	17.6	6.61	23.1	26.7	35.2	35,4	38.7	42.8	46.5	56.9
Québec	14.9	16.6	9.91	23.8	28.6	36.1	44,5	51.8	59.5	61.2	66.8	74.3	80.6
Ontario	14.0	18.5	20.6	27.1	35.0	40.3	49.5	58.8	63.1	67.5	72.5	£.17	82.4
Manitoba	;	:	;	14.9	23.3	24.9	39.3	41.5	45.2	45.7	56.0	63.9	5,69
Saskatchewan	;	:	:	:	:	6.1	1.91	16.8	20.3	21.3	30.4	43.0	53.0
Alberta	:	:	:	:	:	16.2	29.4	30.7	31,8	9.15	47.6	63.3	73.5
British Columbia	:	:	0.6	18.3	42.6	46.4	<u>5</u> 0.9	50.9	62.3	64.0	68.6	72.6	7.5.7
Sources: Stone, 1967, Te	able 2.2;	and 197	1 Census	of Cana	da, Statis	stics Cana	nda 92-70	9, Table	10.				

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Per Cent of Urban Population of Canada and Provinces, 1851-1971

Source: Table 4.7.

areas. The number of metropolitan areas as defined by Statistics Canada has increased from 15 in 1951 to 22 in 1971. The increase in the number of such areas and their rapid population growth reflect the great transition to an industrial, and service-oriented economy.

The population of the 22 metropolitan areas in 1971 was 11.9 million or about 55 per cent of the total population of Canada; seventy-two per cent of the total urban population resided in such areas. Almost 88 per cent of the metropolitan population resided within the urbanized core (the continuous built-up area covered by a street pattern design and having a density of 1,000 persons per square mile) and the remainder within the outskirts or fringe areas (the immediate zone of influence of a multimunicipal urban centre with urban and rural parts) <sup>14</sup>. Comparable figures for 1966 and 1971 (based on areas as defined for the 1971 census) show that between 1966 and 1971 the metropolitan population increased by 11.1 per cent as compared with a 7.8 per cent increase in the total population.

Of the 22 metropolitan areas in 1971, nine were in Ontario, five in the Prairies, three in Québec, three in the Atlantic region and two in British Columbia. Montréal was the largest metropolitan area with a population of 2.7 million in 1971, followed by Toronto with 2.6 million, Vancouver with 1.1 million and Ottawa-Hull with 603,000. The smallest metropolitan area was Saint John with 107,000.

Between 1966 and 1971, while the population of the urbanized core of all the metropolitan areas combined increased by only 10.0 per cent, the population of fringe areas increased by 19.8 per cent. The large metropolitan areas had the highest suburban growth. Montréal, Toronto and Vancouver together contributed 54.2 per cent of the total suburban growth between 1966 and 1971. Calgary had the highest growth rate of 22.0 per cent among metropolitan areas between 1966 and 1971, followed by Kitchener with 18.0 per cent. The lowest growth rate of 0.6 per cent was recorded for Chicoutimi-Jonquière. Other metropolitan areas with very low growth rates were Saint John and Thunder Bay with 2.4 per cent and 3.8 per cent, respectively.

**4.3.4** Components of Urban Growth – Adequate data do not exist for analysing the sources of rural-urban growth and to separate the components of growth in each decade. It is also beyond the scope of this analysis. However, the relevant sources that affect rural and urban growth in any intercensal period are: (1) reclassification of areas which are rural in the first census to urban areas in the second census; (2) natural increase in the areas which are

urban in both censuses and the areas newly classified as urban; and (3) net migration (both rural-urban and international migration) in the areas which are urban in both censuses and the areas newly classified as urban. The process of reclassification has the effect of continuously depleting the rural population. The more rapidly a rural area grows, the greater are the chances that it will be reclassified as urban at the next census. As a result of the reclassification, the entire population of an area may become urban. Thus, the process of reclassification is itself a deterrent to rural growth.

There is a temptation to attribute all urban growth to rural-urban migration. This is generally not true. Estimates of the components of growth in urban complexes of 5,000 population and over are available for the period 1951-61 (see Stone, 1967, p. 93). These estimates show that during this period 77 per cent of the urban growth was due to natural increase and net migration (33 per cent due to migration and 44 per cent due to natural increase), and the remaining was due to reclassification and the interaction effect of natural increase and net migration. The regions also showed similar patterns in their urban growth. Such estimates of the components of urban growth are not available for 1961-71. However, the available evidence indicates that the dominant factor of urban population growth in Canada has been natural increase and not net migration, especially in the recent

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## CHAPTER FIVE THE LABOUR FORCE

#### by

#### K.S. Gnanasekaran

From an economic point of view, the population may be divided into two main groups: (1) the economically active and (2) the economically inactive population. The active group represents that part of the population which is engaged in the production of economic goods and services. In the real world, the division of people especially those with dual roles, into the active or inactive group poses identification problems. However, by applying standard concepts and uniform procedures, these problems can be somewhat overcome so that the active population of a country at a given time can be measured in quantitative terms as has been and is done in Canada and other countries of the world.

Two most commonly used measures of the economically active population are based on (1) the 'gainful worker' and (2) the 'labour force' approach. Before the Depression, and specifically in the 1911 to 1941 censuses of Canada, all persons who usually had a gainful occupation were counted as the economically active population. Those who had no occupation, especially the new entrants on the labour market, were thus excluded from the count. This procedure was proven to be a great weakness during the period of great unemployment in the 1930's, and hence, a new concept, the labour force, was applied around 1945. It subsequently was adopted in each census of Canada in lieu of the gainfully occupied concept. The 'labour force' denotes "all persons 14 years of age (sometimes 15 years) and over who report as having a job of any kind, either part-time or full-time, or as looking for work during the week prior to enumeration". The main distinguishing feature of the labour force concept is that it refers to current activity of a person and thereby covers more satisfactorily both the employed and the unemployed as the economically active population. The rest are considered as 'not in the labour force group'. As before, the persons with dual functions present problems and are treated differently under the labour force and the gainfully occupied approaches. Also, the labour force definitions may differ from time to time.

For Canada, two main sources of labour force statistics – Census and Labour Force Survey – exist and are used in this chapter. The census series is more comprehensive and presents a detailed picture of the active population at the time of each decennial census. In contrast, the Labour Force Survey, which started in November 1945, measures predominantly the labour force changes every month and thus concentrates on the dynamic aspects. Depending upon the purpose in hand, each series is a valuable aid to understanding the labour force situation in the country.

Trends in the distribution of population which is economically active and inactive bear important implications for the strength and welfare of the nation. The larger the labour force, the greater is the country's capacity to produce income. At any period, full utilization of labour force or full employment is an important goal of national economic and social policies. As a basis for formulation of these policies, a better understanding is needed regarding the factors governing the growth of labour force as a whole, as well as such key segments as (1) the young adult workers, (2) married female workers and (3) the aged workers. In addition, it is essential to grasp the trends in industrial and occupational characteristics of the active population, their employed status and geographical distribution. The present chapter deals briefly with some of the foregoing topics.

#### 5.1 SIZE AND GROWTH

The Canadian labour force was about 8.8 million or 41 per cent of the total population in 1971. One hundred years ago, it numbered roughly 1.2 million or 33 per cent of a total population of about 3.7 million. Denton and Ostry have taken available data from the Census and Labour Force Survey to reconstruct a consistent series on the labour force for the long period 1851 to 1961 (Denton and Ostry, 1967). From their historical estimates and studies which form the basis of the present chapter, the following long-term developments in the Canadian labour force can be highlighted.

**5.1.1 Historical Trends** — Over the past century, the growth of labour force has been favourable to the economy, in the sense that the portion of 'inactive population' has steadily declined. In 1871, the proportion of inactive people approximated 67 per cent of the total population. Today, the proportion of inactive is only 59 per cent.

The labour force grew more rapidly than the total population in three out of four decades between 1901 and 1941 reflecting in essence the effects of large immigration. In the post-war period, the trend was rather different and labour force growth fell behind the total population increase except in the last decade, 1961-71. The 1961-71 decade witnessed a strikingly greater increase in the labour force than in the population. The labour force increase in this period amounted to 31.4 per cent in contrast to the population growth of 18.3 per cent.

	Both	sexes	Ma	ile	Ferr	iale
Year	Population	Labour force	Population	Labour force	Population	Labour force
			In tho	isands		
1901         1911         1921         1921         1931         1941         1951         1961         1971	5,371 7,207 8,788 10,377 11,507 13,648 17,780 14,009 18,238 21,568	1,885 2,799 3,303 4,042 4,652 5,250 6,621 5,355 6,741 8,859	2,752 3,822 4,530 5,375 5,901 6,904 8,984 7,089 9,219 10,795	1,606 2,381 2,742 3,291 3,713 4,079 4,872 4,167 4,967 5,989	2,620 3,385 4,258 5,600 6,744 8,796 6,921 9,019 10,773	279 418 561 751 939 1,171 1,749 1,188 1,774 2,870
			Per cent	increase	·	
1901-11         1911-21         1921-31         1931-41         1931-45         1951-61         1951-61         1961-71	34.2 21.9 18.1 10.9 18.6 30.3 30.2 18.3	48.5 18.0 22.4 15.1 12.9 26.1 25.9 31.4	38.9 18.5 18.7 9.8 17.0 30.1 30.0 17.1	48.3 15.2 20.0 12.8 9.9 19.4 19.2 20.6	29.2 25.8 17.5 12.1 20.3 30.4 30.3 19.4	49.8 34.2 33.9 25.0 24.7 49.4 49.3 61.8
	L	abour forc	e as a per c	ent of tota	l population	n
1901         1911         1921         1931         1931         1941         1951         1961         1951         1961         1971	Not applicable	35.1 38.8 37.6 39.0 40.4 38.5 37.2 38.2 37.0 41.1	Not applicable	58.4 62.3 60.5 61.2 62.9 59.1 54.2 58.8 53.9 55.5	Not applicable	10.6 12.3 13.2 15.0 16.7 17.4 19.9 17.2 19.7 26.6

## TABLE 5.1 Growth in Total Population and in Population 14 Years of Age and Over in the Labour Force, by Sex, Canada, 1901-71

<sup>1</sup>Excluding Newfoundland.

Sources: Denton and Ostry, 1967, Tables 3 to 10; Statistics Canada 71-201 (annual), 1972; 1961 Census of Canada, Vol. I (Part 1), Table 6; and 1971 Census of Canada, Statistics Canada 92-714, Table 1.
1921	1931	1941	1951	1961	1971
		Per	cent		
		- Both	- sexes		
56.2 49.1 66.7 59.9 57.7 33.7	55.9 42.1 71.0 62.9 58.1	55.2 40.8 69.8 63.8 57.8 27.2	54.3 43.5 70.8 60.8 60.8 59.9 50.9 22.1	55.1 36.2 72.0 63.9 64.2 65.1 55.6 17.9	57.6 40.1 76.5 68.8 68.8 75.0 47.5 12.5
		Ma	lles		
89.8 68.4 94.3 98.0 96.9 59.6	87.2 57.4 93.9 98.6 96.7 56.5	85.6 54.6 92.6 98.7 96.1 47.9	84.1 53.5 94.0 98.1 98.5 96.5 86.3 39.1	80.8 40.5 94.2 98.0 98.0 96.4 87.6 30.4	78.7 46.4 90.9 97.4 97.6 94.7 84.0 20.9
		Fem	iales		
19.9 29.6 39.8 19.5 12.0 6.6	21.8 26.5 47.4 24.4 13.2 6.2	22.9 26.8 46.9 27.9 15.2 5.8	24.2 33.4 48.5 25.1 22.1 21.0 13.4 4.4	29.1 31.7 50.4 28.9 30.8 32.5 22.8 6.0	37.0 33.6 61.6 40.6 40.0 45.1 26.3 5.6
	1921         56.2         49.1         66.7         59.9         57.7         33.7         89.8         68.4         94.3         98.0         96.9         59.6         19.9         29.6         39.8         19.5         12.0         6.6	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $

## TABLE 5.2 Labour Force Participation Rates by Age and Sex, Canada,<sup>1</sup> 1921-71

<sup>1</sup>Excluding Newfoundland prior to 1951.

Sources: Same as Table 5.1.

Several factors – demographic and non-demographic – were responsible for the past increases. First and foremost is the consistent increase in the proportion of women joining the labour force. At the beginning of this century, the percentage of women aged 14 and over who were economically active (which is called the 'labour force participation rate') was only 16 per cent. Over the last seventy years, the rate has increased steadily, reaching a level of about 37 per cent in 1971 as indicated by Table 5.2. In absolute numbers, the growth during 1901-71 was tenfold from 279,000 to 2.9 million. In each decade the female labour force grew more rapidly than the female population. Most striking of all periods was the increase during the 1961-71 decade, which amounted to a record 61.8 per cent growth in the female labour force.

Population changes both in size and structure also help to explain the remainder of labour force increase. Included here are the trends in the birth rate, immigration, emigration and mortality. For example, the cohort of the post-war baby-boom swelled the size of working age population and the labour force in the sixties, partly causing the unprecedented labour force increase at an annual rate of three per cent or above. A relatively high rate of labour force growth may be expected to continue throughout the seventies as well.

Table 5.3 presents annual trends in the civilian labour force during the last twenty-one years by employment and unemployment status. Data for each calendar year indicate clearly the wide fluctuations in the annual growth. Thus, over the past twenty-one years, the lowest growth rate was 1.4 per cent in 1962, while the highest rate was 4.4 per cent in 1973. Few countries in the world experienced such a wide variation in labour force growth over this time period. Since 1971, the annual labour force growth rate has been at least three per cent, far above the population growth of 1.2 per cent a year. This growth rate differential is unprecedented in the history of the Canadian labour force.

**5.1.2** Unemployment – The high rate of labour force growth has partly influenced the unemployment situation in the country. The unemployment rate in Canada was generally high after 1957, except for the two years 1965 and 1966 when it fell below 4 per cent (which was the average level in the immediate post-war period, 1946-56). Since 1967 the unemployment rate rose gradually from 4.1 per cent to 6.4 per cent in 1971, and since 1971 average annual rates for 1972 and 1973 have shown a downward trend again.

A striking feature of the unemployment situation in Canada is that the rates have been and are lower among women that men, which is in sharp contrast to the pattern reported for other industrialized countries. One explanation offered for this exceptional pattern is that "Canadian women are less fully 'committed' to labour force activity than are women in other countries. Thus, when they lose a job they are less likely to remain in the market looking for work, but instead return to some non-labour force activity. Many desire only intermittent employment and will take a suitable or convenient job when it becomes available without any preliminary period of testing the market. Consequently, to a far greater extent than do men or, evidently, women in many other industrialized countries, Canadian women tend to 'by-pass' unemployment when both entering and leaving employment" (Ostry, 1968, p. 7).

Year	Total labour force	Annual growth rate	Employ- ment	Un- employ- ment	Un- employ- ment rate
	('000)	(Per cent)	( '000 )	( '000 )	(Per cent)
1953	5,397		5,235	162	3.0
1954	5,493	1.8	5,243	250	4.6
1955	5,610	2.1	5,364	245	4.4
1956	5,782	3.1	5,585	197	3.4
1957	6,008	3.9	5,731	278	4.6
1958	6,137	2.1	5,706	432	7.0
1959	6,242	1.7	5,870	372	6.0
1960	6,411	2.7	5,965	446	7.0
1961	6,521	1.7	6,055	466	7.1
1962	6,615	1.4	6,225	390	5.9
1963	6,748	2.0	6,375	374	5.5
1964	6,933	2.7	6,609	324	4.7
1965	7,141	3.0	6,862	280	3.9
1966	7,420	3.9	7,152	267	3.6
1967	7,694	3.7	7,379	315	4.1
1968	7,919	2.9	7,537	382	4.8
1969	8,162	3.1	7,780	382	4.7
1970	8,374	2.6	7,879	495	5.9
1971	8,631	3.1	8,079	552	6.4
1972	8,891	3.0	8,329	562	6.3
.973	9,279	4.4	8,759	520	5.6

 
 TABLE 5.3 Labour Force, Employment and Unemployment, Canada, 1953 to 1973<sup>1</sup>

<sup>1</sup>Figures are the averages for the twelve months and therefore differ from data given in Table 5.1.

Sources: Denton, 1970, Table 28; Statistics Canada 71-201 (annual), 1973; and Statistics Canada 71-001 (monthly), December 1973.

The age-sex pattern of unemployment rates shows high unemployment rates among young persons and low rates in the prime employment ages -35 to 44 for men and 45 to 54 for women. Typical marital status differentials are also evident in the sense that the unemployment rate is lower among married men that among other males.

An increase in the number of unemployed may sometimes reflect the market frictions, technological change, temporary layoffs and increased job selectivity by labour force members. A serious aspect of high unemployment is long duration unemployment. For the purpose of discussion here, following a previous standard, short-term unemployment may be defined as work-seeking of under one month duration. The terms 'intermediate', 'long-term' and 'very long-term' may be applied to work-seeking of durations 1-3 months, 4-6 months, and 7 or more months, respectively (Ostry, 1968, p. 20).

In Canada, short-term unemployment has accounted for over one third, and intermediate unemployment for another one third, of the total unemployment in the 1950-66 period. Thus unemployment up to three months was most common. Unemployment exceeding three months has varied by and large with the state of economy. In the years of high unemployment, as during 1960 and 1961, unemployment of seven months or more amounted to 12 and 17 per cent, respectively (Ostry, 1968, p. 21). In the last three years, the long-term unemployment was about 19 per cent suggesting that the average period of unemployment has lengthened recently (Statistics Canada 71-201, p. 162).

Comparison of data for males and females indicate that females have had generally lower duration of unemployment than men. As was stated earlier, the reason might be that Canadian women do not remain long in the labour market looking for work, but instead return to some non-labour force activity.

**5.1.3 Part-Time Employment** – The part-time employment refers here to less than 35 hours of work in a week. Some of the part-time workers may represent partial unemployment; others may denote voluntary demand for work part-time and in this respect, the availability of part-time employment may even be partly responsible for increased participation in the labour force especially of married women. Table 5.4 shows that part-time employment has doubled between 1961 and 1971, whereas total employment only grew by one third. Furthermore, the part-time employment growth among women has been even more rapid than among men. In the same ten years female part-time employed part-time in 1971. Ten years ago this latter proportion was 19 per cent, and about twenty years ago it was only 11 per cent. Most of the part-time employment of women has occurred in the service

		Part- emplo	-time yment	Unemp	loyment
Year	Total employment	Number	Percentage of total employment	Number	Percentage of labour force
			Ma	les	
1953         1954         1955         1956         1957         1958         1959         1960         1961         1962         1964         1965         1966         1966         1967         1968         1969         1970         1971         1973	4,063 4,044 4,128 4,269 4,263 4,363 4,363 4,363 4,364 4,381 4,488 4,567 4,667 4,667 4,667 4,678 4,842 4,983 5,183 5,183 5,183 5,310 5,332 5,533 5,767	72 74 80 79 98 121 125 134 161 170 176 197 210 212 239 267 293 332 233 345 343 348	1.8         1.9         1.9         2.3         2.8         2.9         3.1         3.7         3.8         3.9         4.2         4.3         4.3         4.3         4.3         4.3         4.3         4.3         4.3         6.4         6.2         6.0	143 218 213 171 244 377 325 386 401 331 312 264 224 209 246 297 288 374 408 405 360	3.4 5.1 4.9 5.3 8.1 6.9 8.4 6.9 6.4 5.3 4.4 4.0 5.5 5.2 6.6 7.0 6.8 5.9
			Fem	ales	
1953         1954         1955         1956         1957         1958         1959         1960         1961         1962         1963         1964         1965         1966         1968         1969         1970         1971         1972         1973	$\begin{array}{c} 1,172\\ 1,199\\ 1,236\\ 1,320\\ 1,402\\ 1,402\\ 1,507\\ 1,507\\ 1,507\\ 1,674\\ 1,737\\ 1,674\\ 1,737\\ 1,808\\ 1,911\\ 2,020\\ 2,169\\ 2,296\\ 2,391\\ 2,508\\ 2,568\\ 2,569\\ 2,569\\ 2,687\\ 2,796\\ 2,792\end{array}$	125 134 145 164 191 228 242 266 316 327 356 316 327 356 400 446 466 466 466 466 466 466 466 46	10.7 11.2 11.7 12.4 13.6 15.8 16.1 16.7 18.9 18.8 19.7 20.9 22.1 21.5 22.0 23.5 24.2 24.9 24.8 24.9 24.6	19 32 33 26 33 54 47 60 65 60 65 61 56 61 56 58 70 85 94 121 144 157 160	1.6 2.6 2.9 3.6 3.0 3.6 3.7 3.3 3.3 3.1 2.7 2.6 3.0 3.4 3.0 3.4 3.6 3.0 3.4 5.1 5.1

TABLE 5.4 Trends in Employment and Unemployment by Sex, Canada, 1953 to 19731(Numbers in '000's)

<sup>1</sup>Figures are the averages for the twelve months and therefore differ from data given in Table 5.1.

Sources: Statistics Canada, 71-201 (annual), 1973; and Statistics Canada 71-001 (monthly), December 1973.

and trade industries which have been among the rapidly expanding industries in the post-war period.

### 5.2 AGE AND SEX PATTERN

Over the long-term (1921-71) there was a rise in the median age of the total labour force from 33.7 years in 1921 to 35.7 years in 1971. The shift in age composition was more substantial for women than men. In 1921, the median age of women in the labour force was 24.8 years in contrast to 33.7 years in 1971.

**5.2.1** Male Activity Pattern – The labour force participation rates for males have been steadily declining in most age groups since 1921 as shown in Table 5.2. The main and slight exception to this secular decline in male participation rates seems to have taken place during 1961-71 in the age group 14-19. The teenage group recorded a rising participation between 1961 and 1971, which has likely been facilitated by the growing number of part-time jobs in the economy noticed earlier. On the other hand, those in the 20-24 year age group appear to be continuing in post-secondary education in relatively larger numbers in 1971 than the equivalent age group did ten years ago. The rising levels of family income and larger numbers of scholarships and/or loans available are possible factors which enable students to continue and complete their education. The downward trend in labour force participation rate among the older males was particularily pronounced in the last decade.

**5.2.2** Female Activity Pattern – For women, the long-term labour force participation rate trend has been the opposite of that observed among males, with increasing levels of participation in each age group. The greatest increase in participation took place during 1961-71 among women in the age group 45-54, followed very closely by women in the age groups 25-34 and 20-24. The rate for the age group 20-24 reached a peak of 61.6 per cent in 1971. In 1921, the same rate was about 40 per cent.

Participation rate increases have been particularly sharp among married women, and possibly for married women with children. The participation rate for married women was 3.5 per cent in 1931, and it rose tenfold in the following four decades to reach 37.0 per cent in 1971 (see Table 5.6). In the last decade alone, the participation rate increased by 68.2 per cent, so that by 1971 more than half of the women in the labour force were married females. In comparison the long-term increase in the participation rate of single, widowed or divorced women has been moderate. In fact, the rate for single women has been dropping since 1951.

		1921			1961	·		1971	
Age group	Total	Male	Female	Total	Male	Female	Total	Male	Female
Distribution by age									
Total, 14 years and over	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14-19 years	14.5	12.3	25.5	8.0	6.1	13.1	10.0	8.7	12.6
20-24 "	14.4	12.1	25.5	12.4	10.8	16.6	16.0	14.2	19.4
25-44 "	43.0	44.8	34.2	46.9	48.9	41.5	42.3	44.3	38.6
45-64 "	23.9	26.2	12.5	29.0	30.1	26.1	28.7	29.6	26.8
65 years and over	4.2	4.6	2.3	3.7	4.1	2.7	3.0	3.2	2.6
Median age (in years)	33.7	35.5	24,8	37.5	38.3	34.9	35.7	36.7	33.7
Distribution by sex									
Total, 14 years and over	0.001	82.9	17.1	0.001	72.7	27.3	100.0	65.4	34.6
14-19 years	100.0	70.0	30.0	100.0	55.5	44.5	100.0	56.6	43.4
20-24 <sup>7</sup> "	100.0	69.7	30.3	100.0	63.4	36.6	100.0	58.0	42.0
25-44 "	100.0	86.4	13.6	100.0	75.9	24.1	100.0	68.4	31.6
45-64 "	100.0	91.1	8.9	100.0	75.4	24.6	100.0	67.6	32.4
65 years and over	0.001	90.5	9.5	100.0	19.9	20.1	100.0	70.1	29.9
Sources: Denton and Ostry, 1967, 7	Tables 3 and	1 9; and Sta	ttistics Cana	da 71-201 (	annual), 19	72			

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TABLE 5.5 Percentage Distribution of the Labour Force, by Age and by Sex, Canada, 1921, 1961 and 1971

- 98 -

As a result of the increases in the participation rates of married women in the ages 35-54, the age pattern of activity for women changed dramatically between 1951 and 1961, and a 'two-peak' profile emerged for the first time in 1961 (see Table 5.2). A similar pattern of activity was observed in the United States as early as 1950. Changes during 1961-71 in Canada that are depicted in Chart 5.1 show a further rise in the two peaks, especially in the second peak. This second peak in the two-phase working life pattern among women which has now become increasingly common in the industrialized countries is partly due to the re-entry of married women after completing the role of mother. Some, of course, never leave the labour force even after childbirth, and others in increasing numbers return at different stages of family formation depending on other social and economic factors including the labour market situation.

		Participa	tion rate		Ratio of married women to
Year	Total	Single	Married	Other	total women in labour force
			Per cent		
1931	19.3	43.8	3.5	21.3	10.0
1941	20.3	47.2	4.5	17.3	12.7
1951	24.1	58.3	11.2	19.3	30.0
1961	29.5	54.1	22.0	22.9	49.8
1971	39.9	53.5	37.0	26.6	59.1

 
 TABLE 5.6 Female Labour Force Participation Rates by Marital Status, Canada, 1931-71<sup>1</sup>

<sup>1</sup>Statistics from the 1931 census are for the age group 10 and over. Statistics from the 1941 and 1951 censuses are for the age group 14 and over. Statistics from the 1961 and 1971 censuses are for the age group 15 and over. Figures exclude those on active military service; Newfoundland is included from 1951 on; the Yukon and Northwest Territories are included in 1971.

Sources: Spencer and Featherstone, 1970, Table 1; and 1971 Census of Canada, Statistics Canada 94-785, Table 1.





Chart - 5,2b

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MARRIED FEMALE PARTICIPATION PROFILE BY FAMILY STATUS,



Source: Ostry, 1968, p. 18.

Among the demographic factors (such as age, marital status, fertility and stage of family formation) the presence of children is a particularly important determinant of the participation rate of married women in the labour force. Several non-demographic factors also affect this participation rate. Without going into much detail here, the following findings may be high-lighted from a 1961 census monograph. The non-demographic factors often considered to exert influence on the labour force behaviour of women are (1) husband's income, and (2) education of wife. Based on 1961 data, the labour force participation of married women in Canada appeared to be negatively associated with the level of their husbands' income, that is, the lower the husbands' income, the higher the participation of their wives in the labour force. However, the negative relationships appear only at incomes above \$6,000 or so in the 1961 census data. At income levels of husbands below \$6,000, the relationship was rather positive. The education level of the wife was a positive influence on her labour force activity (Ostry, 1968, pp. 23-27).

## 5.3 INDUSTRIAL AND OCCUPATIONAL STRUCTURE

Labour force developments are widely influenced on the one hand by demographic trends and on the other by economic growth, in particular industrial and technological changes. Furthermore, economic forces largely explain the qualitative changes in the labour force, particularly the occupational composition of the labour force. However, industrial and occupational statistics, important as they are for many policy purposes, are not readily comparable over time due to changes in the classification systems and variations in responses of workers holding similar jobs. Nevertheless, the fundamental structural changes can be broadly traced.

5.3.1 **Industrial Structure** – The shift away from agriculture has been the prominent feature of the Canadian labour force in this century. In 1901, about two fifths of the total labour force was engaged in agriculture. The share of agricultural labour force continued to decline further in the following decades; nevertheless, agriculture remained still the single largest activity of the labour force until the 1941 census. However, due to absolute declines, in 1951 for the first time agriculture ceased to be the single largest industry (giving way to manufacturing). The share of the labour force in agriculture was about 16 per cent in 1951; twenty years later, this share had declined to about 6 per cent, as depicted in Chart 5.3. The reasons for the decline of the agricultural work force are well known. The most important include (1) advances in farm technology, particularly mechanization of agricultural production, (2) transformation of many traditional farm activities into manufacturing processes, and (3) a low income-elasticity of demand for farm products. Besides manufacturing, the industries of rapid growth after 1951 have been the services and trade sectors, which together absorbed 56 per cent of the labour force in 1961, and about 62 per cent in 1971<sup>15</sup>



#### Trends in Agricultural Labour Force, Canada,1881-1971

and Statistics Canada Daily, December 7, 1973



Chart - 5.3

**5.3.2** Occupational Structure – Accompanying the foregoing shifts in the industrial composition of labour force is the changing occupational composition of labour force. In addition, the long-term occupational trends are influenced by the job composition within individual industries in accord with technological advances and modifications in production methods.

Chart 5.4 presents the transformation of the occupational structure of the labour force since 1901. The significant feature has been the spectacular growth in the white collar occupations – professional, managerial, clerical, commercial and financial jobs – in this century. The number of white collar workers expanded rapidly by almost 66 per cent between 1901 and 1921, representing over 25 per cent of the total labour force by 1921. In the subsequent two decades, the growth slackened and the share of white collar occupations hardly increased as shown by Chart 5.4. The post-war years brought a renewed increase that has made the white collar sector the largest group of the labour force since 1951. This rapid growth after the Second World War was largely due to the proliferation of clerical occupations in business and government. The professional group, after a very slow pace of increase during the earlier decades of this century made great strides in 1951-61 and 1961-71. A similar pattern was observed for the proprietary and managerial group as a whole, although independent proprietors of small business firms declined in importance.

Long-term developments in the *blue collar* occupations – manufacturing and mechanical, construction and labourers – present rather an opposite trend in Chart 5.4. A modest rise in the share of blue collar occupations between 1901 and 1911 was followed by a striking drop from 30.3 to 25.8 per cent in the next decade. In the 1920's and 1930's, the blue collar occupations improved their share slightly to 27 per cent, as seen in Table 5.7, compared to the 1921 level. The relative share of blue collar occupations rose in subsequent decades to reach 29.4 per cent in 1951. Thereafter, their share slipped back to 26.6 per cent in 1961, which was lower than their share in 1901.

The three occupational categories composing the blue collar sector, however, have exhibited different trends over the past decades. The construction occupations have grown steadily in step with the total labour force growth and consequently, their share remained stable around 5 per cent at each decade. Labouring occupations increased rapidly between 1901 and 1911 from 7.2 per cent to 11.9 per cent of the labour force. The subsequent two decades witnessed minor fluctuations until the Great Depression which precipitated a fall in the labourers' share from 11.3 per cent to 6.3 per cent (Table 5.7). After World War II, this group faced further absolute decline in numbers as a result of tremendous strides in technology.



# PER CENT DISTRIBUTION OF OCCUPATION DIVISIONS

Source: Ostry, 1967, p. 12.

5 Years of Age and Over <sup>1</sup> , by	a <sup>2</sup> , 1901 to 1961 Censuses
ution of Labour Force, 15	1951, and Sex, for Canada
<b>TABLE 5.7 Percentage Distrib</b>	Occupation Division as of

NOTE: "Gainfully occupied" rather than "Labour Force" concept used prior to 1971, See 1961 Census of Canada, Vol. 111(Part 1), Tables 3.3A and Introduction

Occumation division		1061			1161			1921	
(as of 1951)	Total	Malc	Female	Total	Malc	Female	Total	Male	Female
All occupations	100.0	100.0	0.001	100.0	100.0	100.0	100.0	0.001	100.0
White collar occupations	15.3 4.3 4.6 3.2 3.1 3.1	14.0 4.8 3.1 2.9 3.2	23.6 1.2 1.4.7 5.3 2.4	17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0	6.9 2.4 0.3 0.3 0.3	30.5 1.6 12.7 9.4 6.7	25.3 7.3 6.9 5.1 0.6	21.1 8.2 3.0 4.7 0.7	48.3 2.0 1.9.1 8.7 8.4 0.1
Blue collar occupations	27.8 15.9 4.7 7.2	27.5 13.8 5.4 8.2	30.1 4 <sup>29.6</sup> 0.5	30.3 13.6 4.8 11.9	30.9 11.7 5.5 13.7	26.3 4 <sup>26.2</sup> 0.1	25.8 11.4 9.7	27.2 10.3 5.5 11.4	17.9 4 <sup>17.8</sup> 0.1
Primary occupations	44.3 40.3 1.5 0.9	50.5 45.9 1.8 1.0 1.0	4 3.8 	39.5 34.4 1.3 1.3 2.3	44.8 39.0 1.5 1.8 2.6	4.5 4.4 0.1	36.2 32.6 0.9 1.2 1.5	42.1 37.9 1.1 1.4	3.7 4 3.7 4 —
Transportation and communication	4.4	5.0	0.5	5.6	6.3	1.5	5.5	5.9	3.0
Service	8.2 7.8	2.9 2.6	42.0 42.0	7.6	3.1 2.8	37.2 37.1	7.0 5.8	3.5 2.1	26.8 25.8
Not stated occupations	I	I	ļ	I		J	0.2	0.2	0.3

Occumation division		1931			1941 <sup>3</sup>			1951			1961	
(as of 1951)	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All occupations	100.0	100.0	100.0	0.001	0.001	0.001	100.0	100.0	0.001	0.001	100.0	100.0
White collar occupations	24.5	20.2 6.4	45.4 1.6	25.3 5.4	20.5 6.2	44.7 2.0	32.0 7.4	25.4 8.7	55.4 3.0	37.9 7.8	30.6	57.3 2.9
Protessional Clerical Commercial Financial	6.1 5.4 0.7	244 744 860	17.7 17.7 8.3 0.1	0.7 5.4 0.6	4.5 4.5 0.7	8.7 8.7 0.1	10.7 6.0 0.6	5.9 5.9 6.7	27.5 27.5 10.4 0.1	9.8 6.8 0.8	6.7 5.6 1.0	28.6 10.0 0.2
Blue collar occupations	27.5 11.6 4.7 11.3	30.2 11.3 5.7 13.2	14.5 12.7 4 1.7	27.1 16.1 4.7 6.3	29.6 16.2 5.8 7.6	16.8 15.4 1.4	29.4 17.2 5.5 6.6	33.0 17.9 7.1 8.0	16.5 14.6 0.1 1.8	26.6 16.1 5.2 5.3	32.4 18.4 7.1 6.9	11.1 9.9 1.2
Primary occupations	32.4 28.6 1.2 1.1 1.5	38.2 33.7 1.4 1.3	3.7 3.6 0.1	30.5 25.7 1.2 1.7	37.5 31.5 1.5 2.3 2.1	2.3 2.3 3.3	19.8 15.7 1.9 1.9	24.6 19.3 1.3 2.5 1.6	2.2 8.8 8.8	12.8 10.0 0.6 1.2 1.0	16.1 12.2 0.8 1.7 1.7	4444 6.6.
Transportation and communication	6.3	7.1	2.4	6.4	7.5	1.7	7.8	9.2	2.9	7.7	9.7	2.2
Service	9.3 8.2	4.2 3.0	33.9 33.8	10.5 9.3	4.6	34.3 34.2	9.8 7.2	6.5 3.3	21.2 21.0	12.4 9.1	8.5 4.2	22.6 22.1
Not stated occupations	4	4	4	0.2	0.3	0.2	1.2	1.3	1.2	2.6	2.7	2.5

TABLE 5.7 (Concluded)

<sup>1</sup>10 years and over in 1901. <sup>2</sup>Excluding Yukon and Northwest Territories: including Newfoundland in 1951 and 1961. <sup>3</sup>Excluding persons on active service, June 1, 1941.

4Less than 0.05%. <sup>5</sup>Labourers in all industries except those engaged in agriculture, fishing, logging or mining.

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Source: Ostry, 1967, Table 2.

Manufacturing and mechanical occupations reflected a strong divergence in Chart 5.4 from the trends shown for labourers. The marked decline in labourers since 1931 was more than offset by a rise in the manufacturing and mechanical group, implying an upward shift in the skill composition of the labour force. The share of these occupations increased from 11.6 per cent in 1931 to 16.1 per cent in 1941. World War II stimulated more growth in the manufacturing industry and manufacturing occupations. This stimulation further expanded the share of the labour force in manufacturing and mechanical occupations to a record 17.2 per cent in 1951. Thereafter, these occupations did not keep pace with the growth of labour force, especially the white collar sector (Chart 5.4).

Of the remaining two major occupational divisions shown in Table 5.7, the transportation and communication occupations have shown a small but steady improvement in their share of the labour force since 1901. The service occupations have been enlarging their share of the labour force since the 1920's. During the Great Depression, the numbers of service workers expanded more rapidly than in any other occupations except manufacturing and mechanical occupations. However, the share of personal service occupations decreased from 9.3 in 1941 to 7.2 per cent in 1951, but recovered this loss by 1961 as a result of above-average growth during the 1950's.

In summary, the population trends have been favourable to Canada's labour force growth in the early decades of this century. This greatly facilitated economic growth and implied a steady reduction in the dependency burden. After World War II, the increased participation of women in the labour force has further reduced the dependency ratio and brought a great flexibility in the labour supply. There was a dramatic decline in agriculture followed by increases in manufacturing and later in the service sectors. Parallel to these industrial transformations, the blue collar occupations grew rapidly at first, and later the white collar occupations gained the greatest share of the labour force. The foregoing pattern of industrial and occupational shifts are also observed at varying degrees across the nation.

## CHAPTER SIX

## ILLUSTRATIVE POPULATION PROJECTIONS FOR CANADA, 1971-2001

by

#### A. Romaniuk

This chapter presents a series of interim *unofficial* projections prepared by the Population Estimates and Projections Division, Census Field to meet sudden demands by users<sup>16</sup>. The projections presented are essentially an updated and extended version of the Statistics Canada 1969 population projections. Whereas the earlier projections for the 1969-84 period utilized, as a base, the estimated population of Canada as of June 1, 1969, the present projections are based on the 1971 census population and are extended to the year 2001.

The projections in this chapter are based on one mortality assumption, which is a re-statement of the assumption implicit in the 1969 projections; namely, that mortality will remain pratically unchanged over the course of the projection. According to this assumption, life-expectancy at birth for females will remain at approximately 75.75 years, and that of males will remain at approximately 69.86 years.

There are four different fertility assumptions employed in the projections; namely, that each woman will have, on the average, 1.90, 2.13, 2.42, or 2.82 children during her reproductive years. These are the levels of fertility expected to be reached by 1985 from 1971's level, which according to the latest estimates, corresponds to approximately 2.19 births. The various fertility assumptions incorporated into the projections reflect different levels of fertility which might be experienced in Canada by 1985. In view of the great uncertainty of long-term trends, it was simply assumed that the levels of fertility attained in 1985 will remain unchanged for the remaining part of the projection period. Note, for comparison, that the fertility assumptions utilized in the 1969 projections ranged from 2.28 to 2.82 children per woman. Hence, the present projections used in the earlier projections.

The most unpredictable component of population projections is migration. In order to compensate for this uncertainty about future migration, four assumptions of annual net migration were made: 100,000, 60,000, 20,000 and zero net migration. The assumption of zero net migration was made in order to show the population characteristics which would emerge in the absence of any migration, and the other assumptions were made in light

Assumptions:
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6.1 Projecti
TABLE

(a) Mortality: Expectation of life at birth is assumed to remain at about 69.86 years for males

and 75.75 years for females;

(b) Fertility: It is assumed to move gradually from its 1971 estimated average of about 2.19 children per woman to the number of children indicated in column 2, for 1985 and subsequent years;

(c) Migration: Annual number of net migrants as indicated in column 3.

2001	(10)		26,469 27,867 29,502 21,867 21,867 21,239 31,826 30,502 31,915 31,743 31,743 31,743 31,743 31,743 35,993
1996	(6)		26,015 27,105 28,346 28,345 20,045 20,045 20,045 20,045 20,012 30,734 30,734 30,736 30,736 31,577 31,577 31,577 31,577 33,380
1661	(8)	June 1)	25,383 26,2383 26,2383 27,164 28,429 25,877 25,837 25,837 25,837 25,837 25,837 25,633 25,633 25,637 25,633 25,637 25,633 25,637 25,637 25,637 25,637 25,776 29,667 20,995
1986	(7)	ands as of	25,1516 25,127 25,1778 25,1778 25,569 25,577 26,558 26,558 26,558 26,558 26,558 26,558 26,558 26,558 26,558 27,777 26,558 27,777 28,559 27,559
1981	(9)	(In thous	23,512 23,512 24,237 24,237 24,108 23,742 24,108 24,108 24,558 24,108 24,558 24,558 24,558 24,558 24,558 25,406 25,5008 25,500
1976	(2)		22,521 22,521 22,521 22,789 22,789 22,949 22,898 22,949 22,949 22,949 22,975 23,1100 23,1100 23,1100 23,1100 23,1100 23,110000000000000000000000000000000000
1971 (census figures)	(4)		21,568 21
Net migration	(3)		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fertility (1985 and subsequent years)	(2)		2.213 2.213 2.213 2.213 2.213 2.213 2.213 2.2213 2.
Projection number	(1)		III III III III III III III III

Sources: 1971 Census of Canada, Statistics Canada 92-702, Table 1; and interim unofficial Statistics Canada Projections.

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of possible net migration gains Canada may experience in the future. It might be helpful to point out for those who may wish to consider one of these migration assumptions as being relatively more realistic, that during the last several years there has been a steady decrease in Canada's net migration gain. For example, in 1966-67, Canada gained approximately 152,000 persons as a result of net migration, but it declined steadily in subsequent years to a net gain of approximately 62,000 persons in 1971-72. This trend is due primarily to a marked decrease in immigration to Canada which has fallen from approximately 214,000 in 1966-67 to about 118,000 in 1971-72.

From the assumptions listed above regarding mortality, fertility and migration, 16 sets of population projections have been derived. The computed total population figures are shown in Table 6.1. Table 6.1 shows that the assumptions imply a range of 26.5 million to 36 million for the population of Canada in the year 2001. Compared to the 1971 census population, this range implies an increase of between 4.9 million and 14.4 million up to the year 2001. 

## FOOTNOTES.

- (1) The rate refers to 1922 excluding the Yukon and Northwest Territories (See DBS, Vital Statistics, 1952, Table 18).
- (2) The rates may be slightly inflated to the extent that births to widows after husbands' death will be included without including such widows in the denominator. Also, the rate does not make any allowance for changes in the distribution of married population by duration of marriage.
- (3) The method used here is similar to the procedures used by Henripin and Knodel. Henripin has estimated the separate effects of changes in nuptiality, legitimate fertility, illegitimate fertility and age composition on the fertility rate (GFR) during the different intercensal periods (Henripin, 1972, Chapter 3; Knodel, 1965, p. 96).
- (4) Illegitimate births here refer to "those in which parents report themselves as not having been married to each other at the time of birth or registration and, in the case of Ontario, since 1949, those in which the marital status of the mother was reported as single".
- (5) 1971 Census of Canada, Statistics Canada 93-712, Introduction. An account of the historical evolution of the definition of household in the Canadian census is contained in Loken, *Working Paper (Demographic and Socio-Economic Series) No. 16*, 1973.
- (6) 1961 Census of Canada, Volume II (Part 1), Introduction, p. XV. In the Canadian census, the largest amount of census data for families is compiled on the basis of this definition which has been used since 1941. Since 1956, the Canadian census also compiles data for economic families, defined as "a group of two or more persons living together, and related to each other by blood, marriage or adoption". (1961 Census of Canada, Statistics Canada 98-524, Introduction).
- (7) For 1941 and 1951, this conclusion is based on crude estimates of the population in private households obtained by multiplying the average number of persons per household which is available in Canadian census volumes, by number of households. For 1956, the number of households is equal to the number of occupied dwellings, hence the number of persons in occupied dwellings is used.

(8) In the 1971 census, collective households were defined as "all dwellings in which a large number of persons are likely to reside. Included are hotels, motels, hospitals, staff residences, institutions, military camps, work camps, all jails and missions, and rooming or lodging-houses with 10 or more persons not related to the head of the household". (1971 Census of Canada, Procedures Manual, p. 12).

For an account of the treatment of collective households in the Canadian census see Loken, Working Paper (Demographic and Socio-Economic Series) No. 16, 1973.

- (9) Figures for families and for persons in families for 1931 are not exactly comparable to those for the other census years, due to differences in definition. A crude adjustment, in 1931, in the number of *families* to exclude 270,312 one-person families and in the number of *persons in families* to exclude 104,572 dependants other than wives and children, gives the figures used here. The resulting average size of family of 4.2 approximates the size of the family in 1931 as if the 'census family' definition adopted in 1941 had been used.
- (10) It is important to note that this practice will be changed in the 1976 Census of Canada, with the removal of the sex constraint in the designation of family head.
- (11) Actual full-time enrolment figures are used instead of census figures as they provide a better time-series in the 1951-71 period. The reader is cautioned that these two sources of data are not comparable.
- (12) The 5 to 13 year age group accounts for most of elementary enrolment. Yet there are persons enrolled at younger and older ages; hence the percentage greater than 100 in some years.
- (13) For details on definitional changes and comparability of data, see 1961 Census of Canada, Vol. VII (Part 1), Chapter 2; Stone, 1967, Appendices D, E and F; 1966 Census of Canada, DBS 99-601, pp. 21-31; 1971 Census of Canada, Statistics Canada 92-709, Introduction.
- (14) The 1971 census provides for the first time the breakdown of each Census Metropolitan Area into its urbanized core and fringe areas (1971 Census of Canada, Statistics Canada 92-708, Table 8).
- (15) The figures quoted refer to "Service Producing Industries" which include: (1) transportation, communication and other utilities; (2) trade industries; (3) finance, insurance and real estate; (4) community

business and personal service industries; and (5) public administration and defence.

(16) This chapter does NOT constitute a release of data under the authorship of Statistics Canada, even though Statistics Canada publication facilities are used. The projections presented here may differ slightly from the forthcoming official Statistics Canada projections, especially with regard to the fertility assumptions. However, both sets of projections convey a similar picture of the potentials in the future growth of Canada's population.

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## **APPENDIX** A

## THE COLLECTION OF POPULATION STATISTICS IN CANADA

by

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Population statistics in Canada are collected from two main sources: the census of Canada and vital registration. In this appendix a brief description and history are provided. In size, scope and complexity, census-taking in Canada rates as one of the government's most extensive peacetime undertakings. A full census is conducted at regular decennial intervals on a *de jure* basis, June 1 of the first year in each decade; the latest census being taken in 1971. The first census in the modern sense of a name-by-name recording of the population was taken in 1666 in the colony of New France. In 1851 and 1861 a regular census was taken in the United Province (Ontario and Québec) and in the provinces of New Brunswick and Nova Scotia. Following Confederation in 1867 authority for conducting a census of Canada was established by an act of the new parliament. From 1906 to 1946 at ten-year intervals a regular quinquennial census was also conducted in the Prairie provinces and in 1956 the mid-decade census was extended to all the provinces (1961 Census of Canada, Vol. VII (Part 2), pp. 12-3 to 12-8).

The census provides information not only on population size for all administrative areas in the country, but also covers many characteristics of the population – namely, age and sex, marital status, ethnicity, education, occupation and family size to name a few. Since 1961 questions on internal migration, fertility, and income have been included in the decennial census.

The second major source of population statistics in Canada comes from the collection of vital statistics. The provinces and territories collect data on births, deaths, stillbirths, marriages, and dissolution of marriages. These data are forwarded to the Vital Statistics Section of Statistics Canada where they are aggregated and published on a monthly and annual basis.

The collection of vital statistics began with the registration of baptisms, marriages and burials by the ecclesiastical authorities as early as 1610 in the French colony. Prior to 1920 it was impossible to compile satisfactory series of vital statistics for Canada as a whole. Cooperation between the federal and each of the provincial governments was reached individually by 1926 to provide vital registration data to the federal government. It was not until the Dominion-Provincial Conference of 1944 that this cooperation was formerly agreed upon as a result of the impending social security legislation. The agreement that went into effect July 1, 1945 required each province to provide to the federal government current birth, stillbirth, marriage and death registration statistics, as well as births registered since January 1, 1925 (Canada Year Book, 1948-49, pp. 185-187).

Two important and regular sources of migration statistics are available for Canada. These are: (1) frontier statistics collected on a continuous basis by the Department of Manpower and Immigration, and (2) census statistics collected every ten years by Statistics Canada. The first source is of the nature of flow statistics recorded at the time of arrival for all individuals who possess landed immigrant visas. The immigration statistics thus collected annually are fairly detailed for Canada and provide information on age, sex, marital status, country of former residence, destination in Canada, mode of arrival, intended occupation and country of citizenship. No information is, however, collected on emigrants from Canada. However, extensive use is being made of immigration statistics collected administratively in the U.S.A. and U.K. to compile emigration statistics for Canada subject to the limitations of definitions used by these countries.

The second source, the Canadian censuses, contains rich and more comprehensive data on international migration. However, as is well-known, the migration data that could be obtained from a census are subject to certain limitations. First and foremost, the census statistics are stock data, and do not measure the continuous inflow as the system of frontier or border collection does. Census data reflect the net results of population movements, and do not cover the return migration. In addition, they provide only a partial coverage of those who survive to the census date. The great advantage of the census is the variety of data that may be extracted economically and for smaller geographical areas.

The 1961 and 1971 censuses contained a question on place of residence five years ago. As a result, the migration statistics from these two censuses are time specific in the sense that migration is, according to this question, determined by a comparison of residence at two definite points of time. Cross-classification of responses to this question with place of birth yields valuable information on return-migration of the Canadian-born.

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