

The social and economic environment

This set of 11 topics describes the nature of the Canadian population in the mid-1990s and recent trends in the composition of society that have an influence on individual and societal well-being. Many of these topics can be considered measures of social health; because this Report is about the health status of individuals, social health is treated here as a determinant.

In the case of poverty, unemployment, stress, and violence, the influence on health is direct, negative, and often shocking for a country as wealthy and as highly regarded internationally as Canada. Other indicators described here have a more indirect influence on health: age and family composition, the birth rate, immigration, and school readiness.



This section provides important background detail on population characteristics that serve as standard classification variables in most of the balance of this *Statistical Report*: age and sex composition, social status as revealed by education and income and, occasionally, by household type, and province/territory of residence. The aging of Canadian society, disparities in social status, and interprovincial/territorial comparisons provide recurring themes that underlie the patterns of findings in much of this *Report*.

Overview

Many of the trends revealed in this section are familiar: an aging population (Topic 1) and declining birth rate (Topic 3), a large increase in couples living common law with children (Topic 2) as well as many more children in single-parent families (Topic 2), increased immigration, especially from Asia (Topic 4), falling real incomes (Topic 6) despite increased labour force participation by women (Topic 7), and stubbornly high unemployment among youth (Topic 7).

The Index of Social Health provides a new summary of the health of Canadian society and how this has changed since 1970 (Topic 11). The index suggests that quality of life has declined since the early 1980s, even as economic output grew. Since this followed several years when social health and economic output moved in a near-perfect relationship, it suggests that policy choices starting over a decade ago have led to a divergence of the two trends. The implication is that a different course in economic and social policy could restore the positive trend in social health.

On data sources and gaps

The 1996 Census provides most of the data for this section. The major shortcoming is an absence of a routinely published measure of income *disparity*, which has not been updated by Statistics Canada since 1991. As the prime suspect in the disparities of health that are described in the later sections of this *Report*, income disparity is an important part of the policy puzzle. Perhaps even more revealing would be data on concentrations of *wealth* in addition to income, but such information is simply not available.

1

Population age and sex

Introduction

The characteristics of a population have an inevitable impact on the social and economic situation of a country. A population's age and sex composition can also affect various aspects of health, including general fertility rate (Topic 3), the use of health care services (Topics 15–29), mortality rates (Topic 82), prevalence of activity limitation (Topics 58 and 59), and chronic conditions (Topic 68), among others.

This topic describes the age and sex composition of the Canadian population.

The Canadian population

In 1997, there were just over 30 million people living in Canada, almost equally divided between men and women (Table 1).¹ From 1971 to 1997, the Canadian population grew by 8.7 million people.^{1,2}

In 1996, the Canadian rate of “dependency” (a standard demographic measure relating population age 0–19 and 65+ as a percentage of the total population) was in the lowest third of the range of other OECD countries (Fig. 1a).³ In 1996, one-quarter (27%) of the population was age 19 and younger, and 12% was age 65 and older. The Netherlands, Switzerland, and Japan had the lowest rates of dependency, although theirs were not significantly lower than that of Canada. Ireland had the highest rate of dependency, owing to the large concentration of youth in its population.

Differences among groups

There is little gender variation by age in the Canadian population. While there are more women than men in the oldest age groups (65–74 and 75+) as a result of the longer life expectancy for women (Topic 84), there are virtually equal numbers in all younger age groups (Table 1).

The bulk of the Canadian population is concentrated in Ontario (38%) and Quebec (24%) (Table 1). There are three times as many people living in the Prairies and British Columbia (29%) as there are in the Maritimes and Newfoundland (9%). The vast differences in provincial population size are illustrated by the ratio of the largest (Ontario) to the smallest (Prince Edward Island), which is 83:1. The territorial populations are even smaller than that of the smallest province.

From 1991 to 1997, British Columbia had the highest population growth rate (almost 20%) of all the provinces, which was almost double the 11% growth of Canada as a whole.^{1,2} Only Newfoundland had a decrease in population, with just under a 1% negative population growth rate from 1991 to 1997.^{1,2}

The proportion of the population made up of the youngest Canadians (age 0–19) decreased from approximately 39% in 1971 to 27% in 1996 (Fig. 1b),⁴ illustrating the aging of the “baby boom” generation. This decrease was more than offset by the increase in the number of Canadians between the ages of 20 and 64, from 53% in 1971 to 61% in 1996, as well as an even greater increase in the population age 65 and over — from 8% in 1971 to 12% in 1996.

On definitions and methods

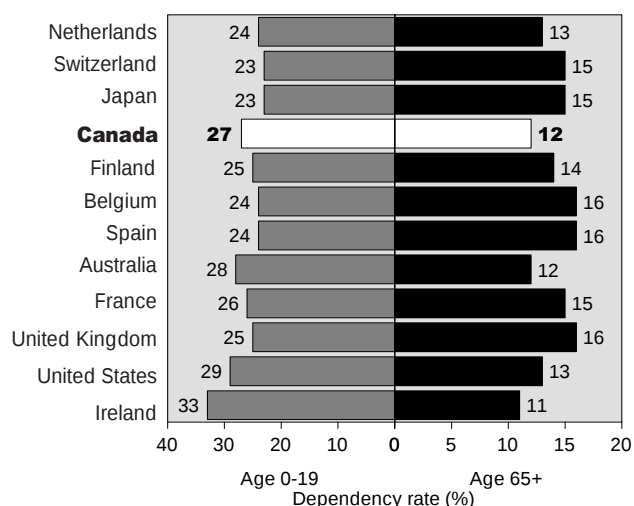
A complete census of population is conducted every five years in Canada. Population data for intercensal years are based on estimates by Statistics Canada, derived from the previous census (1996 in the current case) and from data from administrative sources on births, deaths, and migration.

These estimates are revised periodically as more complete data become available for intercensal years. The next census will be in 2001.

References

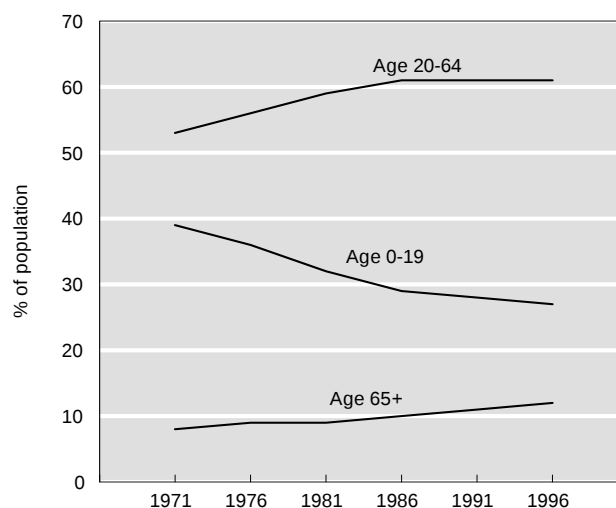
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3. Organisation for Economic Co-operation and Development. *OECD Health Data 98* (CD-ROM).
4. Statistics Canada, Health Statistics Division. *Health Indicators, 1999* (Statistics Canada Cat. No. 82-221-XCB).

Figure 1a. **Dependency rates,* selected OECD countries, 1996**



* Population age 0–19 and 65+ as a percentage of the total population.
Source: Organisation for Economic Co-operation and Development, *OECD Health Data 98* (CD-ROM).

Figure 1b. **Proportion of the population, by age, Canada, 1971–1996**



Source: Statistics Canada, Health Statistics Division, *Health Indicators, 1999* (Statistics Canada Cat. No. 82-221-XCB).

Table 1. **Characteristics of the population, by age and sex and by province/territory and sex, Canada, 1997**

	Total		Male		Female	
	Number		Number		Number	
	('000)	%	('000)	%	('000)	%
Total, all ages	30,287	100	15,000	50	15,287	50
Age 0–4	1,916	6	982	3	934	3
Age 5–9	2,049	7	1,050	3	1,000	3
Age 10–14	2,027	7	1,035	3	992	3
Age 15–17	1,224	4	627	2	597	2
Age 18–19	800	3	410	1	390	1
Age 20–24	2,034	7	1,032	4	1,002	3
Age 25–34	4,767	16	2,409	8	2,359	8
Age 35–44	5,172	17	2,596	9	2,576	9
Age 45–54	3,978	13	1,995	7	1,983	7
Age 55–64	2,593	9	1,281	4	1,312	4
Age 65–74	2,127	7	984	3	1,144	4
Age 75+	1,598	5	599	2	999	3
Newfoundland	564	2	281	1	282	1
Prince Edward Island	137	0.5	68	0.2	69	0.2
Nova Scotia	948	3	467	2	481	2
New Brunswick	762	3	377	1	383	1
Quebec	7,420	24	3,657	12	3,763	12
Ontario	11,408	38	5,636	19	5,771	19
Manitoba	1,145	4	568	2	577	2
Saskatchewan	1,023	3	508	2	515	2
Alberta	2,847	9	1,432	5	1,415	5
British Columbia	3,933	13	1,954	6	1,980	7
Yukon	32	0.1	16	0.05	15	0.05
Northwest Territories	68	0.2	35	0.1	33	0.1

Source: Statistics Canada, 1996 Census: Postcensal population estimates, *The Nation Series* (CANSIM Matrix 6367).

Marital status and family composition

Introduction

For the purpose of this *Report*, family situation and marital status are relevant as determinants of healthy living. Marital status and family situation can be linked to access to social support (Topic 30), support for behavioural change (Topic 52), and informal care (Topic 32). As well, there are implications for family violence (Topic 10) and everyday stress (Topic 8).

Families in Canada, 1996

In 1996, 42% of Canadians were single, and 47% were married (including common law and separated).¹ The rest of the population was either divorced (4%) or widowed (5%) (Table 2a).¹

Divorce rates (as legally defined) doubled between 1971 and 1982 (Fig. 2a),^{2,3} decreased through 1985, and then dramatically increased to the 1987 peak of 362 per 100,000 population. From 1987 through 1996, divorce rates steadily declined. In fact, the 1996 divorce rate was 248 per 100,000, the lowest rate since 1985. The number of divorces dropped almost 8% from 1995 to 1996, largely because of changes in legal-aid divorce funding in Ontario.³

Common-law marriages are the fastest-growing category of marital status in the 1990s; there were over 1.8 million Canadians living common law in 1996.⁴ This means that people living common law constituted about 13% of all married persons. Almost half of all common-law couple families included children,⁵ and nearly two-thirds of individuals in common-law relationships had never been married before. Another quarter of individuals in these relationships had been divorced previously.⁴

As of 1996, almost 24.6 million (87%) Canadians were living in 7.8 million families.^{5,6} About three-quarters of families were married couples (Table 2b),⁷ but this proportion had declined from 80% in

1986.⁵ This decline was largely due to the increase in common-law and single-parent families. Between 1991 and 1996, the number of common-law families increased by 28%, compared with 19% for lone-parent families and 2% for married couple families.⁵

Between 1991 and 1996, the number of children living in families increased by 6%. However, there was almost no increase in the number of children living in families of married couples. The growth in the number of children in families came from common-law couples (52%) and lone parents (19%).⁵

As of 1996, there were 1.1 million lone-parent families, or 15% of all families (Table 2b).⁵ More than five in every six of these single-parent families were headed by women, nearly one-quarter of whom had never been married. Almost one in every five children lived with a lone parent in 1996, compared with one in six in 1991. Between 1991 and 1996, the number of children living with a female lone parent increased at a much faster pace (20%) than did the number of children living with a male lone parent (11%).⁵

The average legally married couple had 1.2 never-married children living at home in 1996 (Table 2b). This compares with 0.8 children in common-law families and an average of 1.6 children in lone-parent families. Among families with children at home, differences in the number of never-married children at home were smaller: legally married couples had an average of 1.9 children at home, while common-law families had 1.7 children and lone-parent families had 1.6 children at home.

Two-thirds (65%) of Canadian families had children living with them in 1996 (Fig. 2b).^{7,8} The average family size was 3.1 persons, and the average number of children per family was 1.2. These figures remain identical to those of the 1991 Census.

There are no directly comparable international data on family composition.

Differences among groups

Overall in 1996, men were more likely than women to have never married (Table 2a). Much of this difference can be attributed to 20–44 year olds, where men were much more likely to be single, while women were more likely to have married.¹ Women were more likely than men to be widowed (8% vs. 2%), owing to women's greater life expectancy (see Topic 84).

Not surprisingly, there were significant age differences in marital status (Table 2a). Virtually all Canadians under the age of 19 and most 20–24 year olds were single, although 15% of men and 29% of women of this latter age group were married. The majority of Canadians between the ages of 25 and 44 were married (72%). The prevalence of divorce for 35–64 year olds was above average, and the highest rate was found for people age 65–74. Approximately four-fifths of 45–64 year olds were married. Nearly half of Canadians age 75 and over were widowed (the large majority of whom were women).¹

There were large interprovincial/territorial differences in marital status. The territories presented the greatest departures from the Canadian average: the Northwest Territories had the largest proportion of single Canadians (55%), followed by Yukon (46%). This is most likely attributable to the relatively young nature of their populations (see Topic 1). Newfoundland and New Brunswick were the provinces with the highest rates of marriage (51% each). The Northwest Territories had a low rate of marriage, and both territories had a low prevalence of widows (2% each). The Northwest Territories and Newfoundland had the lowest prevalence of divorce (2%).

The youngest Canadians were those most likely to be living in families. Almost all (99.8%) Canadians under 15 years of age were living in families in 1996, while only two-thirds of the elderly (65 and older) were likely to be a part of families.¹ Only 56% of people 75 and over were living in families. This was particularly true for women age 75 and older, the only Canadian group where a majority (57%) were not living in families. In sharp contrast, the majority of men 75 and over were still living in families (77%).¹ The only other significant gender difference was among 25–44 year olds, where men were less likely than women to live in families (81% compared with 89%).

There was some provincial variation in family composition. Residents of Newfoundland were most likely (93%) to live in families, and Quebecers and

British Columbians were least likely to do so (85%).¹ Most of the other provinces and territories were around the Canadian average (87%).

While married couples made up 74% of Canadian families, the provincial value ranged widely, from a low of 64% of couples in Quebec to a high of 81% in Alberta (Table 2b). The two territories had an even lower rate than Quebec. As a consequence, the rates of common-law and lone-parent families were highest in Quebec and the territories, while Alberta had the lowest rate of lone-parent families in Canada.

Among those families with children at home, Saskatchewan and the Northwest Territories had slightly more children for each type of family than the respective Canadian averages. In general, differences in family size among the provinces and territories were modest (Table 2b).

Common-law families were most frequently found in Quebec, which had 43% of all such families.² In fact, almost one-quarter of all couples in Quebec were common law. Between 1991 and 1996, the fastest growth in the number of common-law families occurred in New Brunswick and the Northwest Territories. Newfoundland, Prince Edward Island, Quebec, and Yukon had increases above the national average.

Nationally, in 1996, 14% of all children under the age of six were living in common-law families.² In Quebec, by comparison, 31% of all children in this age group were in common-law families. Every province and territory recorded large increases among children living in common-law families since the 1991 Census. For example, Quebec experienced an increase of 69% and Ontario 45% in the number of children living in such families.

On definitions and methods

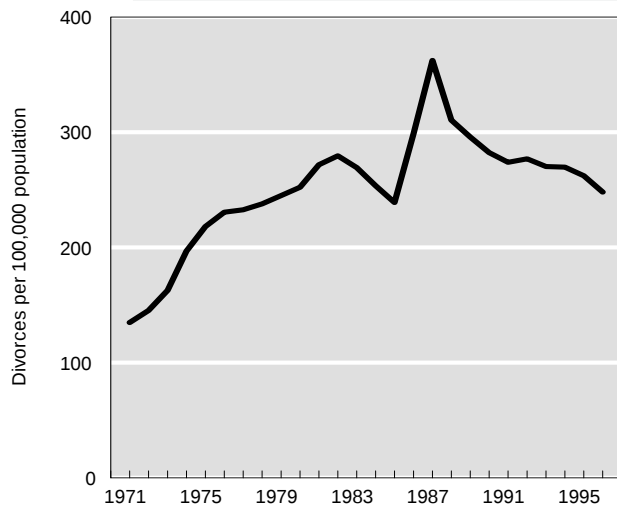
The data are from the 1996 Census. In this topic, “single” refers to those Canadians who have never been married. “Married” includes first marriages, remarriages, common-law relationships, and Canadians who are separated (unless otherwise specified, as in Table 2b). “Divorced” and “widowed” refer only to those who have not remarried. A “family” is a group of two or more persons that may include spouses, parents, and never-married children. Persons not living in a family are typically living alone or with non-relatives, either with roommates or in institutions. “Children” refers to never-married sons

or daughters living at home, of whom 90% are under the age of 25.

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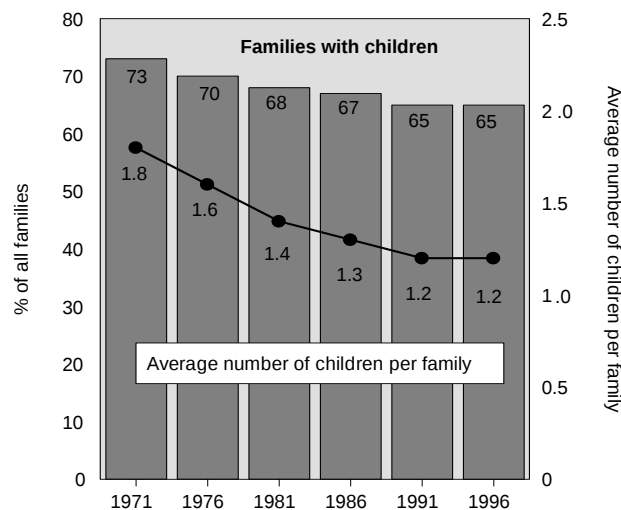
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6. Statistics Canada. 1996 Census: Family composition. *The Nation Series* (Statistics Canada Cat. No. 93F0022XDB96010).
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8. Statistics Canada. *A Portrait of Families in Canada*. Ottawa: Statistics Canada, 1993 (Statistics Canada Cat. No. 89-523).

Figure 2a. Divorces, Canada, 1971–1996



Sources: Statistics Canada, Divorce in the 1990s, *Health Reports* 1997; 9(2): 53–58 (Statistics Canada Cat. No. 82-003-XPB); Statistics Canada, Health Statistics Division, special tabulations.

Figure 2b. Families with children, and average number of children per family, Canada, 1971–1996



Sources: Statistics Canada, *A Portrait of Families in Canada*, Ottawa: Statistics Canada, 1993 (Statistics Canada Cat. No. 89-523); Statistics Canada, 1996 Census: Marital status and family composition, *The Nation Series* (Statistics Canada Cat. No. 93F0022XDB96008).

Table 2a. **Marital status, by age and sex and by province/territory, Canada, 1996**

	Population estimate	Single ^a	Married ^b	Divorced	Widowed
	('000)	(%)	(%)	(%)	(%)
Total, all ages	28,847	42	47	4	5
Male	14,170	45	50	3	2
Female	14,677	39	48	5	8
Age <15, total	5,901	100	—	—	—
Male	3,025	100	—	—	—
Female	2,876	100	—	—	—
Age 15–19, total	1,959	98	2	<1	<1
Male	1,003	98	2	<1	<1
Female	956	96	3	<1	<1
Age 20–24, total	1,898	78	22	<1	<1
Male	952	85	15	<1	<1
Female	946	71	29	<1	<1
Age 25–34, total	4,499	33	64	3	<1
Male	2,227	39	58	2	<1
Female	2,272	27	70	4	<1
Age 35–44, total	5,012	20	75	5	<1
Male	2,480	24	72	4	<1
Female	2,533	16	78	6	<1
Age 45–54, total	4,862	14	79	7	1
Male	2,403	16	78	6	<1
Female	2,459	11	79	8	1
Age 55–64, total	4,412	10	80	9	1
Male	2,186	11	81	7	<1
Female	2,226	9	79	10	2
Age 65–74, total	3,710	8	81	10	2
Male	1,848	8	83	8	1
Female	1,863	7	79	11	3
Age 75+, total	1,466	7	42	2	48
Male	544	6	70	2	22
Female	921	8	26	2	64
Newfoundland	552	42	51	2	5
Prince Edward Island	135	43	48	3	6
Nova Scotia	909	41	49	4	6
New Brunswick	738	41	51	3	5
Quebec	7,139	42	48	5	5
Ontario	10,754	42	50	4	5
Manitoba	1,114	43	48	4	6
Saskatchewan	990	43	48	3	6
Alberta	2,697	43	49	4	4
British Columbia	3,735	41	50	5	5
Yukon	31	46	48	5	2
Northwest Territories	64	55	41	2	2

^a Never married.^b Includes common-law relationships and separated individuals.Source: Statistics Canada, 1996 Census: Marital status, common-law unions and family composition, *The Nation Series* (Statistics Canada Cat. No. 93F0022XDB96005).

Table 2b. **Married, common-law, and lone-parent families, and average number of never-married children living at home, by province/territory, Canada, 1996**

	Married couple families				Common-law families				Lone-parent families		
	Number	%	Number of children for all families	Number of children for those families that have children	Number	%	Number of children for all families	Number of children for those families that have children	Number	%	Number of children for all families
Canada	5,779,720	74	1.2	1.9	920,640	12	0.8	1.7	1,137,510	15	1.6
Newfoundland	121,855	78	1.3	1.9	13,410	9	0.8	1.6	20,480	13	1.5
P.E.I.	27,915	78	1.3	2.0	2,765	8	0.8	1.7	5,200	14	1.6
Nova Scotia	190,040	75	1.1	1.9	24,420	10	0.7	1.6	39,685	16	1.5
New Brunswick	155,315	75	1.2	1.9	22,490	11	0.8	1.6	29,435	14	1.5
Quebec	1,240,270	64	1.2	1.9	400,270	21	0.9	1.6	309,435	16	1.5
Ontario	2,283,115	79	1.2	1.9	227,910	8	0.7	1.7	421,705	14	1.6
Manitoba	226,345	77	1.2	2.0	25,330	9	0.9	1.9	41,260	14	1.6
Saskatchewan	203,295	78	1.2	2.1	22,160	9	1.0	2.0	34,930	13	1.7
Alberta	717,560	81	1.2	2.0	72,320	8	0.8	1.8	92,485	10	1.6
British Columbia	765,565	76	1.1	2.0	103,865	10	0.7	1.7	139,010	14	1.6
Yukon	4,900	61	1.3	2.0	1,835	23	0.9	1.8	1,330	16	1.6
N.W.T.	8,345	56	2.0	2.5	4,050	27	1.4	2.1	2,560	17	1.9

Source: Statistics Canada, 1996 Census: Marital status and family composition, *The Nation Series* (Statistics Canada Cat. No. 93F0022XDB96008).

3

Births and fertility

Introduction

The Canadian population has grown substantially since 1971 (Topic 1), the two principal reasons being net immigration (Topic 4) and net births. Factors affecting the rate of live births are economic prospects (Topics 6 and 7), stillbirths (Topic 65), and abortion (Topic 66), as well as health and social policies, cultural and social values, and the health status of the prospective parents, among others. A general sense of social well-being (Topic 11) may also be a factor.

This topic describes the distribution of births in Canada according to the age and province or territory of residence of the mother.

Incidence of births, 1996

More than 366,000 babies were born in Canada in 1996, which is a rate of 1.59 live births per woman of childbearing age (Table 3).¹ Fertility, which had been virtually stable for several years, declined significantly in 1996 to an almost historic low.¹ The crude birth rate — live births per 1,000 population — was 12.2 in 1996, the lowest value since before 1972; it is clear that the decline in birth rates of at least the last 25 years has resumed after a brief revival in the late 1980s (Fig. 3a).²

The average number of live births per woman of childbearing age was lower in Canada in 1996 than in the United States, Australia, France, and the United Kingdom; however, Canada's fertility rate was higher than that in Germany, Spain, and Japan (Fig. 3b).³

Differences among groups

Women having a child are predominantly age 25–29 and secondarily age 30–34; almost two-thirds of all babies were born to women within this 10-year range in 1996. However, there were also 227 babies whose

mothers were age 10–14 and 211 whose mothers were age 45 or more (Table 3). Age-specific birth rates (based on 1,000 women in the specific age group) ranged from a low of 0.2 for women age 45 and older to a high of 105.9 for women age 25–29.

Provincial/territorial fertility rates ranged widely, from 1.26 live births per woman in Newfoundland to 2.71 in the Northwest Territories (Table 3). The Prairie provinces and both the territories had higher rates than the rest of Canada.¹ Similarly, there was a wide range in crude birth rates (per 1,000 population), from a low of 10.1 in Newfoundland to a high of 23.5 in the Northwest Territories. Provinces in addition to Newfoundland that fell below the national average of 12.2 were New Brunswick (10.7), Nova Scotia (11.2), Quebec (11.5), and British Columbia (12.0).

On definitions and methods

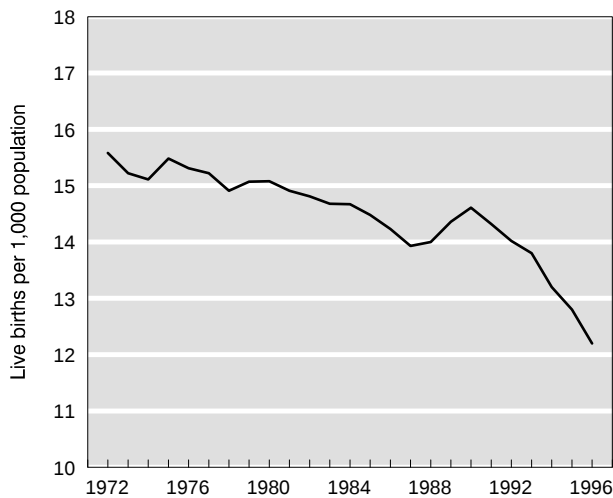
Fertility rates are the statistical summary of age-specific fertility rates (which are not shown in Table 3), expressed as the average number of children born live to women age 15–49.⁴ Women below 15 were assigned to the 15–19 years age group. Women over 49 were assigned to the 45–49 years age group. Crude birth rates (Canada and the provinces) are the number of live births per 1,000 population. Age-specific birth rates show the average number of live births to 1,000 women in a specified age range. Pregnancy rates differ from fertility rates and are reported (for teens) in Topic 64.

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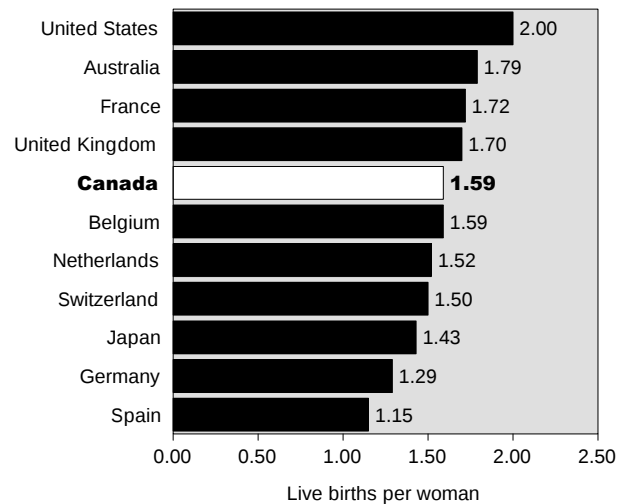
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4. Statistics Canada. *Compendium of Vital Statistics 1996*. Ottawa: Statistics Canada, 1999 (Statistics Canada Cat. No. 84-214-XPE).

Figure 3a. **Crude birth rate, Canada, 1972–1996**



Sources: Statistics Canada, Health Statistics Division, *Health Indicators, 1999* (Statistics Canada Cat. No. 82-221-XCB); Statistics Canada, Health Statistics Division, special tabulations.

Figure 3b. **Total fertility rate, selected industrialized countries, 1996**



Source: Dumas J, Belanger A, *Report on the Demographic Situation in Canada 1997: Current Demographic Analysis*, Ottawa: Statistics Canada, Demography Division (Statistics Canada Cat. No. 91-209).

Table 3. **Live births, fertility rate, and birth rate, by age of mother and by province/territory of mother, Canada, 1996**

	Births		Fertility rate ^a	Crude birth rate ^b
	Number	%		
Total, all ages	366,189	100	1.59	12.2
Age 10–14	227	0.1	n/a	n/a ^c
Age 15–19	21,597	5.9	n/a	22.3
Age 20–24	67,515	18.4	n/a	67.3
Age 25–29	116,723	31.9	n/a	105.9
Age 30–34	111,024	30.3	n/a	85.6
Age 35–39	42,637	11.6	n/a	32.2
Age 40–44	6,056	1.7	n/a	5.1
Age 45+	211	0.1	n/a	0.2
Newfoundland	5,747	1.7	1.26	10.1
Prince Edward Island	1,694	0.5	1.67	12.3
Nova Scotia	10,562	2.9	1.49	11.2
New Brunswick	8,176	2.2	1.41	10.7
Quebec	85,226	23.3	1.56	11.5
Ontario	140,012	38.2	1.57	12.4
Manitoba	15,478	4.2	1.86	13.5
Saskatchewan	13,300	3.6	1.89	13.0
Alberta	37,851	10.3	1.72	13.6
British Columbia	46,138	12.6	1.54	12.0
Yukon	443	0.1	1.69	14.1
Northwest Territories	1,562	0.4	2.71	23.5

^a Total fertility rate (for Canada and provinces) is the average number of children a woman can expect to have in her lifetime, based on the birth rates of 1996.

^b Live births per 1,000 population.

^c Birth rate for 10–14 and 15–19 age category included in the latter group.

Sources: Statistics Canada, Births 1996, *The Daily*, July 8, 1998 (Statistics Canada Cat. No. 11-001-XIE); Statistics Canada, Health Statistics Division, special tabulations.

4

Immigrant population

Introduction

Immigration has been a vital part of Canadian society since European explorers first arrived in Canada over 450 years ago. This topic examines the total immigrant population in Canada, the origin of those immigrants, and the class of current immigrants to this country. Immigration is important to the overall health picture because the health of immigrants is often different from that of the general population. Sometimes it is better, as in the case of lower rates of smoking among recent immigrants,¹ and sometimes it is worse, as in the case of increased tuberculosis among recent arrivals from poor countries (Topic 71).

Trends in immigration

In 1996, 17% of the Canadian population consisted of immigrants. This amounted to approximately 5 million persons (Table 4).² Overall, the largest proportion of immigrants (Fig. 4a)³ were born in the United Kingdom (13%) or Italy (7%). However, these earlier waves of immigration from Europe have been replaced by those born in Asia and the Middle East (Fig. 4b).³ In fact, between 1991 and 1996, 57% of those who arrived in Canada were from Asia and the Middle East.

While flows of immigration generally fluctuate over time, immigration from countries such as Hong Kong, the People's Republic of China, and India remained high between 1991 and 1996 (Fig. 4c).⁴ In contrast, immigration from countries such as Portugal and Poland declined during this period.

In 1996, there were 226,072 new landed immigrants in Canada.⁴ The majority of immigrants in 1996 were independent class immigrants (56%), followed by family immigrants (30%). This represents a departure from 1993, when the proportions of family and independent class immigrants were

identical (Fig. 4d).⁴ In fact, the number of family immigrants entering Canada in 1996 was similar to that in 1990. About one in six immigrants were classified as refugees in 1996, which is consistent with most years since 1981 (except for the brief surge from 1989 to 1993).

From 1981 to 1996, there were some significant changes in the numbers of landed immigrants arriving in Canada (Fig. 4d). Between 1980 and 1983, there was a decrease each year, reaching a low of 84,302 in 1983. By 1987, the number of immigrants had increased beyond the level in 1981. By 1992, the total number of landed immigrants was almost twice the 1980 figure. This trend of increasing immigration peaked in 1993, with 256,000 immigrants, and decreased slightly to an average of about 225,000 per year after 1993.

Characteristics of immigrants

The immigrant population has different characteristics from the Canadian-born population. For example, 47% of immigrants who arrived in 1996 were between 25 and 44 years of age, and 22% were age 0–14⁵; both represent higher proportions than the overall Canadian population for those age categories (33% and 21%, respectively; see Topic 1). Further, 27% of immigrants were over the age of 65, although this age group accounted for only 11% of the total population in Canada (see Topic 1). Immigrants were least likely to be young, either less than 15 (5%) or age 15–24 (11%).

There is significant variation in the place of residence of the immigrant population within Canada. Over half of the immigrant population lives in either Ontario or British Columbia. In fact, British Columbia has had a 25% increase in its immigrant population since 1991, the highest among the provinces.³ There are also significant concentrations of immigrants in Alberta, Manitoba, and Yukon. The

eastern provinces are the least likely to have large immigrant populations; Newfoundland has the lowest proportion of total immigrants (less than 2%). Recent immigrants have been especially attracted to Canada's three largest urban areas: Toronto, Vancouver, and Montreal. In fact, 85% of all immigrants lived in a census metropolitan area, compared with just 57% of Canadian-born people.³

Recent immigrants, regardless of their country of birth, tend to be in better health than Canadian-born residents.⁶ New immigrants tend to be healthy largely because of the immigration process. People in good health are more inclined to emigrate than those in poor health, and potential immigrants must first undergo medical screening for serious medical conditions. In the 1994–95 *National Population Health Survey*, 50% of all immigrants age 18 and over reported a chronic health problem such as allergies or joint problems, compared with 57% of the Canadian-born. In the same survey, 18% of immigrants reported a long-term disability, compared with 22% of the Canadian-born. The longer immigrants lived in Canada, however, the more their health resembled that of the Canadian-born, as their lifestyles and health-related behaviours became more like those of persons born in Canada. Smoking rates are an example.¹

On definitions and methods

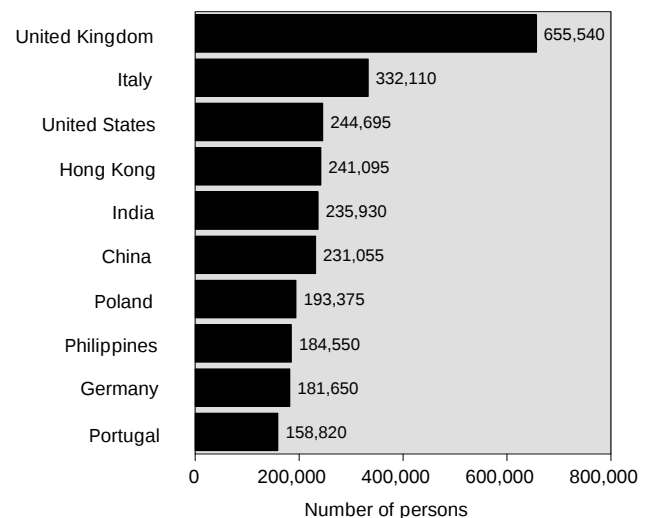
The 1996 Census is a key source of information on immigration, while yearly immigration data are obtained from Citizenship and Immigration Canada.

In general, the term “immigrant” refers to a person born outside Canada whose parents were not Canadians, but who has been granted the right to live in Canada permanently by immigration authorities. “Independent immigrants” include assisted relatives, business immigrants, and retirees, among others. “Refugees” include both individuals and designated classes. “Family immigrants” roughly refers to immigrants who are immediately related to one another and arrive in Canada together. “New immigrants” refers to persons immigrating in a given time period. Citizenship and Immigration Canada has more detailed definitions (Internet site: <http://cicnet.ci.gc.ca>).

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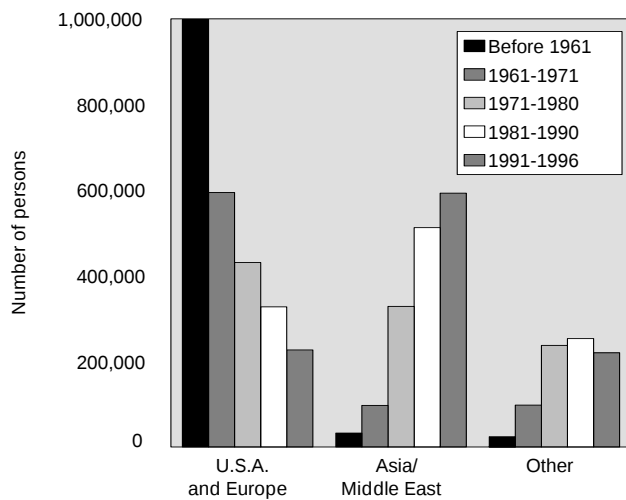
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4. Dumas J, Belanger A. *Report on the Demographic Situation in Canada 1997: Current Demographic Analysis*. Ottawa: Statistics Canada, Demography Division (Statistics Canada Cat. No. 91-209) (original data source: Citizenship and Immigration Canada).
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Figure 4a. **Birthplace of all immigrants as of 1996**



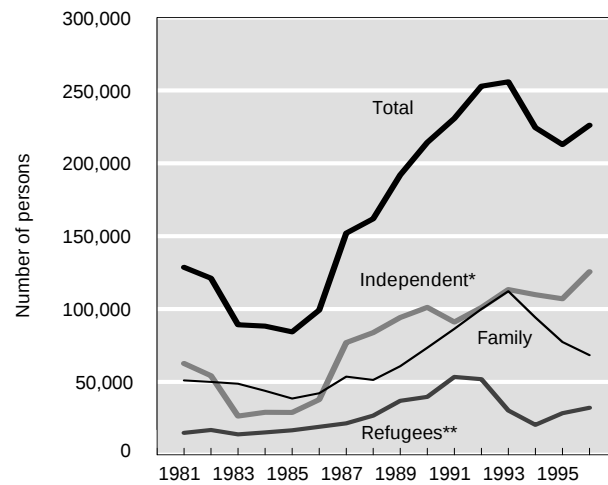
Source: Statistics Canada, 1996 Census: Immigration and citizenship, *The Daily*, November 4, 1997 (Statistics Canada Cat. No. 11-001-XIE).

Figure 4b. **Birthplace of all immigrants, by period of immigration, 1996 Census**



Source: Statistics Canada, 1996 Census: Immigration and citizenship, *The Daily*, November 4, 1997 (Statistics Canada Cat. No. 11-001-XIE).

Figure 4d. **New landed immigrants, by class, 1981-1996**

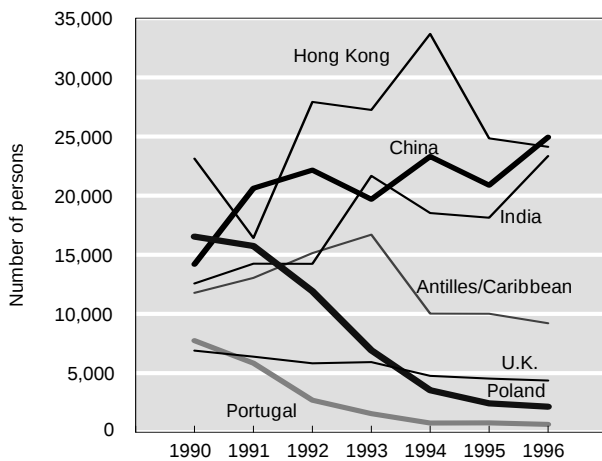


* Includes assisted relatives, business immigrants, retirees, and other independents.

** Includes both individual convention refugees and designated classes.

Source: Dumas J, Belanger A, *Report on the Demographic Situation in Canada 1997: Current Demographic Analysis*, Ottawa: Statistics Canada, Demography Division (Statistics Canada Cat. No. 91-209) (original data source: Citizenship and Immigration Canada).

Figure 4c. **Birthplace of new immigrants, 1990-1996**



Source: Dumas J, Belanger A, *Report on the Demographic Situation in Canada 1997: Current Demographic Analysis*, Ottawa: Statistics Canada, Demography Division (Statistics Canada Cat. No. 91-209) (original data source: Citizenship and Immigration Canada).

Table 4. **Immigrant population, by age and sex and by province/territory, Canada, 1996**

	Total Canadian population	Immigrants
	('000)	(%)
Total, all ages	28,528	17.4
Male	14,047	17.1
Female	14,481	17.7
 Age <15, total	 5,899	 4.9
Male	3,024	4.9
Female	2,875	4.9
Age 15–19, total	1,956	9.9
Male	1,008	10.0
Female	948	9.7
Age 20–24, total	1,893	12.6
Male	947	12.2
Female	946	13.1
Age 25–34, total	4,481	17.7
Male	2,209	17.2
Female	2,272	18.2
Age 35–44, total	4,843	19.5
Male	2,386	18.9
Female	2,457	20.0
Age 45–54, total	3,698	25.2
Male	1,837	25.3
Female	1,861	25.1
Age 55–64, total	2,478	27.5
Male	1,217	28.1
Female	1,261	26.9
Age 65+, total	3,280	27.2
Male	1,417	28.5
Female	1,862	26.7
 Newfoundland	 547	 1.6
Prince Edward Island	133	3.3
Nova Scotia	900	4.7
New Brunswick	730	3.3
Quebec	7,045	9.4
Ontario	10,643	25.6
Manitoba	1,100	12.4
Saskatchewan	977	5.4
Alberta	2,669	15.2
British Columbia	3,690	24.5
Yukon	31	10.4
Northwest Territories	64	4.8

Sources: Statistics Canada, 1996 Census: Immigration and citizenship, *The Nation Series* (Statistics Canada Cat. No. 93F0023XDB96005); assistance provided by Housing, Family and Social Statistics Division, Statistics Canada.

Education and literacy

Introduction

Educational attainment is widely acknowledged as one of the key components of socio-economic status and is the key indicator of that status throughout this *Report* (since good data on income are often less readily available in population surveys). Socio-economic status in general, and education specifically, is very often positively associated with health status and health behaviours.¹ For example, in the 1996–97 *National Population Health Survey*, only 19% of respondents with less than a high school education rated their health as “excellent,” compared with almost 30% of university graduates.²

Literacy and numeracy skills are essential for full participation in today’s society. People lacking such skills are unable to rise to the challenge of a changing work world or take advantage of government initiatives that appear in print. Those Canadians lacking the literacy and numeracy skills to meet everyday needs may end up feeling alienated from society and may suffer from various physical and mental health problems. Literacy has become a priority of governments.

This topic describes the educational attainment of Canadians age 15 and over, the literacy skills of persons age 16–65, and the school readiness of 4–5 year olds.

Education and literacy

According to the 1996 Census, over 14 million Canadians age 15 and over (66%) had completed *at least* high school (Table 5a).^{3,4} The greatest proportion of persons age 15–19 reported less than a high school education, which is not surprising. About 69% of Canadians age 20 and older had completed at least high school; the most common level of education was

college (27%), followed by a high school certificate (25%) and a university degree (17%).

From 1971 to 1996, there was a significant decline in the number of Canadians age 15 and over with less than Grade 9 (from 32% to 12%) and a corresponding increase in the number of Canadians who had completed some post-secondary schooling (from 17% to 34%) (Fig. 5a).⁵ The increase in the number of Canadians who had completed some post-secondary education appears to be slowing somewhat, with only a four percentage point increase from 1986 to 1996; however, the trend among those with less than Grade 9 continued to decrease significantly. By comparison, the changes in the number of Canadians completing Grades 9 through 13 and university degrees during the same period were quite slight (only changes of two and four percentage points, respectively). Interestingly, 1996 was the first census year to record more university graduates than people reporting less than Grade 9 education.

In 1994–95, only 57–58% of Canadians age 16–65 attained Level 3 or greater (out of five levels) in prose, document, and quantitative literacy (Table 5b).^{6,7} Literacy in Canada was distributed similarly to that in the United States, although there was a slightly larger proportion at Level 1 in the United States. Both countries had relatively large numbers at Level 1 (most notably at the document scale) and Level 4/5. The Netherlands showed great internal consistency across scales, while Sweden ranked at the highest levels of all three scales. When comparing the Level 4/5 of each scale, out of the 11 countries/regions listed, Canada ranked second highest in prose, second highest in document, and fifth highest in quantitative literacy (numeracy).

There are no trend data to describe changes in literacy or numeracy over time, and no such data on Aboriginal Canadians.

Differences among groups

There were considerable variations between groups with regard to educational attainment, which, in turn, helps to explain the intergroup differences in health described later in this *Report*. Further, parents' education was strongly linked to the school readiness of children (Fig. 5b),^{5,8} which suggests why inter-generational patterns of poverty and under-employment are sometimes observed.

Overall, women were as likely as men to have less than high school, but were somewhat more likely to have ended their education after high school and slightly less likely to have a college certificate or university degree. Women in their 20s, however, were *more* likely to be college and university graduates than men of the same age (Table 5a). One of the most important changes between 1971 and 1996 was the increase in the number of Canadian women obtaining university degrees. This change was true for both women age 15–24 and those 25 and over. There were over four times as many women university graduates over the age of 25 in 1996 as there were in 1971, compared with twice as many men over 25 with university degrees (Fig. 5c).⁵

There was a strong inverse relationship between age and education: with each older cohort, there was a greater proportion who had not finished high school. For example, more than twice as many Canadians in their early 20s had finished high school and/or some post-secondary education compared with people age 55 and older (Table 5a). Both college diplomas and university degrees were most common among persons age 25–44, where about one-third of such persons had a college diploma and about 21% had a university degree.³

There was considerable provincial/territorial variation among Canadians who had not completed high school, ranging from 45% in Newfoundland to 31% in British Columbia. There was less variation in rates of high school or college completion, while university degrees were least common in Newfoundland (10%) and most likely in Ontario and Yukon (17%) (Table 5a). These differences should be borne in mind when reviewing interprovincial/territorial comparisons elsewhere in this *Statistical Report*, as they are not standardized for education. In contrast to these adult results, children age 4–5 in Newfoundland, Nova Scotia, and Saskatchewan were well above the national average in school readiness, while those in Ontario and British Columbia were significantly below the national average.⁹

According to the 1996 Census, Aboriginal Canadians are less likely than the average Canadian 15 and over to have a formal education, regardless of age group.¹⁰ About 54% of Aboriginals age 15 and over had not received a high school diploma, compared with 35% of the non-Aboriginal population. At higher levels of attainment, 5% of Aboriginal people were university graduates, compared with 16% of the non-Aboriginal population. Comparisons between 1981 and 1996 show that Aboriginals are making educational progress, however. Between 1981 and 1996, the proportion of Aboriginal people age 20–29 with a post-secondary degree or diploma improved from 19% to 23%, while the proportion with a university degree increased from 3% to 4%. The proportion of Aboriginals with less than a high school education dropped from 59% in 1981 to 45% in 1996.

With respect to literacy, several intergroup contrasts have been noted¹¹:

- ◆ The literacy skills of Canadians older than 45 were markedly lower than those of adults age 16–45. Most of the difference was attributable to respondents' socio-economic background, their years of education, and whether their first language was the test language.
- ◆ Women's scores in prose literacy were higher than those of males across the full age range of 16–90. However, no statistically significant differences existed between the sexes in document literacy scores. Men scored higher in quantitative literacy than women; however, the differences were evident only for youth (16–25) and adults over 65.
- ◆ Adults whose first language differed from the test language scored substantially lower than those whose first language matched the language of the test.
- ◆ Adults in “rural communities” scored slightly lower than those in urban areas (a difference of about five months of formal schooling); however, after accounting for their background characteristics, rural adults scored higher, with a difference of about one full year of schooling.
- ◆ The 10 provinces varied substantially in their literacy scores. The unadjusted results for youth can be clustered into three groups, with Manitoba and Saskatchewan scoring more than one year of schooling above the national average; British Columbia, Alberta, Nova Scotia, and Quebec

scoring near the national average; and Ontario, New Brunswick, Newfoundland, and Prince Edward Island scoring about one year of schooling below the national average. About three-eighths of the variation was attributable to differences in youths' socio-economic background.

- ◆ The relationship between literacy skills and socio-economic status varied dramatically among the provinces. The distribution of literacy skills along social class lines was considerably more equitable in Quebec and the three Prairie provinces. In Ontario, British Columbia, and the four Atlantic provinces, youth from less advantaged family backgrounds scored much lower than youth with similar backgrounds in the other provinces.

Intergroup differences in school readiness are consistent with these findings: boys and girls scored equally well in vocabulary skills, and family social position, especially mother's education and father's occupation, were positively related to school readiness.⁸ Children in two-parent families and those in smaller families were also at an advantage in school readiness.

On definitions and methods

Data on educational attainment come from the 1996 Census. In this and other topics using the same categories to describe education, the highest level completed is shown. The only category that is not found elsewhere in this report is the "some post-secondary" category. This group simply represents people who have completed high school or college but have gone on to only partially complete some level of college, trade school, or university education. In most sections of the *Report*, this group is included with those who have completed high school.

Most of the data presented by level of education elsewhere in this *Report* have been standardized for age — that is, adjusted as if all four main education groups had the same age distribution. Age-standardized data are marked as such, but some data are not standardized because of lack of access to the microdata or small sample sizes.

The *International Adult Literacy Survey* explored prose, document, and quantitative literacy of Canadians as well as citizens in other countries, with an emphasis on practical skills needed for everyday

life. Prose literacy refers to the ability to read and comprehend a passage of text, while document literacy describes the ability to complete standard forms, such as job applications. Quantitative literacy, sometimes referred to as numeracy, requires basic computational skills. Literacy skills were allotted to one of five levels, where each higher level represented more complex literacy tests. The *International Adult Literacy Survey* was conducted in 1994–95 in a number of countries. Consistency tests showed 97% agreement of the surveys among participating countries.¹¹

International Adult Literacy Survey respondents were generally age 16–65 and were representative of their countries' population of 16–65 year olds (although there was no upper age limit on Canadian respondents). In Canada, 3,130 respondents were tested in English and 1,370 in French, representing 98% coverage of Canadians 16 and over, excluding residents of institutions, persons living on Indian reserves, members of the armed forces, and residents of Yukon and the Northwest Territories.

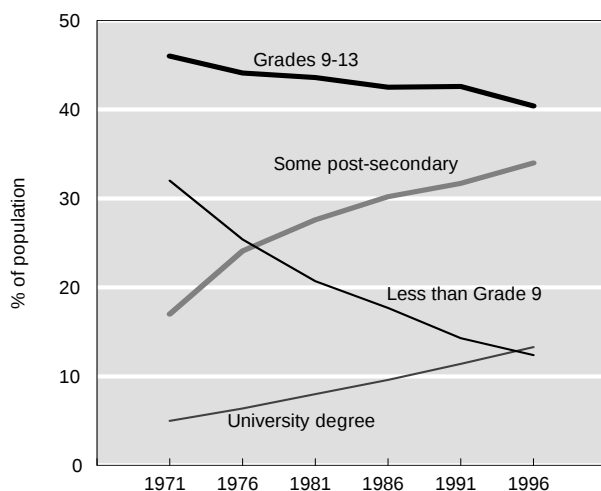
School readiness was assessed with a sample of more than 3,000 children age 4–5 as part of Statistics Canada's *National Longitudinal Survey of Children and Youth* in 1994–95, using the Peabody Picture Vocabulary Test. Children within 15 points of a score of 100 are regarded as normal; those below are delayed, and those above, advanced.^{8,9}

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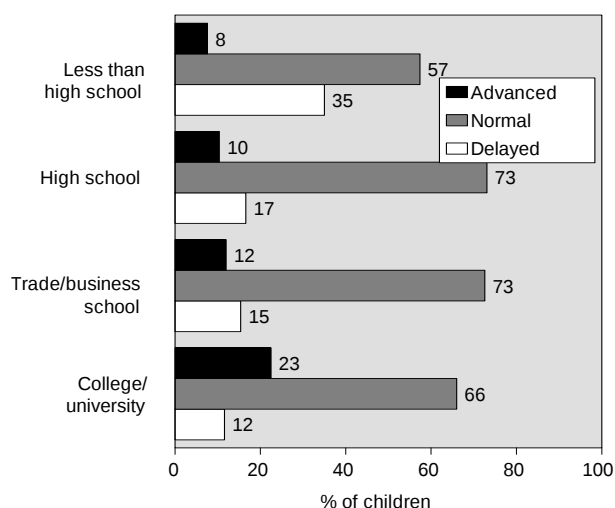
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Figure 5a. **Highest level of schooling, age 15+, Canada, 1971–1996**



Source: Statistics Canada, 1996 Census: Education, *The Nation Series* (Statistics Canada Cat. No. 93F0028XDB96002).

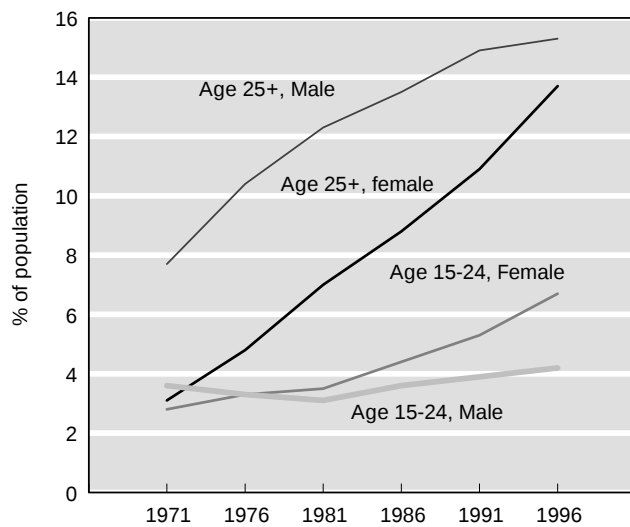
Figure 5b. **School readiness, by parents' education,* age 4–5, Canada, 1994–95**



* Education of most-schooled parent.

Source: Human Resources Development Canada and Statistics Canada, *Growing Up in Canada: National Longitudinal Survey of Children and Youth*, Ottawa: Statistics Canada, November 1996 (Statistics Canada Cat. No. 89-55-MPE, No. 1).

Figure 5c. **Attainment of a university degree, by age and sex, age 15+, Canada, 1971–1996**



Source: Statistics Canada, 1996 Census: Education, *The Nation Series* (Statistics Canada Cat. No. 93F0028XDB96002).

Table 5a. **Educational attainment, by age and sex and by province/territory, age 15+, Canada, 1996**

	Population estimate	Less than high school	High school completed	Some post-secondary ^a	College completed	University completed
	('000)	(%)	(%)	(%)	(%)	(%)
Total, age 15+	22,629	35	14	11	25	16
Male	11,022	35	13	11	25	16
Female	11,606	35	16	11	24	15
Age 15–19, total	1,956	69	16	12	3	<1
Male	1,008	71	15	11	3	<1
Female	948	66	16	14	4	<1
Age 20–24, total	1,893	19	15	29	24	13
Male	947	22	17	29	22	11
Female	946	16	13	29	27	16
Age 25–34, total	4,481	19	14	12	33	22
Male	2,209	21	14	12	32	21
Female	2,272	17	15	12	33	23
Age 35–44, total	4,843	22	17	10	31	20
Male	2,386	24	14	10	33	20
Female	2,457	21	19	10	30	19
Age 45–54, total	3,698	29	15	11	28	17
Male	1,837	28	13	10	30	20
Female	1,861	30	18	12	26	14
Age 55–64, total	2,478	47	12	9	22	10
Male	1,217	45	10	8	25	13
Female	1,261	50	14	10	19	7
Age 65+, total	3,280	62	10	6	15	8
Male	1,417	59	8	5	17	11
Female	1,862	63	12	6	13	6
Newfoundland	437	45	10	9	26	10
Prince Edward Island	104	42	10	10	26	13
Nova Scotia	720	39	10	9	27	15
New Brunswick	585	40	15	10	24	12
Quebec	5,673	36	18	9	23	15
Ontario	8,429	33	15	11	24	17
Manitoba	856	41	11	11	23	14
Saskatchewan	748	43	11	11	23	13
Alberta	2,055	34	12	12	27	15
British Columbia	2,955	31	13	13	27	16
Yukon	23	28	8	14	33	17
Northwest Territories	43	42	7	12	27	12

^a Includes individuals who have completed high school or college, but have gone on to only partially complete some level of college, university, or trade school education.

Sources: Statistics Canada, 1996 Census: Education, special tabulations from Housing, Family and Social Statistics Division; Statistics Canada, 1996 Census: Education, *The Nation Series* (Statistics Canada Cat. No. 93F0028XDB96001).

Table 5b. **Literacy on prose, documents, and quantitative material, by country, age 16–65, 1994–95**

	Level 1 (Lowest)	Level 2	Level 3	Level 4/5 (Highest)
	(%)	(%)	(%)	(%)
Prose				
Australia	17	27	37	19
Belgium (Flanders)	18	28	39	14
Canada	17	26	35	23
Germany	14	34	38	13
Ireland	23	30	34	14
Netherlands	11	30	44	15
New Zealand	18	27	35	19
Sweden	8	20	40	32
Switzerland (French)	18	34	39	10
United Kingdom	22	30	31	17
United States	21	26	32	21
Documents				
Australia	17	28	38	17
Belgium (Flanders)	15	24	43	17
Canada	18	25	32	25
Germany	9	33	40	19
Ireland	25	32	32	12
Netherlands	10	26	44	20
New Zealand	21	29	32	18
Sweden	6	19	39	36
Switzerland (French)	16	29	39	16
United Kingdom	23	27	31	19
United States	24	26	31	19
Quantitative				
Australia	17	27	38	19
Belgium (Flanders)	17	23	38	23
Canada	17	26	35	22
Germany	7	27	43	24
Ireland	25	28	31	16
Netherlands	10	26	44	20
New Zealand	20	29	33	17
Sweden	7	19	39	36
Switzerland (French)	13	25	42	20
United Kingdom	23	28	30	19
United States	21	25	31	23

Source: Organisation for Economic Co-operation and Development and Human Resources Development Canada, *Literacy Skills for the Knowledge Society: Further Results from the International Adult Literacy Survey*, Ottawa: Human Resources Development Canada, 1997.

6

Low income

Introduction

Income is an important measure of socio-economic status. There is a strong association between income, other health determinants, and health status. For example, Canadians with the lowest income were five times more likely than those from the highest income groups to report their health as only fair or poor (Topic 53), two times more likely to have a long-term activity limitation (Topic 58), and only one-third as likely to have dental insurance (Topic 21).

This topic examines the prevalence of low income, average family income, and the distribution of family expenditures. It also examines the income levels of Canadians in 1995 as well as previous years. The two main sources of information were the *Survey of Consumer Finances*¹ and the 1996 Census.²

Prevalence of low-income persons and families

According to the 1996 Census, about 16% (or 1.3 million) of all economic *families* in Canada fell below the low-income cut-off in 1995 (Table 6a).² Likewise, about 20% of *individual* Canadians fell below Statistics Canada's low-income cut-offs. This amounted to just over 5.5 million people (Table 6b).³

Between 1980 and 1996, the prevalence of low-income individuals in Canada fluctuated substantially (Fig. 6a).¹ Across all ages, there was an increase from a low of 16% in 1980 to a high of 19% in 1983 and 1984. This trend turned around in the mid-1980s, and, by 1989, the prevalence of low income was down to a low of 14%. Since then, low-income prevalence has increased again to over 18%, almost reaching the same levels as in the mid-1980s.

Low income has followed similar patterns for children, although the changes have been more

dramatic (Fig. 6a). In particular, the increase in low income among children under 18 has increased significantly in the 1990s, with 21% falling below low-income cut-offs in 1996.²

In contrast, elderly Canadians have experienced a consistent trend away from low income. In 1980, 34% of seniors were below the low-income cut-off, compared with 21% in 1992.² This trend reversed slightly in 1993, but then fell to 19% in 1994 and 1995. However, the level of low-income elderly Canadians increased again to 21% in 1996, the first time that low-income children and the low-income elderly had the same percentage of low-income persons.

From 1978 to 1980, there was a modest increase in average family incomes of Canadians (all data in constant 1996 dollars) (Fig. 6b).^{1,4} Between 1980 and 1984, there was a steady decrease in the average family income, reaching a low in 1984.² The period of 1984–1989 represented a time of impressive increases, to a peak of \$58,910 in 1989. After 1989, family incomes decreased rather dramatically in constant dollars to a low in 1993, with a slight increase in 1994 and again in 1996, to an average family income of \$56,629.

In 1996, the majority of family expenditures were concentrated in taxes (22%) and necessities such as shelter (17%), food (12%), and transportation (12%) (Fig. 6c).⁵ Combined, these four costs accounted for almost two-thirds of the average Canadian family's expenditures in 1996.

Of the 21 million individual income earners in Canada in 1995, the average total income was \$25,196, down by 6% from 1990.⁶ Of the 15 million *employed* Canadians, the average earnings were \$26,474 in 1995, down 3% from 1990.² The biggest drop in average total income was felt by Canadians age 20–24, who experienced a one-quarter decrease in income from 1990 to 1995, followed by income decreases for earners age 15–19 (18%) and age 25–34 (10%) (Table

6c).^{6,7} Only Canadian income earners age 70 and older experienced virtually no change in average total income (in constant dollars) over this time period.

While there have been fluctuations in the prevalence of low income (Fig. 6a) and of average income (Fig. 6b) over the last 15 years, the trends in income *disparity* have been more consistent. The incomes of the wealthiest 10% of families with children grew 14% from 1981 to 1996, while the incomes of the poorest 10% declined 5% during this period (Fig. 6d).⁸ In 1973, the average incomes of the top 10% of families with children were 8.5 times those of the bottom 10%; by 1996, this ratio had increased to 10.2.⁸ Other analyses suggest no change in income disparity between 1985 and 1995,⁹ which illustrates the sensitivity of such analyses to time periods studied and definitions used.

Differences among groups

In 1996, the elderly and children were the most likely to be classified as low income (Fig. 6a).¹ This was not true among the elderly in *families*, however. In 1996, the elderly in families were actually the least likely to be low income (8%), while children under 18 were the most likely (21%).¹ Unattached elderly Canadians were by far the most likely to fall below the low-income cut-off, with almost half qualifying as low income.² In 1995, unattached individuals were about two and a half times more likely to be classified as low income compared with people in economic families (Table 6a). Lone parents faced a low-income situation very similar to that of unattached individuals in 1995 compared with other economic families; in fact, almost half of female lone parents (comprising 400,000 families) were below the low-income cut-off.²

There were differences in low-income individuals by age and sex. Overall, men were less likely than women to be low income in both 1990 and 1995 (Table 6b). Women age 18–24 and age 70 and older had the highest incidence of low income in 1990 and 1995. There was above-average incidence of low income among children under 14, persons age 18–24, and seniors age 70 and older in both census years. However, only seniors age 70 and older experienced a decrease in the incidence of low income between 1990 and 1995; all other age groups experienced an increased incidence of between 6% and 40%, where the largest increases were among those under age 45.

There were large interprovincial variations in incidence of low-income individuals (Table 6b). In

1995, Quebec had the highest proportion of low-income individuals (23%).⁷ Quebec was followed by Newfoundland and Manitoba (both at 21%). All the other provinces were below the Canadian average of 20%. The province with the lowest percentage of low-income individuals was Prince Edward Island (15%), followed distantly by Ontario (18%). The distribution of low-income individuals does not correspond very closely to the *average* provincial income, however, as described below. (There are not yet any data available from the 1996 Census on income *distribution*.)

Virtually all of the provinces experienced an increase in low-income individuals between 1990 and 1995. In Canada as a whole, there was a 29% increase of such persons over this time period (Table 6b). In fact, there were over 42% more low-income individuals in British Columbia and 41% more in Ontario in 1995 compared with 1990. Only Saskatchewan did not incur an appreciable increase in the number of low-income individuals over this period; the next lowest was a 13% increase in low-income Albertans.³

In 1995, 44% of the Aboriginal population (who were not living on reserves or in Yukon or the Northwest Territories) was below Statistics Canada's low-income cut-offs, compared with the national average of 20%.² Three out of five Aboriginal children under the age of six were in low-income families in 1995, compared with the national rate of one in four. Among Aboriginal children age 6–14, the prevalence of low income was 48%, more than double the national average of 22%.

According to the 1996 Census, the average family income was \$54,583 the year before, down 4.8% from 1990 (in 1995 constant dollars).⁵ In 1995, the average husband–wife family income was \$58,763. Where a husband and wife were both earning income, the total average income was \$65,561. If the husband was the sole earner, it was \$47,993, and if the wife was the sole earner, it was \$39,211. This contrasts with the income of male lone-parent families (\$40,974) and female lone-parent families (\$27,721). The 29,000 families of male lone parents who had no earnings had an income of just \$15,008, and 278,000 families of female lone parents with no earnings had an income of only \$12,765 in 1995. This clearly illustrates the large disparities of income among family structures and even within family structures. Unattached *individuals* saw very few changes in their income over the period 1980–1996.¹ There was a low of \$23,369 in 1980 (in 1996 dollars), followed by a modest increase

until a slight downturn in 1983, then a period of steady growth, reaching its peak of \$25,845 in 1990. Since then, average income has slowly decreased and levelled off at the 1996 level of \$24,433.¹

As suggested by this, there were gender differences in individual income. Overall, men earned 62% more than women in 1995 (\$31,117 vs. \$19,208).³ The largest wage disparity was found between men and women age 55–64, where men earned almost double what their female cohorts did. In fact, men age 25 and older earned from 41% to 97% more than their female cohorts in 1995 (Table 6c).

There were some interesting changes in income by gender from 1990 to 1995. Men's income fell by almost 8% from 1990 to 1995, compared with a 2% drop for women's income (Table 6c). Only one subgroup — women age 45–54 — saw an increase in income (2%) over this time period. Both males and females age 20–24 experienced an average loss of one-quarter of their income over this period, the largest decrease of any group, related largely to falling employment (see Topic 7).

From a provincial/territorial perspective, individuals living in the two territories had the highest average income in 1995 (about \$29,000) (Table 6c).⁶ Provincially, people in Ontario earned the highest incomes (\$27,309), followed by British Columbians and Albertans (\$26,295 and \$26,138, respectively). These three provinces also had the highest educational attainments (see Topic 5). People in Newfoundland and Prince Edward Island earned the least, with an average income of around \$20,000. People in all the provinces and territories experienced a decrease in income from 1990 to 1995. During this period, people from Quebec experienced the largest drop in average income (7%), followed by Ontarians, New Brunswickers, and Newfoundlanders. The smallest decreases in income were in the two territories and Saskatchewan.

In 1995, average *employment* income of Aboriginal people was \$17,382, 34% below the national average of \$26,474.⁵ There was a predominance of part-year or part-time work among Aboriginal people. In 1995, just over one-third of Aboriginal people who reported employment income worked for the full year on a full-time basis, compared with one-half of the total population. However, the average employment income of Aboriginals was significantly lower than the national average, regardless of whether they worked full year, full time in 1995. The average earnings of full-year, full-time Aboriginal

workers (\$29,684) were 21% lower than the national average, while those of other Aboriginal earners (\$10,866) were 29% lower. The average earnings of Aboriginal people were lower in every age and education category compared with the national average. On the whole, these differences in work patterns, age, and education accounted for about three-fifths of the total difference between the average earnings of the Aboriginal population and the national average.

On definitions and methods

For all the tables as well as most references to 1995 data, the source was the 1996 Census.² Questions regarding an individual's total 1995 income were asked to one in five households in the 1996 Census. The data for Figures 6a and 6b, as well as some of the data for 1996, come from the *Survey of Consumer Finances*, held annually since 1971.¹ The survey for 1996 income was conducted in April 1997 as a supplement to the monthly *Labour Force Survey*. Since the estimates in the report are based on a sample survey, they are subject to sampling variability in addition to response errors and errors due to non-response. Although the numbers in specific years on the figures may differ from the census year data, the terms and definitions used in the *Survey of Consumer Finances* are consistent with the 1996 Census.

“Low income” refers to economic families and unattached individuals who have total incomes below Statistics Canada's low-income cut-offs, 1992 base.² These cut-offs were selected on the basis that families and unattached individuals with incomes below these limits usually spend more than 54.7% of their income on food, shelter, and clothing and can hence be considered to live in straitened circumstances. Low-income cut-offs are quite different from measures of poverty, and Statistics Canada does not endorse their use as such.

The “economic family” concept is used instead of a census family to establish low-income cut-offs.² An economic family consists of all persons in a household who are related to each other by blood, marriage, common law, or adoption. An unattached individual is a person 15 years of age or older who is living alone or living in a household where he/she is not related to anyone else. Yukon, the Northwest Territories, and Indian reserves were not included in the low-income cut-off calculation.

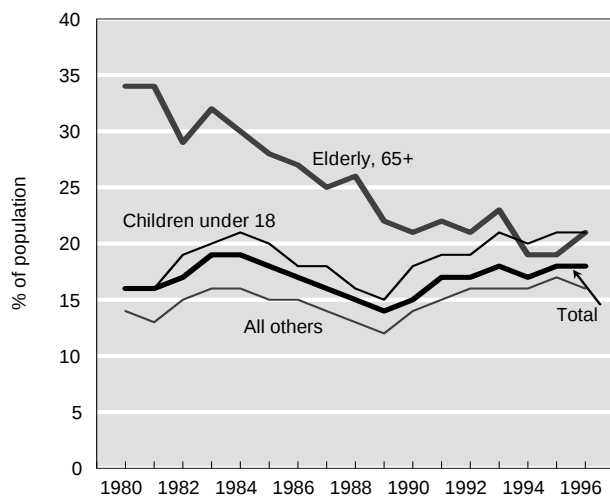
As mentioned above, data on low-income Aboriginals do not include the 36% of Aboriginals

residing on reserves or in Yukon or the Northwest Territories. Since income is generally lower for the Aboriginal population on reserves, their inclusion would likely increase the prevalence of low income among the Aboriginal population.² The Statistics Canada survey that determined low-income cut-offs, however, excludes these areas.

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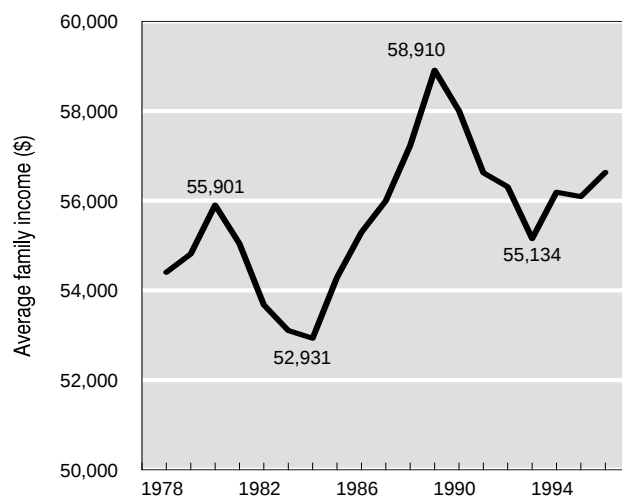
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Figure 6a. **Low-income persons, by age, Canada, 1980–1996**

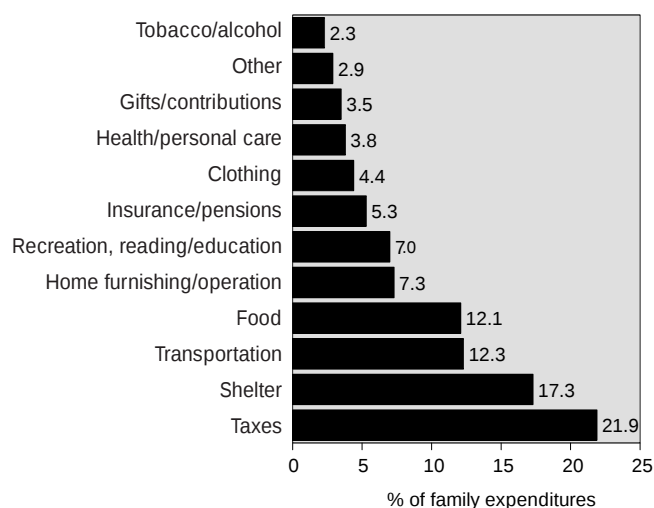


Source: Statistics Canada, *Income Distribution by Size in Canada, 1996* (Statistics Canada Cat. No. 13-207).

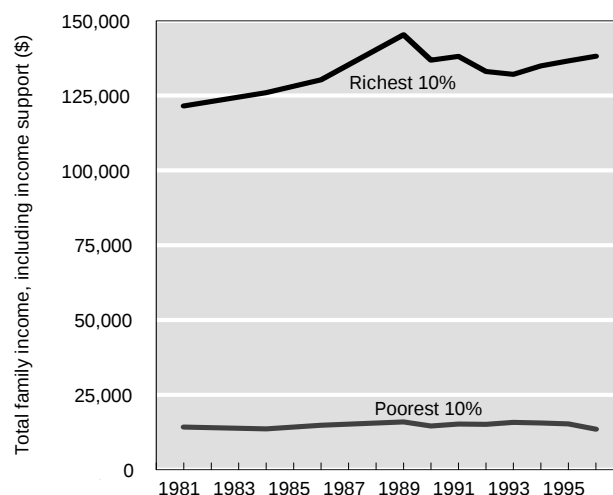
Figure 6b. **Average family income, 1996 dollars, Canada, 1978–1996**



Sources: Statistics Canada, *Income Distribution by Size in Canada, 1996* (Statistics Canada Cat. No. 13-207); Statistics Canada, *Income distribution by size in Canada, 1996, The Daily*, December 22, 1997 (Statistics Canada Cat. No. 11-001-XIE).

Figure 6c. **Distribution of family expenditures, Canada, 1996**

Source: Statistics Canada, *Family Expenditures Survey, 1996* (Statistics Canada Cat. No. 62-555-XPB).

Figure 6d. **Income disparity among families with children under 18, in 1996 dollars, Canada, 1981–1996**

Source: Yalnizyan A, *The Growing Gap*, Toronto: Centre for Social Justice, 1998 (based on unpublished data from Statistics Canada's *Survey of Consumer Finances*).

Table 6a. **Families with low income, by family structure, Canada, 1995**

	Low income	Number of families	Average income	Income deficiency
	(%)	('000)	(\$)	(\$) ^a
All economic families	16	1,267	13,778	10,223
Total husband–wife families	12	760		
Married couples only	10	253	11,223	7,398
Married couples with children	13	457	16,199	11,641
Other married couples	13	50	19,960	12,333
Total non-husband–wife families	40	508		
Male lone parents	24	39	11,612	9,412
Female lone parents	48	396	12,032	10,165
Other	25	294	13,884	10,450
Unattached individuals	42	1,512		
Male	39	654		
Female	45	857		

^a Income deficiency is the difference between family income and the applicable low-income cut-off.

Source: Statistics Canada, 1996 Census: Sources of income, *The Daily*, May 12, 1998 (Statistics Canada Cat. No. 11-001-XIE).

Table 6b. **Low-income^a persons, by age and sex and by province/territory, Canada, 1990 and 1995**

	1990		1995	
	Low income	Number of persons	Low income	Number of persons
	(%)	('000)	(%)	('000)
Total, all ages	16	4,289	20	5,514
Male	15	1,896	18	2,499
Female	18	2,393	21	3,015
Age <6, total	20	447	26	583
Male	20	229	26	297
Female	20	219	26	286
Age 6–14, total	17	576	22	762
Male	17	295	22	391
Female	17	282	22	370
Age 15–17, total	17	180	20	229
Male	16	90	19	115
Female	17	91	20	114
Age 18–24, total	21	549	26	675
Male	18	242	23	303
Female	24	306	29	372
Age 25–34, total	15	729	20	895
Male	14	319	19	402
Female	17	410	22	493
Age 35–44, total	12	528	17	795
Male	11	238	16	366
Female	13	290	18	429
Age 45–54, total	11	323	14	511
Male	10	147	13	240
Female	12	175	15	271
Age 55–64, total	16	372	18	440
Male	14	161	17	199
Female	18	211	19	242
Age 65–69, total	16	169	17	183
Male	14	66	15	76
Female	19	104	19	107
Age 70+, total	23	415	21	441
Male	14	110	12	109
Female	29	306	26	332
Newfoundland	18	98	21	116
Prince Edward Island	14	17	15	20
Nova Scotia	16	136	19	167
New Brunswick	17	119	19	137
Quebec	19	1,305	23	1,631
Ontario	13	1,323	18	1,869
Manitoba	19	198	21	213
Saskatchewan	18	170	18	170
Alberta	17	425	18	482
British Columbia	16	498	20	708

^a Excludes population on Indian reserves, in Yukon, and in the Northwest Territories.

Sources: Statistics Canada, 1996 Census: Sources of income, *The Nation Series* (Statistics Canada Cat. No. 93F0029XDB96010); Statistics Canada, Labour and Household Surveys Division, special tabulations.

Table 6c. **Average individual income, by age and sex and by province/territory, age 15+, Canada, 1990 and 1995**

	1990		1995	
	Average income	Income earners	Average income	Income earners
	(\$)	('000)	(\$)	('000)
Total, age 15+	26,805	19,425	25,196	20,917
Male	33,733	9,882	31,117	10,517
Female	19,630	9,542	19,208	10,400
Age 15–19, total	4,981	1,194	4,092	1,127
Male	5,370	621	4,350	584
Female	4,561	573	3,813	543
Age 20–24, total	14,628	1,829	11,142	1,808
Male	16,326	931	12,433	916
Female	12,869	899	9,815	892
Age 25–34, total	27,145	4,521	24,398	4,280
Male	32,464	2,347	28,435	2,192
Female	21,404	2,174	20,161	2,088
Age 35–44, total	34,490	4,086	31,756	4,611
Male	43,375	2,128	38,935	2,371
Female	30,835	1,958	24,157	2,240
Age 45–54, total	35,951	2,737	34,176	3,501
Male	46,199	1,461	42,787	1,828
Female	24,215	1,276	24,772	1,673
Age 55–64, total	29,525	2,149	27,223	2,324
Male	39,026	1,143	35,628	1,211
Female	18,736	1,006	18,078	1,113
Age 65–69, total	23,066	1,042	22,083	1,086
Male	30,686	481	28,540	520
Female	16,544	562	16,157	566
Age 70+, total	20,599	1,867	20,420	2,180
Male	25,288	772	25,140	895
Female	17,294	1,095	17,130	1,284
Newfoundland	20,961	374	19,710	387
Prince Edward Island	21,334	92	20,527	99
Nova Scotia	23,283	632	21,552	662
New Brunswick	22,143	503	20,755	539
Quebec	25,007	4,844	23,198	5,158
Ontario	29,278	7,300	27,309	7,823
Manitoba	23,597	778	22,667	806
Saskatchewan	23,048	687	22,541	707
Alberta	27,283	1,778	26,138	1,921
British Columbia	27,641	2,381	26,295	2,752
Yukon	29,934	20	29,079	22
Northwest Territories	29,559	35	29,011	40

Source: Statistics Canada, 1996 Census: Sources of income, *The Nation Series* (Statistics Canada Cat. Nos. 93F0029XDB96001 and 93F0029XDB96002).

Employment and unpaid work

Introduction

Employment and unemployment rates are a measure of the health of a nation's economy. Unemployed people suffer a disproportionate share of health problems, including depression, other forms of morbidity, and reduced life expectancy.¹ Participation in the wage economy is only part of the picture, however. Thus, this topic also highlights the unpaid household activities that Canadians perform.

Employment and unemployment, 1997

In 1997, 65% of Canadians age 15 and older were participants in the labour force — that is, they were either working or actively seeking work. Among these persons, the unemployment rate was 9.2%. Thus, there were 15.4 million people in the labour force, and 1.4 million of them were unemployed (Table 7a).²

Between 1970 and 1997, the overall size of the Canadian labour force grew significantly, from 8.3 to 15.4 million, with steady increases almost every year (Fig. 7a).² This occurred despite an increase in the number of people outside the labour force, from 6.8 million in 1989 to 8.3 million in 1997. Unemployment rates have fluctuated but generally increased since the early 1970s, when unemployment was only 6%. The unemployment rate increased in the latter part of that decade and peaked at 11.8% (1.4 million persons) in 1983. Although unemployment began to decline in the late 1980s, it never returned to the 1970 lows. During the recession of the early 1990s, Canada experienced a sharp increase in unemployment, which hit 11.2% in 1992. However, the unemployment rate slowly eased to the 1997 level of 9.2%.² This decline has continued into 1998.³

Unpaid work, 1996

In 1996, 89% of Canadians 15 and older spent some time in the week prior to the 1996 Census performing unpaid housework, yard work, or home maintenance for members of their household or others. About 5% of Canadians 15 and older spent 60 or more hours in the week prior to the survey doing unpaid household activities (Table 7b).⁴

Differences among groups

During the period from 1970 to 1997, there were some very important changes in female labour force participation rates (Fig. 7b).⁵ There was a significant increase, from 36% in 1970 to 59% in 1992, returning to about 57% from 1995 onwards. This overall increase in female participation has important health implications, given that women are joining the labour market at unprecedented rates but are often still burdened with the majority of child-rearing responsibilities and elder care (Topics 32 and 33). It is also important to note that the participation rate of males, after years of generally rising or stable levels, slowly fell from 78% in 1981 to 73% in 1997.²

Men still participate in the labour force at a much higher rate than do women (Table 7a). This is true for all age groups except for 15–17 year olds, where the participation is almost equal. The biggest gender difference in 1997 participation rates was found among 55–64 year olds, where about 58% of men and only 34% of women participated in the labour force. Not surprisingly, labour force participation was lowest among the youngest and the oldest age groups, reflecting the fact that younger Canadians may still be completing schooling and older Canadians have retired.

Unemployment rates were higher for men than for women under age 25, roughly even between the sexes from 25 to 44, and slightly higher for women age 45 and up. The biggest difference in the unemployment rate occurred between males and females age 15–19 (a 2.4 percentage point difference between sexes).

Unemployment was highest among youth age 15–17 (25.5%), 18–19 (18.4%), and 20–24 (13.6%) and lowest among those age 65 and older (3.1%). The increase in youth unemployment over the last few years has become an important concern for many social organizations and government bodies.

Labour force participation rates increased and unemployment decreased with each higher level of education (Table 7a). The exception was that people who had completed high school were less likely to be unemployed and more likely to have higher rates of participation than those who had some post-secondary education.

People living in the provinces from Quebec eastward experienced the highest rates of unemployment and, with the notable exception of Prince Edward Island, the lowest labour force participation in the country. Newfoundland had the lowest participation rate (52.5%) and the highest unemployment rate (18.8%) of all provinces. Those living in the provinces from Ontario west were much more likely to have lower than average unemployment and higher rates of participation. Alberta had the highest participation rate of all provinces, at 71.8%. Of the western provinces, British Columbia had the highest unemployment rate, which was only 0.5 percentage points below the Canadian average. In line with the Canadian average, the males in every province had a higher participation rate than the females. However, the unemployment rate was higher for males in every province except for Ontario, Manitoba, and Alberta (data not shown).

From a gender perspective, 92% of women reported spending some amount of time doing unpaid household activities in the week preceding the census, compared with 84% of men.⁶ One in 50 men and one in 13 women performed 60 or more hours of unpaid household activities (Table 7b). Among wives who worked full-time (30 or more hours) for pay, about half reported spending 15 or more hours doing unpaid household activities, while about one-quarter of husbands working full-time spent at least 15 hours doing such work around the home.⁷ Of wives with no paid employment, 70% did 15 or more hours of

unpaid household activities, compared with 36% of husbands with no paid employment. About three out of five wives employed full-time who had at least one child at home under the age of 15 worked at least 15 hours on household activities, compared with one-quarter of husbands working full-time who had at least one child under 15 at home. About 95% of lone parents (regardless of employment status) performed at least some unpaid household activities, whereas almost 10% of all lone parents performed 60 hours or more of such unpaid work.

There were provincial differences in the performance of unpaid household activities. People in provinces from Quebec eastward were below average in performing at least some unpaid household activities, while Canadians in the remaining provinces were equal to or above average in performing at least some unpaid household activities. However, only people in Quebec were below the Canadian average of 5% for providing 60 or more hours; people in all the other provinces were at or up to five percentage points above the Canadian average. Interestingly enough, although Newfoundlanders were the least likely to do any unpaid household activities (85%), they also were the most likely to do 60 or more hours of such work (10%).⁷

On definitions and methods

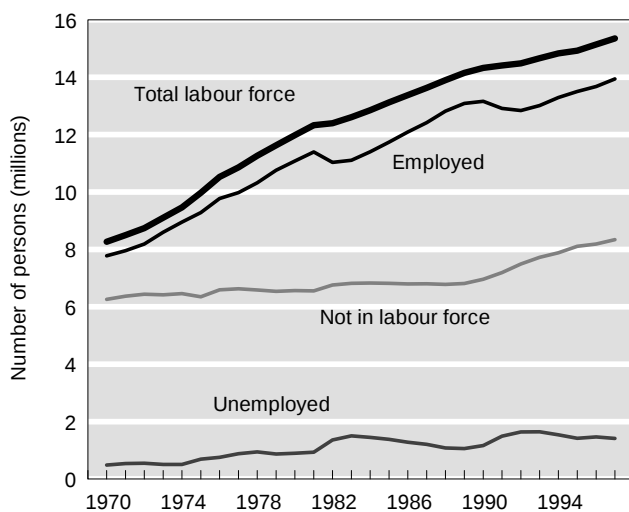
Unemployment rates reflect those people who say they are actively looking for a job. In times of dire recession, people may become discouraged and remove themselves from the labour force. When the economy does improve, unemployment rates may increase, but this may simply be a result of individuals returning to the labour force. From a health perspective, unemployment is an important indicator, but it may understate economic impacts on health, since it does not include those too discouraged to seek employment.

The 1996 Census was the first to ask questions about the unpaid household activities that Canadians perform, above and beyond any paid work. It asked, “Last week, how many hours did this person spend time...doing unpaid housework, yard work, or home maintenance for members of this household or others?” Examples included preparing meals, doing laundry, household planning, shopping, and cutting the grass.

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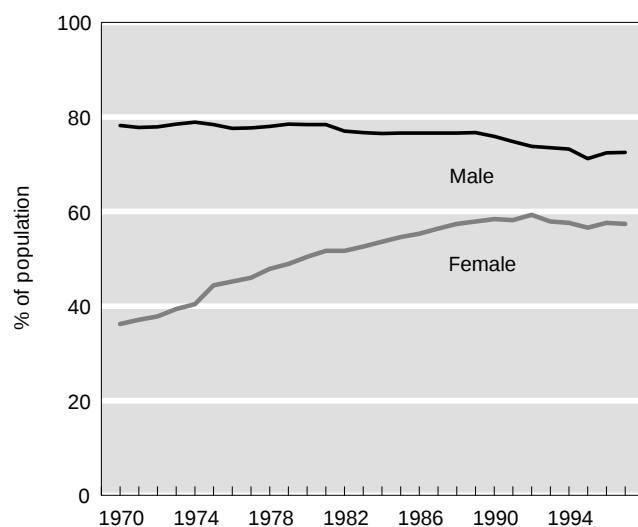
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Figure 7a. **Labour force, age 15+, Canada, 1970–1997**



Source: Statistics Canada, *Historical Labour Force Statistics, 1970–1997* (Statistics Canada Cat. No. 71-201-XPB).

Figure 7b. **Labour force participation rates, by sex, age 15+, Canada, 1970–1997**



Sources: Statistics Canada, Health Statistics Division, *Health Indicators, 1999* (Statistics Canada Cat. No. 82-221-XCB); Statistics Canada, Labour Division, special tabulations.

Table 7a. **Unemployment, by age and sex, by education, and by province, age 15+, Canada, 1997**

	Population estimate	Participation rate	Labour force	Unemployment rate
	('000)	(%)	('000)	(%)
Total, age 15+	23,687	64.8	15,354	9.2
Male	11,630	72.5	8,428	9.2
Female	12,057	57.4	6,926	9.2
Age 15–17, total	1,214	36.4	442	25.5
Male	617	36.2	223	26.7
Female	597	36.7	219	24.3
Age 18–19, total	769	63.1	485	18.4
Male	398	65.4	260	19.5
Female	371	60.7	225	17.1
Age 20–24, total	1,990	75.6	1,504	13.6
Male	1,005	79.2	797	14.4
Female	984	71.8	707	12.6
Age 25–34, total	4,663	84.6	3,943	9.1
Male	2,336	91.4	2,136	9.4
Female	2,326	77.7	1,807	8.7
Age 35–44, total	5,081	85.7	4,354	7.8
Male	2,537	92.6	2,349	7.6
Female	2,545	78.8	2,005	8.0
Age 45–54, total	4,236	79.7	3,376	6.7
Male	2,122	88.1	1,868	6.6
Female	2,115	71.3	1,507	6.8
Age 55–64, total	2,803	45.6	1,277	7.5
Male	1,377	57.5	791	7.3
Female	1,426	34.1	486	7.8
Age 65+, total	3,484	6.4	223	3.1
Male	1,510	10.2	154	2.9
Female	1,975	3.5	69	3.5
0–8 years of school	2,801	26.3	736	15.2
Some high school	4,485	51.3	2,303	16.0
High school graduate	4,430	70.4	3,120	8.8
Some post-secondary	2,159	69.4	1,498	10.4
Post-secondary certificate	6,480	76.4	4,950	7.5
University degree	3,332	82.5	2,749	4.8
Newfoundland	450	52.5	236	18.8
Prince Edward Island	107	66.3	71	14.9
Nova Scotia	742	60.2	447	12.2
New Brunswick	603	60.1	362	12.8
Quebec	5,926	62.1	3,680	11.4
Ontario	8,979	65.9	5,915	8.5
Manitoba	861	66.9	576	6.6
Saskatchewan	760	66.4	504	6.0
Alberta	2,159	71.8	1,550	6.0
British Columbia	3,100	64.9	2,012	8.7

Sources: Statistics Canada, *Historical Labour Force Statistics, 1997* (Statistics Canada Cat. No. 71-201-XPB); Statistics Canada, Household Surveys Division, special tabulations.

Table 7b. **Performing unpaid household activities, by age and sex and by province/territory, age 15+, Canada, 1996**

	Population estimate	Unpaid household activities	
		Any	60+ hours
	('000)	(%)	(%)
Total, age 15+	22,629	89	5
Male	11,022	84	2
Female	11,606	92	8
Age 15–19, total	1,956	79	1
Male	1,008	75	0
Female	948	83	1
Age 20–24, total	1,893	82	2
Male	947	76	1
Female	946	89	4
Age 25–34, total	4,481	92	6
Male	2,209	87	2
Female	2,272	96	10
Age 35–44, total	4,843	94	6
Male	2,386	90	2
Female	2,457	97	10
Age 45–54, total	3,698	92	5
Male	1,837	88	2
Female	1,861	96	8
Age 55–64, total	2,478	89	6
Male	1,217	84	2
Female	1,261	93	8
Age 65+, total	3,280	82	5
Male	1,417	80	3
Female	1,862	84	6
Newfoundland	437	85	10
Prince Edward Island	104	87	5
Nova Scotia	720	87	6
New Brunswick	585	87	6
Quebec	5,673	88	4
Ontario	8,429	89	5
Manitoba	856	89	6
Saskatchewan	748	90	7
Alberta	2,055	90	5
British Columbia	2,955	89	5
Yukon	23	89	6
Northwest Territories	43	88	8

Sources: Statistics Canada, 1996 Census: Unpaid work, *The Nation Series* (Statistics Canada Cat. No. 93F0027XDB96010); Statistics Canada, Labour and Household Surveys Analysis Division, special tabulations.

8

Life stress

Introduction

With the exception of pregnancy and related conditions, the major causes of hospitalization (Topic 77) and death (Topic 82) are stress-related. Although scientists have not implicated stress as a direct risk factor for many conditions, it is clear that both chronic stress and life events can have at least a strong indirect impact on physical and mental health, by affecting the physiology and morphology of the circulatory system and — by psychoneuro-immunological mechanisms — by affecting the development of cancer.¹

This topic describes differences between groups in the Canadian population with respect to their experience of ongoing stress in their lives, with a focus on social relationships and family. Work stress is described in Topic 9, and psychological resources for coping with stress are dealt with in Topic 54.

Prevalence of chronic stress, 1994–95

For the purposes of assessing the *relative* amount of stress in people's lives, the 1994–95 *National Population Health Survey* asked up to 18 questions, depending on marital and parenthood status. For this analysis, scores on this continuous scale were arbitrarily divided into three categories, with 26% being rated as experiencing high chronic stress and the balance about equally divided between moderate stress (38%) and low stress (36%). These percentages have no inherent meaning, but the categories do permit intergroup comparisons (Table 8).²

Differences among groups

Women were more likely than men to report high stress (Table 8). This is true of all ages except the youngest (age 18–19). Indeed, women age 20–24 were the group most likely to report high stress (38%) — a sharp contrast to women age 75 and older (10%). High stress becomes much *less* common for both sexes with advancing years, a pattern that resembles work stress (Topic 9) and depression (Topic 75).

Among education groups, it is clear that there is a considerable advantage to education: the least educated group was twice as likely as university graduates to report high life stress (Table 8). The more one is educated, the lower is the incidence of reporting high life stress.

The least amount of high life stress was reported in Newfoundland (17%) and Prince Edward Island (20%), while high life stress was most likely to be reported in Manitoba (29%, mainly due to 35% of women in Manitoba who reported high stress; data not shown) and Ontario (28%). Most of the other provinces were around the average high life stress level for Canada (Table 8).

There were substantial differences in stress according to living arrangements (Fig. 8).² Many more single parents reported high stress than individuals in couples with children or unattached individuals. More specifically, almost half (47%) of all female lone parents reported high stress levels.

On definitions and methods

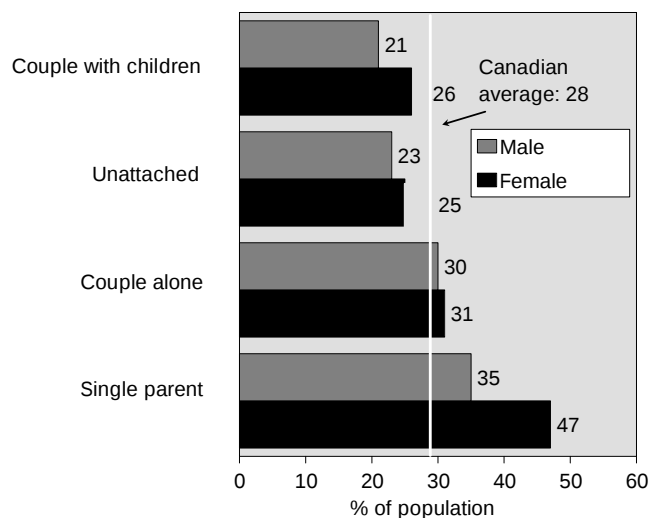
These data are from the personal interview portion of the *National Population Health Survey*, conducted by Statistics Canada in June, August, and November 1994 and March 1995. The survey visited over 22,000 households; these data are based on the sample age 18 and older, which consisted of almost 15,000 persons.³

As noted above, a maximum of 18 questions was asked about daily life, each to be answered true or false. General items included “You are trying to take on too many things at once” and “There is too much pressure on you to be like other people.” Examples of family-oriented questions are: “Someone in your family has an alcohol or drug problem” and “A child’s behaviour is of serious concern to you.” Total scores were adjusted by Statistics Canada for the number of applicable items. The following arbitrary definitions were used for the three levels of stress: low (score of 0 or 1), moderate (score of 2–4), and high (score of 5 or more).

References

1. Ader R, Cohen N. Psychoneuro-immunology: conditioning and stress. *Annual Review of Psychology* 1993; 44: 53–85.
2. Statistics Canada. *National Population Health Survey, 1994–95*. Special tabulations.
3. Tambay J-L, Catlin G. Sample design of the National Population Health Survey. *Health Reports* 1995; 7: 29–38 (Statistics Canada Cat. No. 82-003-XPB).

Figure 8. **High stress, by household type (age-standardized), age 18+, Canada, 1994–95**



Source: Statistics Canada, *National Population Health Survey, 1994–95*, special tabulations.

Table 8. **Chronic stress, by age and sex, by education (age-standardized), and by province, age 18+, Canada, 1994–95**

	Population estimate	Low stress	Moderate stress	High stress
	('000)	(%)	(%)	(%)
Total, age 18+	20,163	36	38	26
Male	9,648	37	39	23
Female	10,515	35	37	28
Age 18–19, total	762	32	31	37
Male	429	29	32	39
Female	334	37	28	35
Age 20–24, total	1,619	28	38	35
Male	770	27	41	32
Female	849	28	35	38
Age 25–34, total	4,544	29	41	30
Male	2,182	31	42	27
Female	2,362	27	40	33
Age 35–44, total	4,631	29	43	28
Male	2,302	32	45	23
Female	2,329	26	41	33
Age 45–54, total	3,302	34	39	27
Male	1,662	38	38	23
Female	1,640	30	40	30
Age 55–64, total	2,333	43	36	21
Male	1,071	45	36	18
Female	1,262	42	35	23
Age 65–74, total	1,918	55	31	14
Male	836	58	29	13
Female	1,082	53	32	15
Age 75+, total	1,054	64	27	9
Male	395	64	30*	#
Female	658	64	26	10
Less than high school	5,117	34	36	30
High school	8,417	34	38	28
College	3,654	37	38	25
University	2,949	46	39	15
Newfoundland	398	44	39	17
Prince Edward Island	92	43	38	20
Nova Scotia	665	36	37	27
New Brunswick	513	35	39	26
Quebec	5,086	37	38	24
Ontario	7,661	34	38	28
Manitoba	763	30	41	29
Saskatchewan	649	38	37	25
Alberta	1,087	37	39	24
British Columbia	2,528	37	36	26

* Moderate sampling variability; interpret with caution

Data suppressed because of high sampling variability

Source: Statistics Canada, *National Population Health Survey, 1994–95*, special tabulations.

Work stress

Introduction

A substantial proportion of Canadians are in the labour force (Topic 7), and the vast majority of them report experiencing considerable satisfaction with their work, even though this has declined since 1991 (Topic 55). Since work is such an important facet of daily life for so many Canadians, the stress they experience at work is a key determinant of overall mental health.

This topic describes the results of the 1994–95 *National Population Health Survey*, which used a battery of questions to assess work stress in an unprecedented fashion for a Canadian study.

Prevalence of work stress, 1994–95

On a scale based on 12 questions, with a minimum score of 0 and a maximum of 45, employed Canadians had a mean work stress score of 19.8, or slightly better than the middle of the possible range (Table 9).¹ About 4% of working Canadians claimed to have high work stress.

As this is the first national use of this scale, there are no earlier or international data for comparison purposes.

Differences among groups

High work stress was most common among employed 20–24 year olds and declined with each age group to reach its lowest level among employed 45–54 year olds (Table 9). The mean score of work stress followed a similar pattern, from a maximum among 15–19 year olds to a low of 17.5 for those age 65–74. (For purposes of analysis and comparison, it should be noted that there are fewer than 170,000 people working after the age of 65.)

Women reported slightly higher mean scores of work stress and more women reported high work stress compared with men, at all age groups (Table 9) and education groups (data not shown). In fact, women age 20–24 were more than three times as likely to report high work stress compared with the Canadian average.

With each successive level of education, there was a modest but steady decline in the mean score of work stress, and a similar pattern held for the percentage of people reporting high work stress. University graduates reported the least work stress, at 2% (Table 9).

Provincial differences were more muted than those related to either education or age. Similar to the results on life stress (see Topic 8), Ontario and Manitoba workers were above average in high work stress. By contrast, only 3% of Quebec workers reported high work stress (Table 9).

There were notable differences in high work stress among individuals in different types of household. Members of couples with no children had the lowest percentage of high work stress (3%), while single parents were twice as likely to report such stress (Fig. 9).¹ Additionally, only 2% of males in couples with no children had high work stress, compared with 6% of female lone parents.

On definitions and methods

These data are from the personal interview portion of the *National Population Health Survey*, conducted by Statistics Canada in June, August, and November 1994 and March 1995. The survey visited over 22,000 households; these data are based on the sample age 15 and older and working, which consisted of almost 8,500 persons.²

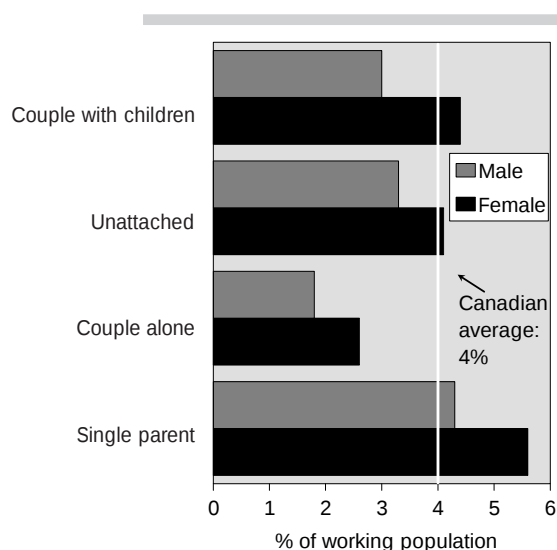
The work stress scale consisted of 12 questions describing working conditions that were answered on a five-point scale of agree–disagree. Developed at the University of Ottawa, the scale covers the dimensions of decision latitude, psychological demands, job insecurity, physical exertion, and social support. High stress is arbitrarily defined as a score of 30 or more.

Work stress was not assessed in the 1996–97 cycle of the *National Population Health Survey*.

References

1. Statistics Canada. *National Population Health Survey, 1994–95*. Special tabulations.
2. Tambay J-L, Catlin G. Sample design of the National Population Health Survey. *Health Reports* 1995; 7: 29–38 (Statistics Canada Cat. No. 82-003-XPB).

Figure 9. **High work stress, by household type (age-standardized), employed persons age 15+, Canada, 1994–95**



Source: Statistics Canada, *National Population Health Survey, 1994–95*, special tabulations.

Table 9. **Work stress index, by age and sex, by education (age-standardized), and by province, working population age 15–74, Canada, 1994–95**

	Population estimate	Mean score	High stress
	('000)		(%)
Total, age 15+	11,833	19.8	4
Male	6,378	19.3	4
Female	5,465	20.3	5
Age 15–19, total	821	22.3	7
Male	407	22.2	#
Female	414	22.4	#
Age 20–24, total	1,003	21.2	9
Male	494	20.7	#
Female	509	21.7	13
Age 25–34, total	3,228	20.2	5
Male	1,705	19.9	4
Female	1,523	20.6	6
Age 35–44, total	3,378	19.5	4
Male	1,827	19.0	3
Female	1,550	20.0	5
Age 45–54, total	2,311	18.7	2
Male	1,230	18.1	#
Female	1,012	19.4	#
Age 55–64, total	934	18.7	#
Male	530	18.2	#
Female	404	19.4	#
Age 65–74, total	168	17.5	#
Male	115	17.3	#
Female	53	17.9	#
Less than high school	2,185	20.6	4
High school	5,131	19.7	5
College	2,430	19.5	3
University	2,088	17.4	2
Newfoundland	186	19.8	#
Prince Edward Island	55	20.3	#
Nova Scotia	381	20.6	#
New Brunswick	261	20.0	#
Quebec	2,226	19.2	3
Ontario	4,886	19.7	5
Manitoba	498	20.3	5
Saskatchewan	414	19.7	#
Alberta	1,302	19.6	4
British Columbia	1,649	19.5	4

Data suppressed because of high sampling variability

Source: Statistics Canada, *National Population Health Survey, 1994–95*, special tabulations.

Family violence

Introduction

Family violence, particularly wife and child abuse, has moved from the privacy of families to become a major social issue. Health professionals now recognize that exposure to family violence affects health, leading to mental and physical anguish and even death, in the most extreme cases.¹ Children who are raised in violent homes often grow up to be abusers themselves, helping to perpetuate the cycle of violence in society.

This topic presents indicators relating to family violence, including assaults against children and youth in the family, family-related homicides, use of transition homes, and violence against older adults.

Incidence of family violence, 1996

In 1996, children under 18 were the victims of 22% of assaults reported to police agencies, accounting for a total of almost 23,000 reported assaults. Sexual assaults accounted for about one-quarter of the total of all assaults against children.² Family members were accused in 24% of all assaults against children — 32% of all sexual assaults and 20% of physical assaults. Almost 70% of victims under the age of three were physically assaulted by family members, and parents accounted for 58% of such assaults (Table 10a).²

Another source of data on family violence is solved family-related homicides.³ Of the 581 homicides in 1997, 42% of victims were killed by a spouse or other family member. Where an accused was identified, about 87% of homicide victims were killed by someone they knew. From 1981 to 1996, family-related homicides involved a female victim approximately four times out of seven (Fig. 10).⁴ Family-related homicides have accounted for 162–191 homicides annually since 1993, down from generally higher levels from 1981 to 1992.

Spousal homicides decreased from 90 in 1995 to 80 in 1996 and to 75 in 1997. Wives accounted for 80% of spousal victims in 1997.³ A further 19 women were killed by a boyfriend or ex-boyfriend. In all, about 40% of female homicide victims were killed by a man with whom they had an intimate relationship at some point in time.

Shelters or transition homes are intended to offer abused women and their children a temporary but safe place to live during the crisis of assaults by partners. According to Statistics Canada's national survey on transition homes, 2,361 women accompanied by 2,217 children were living in shelters across Canada on May 31, 1995.⁵ Four in five women were there to escape an abusive situation, the majority from abuse by a husband (64%) or former husband (21%). The vast majority of women who sought shelter to escape violence were victims of physical abuse (70%), almost half reported threats of abuse, and one-fifth experienced sexual abuse (total exceeds 100% due to multiple responses). One-quarter of women reported injuries that required medical attention when they came to the shelter, and 3% required hospitalization.

Differences among groups

Between 1974 and 1996, there were 1,994 victims of homicide under 18 years of age, accounting for 13% of all homicide victims in Canada during this period.² Despite yearly fluctuations, the homicide rate for children has remained relatively constant; in 1996, it was half the rate for adults.

Patterns of physical and sexual assault by family members differ according to the victim's gender (Table 10b).² Girls and young women were the victims of more assaults, especially sexual assaults, by family members compared with boys and young men. The

victims were female in 79% of sexual assaults and over half of all physical assaults.²

Parents were more likely than other family members to commit both sexual and physical assaults (Table 10b). Males had a higher likelihood than females of being sexually or physically assaulted by a parent, while females were more likely to be sexually assaulted by other immediate family or physically assaulted by a spouse.

In 1996, older adults (age 65 and older) were victims in 2% of violent crimes reported to the police.⁵ Family members were involved in 20% of all violent crimes against people 65 years of age and older, with children and spouses accounting for the majority of accused in these cases (44% and 34%, respectively). According to police data, the percentage of violent crimes carried out by family members against older adults has remained fairly constant since 1993, ranging between 19% and 24%. Throughout this period, spouses and children continued to be the primary perpetrators of these crimes.

On definitions and methods

These indicators come from different sources and are not entirely comparable. There has not yet been a large comprehensive national survey of family violence.

The publication *Assaults Against Children and Youth in the Family, 1996* derives most of its data from the *Uniform Crime Reporting Survey, 1996*. The *Uniform Crime Reporting Survey* data reflect criminal incidents reported to 154 police agencies in six provinces, representing 47% of the national volume of actual *Criminal Code* incidents.² They originate largely in Ontario and Quebec and reflect mostly urban populations. Nonetheless, it is felt that analysis of these data provides insight into the nature of child abuse cases reported to the police. “Child abuse” is defined as *Criminal Code of Canada* incidents of physical and sexual assault against victims under 18 years of age that come to the attention of police. “Family” refers to immediate and extended family members related by blood, marriage, common law, or adoption, as well as those who would be considered to be the child’s legal guardian. If the accused is a boyfriend or girlfriend of an abused child’s parent, he or she is likely to be reported as a “non-family member.”

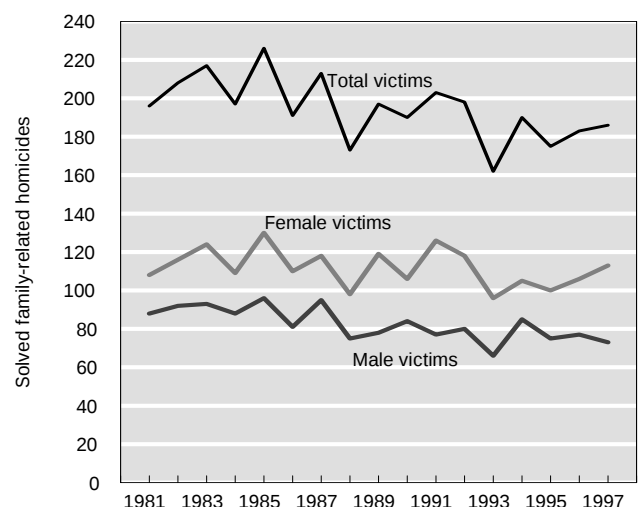
The *Uniform Crime Reporting Survey* has collected police-reported data on homicide incidents

since 1961. The homicide count for each year reflects the number of homicides reported to police in that year, regardless of the date on which the homicide actually occurred.³ The survey has 100% Canada-wide coverage, with over 1,500 police forces reporting. Homicide in Canada (and this survey) is defined as first-degree murder, second-degree murder, manslaughter, or infanticide. Deaths caused by criminal negligence, suicide, accidental homicide, or justifiable homicide are not included in this classification.

References

1. Committee on Wife Assault. *Reports on Wife Assault*. Toronto: Ontario Medical Association, 1991.
2. Statistics Canada, Canadian Centre for Justice Statistics. *Assaults Against Children and Youth in the Family, 1996*. Ottawa: Statistics Canada, November 1997 (Statistics Canada Cat. No. 85-002-XPE, Vol. 17, No. 11).
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4. Statistics Canada, Canadian Centre for Justice Statistics. *Uniform Crime Reporting Survey*. Special tabulations.
5. Statistics Canada, Canadian Centre for Justice Statistics. *Family Violence in Canada: A Statistical Profile 1998*. Ottawa: Statistics Canada, May 1998 (Statistics Canada Cat. No. 85-224-XPE).

Figure 10. **Family-related homicides, by sex of victim, Canada, 1981–1997**



Source: Statistics Canada, Canadian Centre for Justice Statistics, *Uniform Crime Reporting Survey*, special tabulations.

Table 10a. **Assaults against children, by type of assault, by age of victim, and by relationship with the accused, Canada, 1996**

		Sexual assault						
		Age of victim						
		Total	<3	3–5	6–8	9–11	12–14	15–17
Total	Number	6,481	164	867	1,026	1,101	1,805	1,518
	%	100	100	100	100	100	100	100
Acquaintance		49	25	41	46	47	56	51
Stranger		13	6	5	8	13	14	21
Unknown		6	12	7	5	5	5	6
Family total	%	32	57	48	42	36	25	21
Spouse		—	—	—	—	—	1	—
Parent		14	30	20	15	16	11	10
Other immediate family		9	9	12	13	11	7	6
Extended family		9	18	16	14	9	6	4

		Physical assault						
		Age of victim						
		Total	<3	3–5	6–8	9–11	12–14	15–17
Total	Number	16,371	342	509	961	1,997	5,465	7,097
	%	100	100	100	100	100	100	100
Acquaintance		53	17	25	40	54	60	52
Stranger		22	4	9	15	21	21	26
Unknown		5	10	8	7	5	4	5
Family total	%	20	69	58	38	20	15	17
Spouse		2	—	—	—	—	—	4
Parent		13	58	49	33	15	10	7
Other immediate family		4	6	6	3	3	4	5
Extended family		1	5	4	2	2	1	1

Source: Statistics Canada, Canadian Centre for Justice Statistics, *Assaults Against Children and Youth in the Family, 1996*, Ottawa: Statistics Canada, November 1997 (Statistics Canada Cat. No. 85-002-XPE, Vol. 17, No. 11) (data from *Revised Uniform Crime Reporting Survey*).

Table 10b. **Family assaults against children and youth, by type of assault, by sex^a of victim, and by accused–victim relationship, Canada, 1996**

		Sexual assault			Physical assault		
		Total	Against females	Against males	Total	Against females	Against males
Total	Number	2,102	1,662	440	3,328	1,855	1,473
	%	100	100	100	100	100	100
Parent		43	42	48	64	59	70
Other immediate family ^b		28	29	24	21	21	21
Extended family ^c		27	27	28	7	6	8
Spouse of victim		1	2	1	8	14	1

^a Cases where the sex of the victim was unknown were excluded.

^b "Immediate family" includes natural, step, half, foster, and adopted siblings.

^c "Extended family" includes others related by blood or marriage (e.g., grandparents, aunts, uncles, cousins).

Source: Statistics Canada, Canadian Centre for Justice Statistics, *Assaults Against Children and Youth in the Family, 1996*, Ottawa: Statistics Canada, November 1997 (Statistics Canada Cat. No. 85-002-XPE, Vol. 17, No. 11) (data from *Revised Uniform Crime Reporting Survey*).

Social health

Introduction

While most of the remaining topics in this *Statistical Report* describe population health by aggregating individual statistics, there is no practical means to summarize all these indicators. However, a recently developed “Index of Social Health” does provide a summary of 15 important indicators,¹ most of which are included in this *Report*. Taken together, these indicators provide a much more comprehensive view of the health of society than traditional measures of progress, such as gross domestic product (GDP) or even the United Nations’ measure of quality of life, the Human Development Index. Economic measures such as GDP are a poor reflection of social health because they fail to take account of non-economic activities or even the negative aspects of economic activities (e.g., pollution).² The United Nations’ measure is limited in its scope, consisting only of GDP per capita, literacy, school enrollment, and infant mortality,³ and, until 1998, it took no account of disparities within a society.

The new Index of Social Health has its limitations as well and is best seen as a work-in-progress. It is scored so that the only valid comparisons are within a region (e.g., province or country) over time. The only comparisons among jurisdictions that are possible are the trends over time. Nevertheless, the index provides a revealing perspective on social progress in Canada, especially when compared with economic progress.

Trends in social health, 1970–1995

From 1970 to 1980, the Index of Social Health grew impressively in Canada. However, the peak values were reached in 1980, and there has been a slow and steady decline since that time, interrupted only briefly by a modest recovery in the late 1980s (Fig. 11).² By this

measure, Canada’s social health had declined to the same level as in 1972. In 1995, the index stood at about 50, which means that the indicators, taken together, were at only half the maximum levels they had reached during the 25-year period. In sharp contrast, Canada’s GDP continued to increase markedly from 1970 to 1995.

International rankings on the Index of Social Health are not possible, but Canada has scored well on the United Nations’ more limited Human Development Index for the last several years.³ In 1998, although Canada again placed first on the general index, it ranked only 10th out of 17 wealthy countries on the new Human Poverty Index of the United Nations, which incorporates a measure of income distribution.

Differences among groups

Ten of the 15 components of the Index of Social Health cover four stages of life: childhood, youth, adulthood, and old age. The other five components cut across all ages: homicides, alcohol-related fatalities, access to affordable housing, and income inequality. It is thus possible to compare the trends for various life stages, although, as noted, *only* the trends can be compared, not the absolute values. (There are no gender-specific indicators.)

The childhood indicators — child poverty (Topic 6), child abuse (Topic 10), and infant mortality (Topic 78) — reached their peak values in 1980 and have declined steadily since, except for a brief recovery in 1989. By 1995, the index had declined 52% from this level (Table 11).¹ The childhood social health indicators appear to be particularly vulnerable to downturns in the economy¹ and are distinguished from the other life stages by achieving their lowest levels most recently.

The youth indicators are teen suicides (Topic 81), drug abuse (Topic 45), and the high school dropout rate (Topic 5). They show a different pattern from the childhood indicators, declining abruptly and dramatically from their peak in 1982 to their lowest values in 1986. From 1986 to 1993, there was a partial recovery in this sub-index, but the trend since then has been downward. After the childhood indicators, the youth sub-index is the one to have most recently hit its lowest level. In 1995, it was 37% below its peak value of 13 years earlier.

The adult social health indicators are economic in nature — unemployment (Topic 7) and average weekly earnings — and so grew with the economy through the early part of the 1970s and most of the 1980s. However, there were steep declines in the adult sub-index from 1976 to 1982 and from 1989 to 1993. While these indicators have now recovered somewhat, they are still 23% below their maximum values in 1983.

The seniors indicators consist of their poverty rate (Topic 6) and uninsured health costs (see Topics 21, 23, and 24). The elderly showed dramatic improvement in the 1970s, compared with other groups, but have slowly and steadily declined since 1982. In 1995, their sub-index was 38% below its highest value.

There are some important exceptions to the generally similar provincial trends. Most provinces reached their maximum values in social health in 1979 or 1980, although Ontario and Prince Edward Island reached theirs much later in the 1980s (Table 11). Most provinces also had their low points in 1970, when the index begins, but Quebec's lowest value was as recently as 1994. Changes from the peak values until 1995 (the most recent year tracked for the index) are uniformly negative but vary in the magnitude of this downward trend, from a modest 4–5% in Alberta and Newfoundland to a striking 32% in Quebec.

While the Index of Social Health does not provide gender-specific indicators, the United Nations has a gender-related development index, which takes account of inequality in achievement between men and women, and a gender empowerment measure, which indicates whether women are able to actively participate in economic and political life. Worldwide, Canada ranks first on the gender-related development index and sixth on the gender empowerment measure.

Canada's Aboriginal population scores substantially below the general population on the

Human Development Index and has a status closer to that of the developing countries.⁴ By this measure, off-reserve Indians are similar to the residents of Trinidad and Tobago (ranked 35th globally), while those living on reserve are marginally better off than Brazilians, who are ranked 63rd.

On definitions and methods

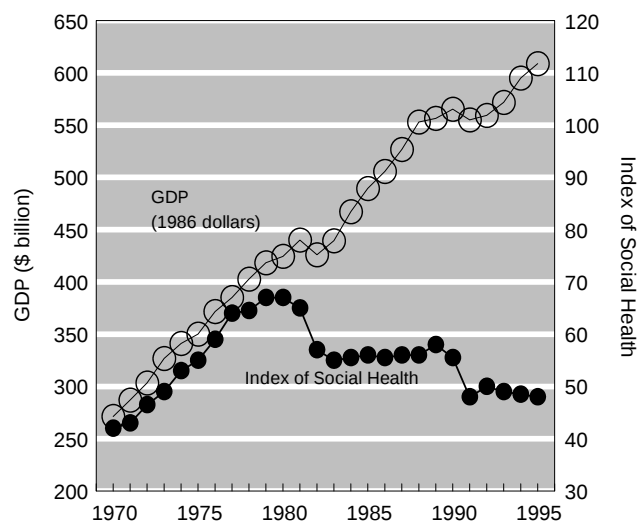
The Index of Social Health was developed by Human Resources Development Canada, in collaboration with Statistics Canada, and is based on a similar index recently developed for the United States.¹ The index summarizes 15 indicators, described above, many of which are reported on elsewhere in this *Statistical Report*. The score for each indicator, for any given year in a time series, is set relative to the best and worst years in the series. The best year for an indicator is scored 10, and the worst, 0. Thus, the scores are useful for showing changes over time within a jurisdiction, but they cannot be used to compare different regions (provinces or countries) except with respect to trends over time.

The Human Development Index is based on four indicators: life expectancy at birth (Topic 84), school enrollment and adult literacy (Topic 5), and real GDP per capita.

References

1. Brink S, Zeeman A. *Measuring Social Well-being: An Index of Social Health for Canada*. Ottawa: Human Resources Development Canada, Applied Research Branch, June 1997 (Research Paper R-97-9E).
2. Human Resources Development Canada. How do we know that times are improving in Canada? *Applied Research Bulletin* 1997; 3(2): 6–8.
3. United Nations Development Programme, Human Development Report Office. *The Human Development Report, 1997*. See the United Nations Development Programme Internet site: www.undp.org/undp/hdro/97.htm.
4. Department of Indian Affairs and Northern Development. *United Nations Human Development Report*. Ottawa: Department of Indian Affairs and Northern Development, 1998.

Figure 11. **Social health and economic output, Canada, 1970–1995**



Source: Human Resources Development Canada, *How do we know that times are improving in Canada?* *Applied Research Bulletin* 1997; 3(2): 6–8.

Table 11. **Trends in the Index of Social Health and sub-indices, by life stage and by province, Canada, 1970–1995**

	Lowest year	Highest year	Change from peak to 1995 (%)
Total	1970	1980	-28
Child	1995	1980	-52
Youth	1986	1982	-37
Adult	1976	1983	-23
Elderly	1970	1982	-38
Newfoundland	1970	1981	-5
Prince Edward Island	1971	1987	-15
Nova Scotia	1970	1980	-21
New Brunswick	1970, 1982	1980	-8
Quebec	1994	1979	-32
Ontario	1970	1988	-13
Manitoba	1970	1979	-13
Saskatchewan	1970	1979	-19
Alberta	1970	1979	-4
British Columbia	1970	1979	-17

Source: Brink S, Zeesman A, *Measuring Social Well-being: An Index of Social Health for Canada*, Ottawa: Human Resources Development Canada, Applied Research Branch, June 1997 (Research Paper R-97-9E).