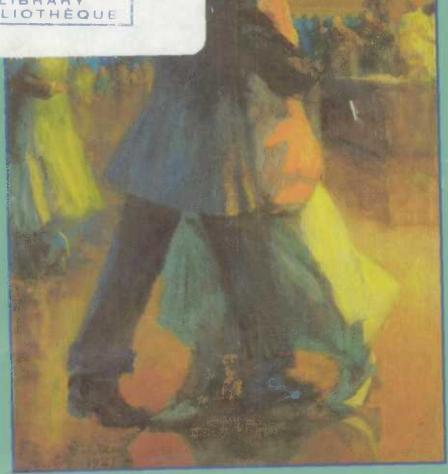
## CANADIAN SOCIALL TRENDS



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### ON OUR COVER:

Summer Evening (1921) oil on canvas, 92.1 x 57.0 cm. Collection: National Gallery of Canada, Ottawa.

### About the artist:

William John Wood, a painter and etcher. was born in Ottawa in 1877 and grew up in Port Colborne, Ontario. From 1904 to 1905 he Mudied at the Central Ontario School of Art in Toronto, under G.A. Reid and William

Cruiksmank, and also studied for a short time in Boston. William Wood lived in northern Ontario and Orillia before moving to Midland, Ontario in 1913, where he worked in the woodworking shops of the shipyards. In 1933 he became a founding member of the Canadian Group of Painters. Mr. Wood died in Midland in 1954.

### SOCIAL

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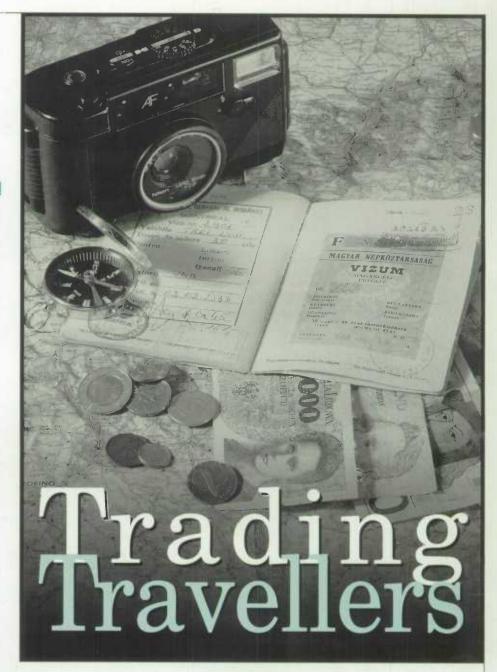
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### Canadians travel

outside Canada for many different reasons. They want to escape the daily routine and pressures of life, recharge batteries and put day-to-day living back in perspective. Canadians want to relax, experience different cultures, expand their horizons, spend time with distant friends. explore and find adventure. For some people, business, employment, education or attending a convention is the motivation for travelling beyond our borders.

BY WARREN CLARK



### International Travel Trends

Although Canadians take most trips within Canada, travel expenditures of Canadians are split almost equally between domestic and international travel. The United States remains the primary international destination of Canadians while Americans are the most abundant international travellers to Canada. However, economic conditions in Canada have led to dramatic changes in travel patterns to the United States over the last decade. Increased Canadian travel to the United States in the early 1990s resulted in rapid growth in travel expenditures outside Canada that was not counterbalanced by visitors to Canada. Meanwhile, travel to and from overseas countries has grown steadily over the last decade except when the Gulf War of the early 1990s briefly interrupted growth.

In 1994, Canadians took 152 million trips of 80 kilometres or more in Canada, 54 million trips to the United States and 3.4 million trips to other countries. While on these trips, they spent \$33 billion, representing the equivalent of 4.5% of Gross Domestic Product or \$1,137 for every man, woman and child in Canada.

Older Canadians are more likely to travel than younger Canadians

Adults aged 55 to 64 were the most likely to travel outside Canada. This is not surprising since on average, older Canadians have higher household discretionary income per capita, fewer financial commitments and more leisure time.1 A favourite destination for older Canadians is the southern United States where they stay longer and spend more per visit than younger Canadians. Those aged 65 and over travel less often than 55- to 64-yearolds, possibly because of health concerns and mobility problems. As well 55- to 64-year-olds were three times more likely to travel internationally than those aged 20 to 24.

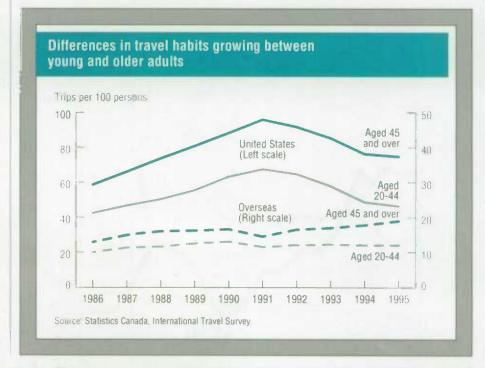
Over the last decade, economic conditions affected travel of both young and old Canadians alike. However, the gap in the number of trips per 100 people has widened between younger adults (aged

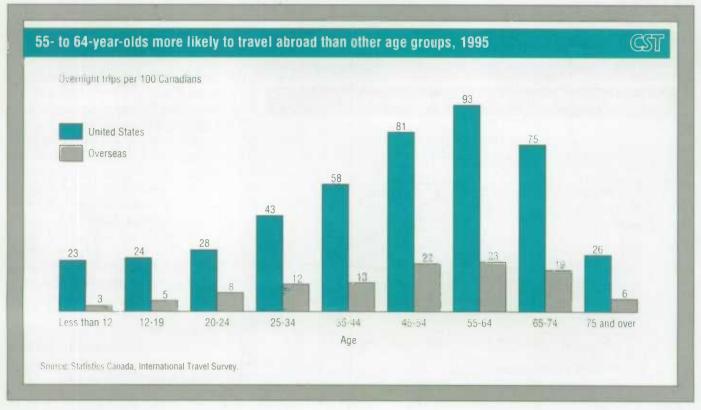
20 to 44) and older adults (aged 45 and over). The gap widened for both overseas travel and travel to the United States. Different earnings growth for younger and older adults may partially explain the widening gap. For example, real earnings of young men have fallen since the late 1970s while those of older men have increased.<sup>2</sup> Consequently, international

travel has become less attractive to young adults and more affordable for older adults over the last decade.

<sup>1</sup> Donna J. Owens, "Tracking Down Discretionary Income," *Perspectives on Labour and Income*, Spring 1991, Statistics Canada, Catalogue no. 75-001-XPE.

<sup>2</sup> Garnett Picot and John Myles, "Children in Lowincome Families," *Canadian Social Trends*, Autumn 1996.





The United States: our favourite destination In 1994, Canadians were the largest group of international travellers to the United States, making 33% of all trips of one or more nights to that country.<sup>3</sup> Although the number of overnight trips Canadians made to the United States remained relatively constant between the early 1970s and 1986, the

number of trips has fluctuated with the economic conditions in Canada since then. In 1986, the Canadian dollar hit a new low compared with the U.S. dollar — US\$0.72. The value of the Canadian dollar then climbed to US\$0.87 in 1991 which made travel to the United States increasingly affordable for Canadians. In 1991, Canadian travel to the United States

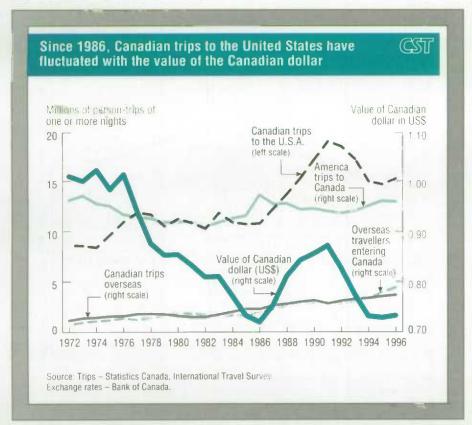
peaked at 19.1 million trips of one or more nights.

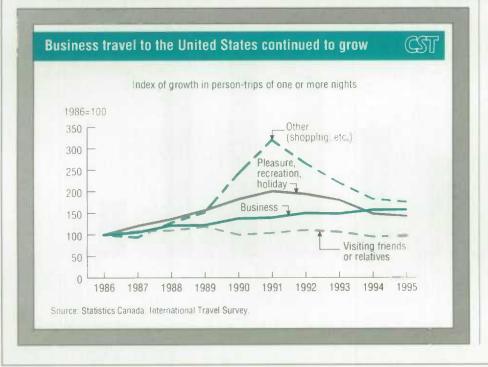
By 1995, however, Canadian travel to the United States plummeted to 14.7 million trips of one or more nights.4 Many events influenced this decline. The Canadian dollar dropped back to US\$0.73 by 1995. Unemployment rates remained high and real family income stagnated. During the early 1990s, several provincial governments limited the amounts paid for health care services provided to Canadians while outside Canada, thus dramatically increasing the cost of supplementary health insurance. Furthermore, the domestic tourism industry initiated advertising campaigns to promote Canadian tourism products and experiences, including adventure travel, parks, festivals, events and cultural experiences, that Canadians could substitute for similar American ones.

Cross-border shopping down Same-day car trips to the United States often are an indicator of cross-border shopping. Day trips decreased to 36 million in 1996 from a peak of 59 million in 1991, reflecting the decline in the relative value of the Canadian dollar. The Free Trade Agreement and North American Free Trade Agreement introduced progressively lower import duties on American goods, yet fewer Canadians made same-day visits to the United States in 1996 than in the early 1990s.

Florida, Canada's winter home away from home Florida is the main sun destination for eastern Canadians while California, Nevada and Hawaii are most popular among western Canadians. During 1995, Canadian visits to Florida represented 35% of all person-nights that Canadians spent in the United States and 25% of all Canadian expenditures on travel in the United States.

Widely publicized violent crimes against foreign tourists in recent years affected travel to Canada's most popular winter getaway. Public perception of crime in Florida appears to have contributed to a 30% drop in visits to Florida between 1992 and 1995. Some Canadians may have substituted visits to other southern vacation spots, particularly Cuba and Mexico, helped by the devaluation of the Mexican peso and the low Canadian





dollar relative to the U.S. dollar. Others may have simply stayed at home.

Canadians stay longer and spend more per visit in the southern states than any other region of the United States. In 1995, Canadians made 4.4 million visits of one or more nights to the southern states, down from 5.5 million in 1992. On average, in 1995, Canadian overnight visitors to southern states stayed 13.4 nights and spent \$806 per visit.

Border state travel declines At the peak of Canadian travel to the United States in 1991. Canadians made 18.7 million overnight visits to border states.<sup>5</sup> During the visits, they spent \$3.3 billion, almost as much as was spent in the southern states. Between 1991 and 1995, the number of overnight visits to border states declined by 34%. Compared with southern state travellers, though, border state travellers stayed for much shorter periods (2.7 nights on average) and spent much less per visit. Due to proximity, travellers to the border states were more likely than southern state travellers to make a quick trip to visit friends and relatives or go shopping.

Business travel bucks the downward trend of the 1990s Most Canadians travel to the United States on holiday or pleasure trips. While holidays to the United States doubled between 1986 and 1991, they decreased steadily from 1991 to 1995. Those Canadians who did travel to the United States stayed a little bit longer: an average of 9 nights in 1995, up from 8.7 nights in 1991.

In contrast, the number of Canadians travelling on business to the United States has grown slowly but steadily since 1986. During this period, the North American Free Trade Agreement expanded ties between Canadian and American businesses. The Open Skies agreement and the gradual expansion of Canada-U.S. air routes made business travel to the United States easier and less expensive.

### **CANADIAN SOCIAL TRENDS BACKGROUNDER**



### **Open Skies agreement**

The Open Skies bilateral agreement between Canada and the United States, signed in February 1995, deregulated airline routes between the two countries. Under the agreement, Canadian and American airlines have unlimited rights to fly between any two points on either side of the border, excluding flights to five busy airports: Toronto's Pearson, Montreal's Dorval, Vancouver's International, New York's La Guardia and Chicago's O'Hare. The arrangement means better flight connections and more competitive pricing for both passengers and cargo. Complementing the accord are plans to expand preclearing facilities to allow Canadians to clear American customs before leaving Canada. The impact of the agreement is seen in air travel's increasing share of Canadian travel to the United States. In 1995, 26% of overnight trips by Canadians to the United States were by plane, up from 19% in 1991.

### Favourite destinations of Canadians, 1995



one	Visits of one or more Personnights nights		Average nights per visit	Money spent on travel excluding fares	
	000s	000s		\$ millions	
United States <sup>2</sup>	14,663	105,795	7.2	8,299	
Border states	12,287	33,733	2.7	2,422	
Mid-range states	3,895	12,694	3.3	1,227	
Southern states	4,420	59,072	13.4	3,579	
Total overseas <sup>2</sup>	3,543	64.975	18.3	4,769	
Europe	2,527	32,033	12.7	2,440	
France	418	5,335	12.7	468	
Germany	223	2,564	11.5	182	
Italy	151	1,860	12.3	153	
Netherlands	165	1,551	9.4	98	
Switzerland	126	743	5.9	82	
United Kingdom	714	10,283	14.4	770	
Asia	537	10,066	18.7	780	
Hong Kong	115	2,464	21.4	138	
Јарап	57	984	17.4	125	
Caribbean	732	6,846	9.4	638	
Сшва	184	1,734	9.4	119	
Dominican Republic	126	1,225	9.7	86	
Mexico	406	4,291	10.6	351	
Australia	65	2,348	36.0	146	

<sup>1</sup> Includes money spent on same-day trips and trips of one or more nights.

<sup>&</sup>lt;sup>3</sup> World Tourism Organization, *Yearbook of Tourism Statistics*, Volume 2, 48th edition, 1996.

<sup>&</sup>lt;sup>4</sup> In 1996, overnight trips to the United States were up 4% from 1995.

<sup>&</sup>lt;sup>5</sup> Border states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota, North Dakota, Montana, Idaho, Washington, Oregon.

<sup>&</sup>lt;sup>2</sup> Person-trips of one or more nights

Source: Statistics Canada, International Travel Survey.

Canadian travellers on business to the United States spent more per trip than did other U.S.-bound Canadian travellers, spending \$680 on trips averaging four nights.

Overnight travel to the United States to visit friends and relatives has remained stable since 1986. These trips, averaging \$250 in 1995, were less expensive than others for two reasons: inexpensive transportation (by car) and accommodation (with friends or relatives).

Other reasons for overnight travel, particularly shopping in the United States, showed the greatest fluctuations in overnight trips between 1986 and 1995. In 1991, when the Canadian dollar

reached its peak, Canadians made 1.3 million overnight trips, primarily to shop: nearly 80% of all overnight trips included shopping. By 1995, overnight shopping trips to the United States had dropped to 0.3 million.

Little change in American travel to Canada Although the 16% devaluation of the Canada Although the 1991 has made travel to Canada increasingly attractive, American travel to Canada has not varied much over the last decade. In 1995, travel from the United States reached a nine-year high of 13 million overnight trips, the highest volume since 1986 when Vancouver was host to Expo 86. This

volume was only 10% above that of 1992, the low point of the last decade.

Americans visiting Canada spent far less and stayed shorter periods than Canadian visitors to the U.S. In 1995, Americans made five overnight trips to Canada per 100 people, while Canadians made 50 overnight trips to the United States. While the United States attracts Canadian travellers year-round, Americans view Canada as primarily a spring and summer destination.

Canadian overseas travel continued to grow Canadian trips to overseas countries increased by 55% between 1986 and 1995. In 1995, Canadians made 3.5 million trips overseas and spent \$4.8 billion, a little over half of what Canadians spent on travel to the United States.

In 1995, the United Kingdom and France remained the most popular overseas destinations for Canadians. Over the last decade, visits to these European countries increased by one-third. In contrast, Canadian travel to Asia, Cuba and Mexico increased by more than 75%. While travel to the United Kingdom and France was primarily during trips for holidays or to visit friends or relatives, travel to Japan and Hong Kong was more business-oriented.

Greater cultural ties with Asian countries may have contributed to increased Canadian travel to Asia. In recent years, more than half of immigrants and about half of international students entering Canada came from Asia. The Canadian and Japanese governments are now working together to increase the number of visitors travelling between the two countries.

In 1995, overseas travellers made 3.9 million overnight trips to Canada — an all-time high.<sup>6</sup> They spent \$4.1 billion while in Canada on trips averaging 11 nights and costing just over \$1,000. In contrast, Canadian trips overseas averaged 18 days and cost about \$1,350.

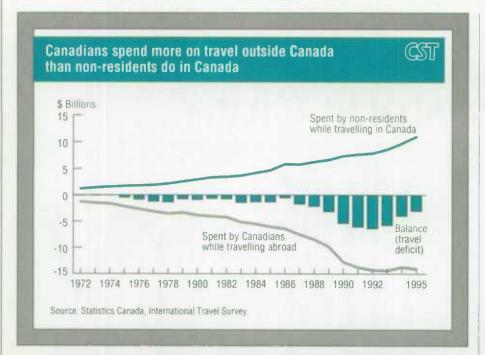
\$3 billion travel deficit in 1995 When Canadians spend more money travelling outside the country than do travellers visiting Canada, a travel deficit between Canada and other countries results. Before 1986, the Canadian travel deficit increased slowly. With increased Canadian travel to the United States, the travel deficit ballooned to about \$6.4 billion in

nternational visitors to Canada, 1995						
	Visits of one or more nights	Person- nights	Average nights per visit	Money spent in Canada by travellers from other countries excluding fares		
	000s	000s		\$ millions		
United States <sup>2</sup>	13,005	49,078	3.8	5,801		
Border states	9,114	30,648	3.4	3,673		
Mid-range states	2,009	8,756	4.4	1,011		
Southern states	1,883	9,671	5.1	1,116		
Total overseas <sup>2</sup>	3,927	42,904	10.9	4,057		
Europe	2,119	25,930	12.2	2,148		
France	430	5,230	12.2	462		
Germany	421	5,089	12.1	500		
Italy	99	1,265	12.8	82		
Netherlands	99	1,292	13.0	91		
Switzerland	101	1,246	12.3	136		
United Kingdom	640	7,327	11.4	567		
Asia	1,288	10,855	8.4	1,377		
Hong Kong	173	1,794	10.4	171		
Japan	589	3,487	5.9	668		
South Korea	112	738	6.6	127		
Taiwan	98	1,643	16.8	131		
South America	108	1,167	10.8	124		
Australia	142	1,381	9.8	138		

<sup>1</sup> Includes money spent on same-day trips and trips of one or more nights.

<sup>&</sup>lt;sup>2</sup> Person-trips of one or more nights

Source: Statistics Canada, International Travel Survey.



### CANADIAN SOCIAL TRENDS BACKGROUNDER



### **International Travel Survey**

All ports of entry across Canada participate in determining the number of travellers crossing the border into Canada, by category and type of transportation. A census of international travellers entering Canada is taken at all but seven ports of entry (where samples are used to estimate automobile and cycle traffic).

Statistics Canada obtains information about expenditures and characteristics of international travellers from questionnaires handed out by Canada Customs officials at all ports of entry to Canada. Five questionnaires are used to survey different categories of international travellers: travellers from the United States visiting Canada, residents of countries other than the United States visiting Canada, Canadian residents returning from trips abroad, Canadian residents leaving and returning to Canada by auto on the same day, and United States residents visiting Canada by auto on the same day. Questionnaire return rates for these five categories of international travellers varied between 4% and 14% in 1995.

#### Definitions:

**Person-trip:** Each time a Canadian resident leaves Canada, a person-trip begins. The person-trip ends when the traveller returns to Canada.

**Person-night:** Each night a Canadian resident traveller spends outside Canada during a person-trip counts as a person-night.

**Visit:** Each border crossing into a country represents a visit to that country. A Canadian resident may visit several countries before returning to Canada. Each crossing into a U.S. state is counted as a visit to that state. For example, Canadians driving to Florida are recorded as visiting each state they enter. Thus, during one person-trip, several visits to different countries or states could be recorded.

1992. Most of that deficit was with the United States (\$5.9 billion). The decline in Canadian travel to the United States between 1991 and 1995 reduced the travel deficit to \$3.1 billion in 1995.

Getting to know Canada better A weak Canadian dollar has made Canada an increasingly attractive destination to foreign travellers; it has also made travel outside the country less affordable for Canadians. Although trips of non-U.S. residents to Canada increased by onethird between 1992 and 1995, American travel to Canada has remained flat over the last decade. For many American travellers. Canada remains a short-stay destination. Meanwhile, the warmth of the southern states and other sun spots still attracts Canadians during the winter months for long stays. The challenge to the Canadian tourism industry is to make travel in Canada more attractive to Canadians and non-residents alike and to spread travel into the off-peak season.

6 In 1996, overnight trips to Canada increased further to 4.4 million.

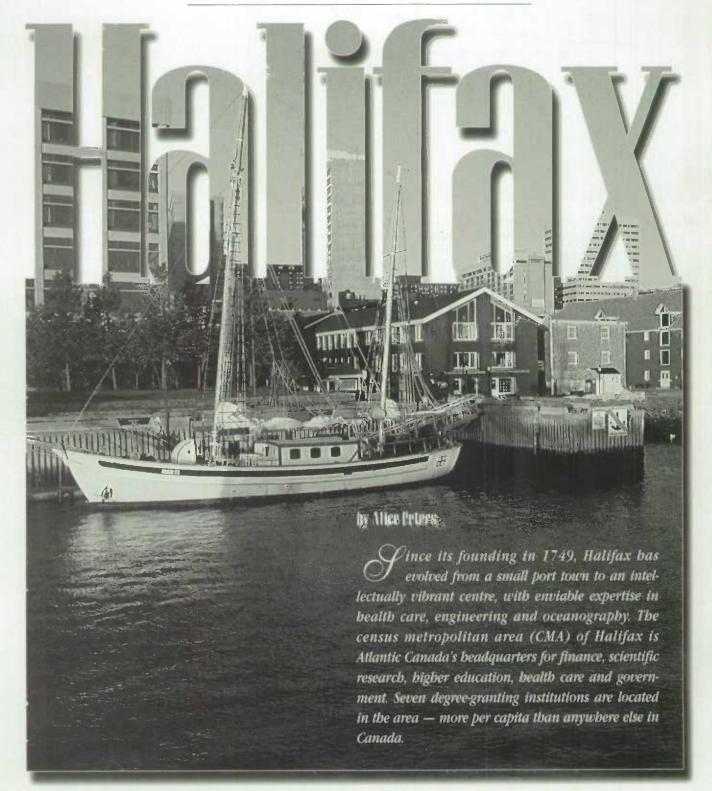
<sup>7</sup> Travel receipts and payments include spending on travel and incidentals to travel such as spending on lodging, food, entertainment, local transportation, gifts, medical care, student expenses and other purchases of personal goods and services.

• For more information, see *Touriscope*— *International Travel*, Statistics Canada, Catalogue no. 66-201-XPB.

Warren Clark is an analyst with Canadian Social Trends.



# The City of



A young population Between 1991 and 1995, the population of the Halifax CMA is estimated to have grown from 327,000 to 342,800, a percentage increase similar to that for the country (5%). In contrast, the population of the CMA of St. John's is estimated to have increased 1% and the CMA of Saint John 0.2%.

Halifax is the only Canadian city east of Toronto to have an "echo" boom generation — children of baby boomers. Consequently, it has a larger proportion of young people than most other Canadian cities. In 1994, the average ages of the Canadian population and the population of Nova Scotia were 35 and 36 years, respectively, while in Halifax the average age was 34. There were proportionally more people in their twenties in the Halifax CMA (16%), compared with Nova Scotia and Canada (14% in both). Halifax also had proportionally fewer older people. In 1994, 12% of both the Canadian population and the population of Nova Scotia were aged 65 and over, compared with less than 10% in Halifax.

A well educated population Given the growing automation and computerization of the workplace, a good education is increasingly important, both for individuals to be successful in the labour market, and for employers to cope with greater competition. The CMA of Halifax is fortunate in having a well-educated workforce. According to the 1991 Census, Halifax had a substantially larger proportion of its population aged 15 years and over with a university degree (16.8%) than the country as a whole

<sup>1</sup> See Foot, David K. with Daniel Stoffman, Boom, Bust & Echo, How to Profit from the Coming Demographic Shift, Toronto: Macfarlane Walter & Ross, 1996.

(11.4%) and other parts of the Atlantic region — the province of Nova Scotia (10.4%), the CMA of Saint John (8.9%) and the CMA of St. John's (11.9%). Halifax has the advantage of seven degree-granting institutions, and a larger-than-average share of its workforce is employed in the field of post-secondary education.

### CANADIAN SOCIAL TRENDS BACKGROUNDER



In April 1996, the four municipalities in the Halifax area (the cities of Halifax and Dartmouth, the town of Bedford, and Halifax County) were amalgamated into a single, regional municipality. The restructuring is intended to achieve economies of scale by having a single local government manage the region.

The new municipality is an urban-rural mix. It has been estimated that 70% of the population lives on 5% of the land, while more than 50% of the land is populated by only 3% of the people. In between is the urban fringe, with one quarter of both the population and the land, and an area that has been called "transition to fringe," which has 2% of the population and 13% of the land.

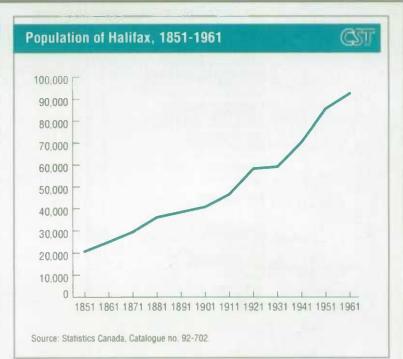
### **CANADIAN SOCIAL TRENDS BACKGROUNDER**



#### A town is born

The first inhabitants of the area were the Mi'kmaq, who called the harbour Che-booktook ("at the biggest harbour"), which the English changed to Chebucto. In 1749, the British settled at Chebucto and built a fortress on the harbour to act as a base against French power in North America. Plans for the new town were drawn up by the Board of Trade and Plantations. The new settlement was named for the Board's president, Lord Halifax.

Of the original English settlers, more than 1,000 (one out of every three) died of typhus during the first winter of 1749-50. Over the next few years, an influx of American, German, and Dutch settlers arrived. For the next 150 years, a steady stream of English, Irish, and Scottish immigrants further settled the area. Throughout the 19th century, Halifax continued to function as a base for British power.



### CANADIAN SOCIAL TRENDS BACKGROUNDER



### The day the town died

On the morning of December 6, 1917, horror and chaos descended on Halifax. Two ships collided in Halifax harbour, causing one to catch fire and explode. The blast tore through the town, leveling homes, schools, churches, and shops and igniting fires throughout the area. Survivors were left in disarray with no electricity or gas. The railway line was destroyed. Telephone and telegraph lines were down, cutting off communication with the outside world.



The explosion and resulting fires

killed almost 2,000 people and injured 9,000 others. Some 1,000 homes and other buildings were demolished and a further 12,000 damaged, leaving thousands of people homeless. Survivors were left to deal with the devastation, to bury their dead and to rebuild their lives and their town.

(37) Top 10 industries in Halifax by percent employed and compared to the total of all CMAs **Protective Services** Hospitals Food Services Elementary and Secondary Education Food Stores Other Business Services Defence Services Halifax Other Institutional Health otal of all CMAs University Education Telecommunication Carriers Industry 0 6 8 10 Source: Statistics Canada, 1995 Labour Force Survey

An economy based on old and new industries Although initially built on a wealth of natural resources, the economy of Halifax is now quite diversified. The traditional industries of fishing, forestry and shipbuilding have been joined by such leading-edge industries as information technology and aerospace manufacturing. as well as the ground-breaking fields of scientific, medical and ocean research. Compared with the other 24 census metropolitan areas in Canada, Halifax has a much larger percentage of its workers employed in protective services<sup>2</sup> (9.1%), hospitals (6.0%), universities (2.9%) and defence services (2.6%). The headquarters of the largest defence contractor in the country is in Halifax. Also in the area is the Bedford Institute of Oceanography. the third largest oceanographic institute in North America. The Nova Scotia Environmental Health Centre in Halifax is the only environmental health clinic in Canada.

Perhaps because of its diverse economy, and its relatively large numbers of federal, provincial, and municipal employees, Halifax has an unemployment rate far lower than any other urban area east of Ontario. In December 1996, the Halifax CMA had an unemployment rate of 8.7%. lower than the Canadian rate of 9.9% and much lower than the rate of 12.6% in the CMA of Montréal, 14.9% in the CMA of St. John's and 15.0% in the CMA of Saint John.

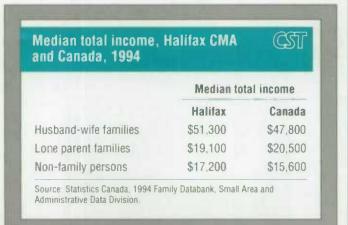
Median earnings higher than national

average With a well-educated workforce and diverse economy, it is not surprising that the majority of families in the CMA of Halifax have two earners. Halifax had proportionally more dual-earner families in 1994 (58% of all its husband-wife families) than the country as a whole (54%). In addition, the median employment income of dual-earner families in Halifax was higher (\$54,100) than the national average (\$53,300).

The proportion of lone-parent families in Halifax (16%), is marginally higher than the national average (15%). The median total income of lone-parent families in

<sup>&</sup>lt;sup>2</sup> Protective services include courts of law, correctional services, police services, firefighting services, regulatory services, and other protective services engaged in dealing with major emergencies and catastrophes.

Halifax in 1994 was lower (\$19,100), than that for lone-parent families for Canada as a whole (\$20,500).



### CANADIAN SOCIAL TRENDS BACKGROUNDER



### A homogeneous community

Given the immigration history of the Halifax CMA, it is not surprising that 71% of Halifax residents who reported a single ethnic origin in the 1991 Census reported being of British origin. French (9%) and Black (4%) were distant second and third responses. Halifax is unique in the Atlantic region in that it has a significant Black population. Across Canada, a much smaller percentage of those reporting a single ethnicity were of Black origin (1.2%).

Almost all residents of the Halifax CMA (99%) gave a single response to the question on mother tongue on the 1991 Census. Of those, 93% indicated that English was their first language. The British background of the residents was also reflected in the religious affiliation of Halifax residents — 50% of the population reported being affiliated with Protestant religions and 38% with the Roman Catholic religion.

In recent years, the Halifax CMA has had a much smaller proportion of immigrants than many other areas of the country. According to the 1991 Census, the immigrant population of the CMA was less than 7%, compared to the Canadian average of 16%. There is an even greater contrast when compared with other CMAs, such as Toronto (38%), Vancouver (30%) and Edmonton (18%). Of the small population of immigrants in Halifax in 1991, the largest proportion were from the United Kingdom (30%), other European countries (24%) and the United States (17%).

Halifax loses residents to the west but attracts Atlantic Canadians Despite low unemployment in the area, Halifax residents continue to move westward in search of opportunity. During the three-year period from 1992 to 1995, Halifax experienced a net loss of 3,700 people to central and western Canada — meaning more people moved from Halifax to central and western Canada than moved in the opposite direction. Of those 3,700, the greatest number moved to the CMA of Vancouver (1,240), followed by Victoria (630), Toronto (560), British Columbia — excluding Vancouver and Victoria (470), Calgary (400), and Ottawa-Hull (320).

The outflow westward was partially offset by the continuing trend of Atlantic Canadians to move to Halifax. In the same three-year period, Halifax had a net gain of 1,820 people from Newfoundland and New Brunswick, with most of the net gain (1,500) consisting of people moving to Halifax from Newfoundland.

Halifax in the 21st century The relatively young age and high education level of the Halifax population places it in an enviable position as the new millennium nears. The "echo" boomers will begin to come of age and enter the labour and consumer markets just after the turn of the century. Halifax will have both maturing boomers saving for retirement, and "echo" boomers buying homes and consumer durables. With its relatively young population, Halifax may have fewer of the problems associated with an aging population, such as increased pressure on care institutions and decreased availability of family support.

Alice Peters is an analyst with Canadian Social Trends





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# The Consumer Price Index of Inflation

by Alice Peters



t affects nearly every Canadian, yet most people are not aware of how important the Consumer Price Index is to their lives. Changes in the Consumer Price Index (CPI) can affect labour-management contracts, social program payments, rental agreements, and child support payments. The CPI is frequently used to estimate the extent to which the purchasing power of money changes in Canada, and is a widely used measure of inflation (or deflation).

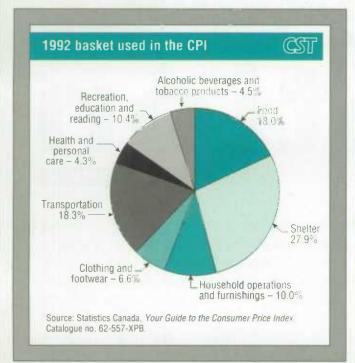
So what is this number that has so much influence? The Consumer Price Index measures the percentage change over time in the average cost of a large basket of goods and services purchased by Canadian consumers. Since the quantity and quality of the goods and services in the basket remain the same, changes in the cost of the basket over time are due solely to changes in prices.

How does the Consumer Price Index work? The goods and services included in the CPI basket are those considered consumer items. They must be associated with a retail price that a consumer would pay to purchase a specific quantity and quality of a good or service. No attempt is made to differentiate between luxuries and necessities, and nothing is omitted on the basis of moral or social judgement. Some items are excluded from the CPI because associating quantities with prices is difficult or impossible; for example, we can associate food with specific quantities, but quantifying life insurance is difficult. Therefore, the CPI excludes income taxes, charitable donations, contributions made to pension plans, and consumer savings and investments.

Information on the spending habits of Canadian households is obtained periodically from family expenditure surveys. Households selected from a random sample are asked to provide detailed information about food expenditures over a two-week period and about purchases of goods and services over the previous calendar year.

A "weight" is established for each item to ensure that price changes for things that form a small part of a household's budget do not have a disproportionate impact on the index. A 5% rise in the price of milk, for example, would have a much bigger impact on the average budget of consumers than a 5% increase in the price of tea, because people generally spend more on milk than they do on tea.

The contents of the CPI basket are reviewed and updated periodically to ensure that they remain relevant. Existing weights are



replaced with those obtained from more recent family expenditure surveys. The current weights are based on 1992 household expenditures, and were introduced into the CPI in January 1995. Price indexes are calculated every month for each component. Detailed CPIs are published for Canada, the 10 provinces, Whitehorse in the Yukon, and Yellowknife in the Northwest Territories. In addition, some information is available for 16 cities across Canada.

**Reading the CPI** To describe price changes and track them over time, the index is calculated using a "base year" for comparison with other years. In the base year the index is always set at 100. The CPI is currently produced using a 1986 base year. In 1996, the CPI was 135.6. This means that consumer prices were 35.6% higher in 1996 than in 1986. In general, prices of services rose more between 1986 and 1996 (43.8%) than prices of goods (28.9%).

Putting the CPI in your social trend tool kit The CPI is often used to adjust incomes, wages and other payments so that purchasing power is not eroded when prices change. Some social programs — such as the Canada Pension Plan, Old Age Security, and the Guaranteed Income Supplement — have an adjustment built in to take into account, either wholly or in part, changes in the CPI. This is called indexing for inflation. Some labour-management contracts contain cost-of-living allowances (COLA) clauses, which tie wages and salaries to the CPI in some manner. Many other financial arrangements also use the CPI as a guide to determine appropriate payments, such as rental agreements and child support payments.

**Provincial and city CPIs** In 1996, consumer price indexes for the provinces ranged from a high of 138.5 in British Columbia

and Manitoba, to a low of 129.5 in Newfoundland. CPIs are also calculated for 18 selected urban areas. Vancouver, with a CPI of 139.1 in 1996, experienced steeper price increases over the 1986-1996 period than did other urban areas. Consumer price indexes for the provinces and cities do not indicate which of the provinces or cities have higher or lower consumer price levels. Some prices, such as those for shelter, are very difficult to compare, since markets for housing and rental accommodation can vary widely from province to province and from city to city. Provincial and city CPIs indicate only that some provinces or cities have had higher or lower rates of consumer price change since the base period.

Comparing prices in different places — inter-city indexes Some measures do exist, however, for making limited comparisons of prices between cities. Inter-city indexes of retail price differentials compare a given urban area's prices for selected groups of consumer goods and services with a

Many prices have risen since 1986	Œ,
Tuition fees	240.5
Rail, bus and other inter-city transportation	199.8
Drivers' licences	194.6
Parking	188.6
Auto insurance	188.1
City bus and subways	183.5
Newspapers	183.0
Spectator entertainment (excluding cablevision)	180.6
Water	172.9
Use of recreation facilities and services	171.1
Cablevision (including pay TV)	166.9
Property taxes	165.7
Child care	163.0
while few have dropped	
Telephone services	99.4
Home entertainment equipment and services	96.9
Lettuce	83.9
Source: Statistics Canada, Consumer Price Index, 1996.	

combined average. For this index, the combined city average equals 100. According to the index for October 1995, food from stores was more expensive in Vancouver — with an inter-city index of 110 — than in the 10 other cities compared.

**Misconceptions about the CPI** The Consumer Price Index is often perceived as the only measure of the rate of price

### CANADIAN SOCIAL TRENDS BACKGROUNDER

### Dealing with quality change

The objective of the Consumer Price Index is to measure pure price change. As a result, the quantity and quality of the goods and services included in the CPI basket have to be held constant. In the real world, however, the quality of products is continually changing as new models and varieties replace earlier ones.

Price increases attributable to improvement in the quality of a product are not treated as pure price changes. A common adjustment technique is to determine which feature of a product caused its quality to change. If, for example, air conditioning becomes a standard feature in the newer model of a certain car. then the price of the new model would include that feature. To compare the prices of the older and newer models, however, they must first be put on an equal footing; thus, the estimated value of air conditioning is added to the price of the older vehicle. The prices of the two vehicles can then be compared because the price of the air conditioning is included in both.

### CANADIAN SOCIAL TRENDS BACKGROUNDER



### **Calculating constant dollars**

The CPI is commonly used to remove the effects of inflation when comparing dollar values over time. Deflated values are referred to as "constant dollar" values. Without some measure of the change in prices from one period to the next, it would be difficult to make meaningful financial comparisons over time.

The following example shows how the CPI is used to re-express current dollar values in constant 1986 dollars.

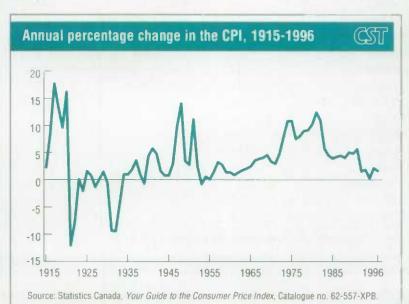
	(1)	*	
	Expenses In Current Dollars	All-items CPI (1986=100)	Expenses in Constant 1986 Dollars
1985	20,000	96.0	20,833
1990	25,000	119.5	20.921
1995	30,000	133.5	22,472

The figures in Column (1) include the effects of price changes. These expenses are converted into constant 1986 dollars by dividing them by the corresponding 1986 based indexes shown in Column (2), and multiplying the result by 100 (the index of the base year). The results in Column (3) show the expenses for all three years with the effects of price changes removed.

Calculating percentage changes Percentage price changes can be calculated over any two periods; for example, between a given month and the previous month or between a given year and a previous year. The percentage change between any two periods can be calculated by dividing the more recent index by the older index multiplying by 100%, and then subtracting 100%. The percentage change in the annual average index between 1995 and 1996, then, would be calculated as

#### $(135.6/133.5 \times 100\%) - 100\% = 1.6\%$

In other words, prices in Canada rose 1.6%, on average, between the years 1995 and 1996.



### Most retail prices higher in Vancouver and St. John's



### Inter-city indexes of retail price differentials, as of October, 1995

	Food from stores	Household operations and furnishings	Tansportation	Health and personal care	Recreation, education and reading	Alcoholic beverages and tobacco products
St. John's	109	107	106	100	106	131
Charlottetown	106	101	95	104	103	104
Halifax	99	108	96	104	104	103
Saint John	103	98	95	104	102	104
Montréal	96	98	99	104	100	92
Ottawa	103	104	96	105	103	95
Toronto	101	103	102	101	103	96
Winnipeg	102	95	88	96	94	104
Regina	105	99	89	93	95	110
Edmonton	95	91	91	98	94	105
Vancouver	110	103	112	99	104	120
% of CPI basket	12.6	10.4	17.2	4.4	10.2	5.5

Source: Statistics Canada, *The consumer price index*, Catalogue no. 62-001-XPB.

1996 annual average co	nsumer p	rice indexes (1986=100)	(Ch)
Cities		Provinces	
Vancouver	139.1	British Columbia	138.5
Regina	139.0	Manitoba	138.5
Winnipeg	138.6	Saskatchewan	138.3
Toronto	137.5	Ontario	136.6
Victoria	137.4	Alberta	135.6
Saskatoon	137.1	Prince Edward Island	133.5
Ottawa	136.9	Quebec	133.1
Calgary	135.6	Nova Scotia	132.5
Thunder Bay	135.4	New Brunswick	131.2
Edmonton	135.2	Newfoundland	129.5
Yellowknife	134.7		
Montreal	133.7		
Charlottetown-Summerside	133.4		
Québec	133.0		
Halifax	132.6		
Whitehorse	132.3		
Saint John	131.3		
St. John's	129.5		

change. But the CPI reflects the experience of Canadians buying consumer goods and services and, as such, is just one of many price change measures

available. Statistics Canada publishes a number of measures of price change for different purposes, including the industrial product price indexes, the raw materials price indexes, the new housing price indexes, and the farm products price indexes.

Nor is the CPI a cost-of-living index, though it is sometimes mistakenly referred to as such. A cost-of-living index would have to measure price changes that consumers experience when maintaining a constant standard of living. As prices change, consumers can switch between products. A cost-of-living index would have to take this substitution effect into account. Instead, the CPI is based on the fixed basket concept, where the proportions of goods and services in the basket are unchanging, except for periodic updates to the basket.

• Statistics are published monthly in *The consumer price index*, Statistics Canada, Catalogue no. 62-001-XPB and quarterly in *Consumer prices and price indexes*, Statistics Canada, Catalogue no. 62-010-XPB. For more information see *Your Guide to the Consumer Price Index*, Statistics Canada, Catalogue no. 62-557-XPB.

Alice Peters is an analyst with Canadian Social Trends.



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# Reaching Smokers

by Wayne J. Millar

### Cigarettes are addictive

hile the last few decades have seen an overall decline in smoking among Canadians, some smokers have been particularly resistant to quitting or cutting down. Higher smoking rates are observed among individuals with lower levels of education. Moreover, smoking rates are not the only aspect of tobacco use that varies with a smoker's level of education. It also affects the likelihood of smokers attempting to quit or cut down, their reasons for quitting and where they draw their information about smoking.

### Smoking cigarettes can kill you

Because cigarette smoking is one of the most common and preventable causes of illness and

death, factors that influence smoking rates must be considered when designing public health programs and allocating health care dollars. Educational attainment is one such factor linked to a wide range of smoking-related behaviours and attailed.

Tobacco smoke can harm your children

# with LOWer Educational Attainment

Smoking rates down. Between 1977 and 1994, smoking rates declined among men and women aged 20 and over, though the decline was more pronounced among then. The percentage of men who smoked cigarettes daily or occasionally fell to 33% from 46%, an average annual percentage change (AAPC) in rates of 4.22%. Despite the sharper decline in smoking rates for men, it remained togher than the women's rate which decreased more slowly to 29% from 35%, an AAPC in rates of 4.05%.

Generally, people with lower levels of schooling are more likely to be smokers. While the overall trend in smoking rates between 1977 and 1994 was down among both men and women regardless of education, the pace of decline varied. For men, smoking rates took a downturn at all education levels.

In contrast, women's smoking rate declined print my among the university of this group's AAPC 3.18 also had the sharpest drop. For women, the two lowest educational attainment groups had the smallest declines in smoking rates. The AAPC for those with elementary education or less was -0.21%, and for those with some or completed high school, it was -0.31%. In fact, women with some or completed high school education had the highest smoking rates: 38% in 1977 and 36% in 1994. Similarly, men with the smallest decline in rates — those with elementary schooling or less — also had the highest smoking rates among men.

<sup>1</sup> Age-standard smoking rates.

Because smoking rates declined more quickly among those with more education than among those with less, the gap in smoking rates between people with high levels of education and those with low levels has widened since the mid-1970s. For men, the difference between the highest and the lowest smoking rates rose from 26 to 29 percentage points between 1977 and 1994, while for women, it doubled from 11 to 22 percentage points. This pattern of a widening gap between higher and lower education levels is not unique to Canada.<sup>2</sup>

Kicking the habit contributes to lower smoking rates Two events can trigger a downturn in smoking rates: people do not start smoking or smokers quit. Much of the overall decline in rates since 1977 has been attributed to smokers kicking the habit. By 1994, of all Canadians aged 20 and over who had ever smoked,

about half had quit. Higher percentages of people with high levels of education had quit than those with low levels. This finding mirrored the faster declines in smoking rates among those with high levels of education. Smokers who had not gone beyond high school, particularly women, were the most resistant to quitting. Among people who had ever smoked, just 36% of women and 43% of men with elementary school or less had quit by 1994. In contrast, 66% of women and 64% of men university degree-holders who had ever smoked had quit.

Concern for future health was cited by 51% of men and 44% of women as the leading reason they stopped smoking. Cost ranked a distant second (13% of men and 12% of women). There was no clear-cut pattern in reasons for quitting by educational attainment. However, former smokers with higher levels of education were more likely to cite social

and family pressures as factors in their decision to quit.

### Smoking restrictions reduce smoking

Prohibiting or discouraging smoking in various settings can reduce the prevalence of smoking. For example, although few former smokers reported that smoking restrictions had affected their decision to quit, previous research has shown that the introduction of restrictions in the workplace reduces the number of cigarettes smoked per day.<sup>3</sup> According to the NPHS, higher percentages of smokers with high levels of education encountered smoking restrictions than those with low levels, possibly because the latter are not as likely to be in situations where they cannot smoke.

People at all educational levels most frequently mentioned public places as having smoking restrictions (62%). Workplace prohibitions were also common, but exposure to them varied by the smokers' level of education: 38% of smokers with elementary school or less reported restrictions at work, compared with 48% of those with university degrees. The reason for this may lie in the fact that place of work and level of education are often linked. Workers with higher levels of education are more likely to be in white-collar occupations and work in office buildings. Office buildings are more likely to have prohibited smoking than workplaces in industries such as construction or transportation where most work may be done outdoors.

Smoking restrictions with friends and family were even more closely associated with level of education. For instance, just 10% of smokers with elementary school or less reported restrictions in their own or friends' homes; for those with university degrees, the percentage was 27%. As well, higher proportions of university-educated smokers reported transportation-related restrictions, which may be attributable to smoking bans in private vehicles owned by friends and family. These patterns are

**CST** Average annual percentage change (AAPC) in smoking rates, by sex and educational attainment, Canada, 1977 to 1994 Smoking rate AAPC in rate 1977 to 1994 1977 1994 0/0 **Both sexes** 40 31 -1.6644 37 -0.70Elementary or less Some or completed high school 43 38 -0.88Some postsecondary 37 31 -1.2036 30 -1.20Postsecondary certificate or diploma 27 16 -2.81University degree Men 46 33 -2.2254 47 -0.93Elementary or less 50 Some or completed high school 40 -1.47Some postsecondary 39 34 -1.43Postsecondary certificate or diploma 37 31 -1.5828 18 -2.48University degree Women 35 29 -1.0533 30 -0.21Elementary or less 38 36 -0.31Some or completed high school 29 Some postsecondary 34 -0.7335 29 Postsecondary certificate or diploma -0.97-3.18 27 14 University degree

Note: Figures are based on weighted age-standardized rates for the population aged 20 and over. Source: See Backgrounder, "Data Sources."

<sup>&</sup>lt;sup>2</sup> J.P. Pierce, M.C. Fiore, T.E. Novotny et al., "Trends in cigarette smoking in the United States: Educational differences are increasing," *Journal of the American Medical Association*, Vol. 261, No. 1, 1989.

<sup>&</sup>lt;sup>3</sup> W.J. Millar, "Evaluation of the impact of smoking restrictions in a government setting," *Canadian Journal of Public Health*, Vol. 79, no. 5, September/October 1988.

consistent with the tendency for former smokers with higher levels of education to acknowledge social and family pressures as having influenced their decision to quit.

Mass media deliver the message Media advertising is an important component of the national strategy to discourage smoking. In fact, most smokers have obtained information about smoking and tobacco use from the mass media. Over half of male and female smokers reported that television, radio or newspapers were a source of such information. The next most frequently mentioned source was doctors, nurses and other health professionals.

Although the major source of information about smoking for smokers at all levels of education was the mass media, its prominence varied by level of education. Those with lower levels of education were the least likely to mention the mass media. This group of smokers was also less likely than others to mention pamphlets, books or magazines. In contrast, health professionals ranked prominently as sources of information about smoking among groups with lower levels of education, but their influence was less among smokers with higher levels of education.

One source of information that smokers cannot avoid is the health warnings on cigarette packages. Not surprisingly, awareness of these messages was almost universal. However, recollection of specific messages varied with the smoker's level of education. For instance, comparatively few women with elementary education or less recalled messages about the relationship between smoking and life expectancy (38%), heart disease (35%) or pregnancy (66%), while men and women with a university degree were more aware of these health messages. Although awareness of health messages on cigarette packages improved with higher levels of education, there were exceptions. For instance, among male smokers, there was little difference by level of education in recollection of smoking messages about lung cancer and heart disease.

Less educated were less likely to quit or cut down The NPHS presents some evidence that antismoking messages are heeded. A substantial share of smokers had tried to quit in the year before they

### CANADIAN SOCIAL TRENDS BACKGROUNDER



### **Data sources**

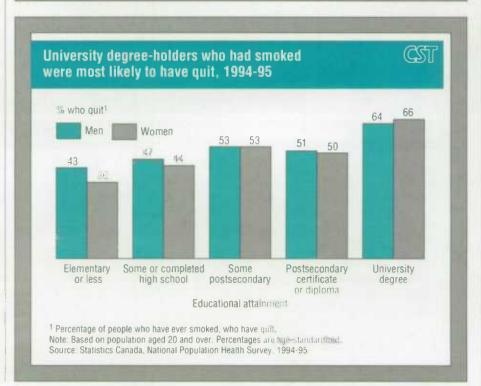
The longitudinal National Population Health Survey (NPHS) was designed to measure the health status of Canadians and discover more about the determinants of health. Detailed data on smoking-related behaviour and attitudes were collected between June 1994 and June 1995 in a Health Canada-sponsored supplement to the NPHS. The supplement's sample size was 13,400 respondents (12,010 aged 20 and over), and the survey achieved a 91% response rate. Trends in smoking rates are based on data obtained from surveys conducted between 1977 and 1995. In these surveys, "smokers" were persons who were smoking cigarettes either daily or occasionally at the time of the survey.

**Analytical techniques** Because this analysis examines the association between smoking and educational attainment, it focuses on the population aged 20 and over, most of whom have completed their formal education. The age distribution of the populations in the education categories varies substantially, so age-standardized smoking rates were calculated using the total 1994 population of Canada.

Changes in annual age-standardized smoking rates were determined by calculating the average annual percentage change (AAPC) for the rates from 1977 to 1994.<sup>2</sup>

<sup>1</sup> Labour Force Survey smoking supplements (1977, 1979, 1981, 1983, 1986), Canada Health Survey (1978-79), Health Promotion Surveys (1985, 1990), National Alcohol and Drug Survey (1989), General Social Survey (1991). National Population Health Survey (1994-95).

 $^2$  The AAPC is (e $^8\text{-}1)100,$  where  $\beta$  is the slope from a regression of log rates with year as the independent variable.





were interviewed: 39% of men and 42% of women. An almost equal number smoked less than they had 12 months earlier. Nevertheless, those whose smoking rate was highest — women with some or completed high school — were the least likely women to have tried to quit (37%) or cut down (38%). In comparison, another group of women with a high smoking rate — those with elementary education or less — was the group most likely to have tried to quit (53%) or to have cut down (50%).

The men least likely to have tried to quit smoking were those with elementary education or less (33%); these men also had the highest smoking rate. Yet of all male smokers, they were the most likely to have cut down (55%).

Source: Statistics Canada, National Population Health Survey, 1994-95.

Conclusions The trend toward not smoking has affected all groups of men and women, but not equally. Although smokers with lower levels of education (particularly women) have been most resistant to quitting, the results of the NPHS show that substantial numbers of them tried to quit or cut down during the previous year. These smokers may find quitting a particular challenge, as they were among the groups who encountered the fewest smoking restrictions.

Health concerns are the overriding factor in a smoker's decision to quit. However, the most resistant smokers were less likely than others to recall warnings on cigarette packages about the relationship of smoking to heart disease, life expectancy and potential harm to

a baby if the mother smokes while pregnant.

While television, radio and newspapers were cited by all groups as the major sources of information about smoking. smokers with low levels of education indicated the mass media was less prominent than among smokers with higher levels of education. This group was also less apt to get information from pamphlets, magazines, or books, but relied on the advice of health professionals more than smokers with higher levels of education. Although few former smokers stopped smoking due to their physicians' advice, most visited their doctor regularly, providing an opportunity for intervention by the medical profession. Over 80% of smokers had consulted a physician in the previous year for one reason or another.

Prevalence of smoking was affected by restrictions in various settings. High smoking rates among people with the lowest levels of education may be associated with their milieu — at home, at work, or with friends — in which smoking is either not discouraged or prohibited. Similarly, low smoking rates among individuals with high levels of education may be related to the restrictions they encounter. Successful attempts to quit smoking also vary with education and are linked with smoking restrictions.

Current data show variations in the decline of smoking by sex and education. Smokers' sources of information about smoking and tobacco, exposure to smoking restrictions, and awareness of

#### **C** Smokers' sources of information about smoking and tobacco use, 1994-95 All Some or Some **Postsecondary** Sources of levels of Elementary completed postcertificate or University secondary diploma degree information education or less high school 55 55 59 59 68 57 TV/radio/newspapers 32 43 33 33 28 26 Health professionals 30 32 Pamphlets/magazines/books 32 30 36 45 15 Family 16 15 16 16 14 Friends 10 11 10 10 Note: Respondents were able to indicate more than one source.

health messages on cigarette packages all vary by sex and education. This suggests that these differences should be taken into account in designing and developing effective health promotion and smoking cessation programs. These findings also indicate that alternative approaches may be required to reach smokers with lower levels of education.

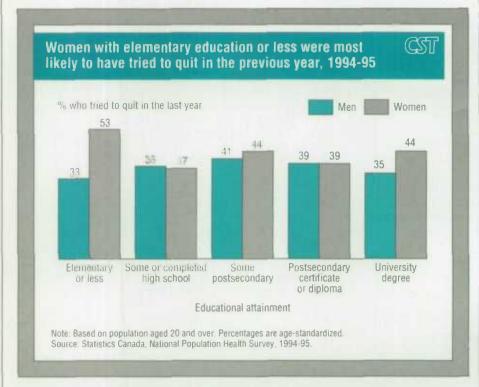
Of course, this picture of smoking is incomplete. By age 20, most people who are going to smoke have already started. Much of the antismoking initiative is directed at young people to discourage them from becoming smokers. Studies of the smoking behaviour of people younger than age 20, particularly the longitudinal studies made possible by the NPHS, may

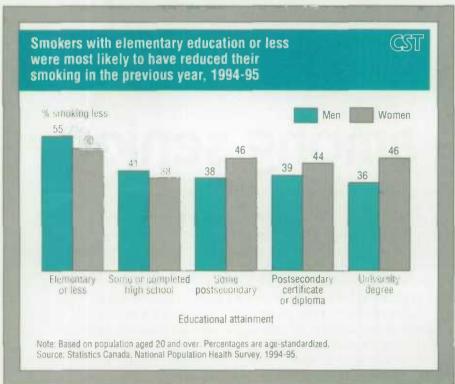
shed light on the processes of smoking initiation and cessation.

- This article was adapted from "Reaching Smokers with Lower Educational Attainment," *Health Reports*, Statistics Canada, Catalogue no. 82-003-XPB, Autumn 1996.
- For information on the smoking habits of youth, see "Youth smoking in Canada," *Canadian Social Trends*. Winter 1996.

**Wayne J. Millar** is a senior analyst with the Health Statistics Division, Statistics Canada.



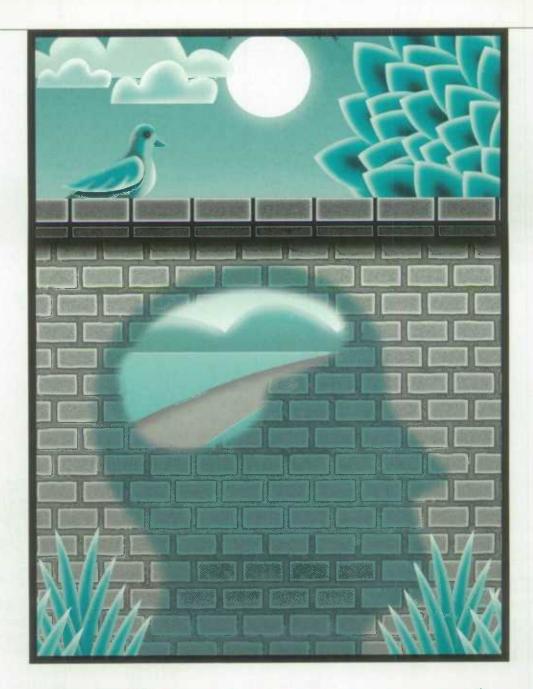




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### Dementia among seniors

by Mary Anne Burke, Joan Lindsay, Ian McDowell and Gerry Hill

The aging of the Canadian population has focused a spotlight on people suffering from Alzheimer's disease and other forms of dementia. Dementia, a clinical syndrome characterized by severe losses of cognitive and emotional abilities, interferes with daily functioning and the quality of life. According to the recent Canadian Study of Health and Aging, the number of Canadian seniors with dementia is likely to more than triple by the year 2031.

The public and private costs to society as the numbers of elderly Canadians with dementia increase will be high, given the nature of care they will require. Since dementia is a disease of aging, the impact will be disproportionately high for women, as there are more elderly women than men. Also, women shoulder a much larger load than men in caring for those suffering from dementia. Canadians will be increasingly challenged to find equitable, cost-effective and viable solutions for the care of those suffering from dementia.

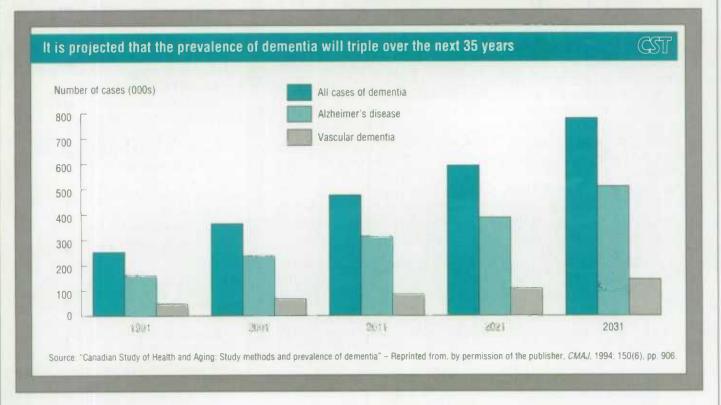
Prevalence of dementia The prevalence of dementia increases sharply with age. According to the 1991 Canadian Study of Health and Aging (CSHA), 8% of Canadians over age 64 suffered from various forms of dementia — including 2.4% of seniors aged 65 to 74, 11% of those aged 75 to 84 and 35% of those over 84. There are more women than men with dementia: in 1991, 68% of those over age 64 with dementia were women. While women's greater longevity may explain some of this difference, it does not account for it all. Age-specific rates also indicated women are more likely than men to be diagnosed with dementia.

Alzheimer's disease is the most prevalent form of dementia, accounting for 64% of all cases in 1991. Vascular dementia accounted for another 19% of cases, and other forms of dementia for the remaining 17%. While women were more likely than men to suffer from Alzheimer's, the opposite was true for vascular dementia. In 1991, among women over age 64 suffering from dementia, 69% were reported to be suffering from Alzheimer's disease and 14% from vascular dementia; among men the same age with dementia, 53% were reported to have Alzheimer's and 30% to have vascular dementia.

Current care practices People suffering from dementia are fairly evenly divided between those in institutions and those living in the community under the care of informal, usually unpaid, caregivers. In 1991, 51% of the 252,600 Canadian seniors with dementia lived in institutions — a relatively costly form of care. Community care is dependent on an informal caregiver. Although daughters and, to a lesser extent, sons may be available to care for parents with dementia, they tend

	A	lge-specific rate		
Age group	Living in the Living in community institutions		Tota	
		(per 1,000)		
65-74				
Male	10	437	19	
Female	20	406	28	
Both sexes	16	419	24	
75-84				
Male	71	536	104	
Female	68	532	116	
Both sexes	69	533	111	
85 and over				
Male	173	618	287	
Female	180	673	371	
Both sexes	178	660	345	
Ail				
Male	39	555	69	
Female	45	572	86	
Both sexes	42	569	80	

Source: "Canadian Study of Health and Aging: Study methods and prevalence of dementia" – Reprinted from, by permission of the publisher, *CMAJ*, 1994; 150(6), pp. 906.



<sup>&</sup>lt;sup>1</sup> Ostbye, T., and E. Crosse. "Net economic costs of dementia in Canada," Canadian Medical Association Journal, 1994; 151:1457-1464.

### **CANADIAN SOCIAL TRENDS BACKGROUNDER**



### Data source and definitions

The Canadian Study of Health and Aging (CSHA) is a joint effort of the Department of Epidemiology and Community Medicine at the University of Ottawa and the federal government's Laboratory Centre for Disease Control. The CSHA working group conducted a study of the elderly in 18 centres across Canada, excluding the Yukon, Northwest Territories, Indian reserves and military bases. The first phase of the study was conducted from February 1991 to May 1992. A representative sample of people aged 65 and over was chosen randomly: 9,008 living in the community and 1,255 in institutions. Participation rates were 72% for residents of the community and 82% for those in institutions.

One of the initial objectives of the study was to determine the prevalence of dementia in these two populations. Respondents in the community were interviewed at home and screened for the likely presence of dementia using a simple psychometric test. Those who failed the test, and all residents of the institutions, were offered a standardized examination which resulted in a clinical classification into one of four categories: cognitively normal, Alzheimer's disease, vascular dementia, or other types of dementia.

Dementia is a clinical syndrome characterized by progressive loss of cognitive function, in particular memory, leading to inability to function physically and socially. The syndrome is associated with many diseases of the brain. In late life the most common are Alzheimer's disease and vascular dementia. Other less common causes of dementia include genetic diseases (e.g. Huntington's disease), infectious (e.g. Creutzfeldt-Jacob disease) and degenerative diseases such as Parkinson's disease.

Alzheimer's disease (AD) — a primary degenerative disease of the brain — is characterized by progressive memory impairment, beginning with loss of short-term memory. The decline in cognitive functioning is progressive. In severe cases there is extreme disability, which frequently requires 24-hour care. Alzheimer's disease does occur before age 65 but the prevalence at younger ages is too low to measure. The prevalence of Alzheimer's disease increases exponentially with age.

Findings from the 1991 CSHA confirmed a number of previously reported risk factors for Alzheimer's: family history of dementia; a history of head injury; age; and low educational status — possibly as an indicator of other socio-economic factors affecting the risk of AD, such as poor diet. A weak link to aluminum exposure was also established, but evidence was not clear, underscoring the need for further research. The CSHA also identified, for the first time, a link between AD and occupational exposure to glues, pesticides and fertilizers. This relationship also requires further study. The use of non-steroidal anti-inflammatory drugs (NSAIDs) was identified as a preventive factor that should be explored in further research.

**Vascular dementia** is an irreversible, progressive disease usually caused by arteriosclerosis of the cerebral arteries. It progresses by steps, with sudden decrements as more brain tissue is damaged by the underlying diseases, followed by periods of stability.

<sup>1</sup> The Canadian Study of Health and Aging (CSHA) Working Group, 1994. "The Canadian Study of Health and Aging: Risk Factors for Alzheimer's disease in Canada." *Neurology*, November 1994.

to have conflicting roles in terms of caring for their own families. Typically, then, elderly women care for their ailing spouses either until their husband dies or until their own declining health makes it impossible. As wives tend to outlive their husbands, women, more often than men, do not have full-time community caregivers and thus require institutional care. In 1991, for example, 54% of women with dementia were living in institutions, compared with 44% of men. Once institutionalized, women with dementia are also there longer: in 1991, women with dementia could expect to live on average 1.4 years in an institution compared with just 0.6 years for men.<sup>2</sup>

Women have shouldered a disproportionate share of the informal care burden, either caring for their husbands or their ailing parents. The economic and human costs to women as care providers have not been quantified but are potentially enormous.

Mounting pressures for new models of care There are three issues that will necessitate careful planning for new models of care. First, the increase in the number of seniors with dementia will add to the institutional care required — and to the attendant costs. In 1993-94, Canadian seniors accounted for 75% of beds and 64% of spending by residential care facilities in Canada. Costs have continued to increase in these facilities, reaching \$94 per resident day in 1993-94, with the cost of direct care (nursing services, therapeutic services and medications, but not meals and administrative expenses) rising to \$46 per resident day.3

Second, the devolution of health care already necessitates new models of health care. For example, for the past decade, the workload of hospitals has continually shifted from inpatient to outpatient treatment, with outpatient visits increasing by 13% between 1986-87 and 1992-93, and the number of hospital beds dropping steadily by 14% over the same period. As such, ongoing patient care for all but the

<sup>&</sup>lt;sup>2</sup> Hill, G., W. Forbes, J-M Bethelot, J. Lindsay and I. McDowell. "Dementia among seniors," *Health Reports*, Catalogue no. 82-003-XPB, Autumn 1996.

<sup>&</sup>lt;sup>3</sup> Statistics Canada, 1996. Residential Care Facilities, 1993-94, Catalogue no. 83-237.

<sup>&</sup>lt;sup>4</sup> Statistics Canada, 1996. *Hospital Annual Statistics*, 1992-93, Catalogue no. 83-242, and *Hospital Indicators*, Catalogue no. 83-246.



acutely ill has been increasingly shifted to informal caregivers. A similar move towards devolution of long-term institutional care may also be likely. The provincial government in Ontario, for example, already plans to shift responsibility for long-term health-care from the province to municipalities.

Third, recent time-use surveys show that women already face a considerable "time crunch" in coping with their current paid and unpaid responsibilities. A drop in the number of women able and willing to provide the intensive informal care required for a growing number of people suffering from dementia will add to the increased demand for high-cost institutional care: at the very same time, pressures to reduce institutionalization may grow.

No matter what scenario unfolds, communities will be challenged to find ways of sharing the heavy burden of caring for those suffering from dementia.

**Conclusions** Current projections estimate that by 2031, the number of Canadian seniors with dementia — many of whom will be women — will triple. The social and fiscal costs to society of having such a large group of ill people are not yet calculable. New studies suggesting that hormone replacement therapy can delay the onset of dementia and improve memory and concentration for those already affected offer some hope,<sup>5</sup> as do other research efforts currently under way.<sup>6</sup> Strategies that focus on a clear understanding of the risk factors and the development of preventative strategies may improve quality of life and reduce the number of Canadians with dementia. Both the challenge and the solution may lie in moving dementia from a private to a community health issue.

Veterans Affairs Puget Sound Health Care System, Tacoma, Washington. Lead researcher, Dr. Sanjay Asthana.

<sup>6</sup> Canadian Study on Health and Aging Working Group, 1994.

Mary Anne Burke was an analyst with Canadian Social Trends, Gerry Hill is an analyst with the Social and Economic Studies Division, Statistics Canada; Ian McDowell is an analyst with the Department of Epidemiology and Community Medicine, University of Ottawa; and Joan Lindsay is an analyst with the Cancer Bureau of the Laboratory Centre for Disease Control.



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### CENSUS UPDATE



### A Brief Guide to 1996 Census Products and Services

On May 14, 1996, when people across the country completed a Census of Population questionnaire, they were contributing to a database which remains one of Canada's richest sources of social and economic information. In the next few months, these data will start to become available. Packaging them so they are meaningful and accessible to users is key to ensuring the value of the data is maximized. With this in mind, Statistics Canada is introducing several new features to its products and services for the 1996 Census.

#### **New in 1996**

**New information was collected in 1996:** Census results will be published for the first time on unpaid household activities, place of work for all levels of geography, mode of transportation to work and population group (visible minority).

**Small area data are available sooner:** Census data at smaller levels of geography will be available much sooner than in previous years. On each release day, profile data will be available for areas at the community levels (census subdivisions and census divisions); data for areas as small as census tracts, enumeration areas and forward sortation areas will follow within a month of the initial release.

Increased accessibility through electronic media: More users in both business and government asked that census materials be available in electronic formats for use in personal computers. Even librarians, who cautioned that they needed support to handle the shift from paper to electronic products, indicated they preferred the increased flexibility of electronic information. While some key print products will be retained, more census data will now be produced on CD ROM and on diskette. Electronic formats will contain Windows-based presentation and tabulation software, to make the data easy to use. And for the first time, users will be able to obtain public good information (including reference material and release tables) free of charge on the Internet through Statistics Canada's web site: www.statcan.ca.

Geography products have been improved: The quality of many of the maps used for census data release has been improved; also, the map series on federal electoral districts has been re-introduced. GEOREF, the Windows-based electronic tool which allows clients to explore the links between different levels of geography, has also been improved with the addition of enumeration area reference lists.

Census tabulations available by postal code: As part of the standard product line, basic summary tabulations and area profiles will be available for forward sortation areas, which represent the first three characters of the postal code. Data for the full six-character postal code can be obtained as a custom service, subject to confidentiality restrictions.

**Revised pricing structure:** The pricing system for Census products has been revised and many prices have been reduced, particularly those for geography products.

### The Products and Services Line

With these innovations and other improvements, the 1996 Census Products and Services Line has much to offer. The Line comprises five major categories — reference, geography, standard data, analytical and custom data products. Each category is supported by resource materials and geography tools to help clients use the data.

### □ Reference products

Anyone working with census data will refer frequently to the Census Catalogue of Products and Services, the Census Dictionary, the Census Handbook and various Technical Reports. Designed to make Census products and services easier to find, understand and use, geography reference products can help locate a client's required geographic areas as accurately as possible.

### Geography Products

Digital geographic products provide databases to clients who use geographic information systems (GIS) or other software with mapping capabilities. Printed maps and reference material are also available.

### ■ Standard Data Products

The standard data products combine census variables in different ways to meet general needs. Six product lines will be produced for the 1996 Census, including:

- Population and dwelling counts
- The Nation series
- Census area profiles
- Basic summary tables
- · Dimensions series, and
- Public use microdata files

Of these, selected tables from *The Nation* series will be available free of charge to anyone with access to the Internet.

### COMING SOON...

### Analytical products

Statistics Canada's experts will continue, as always, to publish ground-breaking studies and analytical reports based on census results. Watch for these in all major Statistics Canada periodicals, including *Canadian Social Trends*.

### Custom Data Products and Services

Census custom products meet the specific needs of users. Both custom cross-tabulations and semi-custom profiles can be produced to the client's particular specifications for content, format, output and geographic area. Data can be tabulated from the 1971 to the 1996 censuses, and from both the 100% and 20% databases. Custom products are available in print and electronic formats, with either Windows- or DOS-based viewing software. All work is done on a cost-recovery pricing basis and service is available across the country in all Regional Reference Centres.

### Getting the data you need

Obtaining data from the 1996 Census has never been easier. Each of Statistics Canada's Regional Reference Centres has a collection of current publications and reference documents which can be consulted or purchased, along with microcomputer diskettes, CD ROMs, maps and other products. Each Centre provides a wide range of additional services, including custom data preparation, consultation, presentations, workshops and lectures.

Selected libraries across Canada receive Statistics Canada's full range of products in a variety of media, and carry census data. Census information can also be purchased from book stores which stock Government of Canada publications.

The newest route to all statistical information profiling Canada's business, economy and society, including census information, is through Statistics Canada's Internet address — www.statcan.ca. Some census results are already available on this easy-to-navigate and fully searchable site. The 1996 Census Preview of Products and Services is also there for clients to consult; it offers the most current details on all census products, their prices and availability.



### **RESULTS FROM THE 1996 CENSUS**

Results from the 1996 national enumeration have already begun to be released, with more to follow. Census variables — the subject matter areas into which data are grouped — will become available in the following phases:

APRIL, 1997

Population and dwelling counts

OCTOBER, 1997

Age and sex1
Marital Status/common-law
Families (Part 1: type and structure)

NOVEMBER, 1997

Immigration and Citizenship

DECEMBER, 1997

Mother tongue
Home language
Official and non-official languages

JANUARY, 1998

**Aboriginal** 

FEBRUARY, 1998

Ethnic origin
Population Group (Visible Minorities)

**MARCH, 1998** 

Labour force activities
Occupation and industry
Unpaid household activities
Place of work
Mode of transportation to work

**APRIL. 1998** 

Education

Mobility and migration

MAY, 1998

Sources of income Family and household income

JUNE, 1998

Families (Part 2: social and economic data)
Occupied private dwellings
Households and housing costs

On each day of release, selected information from *The Nation* series will be featured in *The Daily*. Selected data will also appear on Statistics Canada's website. All variables will have information published at levels for Canada, the provinces and territories, and some will also have data for census metropolitan areas. For the first time, area profile data at the census division and census subdivision levels will be published on release day for some variables. For more information, contact your nearest Statistics Canada Regional Reference Centre.

1 100% age and sex data will be available on request beginning July, 1997.



### **EDUCATORS' NOTEBOOK**

Suggestions for using Canadian Social Trends in the classroom

Lesson plan for "The Consumer Price Index: A Measure of Inflation"

### **Objectives**

- Students should understand how price changes affect their purchasing power.
- Students should become aware that there may be strategies for dealing with price changes, such as altering their consumption patterns or asking for an increase in allowance.

#### Method

1. Have the students examine the prices in the table below, and ask them if the costs of school lunches and entertainment have increased or decreased. Ask the students to consider what additional information is required to determine how the price changes will affect their purchasing power.

Item	1994	1995	1996
Sandwich	\$1.75	\$2.00	\$2.05
Milk	.75	.75	.90
Apple	.50	.60	.65
Potato chips	.60	.75	.80
Tickets for sports events	4.00	4.50	5.50
Tickets for other events	4.50	5.00	5.75
Compact discs	18.00	17.10	15.00

2. The students will need to determine the quantity of each item they purchase each week. They can then calculate how much these expenditures would have cost them in 1994, 1995, and 1996. An example is given below for 1994. Performing the same calculation for 1995 and 1996 results in expenditures of \$29.26 in 1995 and \$31.26 in 1996.

Item	Quantity Per Week	Average Price	Total Spending Per Week
Sandwich	5.0	\$ 1.75	\$ 8.75
Milk	5.0	.75	3.75
Apple	2.5	.50	1.25
Potato chips	2.5	.60	1.50
Tickets for sports events	1.0	4.00	4.00
Tickets for other events	0.5	4.50	2.25
Compact discs	0.3	18.00	5.40
Total			\$26.90

3. To convert these totals to price indexes, the students should make 1994 their base year. The base year is the year whose prices serve as a base for comparing prices in other years. The base year index is set to 100. To complete the index, divide spending in 1995 and 1996 by base year spending, then multiply these answers by 100.

Answer: For 1995, the students' index is 108.8 (29.26/26.90 x 100); for 1996, it is 116.2 (31.26/26.90 x 100). In this example, in order to buy the same things in 1996 that they bought in 1994, the students would have to pay 16.2% more. The students should now be able to see that the price increases have reduced their purchasing power.

4. Ask the students what strategies they could adopt to deal with the increase in prices. Students might suggest changing their spending patterns, buying cheaper products, asking for an increase in allowance, or getting a part-time job.

### Using other resources

- Consumer price indexes can be found in Cansim matrices 7440-7454, and 7463-7478, available on Statistics Canada's E-STAT CD-ROM.
- Your Guide to the Consumer Price Index, Statistics Canada, Catalogue no. 62-557-XPB.



### Share your ideas!

Do you have lessons using CST that you would like to share? Send your ideas or comments to Joel Yan, Dissemination Division, Statistics Canada, Ottawa, K1A 0T6. FAX (613) 951-4513 or Internet e-mail: yanjoel@statcan.ca.



**EDUCATORS** – You may photocopy *Educators' Notebook* and the article "The Consumer Price Index: A Measure of Inflation" for use in your classroom.

	1989	1990	1991	1982	1983	1994	1995	1998
POPULATION	******			10.10			USF 6	
Canada, July 1 (000s)	27,379.3	27,790.6	28,120.1	28,542.2	28,947.0	29,255.6 R	29,615.3 R	29,963.6
Annual growth (%)	1.8	1.5	1.2	1.5	1.4	1.1 R	1.2	1.2
Immigration <sup>1</sup>	178,152	202,979	219,250	241,810	265,405	234,457 F	215,470 R	208,791
Enigration <sup>1</sup>	40.395	39.760	43,692	45.633	43.993	44.807	45.949	47.230
FAMILY								
Birth rate (per 1,000)	15.0	15.3	14.3	14.0	13.4	13.2	12.9	12.5
Marriage rate (per 1,000)	7.0	6.8	6.1	5.8	5.5	5.5	5.4	5.3
Divorce rate (per 1,000)	3.0	2.8	2.7	2.8	2.7	2.7	2.6	
Families experiencing unemployment (000s)	808	879	1,096	1,184	1,198	1,130	1,044	
LABOUR FORCE								
Total employment (000s)	13.086	13,165	12,916	12,842	13,015	13,292	13,506	13,676
- goods sector (000s)	3,928	3,809	3,582	3,457	3,448	3,545	3,653	3,681
- service sector (000s)	9,158	9,356	9,334	9,385	9,567	9.746	9,852	9,995
Total unemployment (000s)	1,065	1,164	1,492	1,640	1,649	1,541	1,422	1,469
Unemployment rate (%)	7.5	8.1	10.4	11.3	11.2	10.4	9.5	9.7
Part-time employment (%)	15.0	15.3	16.3	16.7	17.2	17.0	16.6	18.9
Women's participation rate (%) Unconzation rate = % of paid workers	58.3 34.1	58.7 34.7	58.5 35.1	58.0 34.9	57.9 34.3	57.6	57.4	57.6
	34.1	34.1	33.1	34.3	34.3			
INCOME				12.100				
Median family income	43,995	45,618	46,389	47,199	46,717	48,091	48,079	-
"o of lamilies with low income (1992 Base)	11.1	12.3	13.0	13.5	14.6	13.5	14.2	
Women's full-time earnings as a % of men's	66.0	67.7	69.6	71.9	72.2	69.8	73.1	•
EDUCATION								
Elementary and secondary enrolment (000s)	5,075.3	5,141.0	5,218.2	5,284.2	5,347.4 P	5,402.4 P	5,465.5 E	5511.0
Full-time postsecondary enrolment (000s)  Doctoral degrees awarded	831.8 2,573	856.6 2,673	903.1	931.0 3,136	951.1 P 3,356	964.7 E 3,552	961.2 E	961.2 3,532
Government expenditure on education – as a % of GDP	5.5	5.8	6.3	6.4	6.2	5.9	5.7	3,332
HEALTH	0.0	0.0	0.0			0.0		-
	20.4	27.0	27.4	07 +	27.0	00.0	00.0	
% of deaths due to cardiovascular disease — men	39.1 42.6	37.3 41.2	37.1 41.0	37.1	37.0	36.3 39.7 R	36.0 39.3	
- women	27.2	27.8	28.1	40.7 28.4 <sup>R</sup>	40.2	28.3	39.3	29.3
% of deaths due to cancer — men — women	26.4	26.8	27.0	27.3	27.9 26.9	27.0	27.3	27.9
Government expenditure on health – as a % of GDP	5.9	6.2	6.7	6.8	6.7	6.2	6.1	61.5
JUSTICE				- L L				
Crime rates (per 100,000) - violent	908	970	1,056	1.077 R	1,072	1.038 R	995	
- property	5,271	5,593	6,141	5.868 R	5.524 R	5,212 R	5,235 R	
- homicide	2.4	2.4	2.7	2.6	2.2	2.0	2.0	
GOVERNMENT								
Expenditures on social programmes <sup>2</sup> (1995 \$000,000)	175,372.4 R	183,505.7 R	190,745.5 R	207,245.8 R	214,317.3 R	215,567.4	208,494.6	
– as a % of total expenditures	56.1 R	56.0 R	56.8 R	58.5 R	60.0 R	60.1	58.3	
- as a % of GDP	23.0 R	24.5 R			29.4 R	28.2	26.9	
UI beneficiaries (000s)	3,025.2	3,261.0	3,663.0	3,658.0	3,415.5	3,086.2	2,910.0	
OAS and OAS/GIS beneficiaries <sup>m</sup> (000s)	2.919.4	3,005.8	3,098.5	3,180.5	3,264.1	3,340.8	3,420.0	3,500.2
Carnilla Assistance Plan beneficiaries <sup>®</sup> (000s)	1.856.1	1.930.1	2,282.2	2.723.0	2,975.0	3,100.2	3,070.9	
ECONOMIC INDICATORS							-6 -	
GDP (1986 \$) = arminit = change	+2.4	-0.2	-1.8	+0.8	+2.2	+4.1	+2.3	+1.
Annual inflation rate (%)	5.0	4.8	5.6	1.5	1.8	0.2	2.1	1.0
Urban housing starts	183,323	150,620	130,094	140,126	129,988	127,346	89,526	101,804
- Not available • Not yet available P Preliminary PD Final postcensal estimates PP Preliminary postcen For year ending June 30. Includes Protection of Persons and Property: Health; Social Services	nsal estimates				R Revised	d intercensal es I data	timates <sup>F</sup> Final data	

### CANADIAN

### SOCIAL TRENDS PORTER OF

### Growth in breast cancer cases due to aging population



The number of newly diagnosed cases of breast cancer more than doubled between 1969 and 1996, from 6,900 to an estimated 18,600. However, the age-standardized rate of

breast cancer increased much less rapidly, from 78 to 107 per 100,000 women. This suggests that the aging of the population is largely responsible for the increasing number of cases. (Advancing age is the most important risk factor for breast cancer.) Meanwhile, although incidence rates were rising, mortality rates remained relatively stable at about 30 to 32 per 100,000 until 1990. In the 1990s, rates began to drop, reaching 29 per 100,000 in 1993, the lowest rate since 1950.

Health Reports, Autumn 1996 Statistics Canada, Catalogue no. 82-003-XPB

### 1996 employment growth almost double that of 1995



Employment increased by 189,000 jobs in 1996, up from 99,000 in 1995. Job gains among adult women (110,000) exceeded those of adult men (99,000). However, all the gains

for men were in full-time employment, while two-thirds of those for women were in part-time employment. The number of jobs held by 15to 24-year-olds declined by 20,000 over the year. Job growth was uneven across the country, with Quebec and the Atlantic provinces losing employment and Ontario and the Western provinces recording gains.

Perspectives on labour and income, Spring 1997 Statistics Canada, Catalogue no. 75-001-XPE

### Gap in life expectancy between men and women narrows



Life expectancy at birth, a key indicator of the population's health status, rose slightly to new highs for both men and women in 1995. Life expectancy was 81.3 years for females and 75.3 years for males. This 6.0 year difference between men and women marks a new low in the gap that has historically existed. The gap actually peaked in 1978, when women could expect to live 7.5 vears longer.

Births and Deaths, 1995 Statistics Canada, Catalogue no. 84-210-XPB

### Cellular Telephones



Nearly one in ten Canadians (2.6 million) were cellular phone subscribers at the end of 1995, up 39% from the previous year. Despite the rapid rise in subscribership,

however, net profit after taxes for cellular providers was down over the previous year, at 3.8% of revenue (\$87.6 million) in 1995, compared with 5.3% (\$94,9 million) in 1994.

Communications service bulletin, Vol. 26, No. 3 Statistics Canada, Catalogue No. 56-001-XPB

### Men and women harassed by different kinds of stalkers



Criminal harassment ("anti-stalking") legislation was first enacted in 1993. A sample of police reports filed in 1994 and 1995 shows that 80% of stalking victims were women

and 88% of perpetrators were men. Well over half of women victims (58%) were stalked by a current or former partner; another one-quarter (24%) were stalked by a casual acquaintance. In contrast, men were most likely to be stalked by a casual acquaintance (46%), and only rarely (13%) by a former partner. In one-quarter of all incidents, the stalker was identified but not charged; this happened most often among victims stalked by a business acquaintance and among men harassed by an ex-wife.

Juristat, Vol. 16, no. 12 Statistics Canada, Catalogue no. 85-002-XPE

### Family income unchanged in 1995

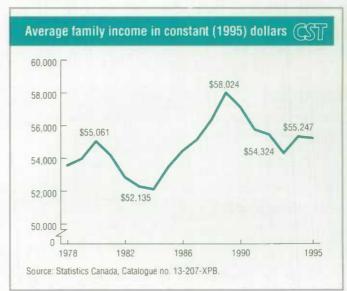


Average family income in 1995 was \$55,247, virtually the same as the previous year, after adjusting for inflation. The stability of overall average family income masks changes

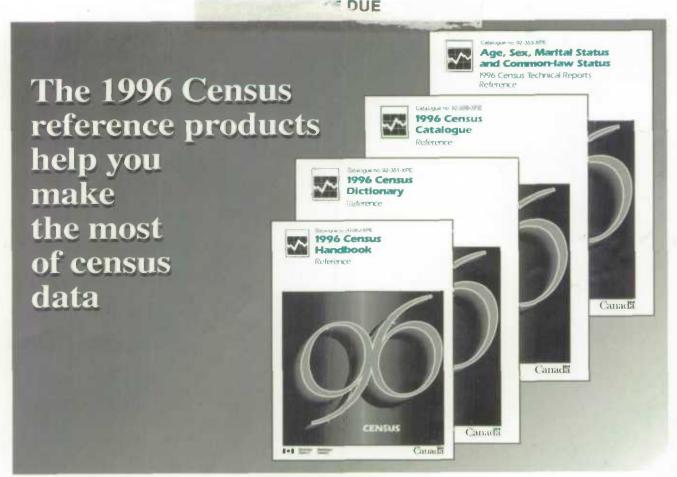
among families in different quintiles, since only families in the bottom quintile did not experience a change in average family income.<sup>1</sup> Incomes rose among families in the top two quintiles as investment and other income (mainly pensions and private annuities) increased from 1994 to 1995; families in the middle quintiles saw their incomes decline because of falling earnings. The peak year for family income was 1989 (\$58,024 in constant 1995 dollars).

Income distributions by size in Canada, 1995 Statistics Canada, Catalogue no. 13-207-XPB

<sup>1</sup> Families are divided into five groups of equal size called quintiles. The 20% of families with the lowest incomes are in the bottom quintile; the 20% with the highest incomes are in the top quintile







### The 1996 Census Handbook

provides a non-technical overview of the complete census process.

### The 1996 Census Dictionary

gives definitions of the concepts, variables, and geography elements associated with the census.

### The 1996 Census Catalogue

describes the products and services available from the 1996 Census.

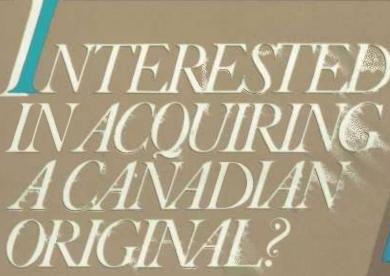
### The 1996 Census Technical Reports

examine the quality of the data for census variables such as age, sex, marital status and common-law status.

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