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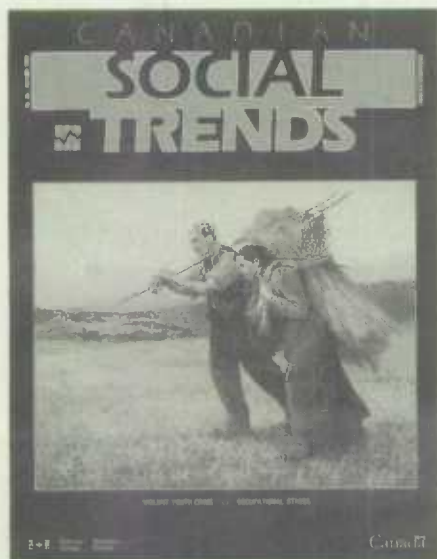
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**Cover:** *Return from the Harvest Field* (1903) oil on canvas, 165.5 x 201.8 cm. Collection: National Gallery of Canada.

#### About the Artist:

**Marc-Aurèle de Foy Suzor-Côté** (1869-1937) was born at Arthabaska, Quebec; his mother was Cécile de Foy-Suzor, his father Théophile Côté. He began by helping the painter Maxime Rousseau to make church decorations at Arthabaska. He went to Paris in 1890 and studied at the École des Beaux-Arts and the Julian and Colarossi academies, returning to Canada in 1893. He was again in France in the nineties, returning to open a studio in Montreal in 1908; and to spend the summers painting at Arthabaska. A.R.C.A. in 1911, R.C.A. in 1914. He died at Daytona Beach, Florida, where he had gone for his health. He was a painter of landscape and figures, and sculptor.



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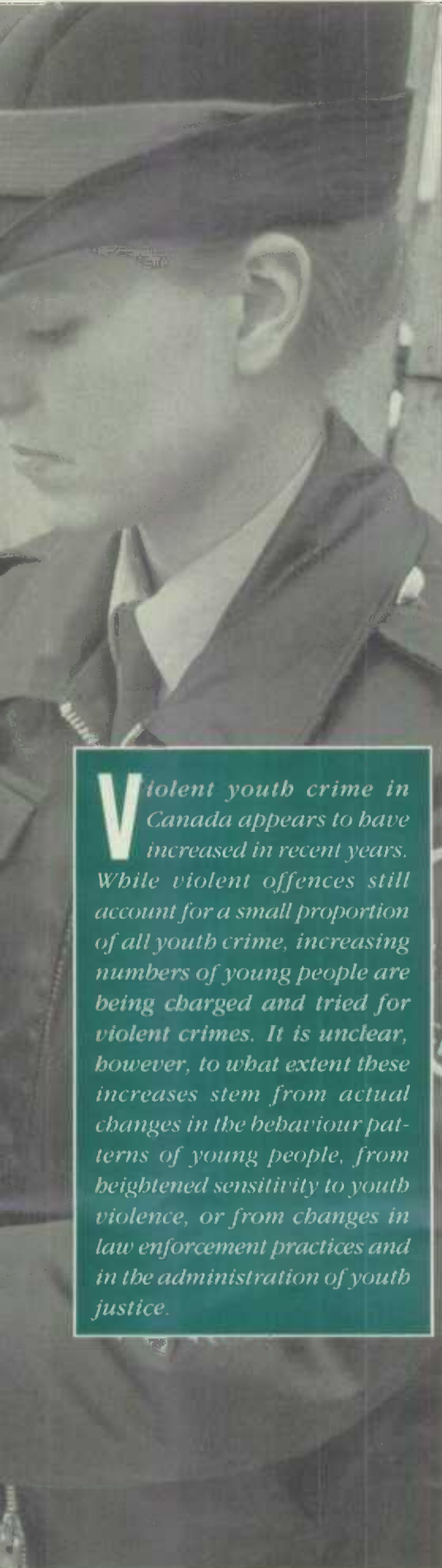
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# VIOLENT YOUTH CRIME

by Jeffrey Frank







**V**iolent youth crime in Canada appears to have increased in recent years. While violent offences still account for a small proportion of all youth crime, increasing numbers of young people are being charged and tried for violent crimes. It is unclear, however, to what extent these increases stem from actual changes in the behaviour patterns of young people, from heightened sensitivity to youth violence, or from changes in law enforcement practices and in the administration of youth justice.

### Juvenile justice legislation

The *Young Offenders Act* (YOA) came into effect in 1984 and replaced the *Juvenile Delinquents Act*, which dated back to 1908.

The *Juvenile Delinquents Act* was based on a child welfare approach to youth crime. The function of the court was not so much to determine innocence or guilt, as to prescribe treatment or care in the best interest of the child.

The YOA attempts to balance the child welfare approach with both society's demands for protection from crime and the need to protect young people's legal rights. As a result, youth courts are now designed primarily to ascertain innocence or guilt. Youth appearing in court are guaranteed all the legal rights of the adult court system. Nonetheless, youth courts still acknowledge that young people have special needs and should be held accountable in a manner appropriate to their age and maturity.

The three year maximum sentence under the YOA probably best illustrates this limited accountability approach. While two years is the normal maximum sentence allowed in youth courts, a young offender can be given three years for a combination of offences or for murder. A 1992 amendment to the YOA raised the maximum sentence for convicted murderers to five years. The amendment also limited sentence lengths for youth transferred and convicted of murder in adult court.

Youth court judges can also transfer exceptionally serious cases to adult court. At the same time, the YOA provides for Alternative Measures to the formal court process. These measures may include community service, special education programs, counselling or restitution agreements.

The YOA includes a uniform age provision which was fully implemented in 1985. The population covered by the YOA now includes youth aged 12-17 (up to the 18th birthday). Children under 12 are dealt with according to provincial child welfare legislation.

### Categorization of offences

Violent offences include murder, manslaughter, attempted murder, sexual and non-sexual assault and robbery. In addition, the Youth Court Survey categorizes offences related to the use or possession of weapons, firearms or explosives as violent. Other violent offences such as infanticide, kidnapping, extortion and criminal negligence account for a very small proportion of violent youth crime.

Non-violent offence categories include:

- Property (mostly theft under \$1,000);
- "Other" Criminal Code (offences against the administration of justice including bail violations and escapes);
- Drugs (offences under the federal *Food and Drug and Narcotics Control Acts* such as possession);
- *Young Offenders Act* (failure to comply with a youth court disposition).

### Crime statistics

Official statistics on crime in Canada are obtained from the Uniform Crime Reporting (UCR) system which counts all criminal incidents recorded by the police. However, many violent crimes are not reported. The General Social Survey, for example, estimated that in 1987, only 31% of violent crimes were reported to the police. Victims tend not to report violent incidents because they feel the offence is minor, the police likely cannot do anything about it, reporting would be inconvenient, or the offence is a personal matter and of no concern to the police. Fear of revenge from the offender and a concern with the attitudes of criminal justice workers toward sexual assault are further reasons why victims of this type of crime often do not involve the police. In addition, many crimes are handled informally and are never actually recorded. The official crime count is also understated to some degree because in incidents involving more than one offence, only the "most serious offence" is recorded.

### Youth court survey

The Canadian Centre for Justice Statistics conducts the Youth Court Survey (YCS). The YCS is intended to be a census of *Criminal Code* and other federal statute charges heard in youth courts in participating provinces and territories. YCS data for Ontario are only partially available beginning in fiscal year 1990-91. Therefore, national totals and comparisons over time do not include Ontario data.

In this article, the unit of analysis for youth court data is the case. A case is defined as one or more charges (first presented in court on the same date) against a youth. A young person, therefore, may appear in more than one case in a given year.

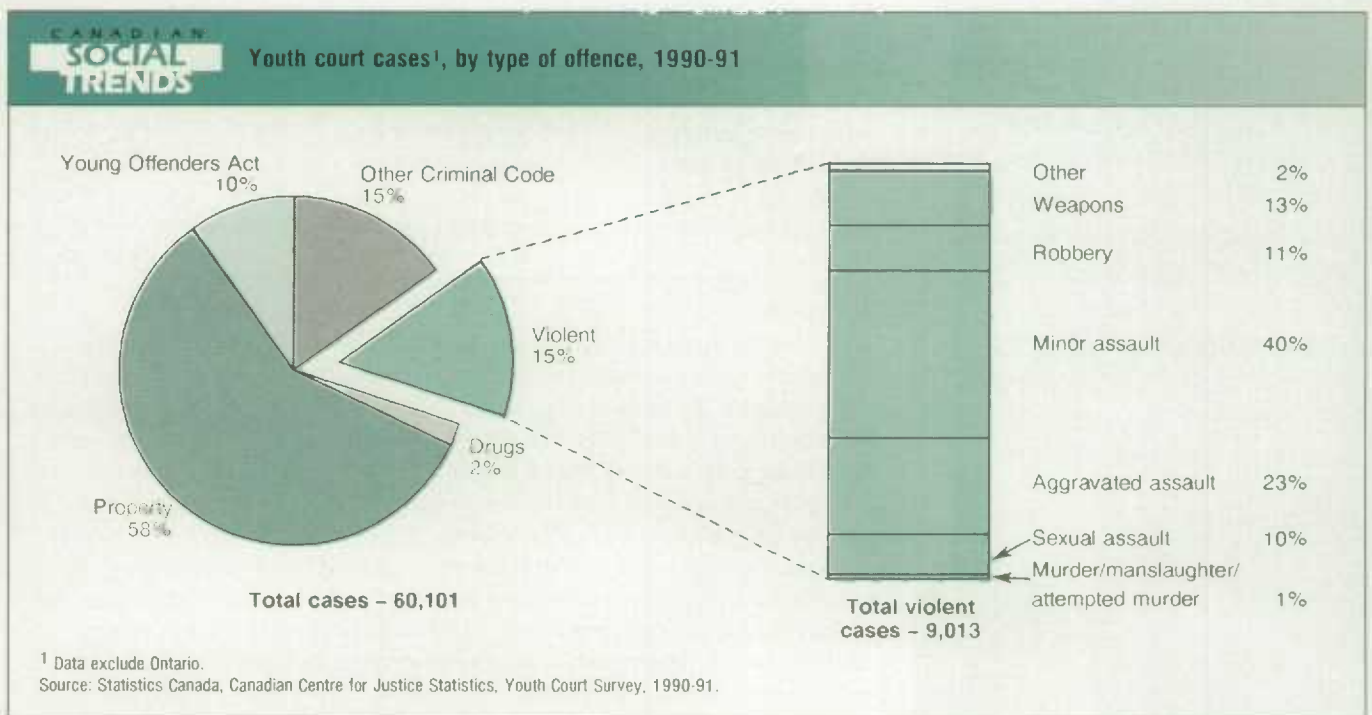
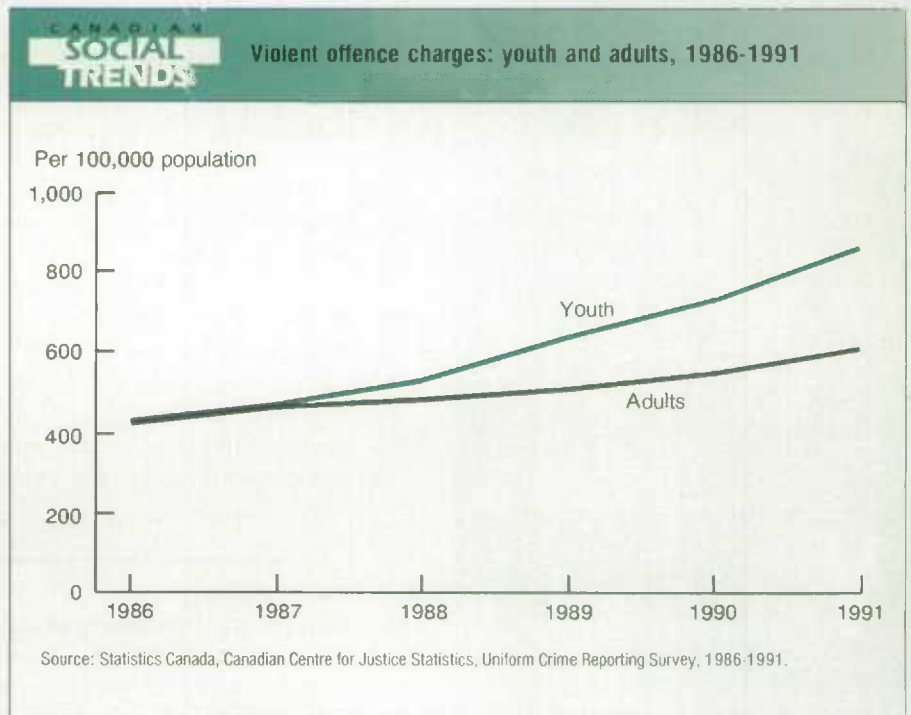
Cases are categorized according to the most serious charge at the beginning of the youth court process (the "principal" charge). As a result, a case involving charges of aggravated assault, minor assault and break and enter would be classified as an aggravated assault case. Similarly, reported decisions (outcomes) and dispositions (sentences) are the most serious ones associated with the principal charge. Therefore, less serious charges, decisions and dispositions are under-reported in multiple charge cases.

### Youth charged

In 1991, 22% of the 679,000 federal statute charges laid were against youth. Of the more than 146,000 charges against young people, 13% were violence-related. These 18,800 violent offence charges marked a 102% increase from 9,300 in 1986. Over this period, the size of the youth population decreased 1.8% to 2.2 million. For every 100,000 youth aged 12-17, 855 violent offence charges were laid in 1991, up 106% from 415 in 1986.

In comparison, the rate of adult (18 and over) charges for violent offences was about the same as for youth in 1986 but has since risen more slowly than the rate for youth. In 1991, 609 charges were laid for every 100,000 adults, up 45% from 419 in 1986.

Minor assaults accounted for about half of all violent offence charges against youth in 1991. In fact, the overall increase in violent charges was largely due to minor assaults. Police laid 406 minor assault





charges for every 100,000 youth in 1991, up 127% from 179 in 1986.

Aggravated assault, a far more serious offence, accounted for one of every four violent charges. Police laid 226 aggravated assault charges for every 100,000 youth in 1991, up 87% from 121 in 1986. Charge rates for other violent offences in 1991 were much lower: 123 robbery charges for every 100,000 youth and 87 sexual assault charges. The most serious offences (murder, manslaughter and attempted murder) accounted for 5 charges for every 100,000 youth (0.6% of violent charges against youth).

### Youth court cases

In 1990-91, youth courts heard over 60,000 cases (excluding Ontario). Of these, about 9,000 (15%) had a violent offence as the principal charge. The majority of cases involved property offences (58%). Other categories included "Other" *Criminal Code* offences (15%), YOA offences (9%), and drug-related offences (2%).

The number of violence-related cases heard in youth courts increased to 414 for every 100,000 youth in 1990-91, up 40% from 296 in 1986-87. The rate of "Other" *Criminal Code* offence cases also increased

### Youth court murder cases

Murder is considered to be the most serious crime in society. Although murder constitutes an extremely small proportion of all youth court cases (0.04%), this most serious violent youth crime attracts a great deal of media and public attention.

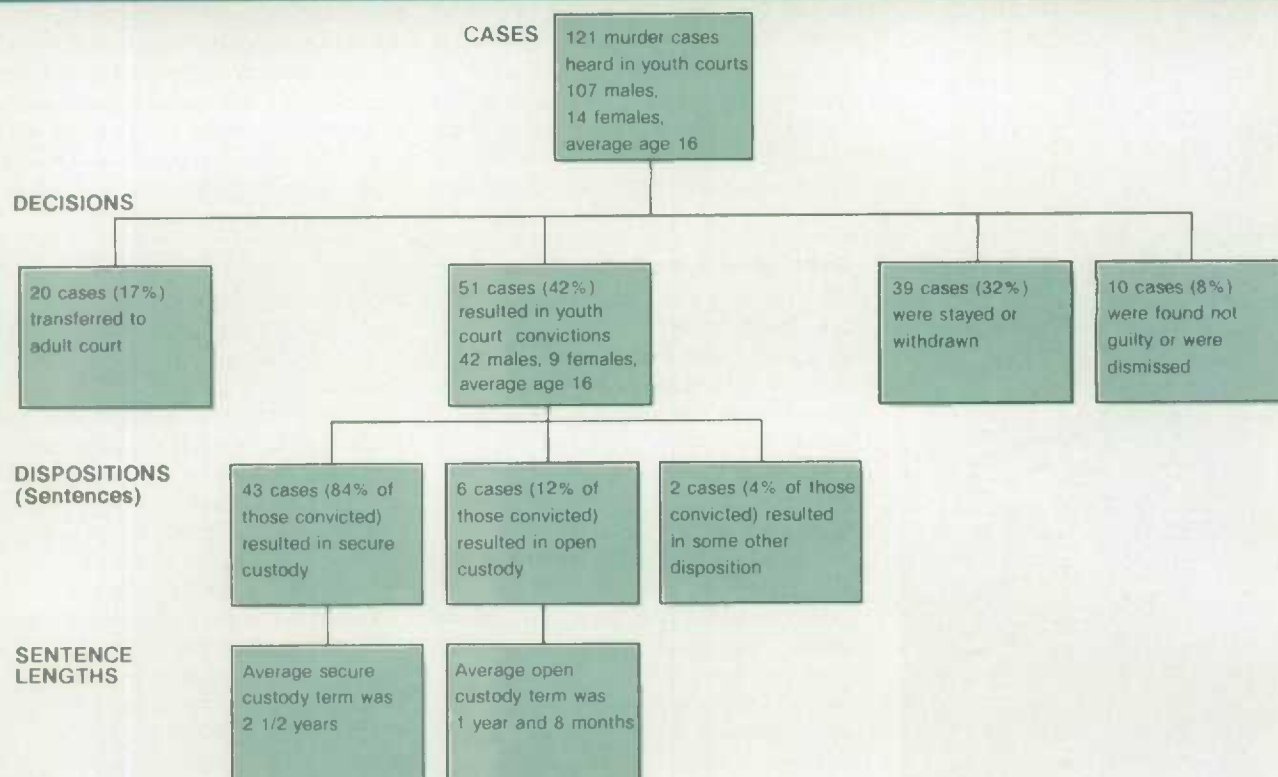
Over the five-year period between 1986-87 and 1990-91, youth courts (excluding Ontario) heard 121 murder cases. Twenty of these cases (17%) were transferred to adult courts, while an additional 51 cases (42%) resulted in youth court convictions. Of the murder cases convicted in youth court, 43 (84%) resulted in secure custody and another 6 (12%) resulted in open custody as the most serious disposition. Secure custody terms for murder averaged 2 1/2 years while the average open custody term was 1 year and 8 months.

### Murder, manslaughter and attempted murder cases heard in youth courts, 1986-87 to 1990-91

	Murder	Manslaughter	Attempted Murder
1986-87	17	4	53
1987-88	30	4	39
1988-89	20	7	41
1989-90	22	15	28
1990-91	32	12	42

Source: Statistics Canada, Canadian Centre for Justice Statistics, Youth Court Survey, 1986-87 to 1990-91.

### MURDER CASES HEARD IN YOUTH COURTS<sup>1</sup>, 1986-87 TO 1990-91



<sup>1</sup> Data exclude Ontario.

Source: Statistics Canada, Canadian Centre for Justice Statistics, Youth Court Survey, 1986-87 to 1990-91.

40%. In contrast, the rate of property offence cases fell slightly in 1987-88 and 1988-89 before returning to 1986-87 levels.

The rate of drug offence cases decreased steadily to 104 for every 100,000 youth in 1990-91, down 35% from 159 in 1986-87. This trend is partially explained by decreased drug use among young Canadians (see *Young Drinkers and Smokers* in this issue). Also, police have increasingly concentrated on apprehending drug traffickers rather than users.

Violence-related court case counts do not directly correspond with police charge counts for a number of reasons. For example, Crown counsel may exercise discretion in deciding whether to proceed with cases. Also, due to practices such as plea bargaining and the diversion of youth into Alternative Measures, young people may appear in youth court for charges different than the original charges, or may not end up in court at all.



Nonetheless, the pattern of violent cases heard in youth courts is generally consistent with the pattern of charges laid. In 1990-91, 40% of violence-related cases had minor assault as the principal charge. The remainder of the violent offence caseload comprised aggravated assault (23%), weapons-related (13%), robbery (11%), and sexual assault cases (10%). The most serious offences (murder, manslaughter and attempted murder) accounted for less than 1% of all violent offence cases.

### Changes in crime levels

The number of both violent offence charges and violence-related youth court cases has increased. Whether or not a real increase in violent youth crime has occurred, however, is uncertain.

The rise in these indicators to some extent may reflect an increase in societal sensitivity to youth violence. For example, a school-yard fist fight that would have resulted in an after-class detention a few years ago now may result in the laying of assault charges. Also, changing law enforcement practices may partially explain the increases. For instance, a city police force that sets up a youth crime unit will likely uncover a greater proportion of youth crime than it had previously. It is also possible that police and Crown counsel are becoming less inclined to exercise discretion in charging and prosecuting young people accused of violent crimes. Police and court statistics are but two indicators of the overall level of violent youth crime.

Many researchers have suggested that economic conditions affect crime levels. This relationship, however, has never

been clearly demonstrated and is the source of some controversy. Nevertheless, by 1990, the Canadian economy had moved into a recession that particularly affected young people. The recent increases in violent youth crime statistics may be due in part to changes in economic conditions.

### Profile of accused

Over half (53%) of young people accused in violent offence cases in 1990-91 were aged 16 or 17 at the time of the alleged offence. Youth aged 14 and 15 accounted for 35% of violent offence cases, while 12 and 13 year-olds accounted for 11%. These findings are generally consistent with the overall youth court caseload.

Age distribution did not vary greatly among different types of violent offence cases, with the exception of sexual assault. Sexual assault cases involved young people aged 14 and 15 (43%) more often than those aged 16 and 17 (39%). Also, youth accused in murder cases tended to be slightly older than other types of accused. These age distributions have remained quite stable since 1986-87.

Of youth accused in violent offence cases in 1990-91, the vast majority (82%) were male. Within different types of violent offences, there were variations. Males represented 98% of those accused in sexual assault cases, 94% in weapons and 72% in minor assault cases. Although females accounted for a minority of accused in all categories, they have been accused more frequently in recent years, representing 18% of the violent caseload in 1990-91, up from 15% in 1986-87.

In 1990-91, young people accused in violence-related cases were less likely to

### Violent crime in the United States

Violent crime has also increased in the United States, although the levels of violent crime are generally higher in the U.S. Nevertheless, the pattern of growth in violent crime for both youth and adults is similar to that found in Canada.

American Uniform Crime Report statistics show that the number of violence-related charges against people under 18 years of age increased to close to 74,000 in 1990, up 38% from about 53,500 in 1986. American Uniform Crime Reports categorize only murder, forcible rape, robbery, and aggravated assault as "violent" offences. The Canadian categorization is broader (including minor assault, for example) and explains

the apparently higher relative proportion and more dramatic increase in violent charges against youth in Canada.

The number of charges against adults in the U.S. has grown at a pace similar to that in Canada. In 1990, police laid just under 400,000 charges for violent offences against people aged 18 and over in the U.S., up 33% from almost 300,000 in 1986.

Available U.S. juvenile court statistics show that the number of cases involving violent offences increased 23% to 70,000 in 1986, from 57,000 in 1982. Among those accused in these violence-related cases, 83% were male, paralleling the situation in Canada.



have had prior youth court convictions (36%) than youth accused in property offence cases (40%). Within different types of violent cases, accused youth were most likely to have had prior convictions in murder cases (54%) and least likely in sexual assault cases (27%).

Statistics based on socio-economic background, family characteristics, and the race or ethnicity of young people accused in youth court cases are not collected. Nor are data available on whether youth who committed crimes acted as individuals or as members of groups such as youth gangs.

### Decisions

The majority of youth court cases, violent and non-violent, result in a conviction. In 1990-91, 65% of youth accused of violent offences either pleaded or were found guilty on the principal charge. The conviction rate for non-violent cases was somewhat higher, 72%. Conviction rates varied considerably with the type of violent offence. In general, the less serious cases had higher conviction rates. For example, cases involving minor assault, the most common and less serious violent offence, had a 72% conviction rate. Other conviction rates included robbery (66%), aggravated assault (62%), sexual assault (60%) and weapons cases (58%). In comparison, 50% of murder cases, 42% of manslaughter cases and only 14% of attempted murder cases resulted in a conviction. It is possible, however, that judges reached other decisions on lesser or

reduced charges. For example, a stayed or withdrawn attempted murder case may have resulted in a conviction on an aggravated assault charge.

### Transfers to adult court

Youth court judges may transfer cases to adult court. Cases can be considered for transfer only if the youth was at least 14 years old at the time of the alleged offence. Judges must consider several factors under the YOA when deciding whether to transfer a case to adult court. These include: the seriousness of the alleged offence; the young person's maturity, character and offence history; and, the availability of treatment and correctional resources. In addition, judges must consider a pre-disposition report as well as any representation made by the parents before authorizing a transfer. Transfer orders are also subject to review by a higher court.

In practice, very few violent offence cases are transferred to adult court. In 1990-91 (excluding Ontario), youth court judges transferred 23 violent cases including 7 aggravated assault, 5 sexual assault, 5 robbery, 3 murder, 2 minor assault cases and 1 weapons case.

### Dispositions (sentences)

Of the violent offence cases with youth court convictions in 1990-91, 55% resulted in probation as the most serious disposition. Secure custody (13%) and open custody (13%) were next most common. While secure custody involves admission to facilities specially designated

for the secure containment or restraint of young offenders, open custody dispositions are served in community residential centres, group homes, child-care institutions or wilderness camps. Other dispositions given in convicted violent offence cases in 1990-91 included fines (7%), community service orders (6%), and absolute discharges (5%). Youth court judges can order a variety of other dispositions including compensation, detainment for treatment, apology, essay, jail tour, curfew, or an order to obtain treatment for alcohol or drug abuse. However, less than 2% of convicted violent cases resulted in any of these as the most serious disposition.

Cases with more serious offences tended to result in more serious dispositions. Secure custody was ordered most often in convicted murder (88%), manslaughter (80%), and attempted murder cases (67%).

### Cases transferred to adult court<sup>1</sup>

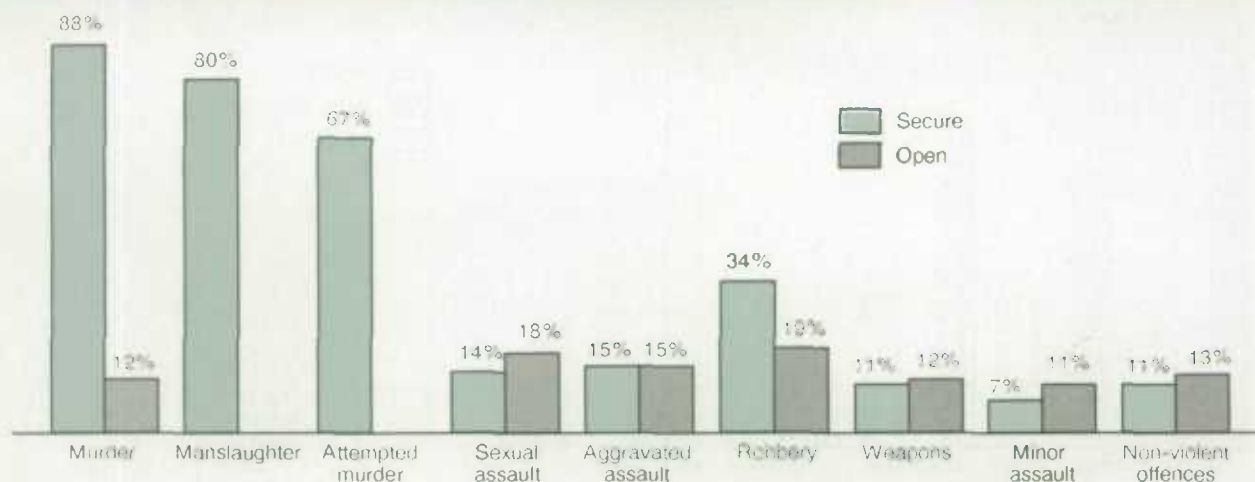
	Violent	Non-violent
1986-87	48	87
1987-88	35	63
1988-89	19	48
1989-90	26	19
1990-91	23	32

<sup>1</sup>Data exclude Ontario.

Source: Statistics Canada, Canadian Centre for Justice Statistics, Youth Court Survey, 1986-87 to 1990-91.

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### Custodial dispositions, by type of offence<sup>1</sup>, 1990-91



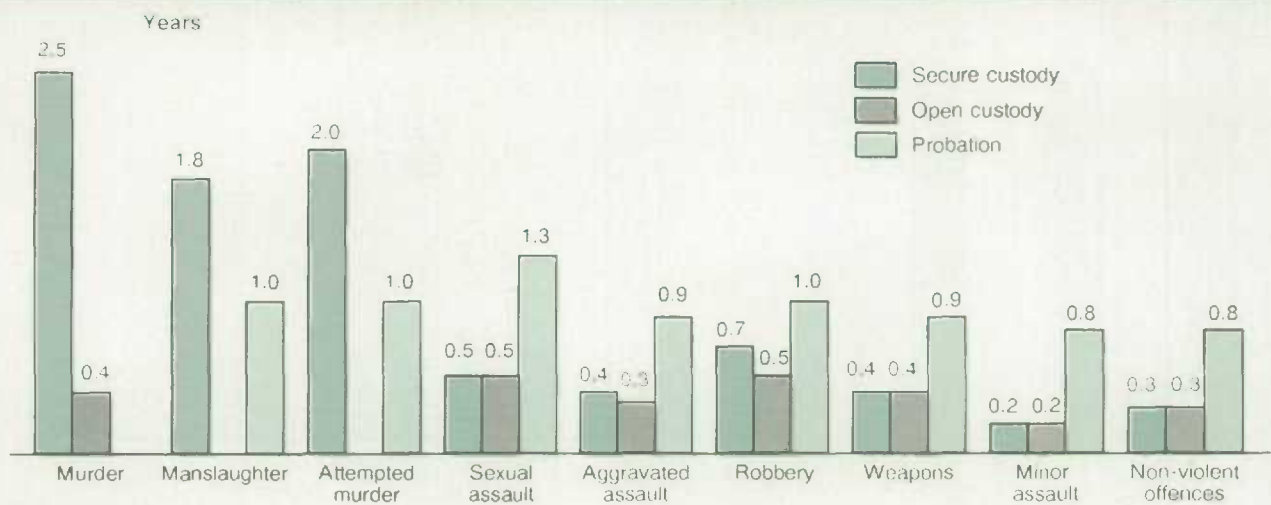
<sup>1</sup> Data exclude Ontario.

Source: Statistics Canada, Canadian Centre for Justice Statistics, Youth Court Survey, 1990-91.



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Average sentence length, by type of offence<sup>1</sup>, 1990-91



<sup>1</sup> Data exclude Ontario.

Sources: Statistics Canada, Canadian Centre for Justice Statistics, Youth Court Survey, 1990-91.



At the same time, judges ordered secure custody dispositions in only 7% of convicted minor assault cases.

### Sentence lengths

Youth found guilty of violent offences generally served longer sentences than those convicted of non-violent offences. The average secure custody term for violent young offenders in 1990-91 was 6 months, compared with about 3 months for non-violent offenders. Similarly, open custody

terms averaged 4 months for violent young offenders and 3 for non-violent young offenders. The average probation term was 11 months for violent offenders and 10 for non-violent offenders. These sentence lengths have not varied significantly since 1986-87.

The less serious violent offence of minor assault accounted for 23% of secure custody, 36% of open custody, and 46% of probation dispositions. Consequently, the average sentence lengths for violent crime

were longer when minor assault cases were excluded. In general, the lengths of custody terms were related to the seriousness of the violent offence.

### Victims of violent youth crime

In 1988, several police departments began participating in the *incident-based Uniform Crime Reporting (UCR)* survey, recording victim and other incident-based data not included in the conventional UCR. By the end of 1991, 14 police forces<sup>1</sup> had reported over 5,000 incidents of minor assault, aggravated assault, sexual assault and robbery that involved charges against youth. While not representative of any particular geographic area of Canada, these data provide an indication of victim characteristics.

Generally, victims of violent youth crime tended to be other youth. Victims were aged 12-17 in 50% of reported minor, 45% of aggravated, and 35% of sexual assaults, and in 34% of robberies. Children under 12 accounted for 60% of victims in reported sexual assault incidents. Overall, people aged 65 and older were victims in 1% of violent youth crimes.

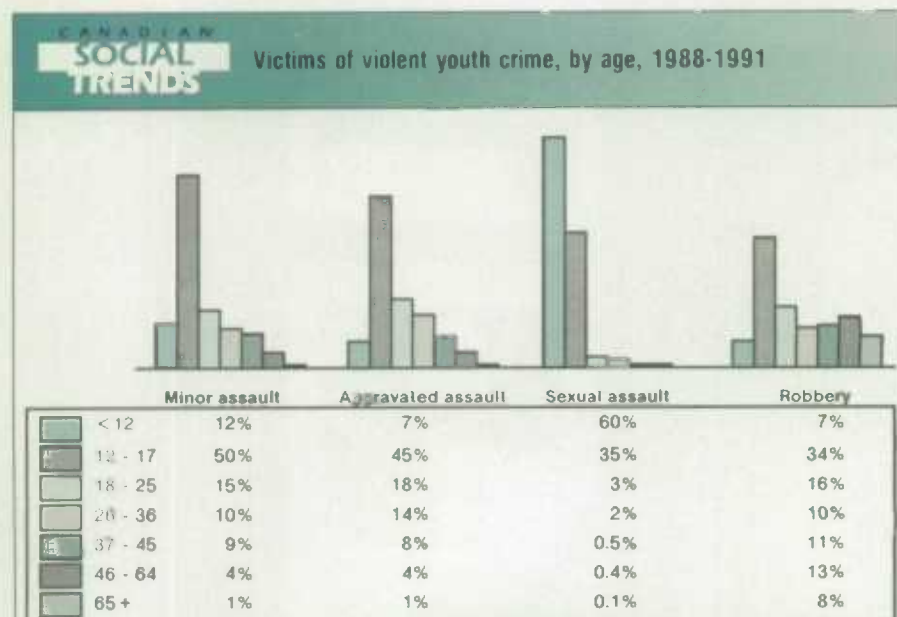
Victims of violent youth crime were predominantly male except in sexual assault incidents. Males were victims in 76% of aggravated assaults, 67% of robberies and 59% of minor assaults. Females, however, made up 79% of sexual assault victims.

### Location of violent incidents

A general perception exists that a large proportion of violent youth crime occurs in schools. According to the incident-based UCR, however, minor and aggravated assaults tended to take place in dwellings (27%), on streets or roads (24%), and in schools (15%). As with sexual assaults in general, most sexual assaults by youth (74%) occurred in dwellings. Finally, robberies committed by youth took place most frequently in commercial or corporate places (47%) and on streets or roads (26%). Just 2% of robbery incidents took place in schools.

<sup>1</sup> Fredericton, St. Stephen-Milltown, Charlesbourg, Joliette, Laval, Aymer, Mont Saint-Hilaire, Sûreté du Québec, Kingston, Niagara, Windsor, Nepean, Regina and Vancouver.

**Jeffrey Frank** is a research analyst with Canadian Social Trends.



Source: Statistics Canada, Canadian Centre for Justice Statistics, Incident-Based Uniform Crime Reporting Survey, 1988-91.

### Location of violent youth crimes, 1988 to 1991<sup>1</sup>

	Minor assault	Aggravated assault	Sexual assault	Robbery
	%			
Dwellings	28	26	74	9
Commercial/corporate places	9	10	3	47
Schools	15	13	6	2
Public institutions/transit	8	7	1	2
Parking lots	7	10	2	5
Streets/roads	24	24	5	26
Open areas	8	10	9	8
Number of incidents	2,491	1,008	691	457

<sup>1</sup> Includes incidents for which location was recorded.

Source: Statistics Canada, Canadian Centre for Justice Statistics, Incident-Based Uniform Crime Reporting Survey, 1988 to 1991.

# ALCOHOL AND DRUG CONSUMPTION AMONG CANADIAN YOUTH

by Marc Eliany

(Adapted from the report on the National Alcohol and Drugs Survey)



**F**ewer Canadian youth were drinking, smoking and using illicit drugs in 1989 than in 1985. Nonetheless, Canadians aged 15-24 still consumed more illicit drugs and tobacco than any other age group. Young men were more likely than young women to consume alcohol, tobacco and illicit drugs. However, at age 15-16, girls were more likely than boys to be current drinkers and smokers.

The abuse of alcohol, drugs and tobacco among young Canadians can lead to many problems ranging from health, family, and financial to wider social problems such as drinking and driving. Substance abuse, on the other hand, may stem from problems young people may be facing in their lives. For example, some young heavy drinkers stated that they drank to forget worries.



## Consumption patterns



**Alcohol:** On average, 43% of young Canadians aged 15-24 drank at least once per week in 1989. About half of these weekly drinkers consumed alcohol more often than once per week. Also, of all current (consumed at least one drink in the year prior to the survey) drinkers aged 15-24,

12% consumed eight or more drinks in the week prior to the survey.

Young men are more likely than young women to be current drinkers, with the exception of youths aged 15-16. At this age, more girls (66%) than boys (61%) reported being current drinkers.

Nevertheless, in general, young men drink more often and are more likely than

young women to consume more when they do drink. In the year before the 1989 survey, 54% of Canadian men aged 15-24 consumed alcohol at least once per week, compared with 30% of their female counterparts. Also, young male current drinkers reported consuming an average of 4.4 drinks per occasion, compared with 3.0 for young women.

Still, the proportion of young people consuming alcohol dropped over the last half of the 1980s. In 1989, 74% of 15-19 year-olds reported consuming alcohol in the year preceding the survey. In 1985, the proportion had been 81%, according to the 1985 Canada Health Survey. Similarly, among those aged 20-24, the percentage of current drinkers dropped to 88% in 1989 from 92% in 1985.

The average amount of alcohol consumed by Canadian youth also declined. In 1989, current drinkers aged 15-19 consumed an average of 2.4 drinks per week, down from 3.3 in 1985. The decrease was more substantial among 20-24 year-olds, who consumed an average of 4.3 drinks per week in 1989, compared with 6.0 in 1985.



**Tobacco:** About one out of every three (30%) young Canadians aged 15-24 was a smoker in 1989 and almost all smoked on a daily basis (99%). Young men smoked more heavily than young women, while a similar proportion of male (30%) and female (31%) youth were smokers in 1989. Women aged 15-16 are an exception to this pattern. These women (15%) were more likely to smoke than their male counterparts (10%).

Self-reported smoking among youth has dropped off considerably since 1979. Among 15-19 year-olds, the percentage of smokers fell to 23% in 1989, down from 29% in 1985<sup>1</sup>, and 35% in 1979<sup>2</sup>. The proportion of people aged 20-24 who smoked dropped to 37% in 1989, down from 41% in 1985, and 51% in 1979. The rate of decrease among 20-24 year-olds appears to have slowed down.

A comparison between 1989 NADS data and smoking behaviour data from the 1986 Labour Force Survey (LFS) shows a slight increase in smoking among youth. However, this increase is likely due to methodological differences between the two surveys: NADS data were self-reported, while the LFS included proxy reporting.

<sup>1</sup> Andrew J. Siggner, *Special Study on Youth, Canada's Health Promotion Survey (Technical Report Series)*, 1988.

<sup>2</sup> Health and Welfare Canada and Statistics Canada, *The Health of Canadians (Report of the Canada Health Series)*, 1988.

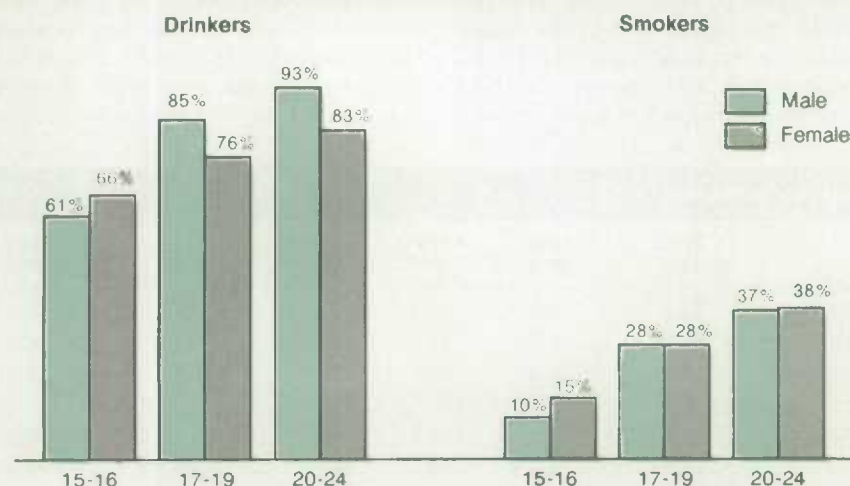
## Current drinkers, smokers and marijuana users, aged 15-24, 1989

	Canada	Atlantic	Quebec	Ontario	Prairies	British Columbia
<b>Current drinkers - %</b>						
Total	81.4	74.7	82.9	78.1	87.1	85.6
Men	84.8	80.3	88.9	80.7	88.6	87.3
Women	77.8	68.9	76.7	75.3	85.4	83.9
<b>Drinks per week</b>						
Total	3.4	2.5	3.0	3.6	4.1	3.6
Men	4.8	3.4	4.1	4.9	6.0	5.3
Women	1.9	1.4	1.7	2.1	2.1	1.8
<b>Current smokers - %</b>						
Total	30.3	33.6	31.2	29.4	35.4	19.9
Men	29.6	35.5	29.9	29.9	33.4	16.3
Women	31.0	31.6	32.6	28.8	37.5	23.5
<b>Current cannabis users - %</b>						
Total	15.5	12.8	16.9	12.8	13.0	27.6
Men	19.1	15.6	19.3	16.3	19.5	31.4
Women	11.7	9.8	14.6	9.1	6.4	24.0

Source: Health and Welfare Canada, *Alcohol and Other Drug Use by Canadian Youth*, 1992.


CANADIAN  
SOCIAL  
TRENDS

## Current young drinkers and smokers, by age, 1989



Source: Health and Welfare Canada, *Alcohol and Other Drug Use by Canadian Youth*, 1992.

Fewer youths reported being heavy smokers in 1989 than in earlier surveys. Between 1985 and 1989, the proportion of smokers aged 15-19 who were heavy smokers (11 or more cigarettes daily) dropped to 56% from 68%. Over the same period, the proportion of heavy smokers among smokers aged 20-24 dropped to 70% from 80%.

 **Illicit drugs:** Most young people do not use illicit drugs. According to the 1989 NADS, just 16% of young Canadians had used illicit drugs at least once. Young men were generally more likely than young women to have tried illicit drugs. However, a larger proportion of women than men aged 15-16 had used cannabis (marijuana or hashish) at some point in their lives: 16% compared with 13%.

Nevertheless, fewer adolescent students used cannabis and other illicit drugs in 1989 than had a decade earlier. According to the Addiction Research Foundation, while cannabis was the most common illicit drug used by Ontario students, its use was declining. In 1989, 15% of

Ontario students reported using cannabis, down from 32% in 1979.

LSD use was next most common. In 1989, 6% of Ontario students reported using LSD, down from 10% in 1981. Cocaine use had also dropped, with 3% of students reporting cocaine use in 1989, down from a peak of 5% in 1979. Fewer students used speed (3%) and heroin (1%) during the 12 months prior to the 1989 survey than in earlier years, although the decline was minimal.

### Reasons for drinking

Most Canadians aged 15-24 drink to be sociable. In 1989, 69% of current young drinkers reported drinking for this reason in the year preceding the survey. Drinking to feel good (42%) was the second most common reason, followed by drinking to relax (39%), to add to the enjoyment of meals (32%), to feel less inhibited or shy (23%), and to forget worries (16%).

Drinking to be sociable and to relax increased with age. Among current drinkers aged 15-19, 63% drank to be sociable, compared with 74% of 20-24 year-olds. Similarly, 37% of current drinkers aged 15-19 drank to relax, compared with 41% of 20-24 year-olds.

Drinking to forget worries and to feel less inhibited or shy was more common among teenagers. In 1989, 20% of current drinkers aged 15-19 drank to forget worries, compared with 13% of adult drinkers aged 20-24. Similarly, 28% of those aged 15-19 drank to feel less inhibited or shy, compared with 19% of those aged 20-24.

Aside from drinking to be sociable, current young drinkers consumed alcohol primarily for "personal" reasons, either to achieve a positive mood, or to alleviate a negative one. Consistent with previous research, the results of the 1989 NADS indicate that drinking for personal reasons is associated with heavy drinking behaviour. Drinking for social reasons,

however, is related to low or moderate consumption levels.

Youth who drank to forget worries had consumed an average of 6.5 drinks per week, compared with 3.8 drinks per week consumed by those who drank for social reasons. Over one-third (35%) of those who drank to forget worries had consumed 5 or more drinks on 15 or more occasions in the previous year, compared with 21% of those who drank for social reasons.

### Alcohol-related problems

One out of every four current drinkers (23%) aged 15-24 reported having experienced an alcohol-related problem in the year preceding the survey. Most were physical health problems (11%), followed by problems with friends or social life (9%), financial position (9%), happiness or outlook (6%), work or studies (5%) and home life (5%).

Young men (28%) were more likely than young women (18%) to report alcohol-related problems. This is consistent with the higher alcohol consumption levels reported by men than women.

Young drinkers are more likely than their older counterparts to have experienced a recent alcohol-related problem. While 23% of those aged 15-24 had experienced an alcohol-related problem in the year before the survey, this was the case for 13% of those aged 25-34. This may be a consequence of the heavy drinking common among Canadian teenagers. Almost half (48%) of those who had consumed 5 or more drinks on 15 or more occasions had experienced problems. In contrast, only 8% of those who had not consumed 5 or more drinks on a single occasion had experienced an alcohol-related problem in the year preceding the survey.

Because young people are more often exposed to heavy drinking, they are more likely than older Canadians to experience problems as a result of other people's drinking. In 1989, 69% of young Canadians

### National Alcohol and Other Drugs Survey

In 1987, Health and Welfare Canada initiated Canada's National Drug Strategy to help reduce the impact of drug abuse on individuals, families and communities. As an integral part of this initiative, Statistics Canada conducted the National Alcohol and Other Drugs Survey (NADS) in March 1989 on behalf of Health and Welfare Canada.

Data about the use of alcohol, tobacco and drugs were collected through telephone surveys from a sample of about 12,000 Canadians aged 15 and over in the 10 provinces. The survey excluded residents of institutions such as hospitals and prisons as well as residents of the Yukon and Northwest Territories, where special sampling methods are required. This study is based on the responses of roughly 2,000 young Canadians aged 15-24 who participated in the survey.

A major concern in any survey of alcohol and other drugs is the accuracy of self-reported data. While a certain degree of under-reporting can be expected, the survey had a high overall response rate (79%), thereby increasing confidence in the representativeness of the sample.

### Reasons for drinking, 1989

	To be sociable	To enjoy meals	To feel good	To relax	To forget worries	To feel less inhibited
15-19	63.2	30.9	42.6	37.0	20.0	28.2
Men	62.4	31.9	45.5	43.8	23.0	29.2
Women	63.5	29.8	39.1	29.4	16.7	26.8
20-24	73.7	33.2	42.3	41.2	13.4	19.2
Men	71.4	34.8	44.8	43.2	15.6	20.9
Women	76.3	31.4	39.5	39.0	19.8	17.2

Source: Health and Welfare Canada, *Alcohol and Other Drug Use by Canadian Youth*, 1992.



reported having experienced a problem as a result of other people's drinking behaviour. Within the twelve months prior to the 1989 survey, 18% of young Canadians were pushed, hit or physically assaulted by someone who had been drinking. A further 12% had experienced family problems, and 8% had their property vandalized by someone who had been drinking. In addition, 23% of Canadian youth had been passengers in a motor vehicle with an intoxicated driver. Almost 3% had been in a car accident caused by someone else's drinking.

### Drinking and driving

Drinking and driving is most common among Canadians between the ages of 20 and 34. In 1989, 30% of those in this age group reported driving within an hour of



consuming two or more drinks, compared with 23% of those aged 35-44, and 21% of those aged 15-19 or 45-54. Drinking and driving was much less common among Canadians aged 55-64 (11%) and those aged 65 and over (8%).

Regardless of age, men were more likely than women to drink and drive. In 1989, among teenagers, 26% of men and 14% of women reported drinking and driving. Among those aged 20-24, 38% of men and 21% of women reported drinking and driving at some point. Men aged 20-24 (38%) were second only to men aged 25-34 (43%) in their frequency of drinking and driving.

However, drinking and driving among Ontario students declined during the past decade, according to the Addiction Research Foundation. In 1989, 27% of students reported drinking and driving during the 12 months prior to the survey, down from 58% in 1977.

### Attitudes towards drinking

Canadian youth were the most likely of any age group to condone heavy drinking, especially by men, in bars or at parties. In 1989, 37% of young Canadians felt that it was acceptable for a man at a bar with his friends to drink enough to feel the effects, while another 51% felt that one or two drinks was permissible. Only 5% felt that no drinking should take place in this setting.

Young people were not quite as likely to accept women as men drinking in bars or taverns. In 1989, 29% thought that it was acceptable for a woman in this setting to drink enough to feel the effects, 58% thought that having one or two drinks was permissible, and 7% felt that women should

not drink at all. Opinions on drinking at parties were similar.

Attitudes about drinking were less restrictive among young men than among young women. In 1989, 37% of young men felt that it was acceptable to drink enough to feel the effects at a party, compared with 25% of women. Men aged 15-24 were more tolerant of women drinking than women were themselves. While one-third (33%) of young men felt that it was acceptable for a woman to drink enough to feel the effects when at a bar with friends, only one-quarter (24%) of young women felt the same way.

One half (48%) of young Canadians felt that no drinking should take place when people get together for sports events or recreational activities. An additional 39% felt that alcohol consumption in this setting should be restricted to one or two drinks, while 8% believed that drinking enough to feel the effects was acceptable in this context.

### Multiple drug use

The results of the 1989 NADS suggest that among young Canadians, the use of one substance is highly related to the use of other substances. More than one-third (37%) of young Canadians aged 15-24 had used two or more drugs included in the survey (alcohol, tobacco, cannabis, cocaine, LSD, heroin, speed, and licit drugs taken within the previous 30 days). One-quarter (25%) were current users of two substances, while 12% had used three drugs or more. About half of all young Canadians (48%) used only one drug, and 15% were not current users of any of the substances included in the survey.

Although young smokers were only slightly more likely to report using alcohol than youth in general (89% compared with 81%), they were twice as likely to use cannabis (27% compared with 16%). In comparison, 7% of Canadians overall had used cannabis in the year before the survey. Similarly, almost all young cannabis users (99%) and cocaine users (89%) had consumed alcohol in the year preceding the survey.

**Marc Eliany** is the National Alcohol and Other Drugs Survey Project Manager, and a senior analyst with the Health Services and Promotion Branch, Health and Welfare Canada.

### GSS patterns consistent

Statistics Canada's 1991 General Social Survey (GSS) confirms the patterns of drinking and smoking among young Canadians reported in the 1989 NADS. For example, young men were more likely than young women to drink alcohol and consumed more alcohol than young women. Among current drinkers, Canadians aged 20-24 (80% of men and 58% of women), were the most likely to drink at least once a month. Similarly, heavy drinking (14 or more drinks per week) was most prevalent among current drinkers in this age group (19% of men and 5% of women).

GSS data show a decrease in smoking among youth. In 1991, 23% of youth aged 15-16 reported smoking, down from 27% in 1985. The proportion of 20-24 year-olds who smoked decreased only slightly to 40% in 1991 from 42% in 1985, supporting that the decrease in this age group has decelerated.

Teenaged women (15-19 years) were more likely than men of the same age to smoke and to be heavy smokers. In 1991, 20% of teenaged women and 12% of men this age were regular smokers<sup>1</sup>. Of these, more than two-thirds (67%) of the women smoked 11 or more cigarettes daily, in contrast to about one-half (53%) of the men.

<sup>1</sup> "Regular smokers include only those who smoke daily, while the NADS concept of "current" smokers includes both daily and occasional smokers.



# OCCUPATIONAL STRESS

by Leslie Geran

**M**any Canadians lead stressful lives, according to data from the 1991 General Social Survey and 1990 Health Promotion Survey. Reported stress levels vary by family composition and main activity, and also by occupation. Occupational stress has been linked to a number of health and lifestyle problems for workers, such as ulcers and alcoholism. Stress has also been linked to increased costs for employers, due to absenteeism and lowered productivity. These costs are difficult to quantify because stress is complex in its causes and consequences. Nonetheless, the recognition of occupational stress as a threat to the mental and physical health of Canadians has produced changes in the workplace. Health and safety programs designed to help people cope with stress and its effects are available in many workplaces. Provincial Workers' Compensation Boards and Commissions have begun to compensate workers for a deterioration in their health due to job-related stress. Regulations of particular boards, however, vary across Canada.

## What is stress?

Stress is a force that acts upon an individual. Definitions of stress focus on individuals and their interaction with their surroundings. Factors called stressors cause an initial shock to an individual. Resistance to stressors can produce positive stress – a feeling of challenge, creativity or innovation that leads to above-normal performance levels. Continued exposure to stressors or a failure to change, avoid or adapt to stressors leads to exhaustion and illness. Potential stressors in the workplace include conflicts with co-workers and clients, unreasonable deadlines, lack of feedback on performance, overwork or underwork, sexual harassment, and exposure to harmful chemicals or noise.

Factors outside of the immediate job site may intensify or alleviate the effects of

work-related stressors. Supportive friends and family, visits with a doctor or counsellor, and participation in workplace health and safety programs may help a person cope with occupational stress. A stressful home life or a lack of social support may aggravate the effects of job stress.

Constant or severe stress can threaten both mental and physical health. Symptoms of persistent stress include psychological, physiological, and behavioural changes that result in depression, job dissatisfaction, increased blood pressure, increased blood serum cholesterol, increased risk of coronary disease, migraine headaches, and increased drug and alcohol consumption.

## Measuring stress

Stress may be measured in a number of ways. Stress researchers use multiple indicators to determine the amount of stress in a person's life. Monitoring the behavioural, physiological, and biochemical effects of stress, as well as self-reported measures of stress, may better identify the impact of stress and how people react to and cope with stress.

One way to determine whether people are feeling stress is to ask them if they consider their lives to be stressful. The 1991 General Social Survey (11,900 respondents) and the 1990 Health Promotion Survey (13,800 respondents) asked Canadians 15 years of age and older questions on health status and disabilities, lifestyle characteristics, and views of individual health. While these surveys were not intended as studies of stress, several questions from the surveys are relevant to the study of stress. All of the data are from self-reports, and depend on individual perceptions of stress.



### Who feels stress?

Men and women perceive nearly identical levels of stress in their lives. According to the 1991 General Social Survey, 7% of women and 8% of men said their lives were "very stressful". The 1990 Health Promotion Survey had similar findings.

Stress levels vary by family composition. Divorced, separated, or widowed people feel higher levels of stress than married or single (never married) people. In 1991, 10% of divorced, separated or widowed people reported that their lives were "very stressful", compared with 7% of married people (includes people in common-law unions) and 7% of single people. A similar pattern was found in the 1990 survey. The 1991 survey also found that 9% of adults with children in their household

reported "very stressful" lives compared, with 7% of people with no children in the household.

Reported stress levels also vary by main activity. In 1991, 9% of people who said they were mainly working at a job or business described their lives as "very stressful". Students (6%), homemakers (6%) and retired persons (3%)<sup>1</sup> were less likely to say their lives were "very stressful". People looking for work and those doing some other activity such as recovering from an illness or living with a long-term disability were the most likely (16%) to report having "very stressful" lives.

<sup>1</sup> High sampling variance due to small size of sample. Use data with caution.

### Workplace stress levels

In 1991, 9% of people who had a job or were self-employed at some time during the previous year described their lives as "very stressful". Only 6% of blue collar workers reported "very stressful" lives, compared with 11% of people employed in non-managerial or professional occupations and 11%<sup>1</sup> of people in agricultural occupations. People in clerical occupations (8%), sales (9%), or service (9%) occupations were about as likely as people in managerial occupations (10%) to report having "very stressful" lives.

### Workplace stressors

Stressors – factors that provoke a stress reaction in people – are many, varied, and common within the workplace. In 1991, 38% of people who had a job or

<sup>1</sup> High sampling variance due to small size of sample. Use data with caution.

## SOURCES AND OUTCOMES OF OCCUPATIONAL STRESS

### POTENTIAL SOURCES OF STRESS AT WORK

#### FACTORS INTRINSIC TO JOB

Poor physical working conditions  
Shift work

#### ROLE IN ORGANIZATION

No feedback  
Role conflict

#### CAREER DEVELOPMENT

Lack of job security  
Over or under promotion

#### RELATIONSHIPS AT WORK

Poor relationships with co-workers, clients

#### ORGANIZATIONAL STRUCTURE AND CLIMATE

Lack of responsiveness  
Lack of participation

#### HOME-WORK INTERFACE

Conflict between dual responsibilities

### INDIVIDUAL VARIABLES

Relationships with family, friends  
Financial concerns  
Living environment  
Genetic traits  
Personality  
Stress tolerance, coping ability  
Diet and exercise

### SYMPTOMS

#### INDIVIDUAL SYMPTOMS

- Psychological
  - Anxiety or apathy
  - Depression
  - Dissatisfaction with work
- Physiological
  - Muscle tension
  - Increased blood pressure
  - Allergies
  - Migraine, headaches
  - Increased cholesterol level
  - Skin disorders
  - Gastro-intestinal disorders
- Behavioral
  - Drug and alcohol abuse
  - Change in appetite
  - Sexual problems
  - Withdrawal from activities, society

#### ORGANIZATIONAL SYMPTOMS

Low morale  
Accidents  
Poor quality control  
High labour turnover  
High absenteeism

### OUTCOMES

#### INDIVIDUAL OUTCOMES

Coronary heart  
Ulcers  
"Burnout"  
Mental illness

#### ORGANIZATIONAL OUTCOMES

Lowered efficiency  
Lowered productivity

Source: Adapted from C.L. Cooper, "The Six Major Causes of Stress at Work" in *Health Promotion in the Working World* (1989).

were self-employed indicated that they had encountered a work situation within the previous twelve months that caused excess stress or worry. Job demands and hours of work were identified as stressors by 26% of workers. Stressors also included the threat of layoff (10% of workers), poor interpersonal relations (12%), the risk of accident or injury (7%), harassment (3%), and discrimination (3%).

In 1990, almost half (49%) of all workers reported encountering at least one of five different stressful situations within the previous six months, according to the Health Promotion Survey. Unreasonable deadlines, the most common stressor, was reported by 27% of workers.<sup>2</sup> Conflicts with people at work (23%), lack of feedback (23%), unclear duties (22%), and not having enough influence over the job (22%) were also identified as sources of stress.

People deal with stress in a variety of ways. More than one-half (58%) of workers who encountered stressful situations indicated that they had done nothing to improve the situation, according to the 1991 General Social Survey. Of the 41% who said they had done something, 5%<sup>2</sup> left their job for another job either with the same employer or with a different employer, 7% left the paid workforce by quitting, retiring, or taking leave without pay, and 6% reduced their hours of work. Over one-quarter (27%) of the workers said they changed their attitude and learned to relax, and 63% chose some other action, such as talking to their supervisor or co-workers.

The physical work environment is also a concern to workers. About one out of three (32%) people working at a job or business believed that exposure to physical work conditions within the previous year had or could have had a negative impact on their health. Poor air quality was cited by 16% of workers. Other concerns included dust and fibres in the air (15%), loud noise (11%), exposure to computer screens (7%), and exposure to dangerous chemicals or fumes (9%).

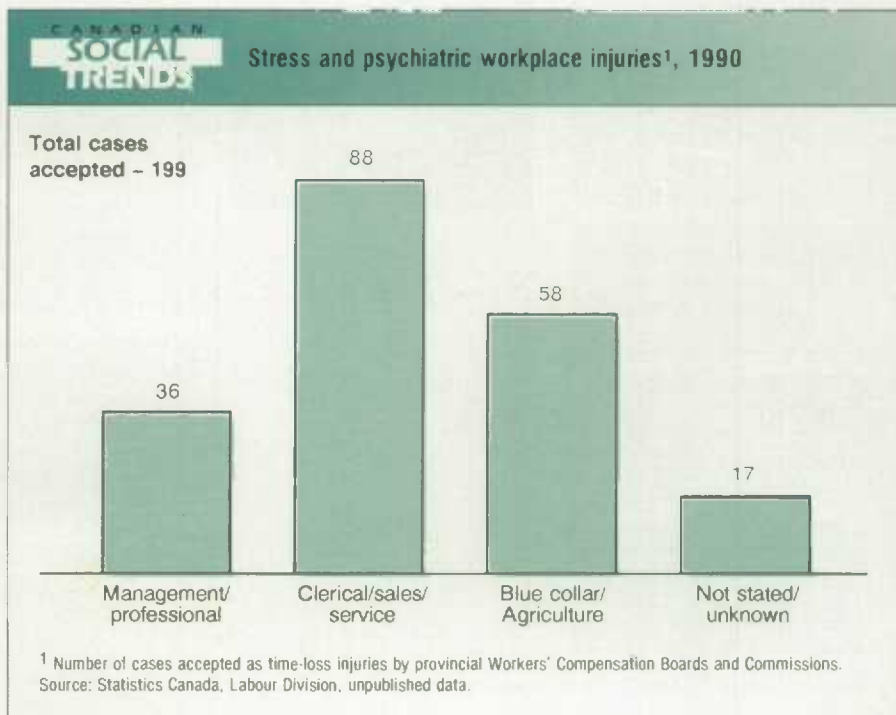
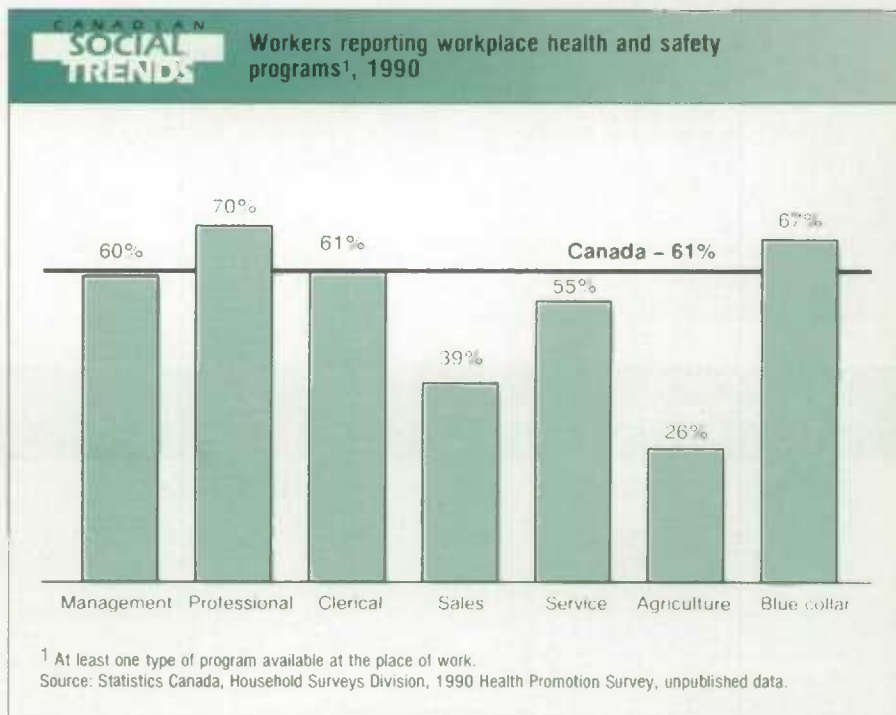
### Health and safety programs

In 1990, 61% of workers said they had access to some type of workplace health and safety program, according to the Health Promotion Survey. These programs may help workers cope with stress and its effects. Common programs include: on-site fitness classes, counselling, safety awareness, substance abuse programs, and time and stress management classes. Over one-half (52%) of all workers said that a safety

or accident prevention program was available at their workplace. Mental and physical health programs were less common. In 1990, 32% of workers reported that counselling was available for psychological or drug and alcohol abuse problems, while 31% of workers said that health promotion programs such as fitness classes, nutrition counselling or smoking cessation programs were available.

Workers in small organizations were less likely than those in large organiza-

tions to say that a health and safety program was available at their place of work. In 1990, 74% of workers in organizations of 1 to 19 employees reported that no physical health, safety, or mental health program was available, compared with 44% of workers in organizations with 20 to 99 employees, 26% of workers in organizations with 100 to 499 employees, and 15% of employees in organizations with over 500 employees.







# 350 YEARS OF HISTORY

by Guy Oddo

350 YEARS



MONTREAL  
let's celebrate

Jacques Cartier discovered the island on which Montreal is situated in 1535 and, 350 years ago, on May 8th, 1642, Maisonneuve founded the city of Montreal. Since then, the city has expanded such that the population now numbers over one million. In fact, as of the 1991 Census, 1,017,700 residents lived within the city limits, making Montreal Canada's largest municipality.

Montreal is also the centre of Canada's second largest Census Metropolitan Area (CMA), an area which is home to more than three million people. Toronto's CMA population numbers almost four million, making it Canada's largest, while Vancouver ranks third with 1.6 million residents.

The city of Montreal expanded rapidly during the first half of the 20th century. By the 1951 Census, 1,029,100 lived within the city limits, almost quadruple the 1901 count of 267,700. This increase occurred at a time when, similar to the situation of the whole country, birth rates were high. In addition, Montreal was a main point of entry for international immigrants and was attracting a rural population in a country which quickly was becoming urbanized. Another reason for the rapid growth was the expansion of the city's boundaries



Statistics  
Canada

Statistique  
Canada

Canada

to include towns and villages such as Maisonneuve, Saint-Henri, Notre-Dame-de-Grâce and Saint-Louis-du-Mile-End.

Montreal's population continued to increase, although at a much slower pace, during the 1950s and 1960s, and in 1966, peaked at 1,294,000. Thereafter, the number of city residents declined until 1986. For the first time in 25 years, Montreal's population grew between 1986 and 1991.

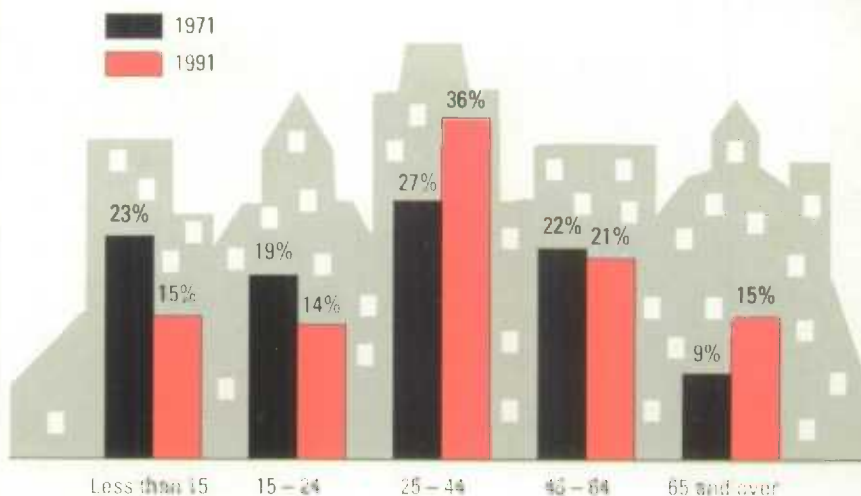
While the city's population was decreasing, the number of people in Montreal's suburban areas continued to increase. Consequently, by 1991, the city of Montreal accounted for about one-third of the CMA's population, down sharply from almost one-half in 1966.

## POPULATION CHARACTERISTICS

Over the last two decades, seniors have made up an increasing proportion of the city of Montreal's population, as is the case for the whole province and Canada in general. This is particularly true in the downtown core: seniors are more apt



POPULATION DISTRIBUTION OF THE CITY OF MONTREAL, BY AGE, 1971 AND 1991



Source: 1991 Census of Canada

## POPULATION OF MONTREAL

	1901	1921	1941	1951	1961	1966	1971	1976	1981	1986	1991
City of Montreal	267,730	618,506	903,007	1,029,062	1,191,992	1,293,992	1,214,355	1,080,546	980,354	1,015,420	1,017,666
Montreal CMA	—	—	—	—	2,109,509	2,570,985	2,743,210	2,802,547	2,828,349	2,921,357	3,127,242
City as a % of CMA	—	—	—	—	56.5	50.3	44.3	38.6	34.7	34.8	32.5

Source: Census of Canada



to live downtown where they have greater access to health and social services, whereas young families with children are likely to live in the outlying suburbs.

By 1991, seniors aged 65 and over numbered 149,000, up from 109,300 in 1971. Their proportion of the city's total population increased to 15% from only 9% over the same period.

In contrast, among children under age 15, the trend was the inverse. Their numbers were cut almost in half, dropping to 148,600 in 1991 from 274,400 in 1971. By 1991, these children made up 15% of the population, down from 23% in 1971.

The proportion of young adults aged 15-24 also decreased and in 1991, people in this age group made up 14% of

Montreal's total population, down from 19% in 1971. As the baby-boom generation ages, people aged 25-44 make up an increasing proportion of the population. People in this age group accounted for approximately one-third (36%) of the city's population in 1991, up from about one-quarter (27%) in 1971. The remaining group, those aged 45-64, made up about 21% of Montreal residents in both years.

Women made up the majority of Montrealers in 1991, accounting for 52% of the city's population. Among seniors, they continue to make up an even greater proportion, largely because of a longer life expectancy than men. In fact, in 1991, women made up about two-thirds of the people aged 75 and over.

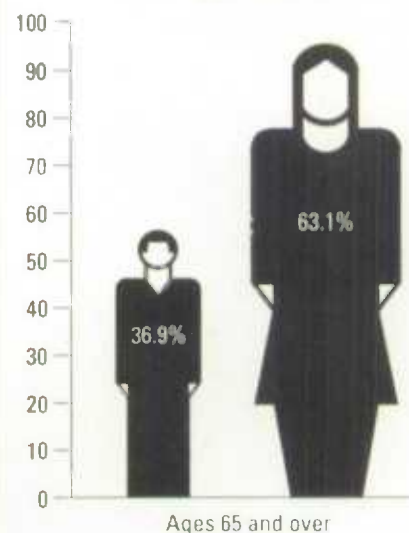
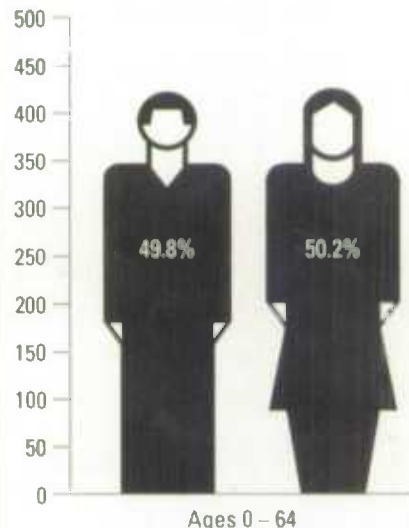


## FAMILY CHARACTERISTICS

In 1991, a total of 248,000 families lived in private households in the city of Montreal. That year, seven in ten (71%) Montreal residents lived in a family household as a spouse,

PEOPLE LIVING IN THE CITY OF MONTREAL, BY GENDER AND AGE, 1991

Population - 000's



Source: Census of Canada

lone parent or child. This proportion is considerably lower than the Canadian average of 84%.

In addition, the structure of Montreal families is distinctly different from Canadian families overall. Specifically, the proportion of married-couple families is much lower for Montreal than for Canada, while common-law and lone-parent families are much more prevalent. In 1991, 62% of Montreal families included married couples with or without children living with them, compared with 77% of Canadian families. Lone-parent families accounted for 20% of all Montreal families in 1991,

while common-law families made up the remaining 17%.

The distribution of the different family structures is reflected in the size of Montreal families. In 1991, over one-half (53%) of Montreal families had only two people. Of the remaining families, about one-quarter (24%) had three people, 16% had four people, and only 7% had five or more. Not surprisingly, therefore, the average size of a Montreal family was relatively small. In 1991, families living in Montreal averaged 2.8 peo-

ple, compared with 3.1 for Canadian families overall.

### HOUSEHOLD CHARACTERISTICS

Private households are generally made up of fewer people in Montreal than in Canada as a whole. According to the 1991 Census, the average number of people in private households in Montreal was 2.2, compared with 2.7 for Canada.

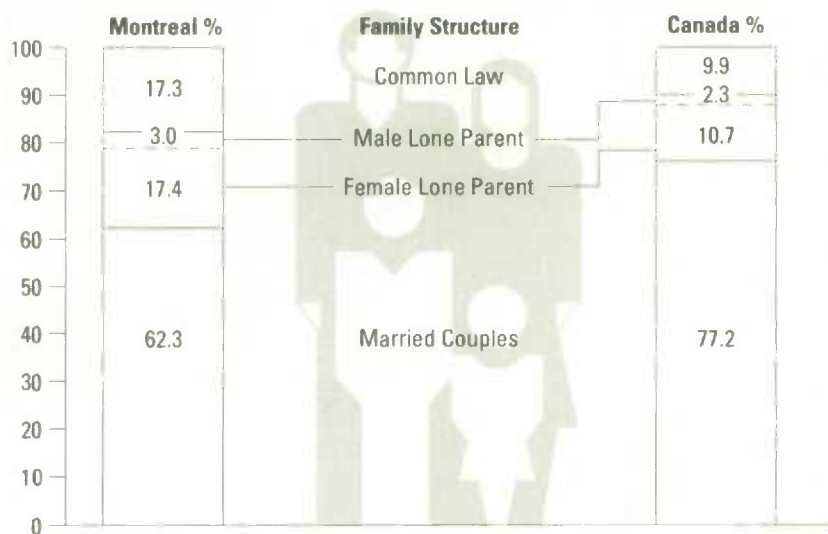
This is mainly due to the over-representation of one-person households in Montreal compared to Canada. In 1991, 38% of Montreal households were made up of one person, compared with 23% of all Canadian households.

In 1991, three-quarters of Montreal households were renting their accommodation. In contrast, just over one-third (37%) of Canadian households were renters.

*Guy Oddo is a consulting analyst at the Statistics Canada Advisory Services Centre, Quebec Region.*



DISTRIBUTION OF FAMILIES, BY STRUCTURE, CITY OF MONTREAL AND CANADA, 1991



Source: 1991 Census of Canada





People employed in agriculture (26%) or sales (39%) were less likely than people in other occupations to state that a workplace health and safety program was available, while professionals were most likely (70%) to report that at least one type of workplace program was offered at their place of work.

### Stress injuries and compensation

In 1990, 156 cases of time-loss stress injuries and 43 cases of psychiatric disorders were accepted by provincial Workers' Compensation Boards and Commissions across Canada. This was a large increase from 1989 when fewer than 10 cases had been accepted; 1989, however, was the first year that stress and mental health claims were coded as a unique classification of injury. Before 1989, these

injuries had been coded under "other" injuries in the National Work Injuries Statistics Program of Statistics Canada.

In 1990, the number of stress and psychological disorder cases accepted as time-loss injuries by occupation included 36 cases (20% of cases where the occupation is known) among workers in managerial and professional occupations, 88 cases (48%) among workers in clerical, sales, and service occupations, and 58 cases (32%) among workers in blue collar and agricultural occupations. In 17 cases, the occupation was unknown or not stated. In comparison, 32% of the employed paid labour force in 1990 worked in managerial and professional occupations, 40% in clerical, sales and service occupations, and 29% in blue collar and agricultural occupations.

The 199 stress and psychiatric disorder cases accepted in 1990 represented less than 0.1% of the 587,000 time-loss injuries accepted by Workers' Compensation Boards and Commissions across Canada. By contrast, sprains and strains (249,000 time-loss injuries or 42% of total injuries) and contusions and bruises (93,000 time-loss injuries or 16%) made up over one-half of all injuries accepted by Workers' Compensation Boards and Commissions.

Policies on compensating occupational stress differ from one province to another, and it is not possible to make direct provincial comparisons. Policy differences relate to the type of stress that can be compensated. Acute stress resulting from witnessing or being involved in a life-threatening incident and post-traumatic stress stemming from a physical injury are compensated more readily than chronic stress. Establishing that chronic stress is work-related is more difficult because symptoms of exhaustion, burnout, or mental disability result from gradual and cumulative conditions. Compensation for chronic stress has been granted only in Quebec and Saskatchewan. The Ontario Workers' Compensation Board is preparing a policy on workplace stress and entitlement to benefits.

<sup>2</sup> Total does not add to 100% as multiple responses are possible.

**Leslie Geran** is a research analyst with Canadian Social Trends.



### Occupational stress: international approaches

The International Labour Organization (ILO)<sup>1</sup>, a United Nations agency, has called stress "a sickness of modern societies". The ILO is active in distributing information on the effects of automation and work organization on occupational stress. The ILO also sponsors international research and seminars on the topic.

Prevention and compensation of occupational stress vary from country to country. Norway, Sweden, and the Netherlands, for example, have legislation governing the quality of the working environment. Work must be designed to ensure workers are protected from physical and mental hazards, and are provided with meaningful employment. Regulations restricting monotony, isolation, barriers to advancement, and lack of control over work planning and pacing have also been put in place to reduce potential stressors in the workplace.

Collective bargaining agreements have been broadened to address stressful working conditions. Agreements between companies and unions in countries such as Japan, United Kingdom, Norway and Denmark have required that the social effects on workers be considered when new technology is introduced in the workplace. Other collective agreement clauses that reduce stress for employees include worker participation in job design and mandatory

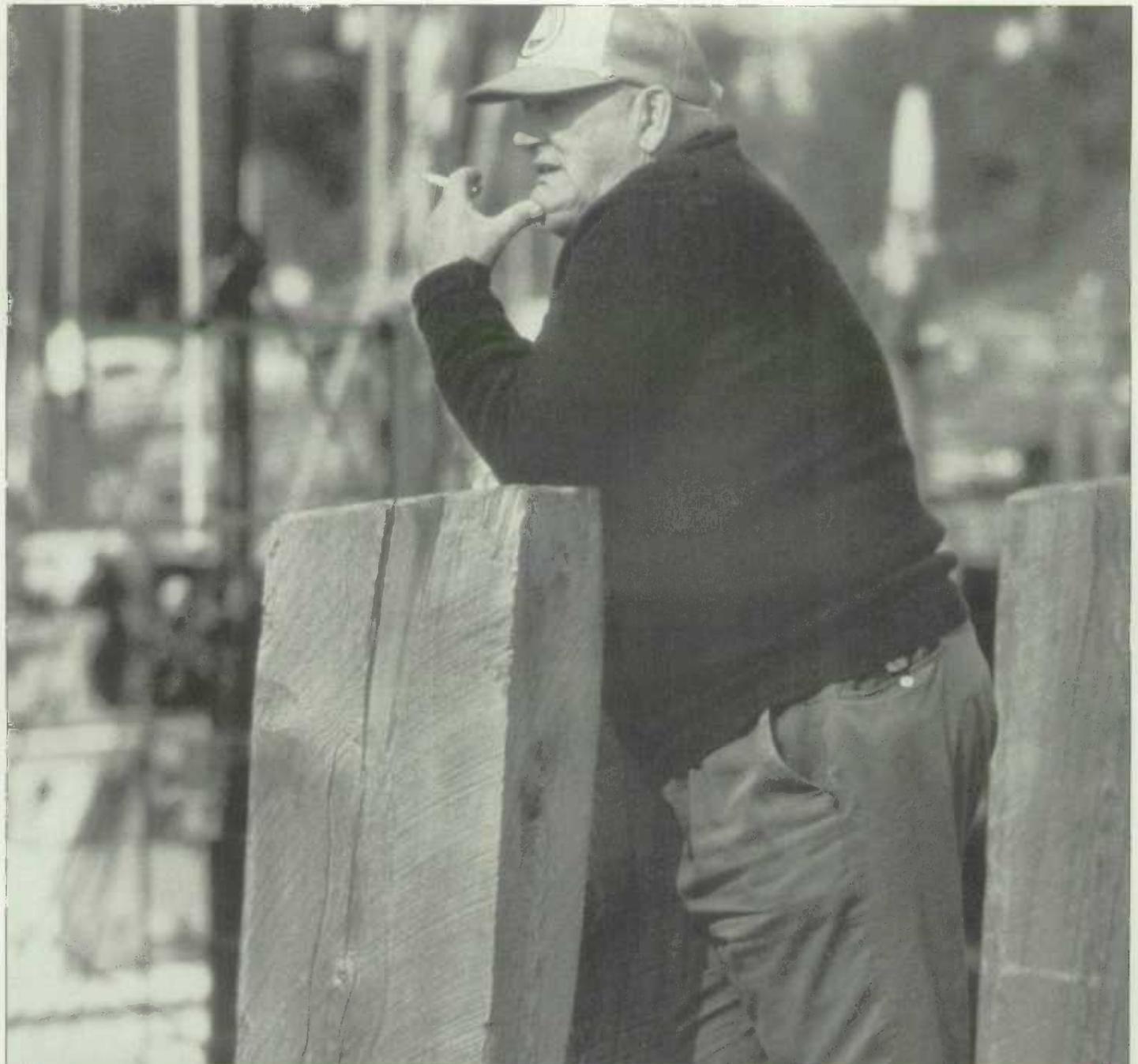
disclosure of information affecting workers, such as the introduction of new technology in the workplace.

In the United States, psychological disorders resulting from work-related stress are one of the ten leading causes of work-related diseases and injuries, according to the National Institute for Occupational Safety and Health (NIOSH)<sup>2</sup>. Stress is also the fastest growing category of workers' compensation claims. In 1989, stress-related claims made up 15% of all claims, up from 5% in 1979.

Compensation in the United States varies from state to state, in part because court decisions have limited or expanded compensation, and also because of legislative action. Colorado, Ohio, and Maine, for example, have passed legislation that restricts Compensation for some types of stress-related claims. Claims with a physical injury either as a cause or result of stress are accepted in most states. Claims for mental disorders caused by a mental stimulus have a wider variance of acceptance. Some states such as California, Michigan and Hawaii compensate chronic stress claims when the source of the stress is neither unusual nor unique to the job.

<sup>1</sup> International Labour Office, *ILO Information* (February 1991).

<sup>2</sup> Kottage, Bernard E., "Stress in the United States: An Emerging Occupational Illness" in *Accident Prevention* (May 1989).



# CANADIANS AND RETIREMENT

by Graham S. Lowe

*The process of population aging, especially as the baby-boom generation grows older, will be accompanied by changes in how society defines work and retirement. Multiple careers, early retirement, gradual retirement, and post-retirement re-employment are also eroding the conventional practice of working until around age 65 and then abruptly entering the retirement phase of one's life.*



A minority of Canadians support mandatory retirement. Among these, there is strong support for this age being less than 65. Few Canadians agree with the custom of having employees retire at age 65, and only a small minority themselves plan to retire at age 65 or over.

Although fewer Canadians are working beyond age 65, some may continue to do so out of financial necessity because of inadequate pension income. About one-half of retired Canadians in 1989 received an employer-sponsored pension. That year, 45% of employed paid workers were covered by such a plan.

Pensions represent one means of support in old age. Even the combination of savings, income supplements, private pension benefits and government pensions may not provide an adequate living standard for some elderly people. Although pension reform has been on the public agenda for some time, aging of the baby-boom generation will likely increase pressure for pension reform and for more employers to provide pension benefits.

### Most oppose mandatory retirement

According to the 1989 General Social Survey (GSS) conducted by Statistics Canada, about one-third of Canadians 15 years of age or older (7.2 million adults) supported the idea of mandatory retirement in 1989. This varied from about 30% in Alberta, Ontario, and British Columbia to 45% in Manitoba and 56% in Newfoundland.

In general, those with higher levels of education and higher household incomes were less likely to endorse mandatory retirement. Individuals who were retired or keeping house were more likely to support mandatory retirement than were students or the employed. In addition, support for mandatory retirement varied by occupation.

In 1989, workers in manufacturing (46%) and in construction and transportation (41%) were most likely to support mandatory retirement. Those employed in teaching and in sales (24%), artistic and literary jobs (20%), and social sciences (19%), were less likely to support mandatory retirement.

Among employed men, 36% supported mandatory retirement, compared with 30% of employed women. The higher male approval of mandatory retirement was even more pronounced in sales and teaching occupations, where 28% of men and 20% of women supported mandatory retirement.

Among the employed, support for mandatory retirement was higher among indi-



viduals with employer-sponsored pension plans (more common in higher status jobs) than among those without employer pension plans. This is likely tied to the common use of age 65 in the calculation of benefits in most pension plans.

### Suggested mandatory retirement age among the employed

There was a lack of consensus among respondents to the 1989 GSS regarding the ideal age for mandatory retirement. Among the currently employed who agreed in principle with mandatory retirement, 60% believed that the age should be 64 or less, whereas 37% felt that it should be set at 65. Very few (2%) believed that mandatory retirement should be set beyond age 65.

Opinions of the employed regarding mandatory retirement age varied according to their age. Over 60% of people defined as baby-boomers, aged 25-55, believed that mandatory retirement should be set at an age less than 65, compared with 47% of those aged 15-24 and 43% of those aged 55 and over.

Having a university degree or a high household income was associated with a preferred retirement age of 65, rather than earlier. This seems inconsistent with the socioeconomic patterns of support for mandatory retirement. Early retirement may be a realistic option for the better-educated and more affluent. Indeed, support for mandatory retirement before age 65 is higher among workers with employer pension plans than among those without. Yet, at the same time, the more interesting and challenging

nature of their jobs might encourage well-educated, highly-paid individuals to work until age 65.

Support for mandatory retirement varied with a person's retirement plans. Support was greatest among the employed who did not know when they would retire. Among workers who planned to retire at a specific age, support for mandatory retirement at less than age 65 was greatest among those intending to retire between ages 55 and 59. Similarly, support for retirement at age 65 was strongest among those who personally planned to retire at this age.

### Retirement plans

Of the currently employed, 43% intended to retire before age 65 and 34% did not know when they would retire. Only about 14% of those currently employed anticipated that they would retire at the conventional retirement age of 65. Very few (1%) wanted to retire after 65, and 7% did not plan to retire.

### Retirement expectations

According to data from Statistics Canada's 1991 Survey on Ageing and Independence, 72% of Canadians aged 65 and over believed that their income and investments would be able to satisfy their financial needs either adequately or very well in the future. Among those aged 45 to 64, 67% believed that their future incomes would be adequate, while 21% foresaw income difficulties.

More women than men had no fixed retirement plans (41% compared with 28%). Among those who did have retirement plans, fewer women than men planned to retire between the ages of 55 and 64 (27% compared with 39%). Inadequate pension income among women, resulting in many cases from no private pension income, may contribute to this difference.

Age was also associated with retirement plans. Older employees were more likely than their younger counterparts to have chosen an age to retire, and those aged 55 and over were most likely to plan to retire at age 65, or not at all. Retiring before age 65 was a preference expressed by almost half of those aged 25-44.

Employees in clerical, sales, and service occupations, occupations dominated by women, were less likely to have retirement plans than were employees in managerial/administrative, science/engineering, and teaching jobs. Relatively fewer employees in primary industries stated a retirement age than did respondents in manufacturing/processing, or construction/transportation.

Income was also related to retirement plans. In 1989, 42% of individuals with household incomes of less than \$60,000 had no retirement plans, compared with 26% of those in households with incomes of \$60,000 or more. Similarly, 55% of individuals in high income households planned early retirement, whereas this was the case for less than one-third of those in lower income households.

Employer-sponsored pension plans were also related to retirement decisions. Over one-half of workers with employer pension plans intended to retire early, compared with just over one-third of those without such pensions.

### Pension plans of the currently employed

According to the General Social Survey, about half (52%) of currently employed

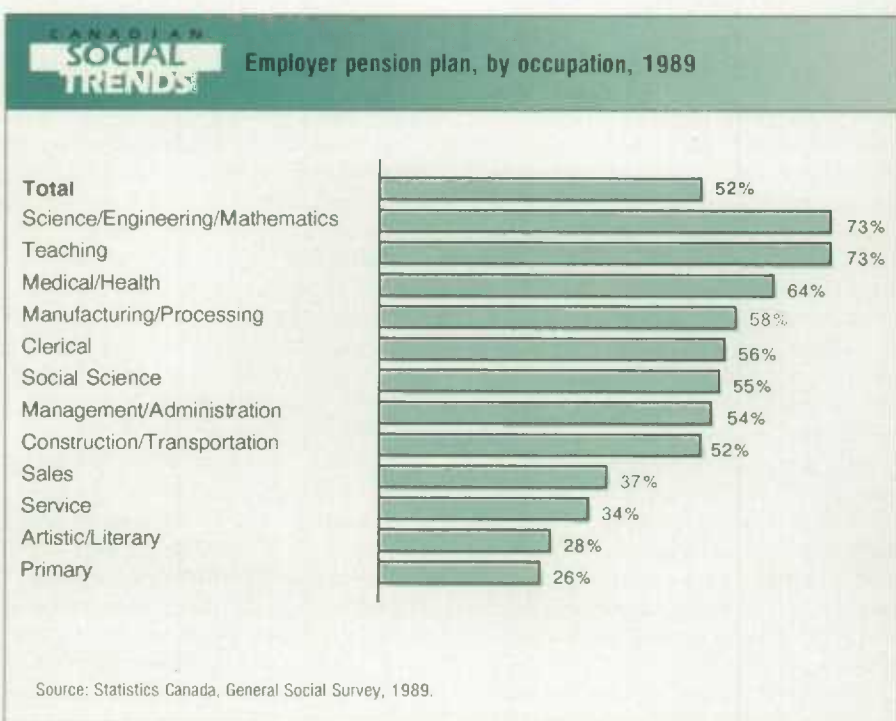
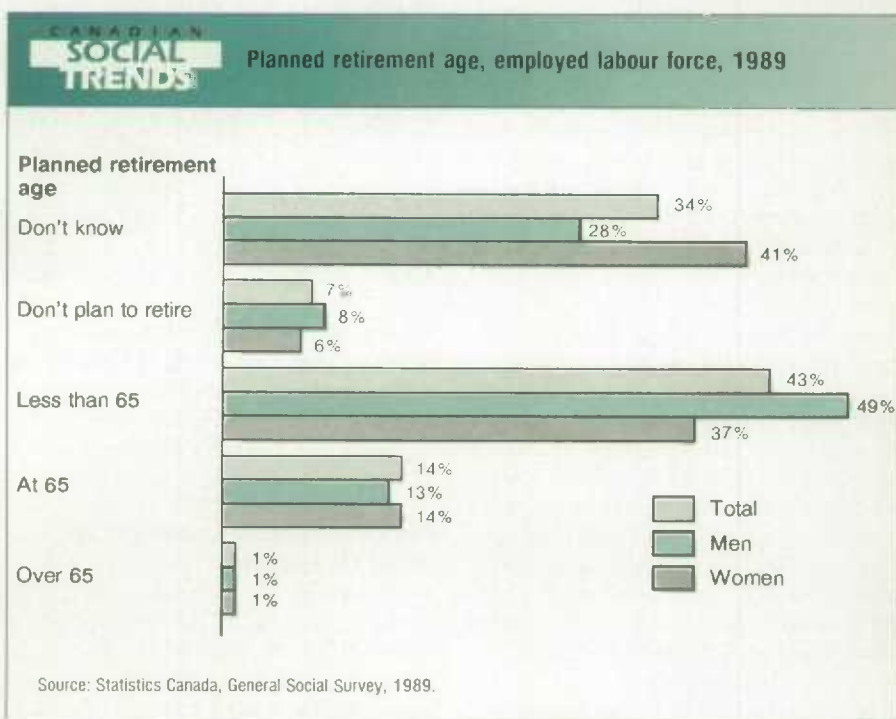
#### Retirement preparations

According to the 1991 Survey on Ageing and Independence, 50% of Canadians aged 65 and over, and 41% of those aged 45 to 64 who had retired from full-time work had made no active preparation for this event. In contrast, 18% of those aged 65 and over and 20% of those aged 45 to 64 had prepared for six or more years.

Canadians had a pension plan provided by their employer in 1989. Pension plans were more common among men (55%) than among women (49%), and varied significantly by occupation. Among those employed in the male dominated professions of science, engineering, and mathematics, as well as those in teaching, 73% had employer pensions, compared with 64% of individuals in medical and health occupations. About one-third of workers in artistic and literary, service,

and primary occupations had employer pension plans.

People with a post secondary education are generally more likely to be employed in occupations where employer pension plans are available. In 1989, 63% of those with a university degree were provided a pension plan by their employer, compared with 59% of those whose highest level of education was a post secondary diploma or certificate. Among those whose highest level of education was a





high school diploma, 50% had employer pension plans as did 42% of those with less than a high school education.

Union membership is one of the strongest correlates of having an employer-sponsored pension. Of union members, 84% were provided pension benefits by their employers, compared with 40% of non-union workers.

### Age at retirement

Almost two thirds (63%) of retired Cana-

dians had retired before reaching age 65, while 17% had retired at age 65, and 16% after age 65. Women were somewhat more likely than men to retire before age 65 (68% compared with 62%).

Retirement age varies little by type of former occupation. However, occupation-specific retirement patterns are evident according to gender. Relatively fewer men formerly employed in clerical, sales or service jobs (43%) had retired before age 65, compared with 64% of men in managerial

professional or blue-collar occupations. The opposite occurred among women, where 70% of those formerly employed in clerical, sales or service jobs had retired before age 65, compared with 62% formerly employed in managerial/professional occupations.

Among those who were retired in 1989, 28% had retired because they had reached mandatory retirement age. Health reasons were cited by 27% of retirees, and early retirement incentives by 7%. Other reasons for retirement such as personal choice, marriage, or family responsibilities were cited by 35% of retired people.

Among retired men, receiving a pension increased the likelihood of retiring before age 65, whereas not receiving a pension or retirement benefits was associated with retiring after age 65. Among women, those with no employer pension benefits were more likely to retire before age 65.

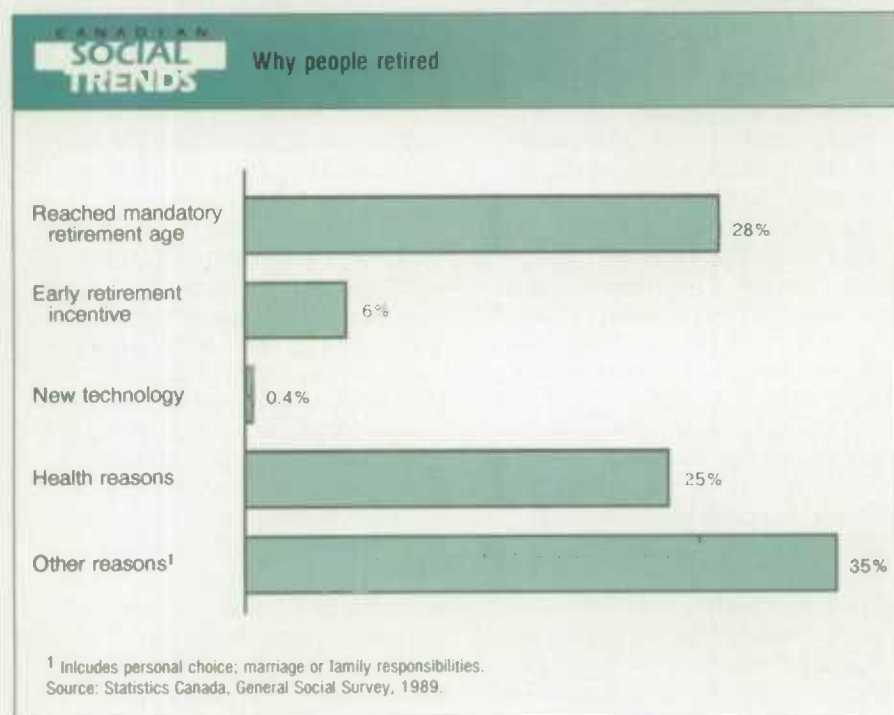
### Pensions among the retired

Almost one-half of the currently retired respondents received pension or retirement benefits from a former employer. However, twice the proportion of men (60%) as of women (30%) received pension benefits from a former employer. Lack of access to private pensions is one of the contributing factors to the higher incidence of low income among elderly women.

Former managers and professionals of either gender were the most likely to receive pension benefits (71% of men, 53% of women). A high proportion of men formerly employed in clerical, sales and service occupations received pensions (67%). In contrast, among women who formerly had been employed in these same occupations, only 21% received pensions.

Overall, 58% of retirees receiving pensions had their benefits at least partially indexed to the rate of inflation. Women receiving pensions were more likely to have their benefits adjusted to the cost of living than were men (65% compared with 56%). One possible explanation is that proportionally more women than men receiving pension benefits formerly had been employed in the public sector, where indexed pensions are common.

**Graham S. Lowe** is a Professor with the Department of Sociology, University of Alberta.



# READING SKILLS OF THE IMMIGRANT POPULATION

by Monica Boyd

*Condensed from Monica Boyd, "Gender, Nativity, and Literacy: Proficiency and Training Issues" Adult Literacy in Canada: Results of a National Study. Statistics Canada, Catalogue 89-525E.*

**O**ne out of every six Canadians has immigrated to Canada from his or her country of birth. For most new residents, this transition involves learning about Canadian society, entering the labour force, and interacting with legal, medical, educational, and governmental organizations. The ability to read at least one of Canada's two official languages makes it easier for new settlers to adjust to their surroundings. Literacy promotes the exchange of information and can enhance the economic well-being of immigrant families. Reading skills increase opportunities for labour force participation, influence the type of jobs available to new residents, and, as a result, increase possible employment earnings.

Some immigrants do not have the reading skills in English or French necessary to meet most everyday reading requirements. In Canada, foreign-born women, followed by foreign-born men, are the most likely to have limited reading skills in English or French. Women not born in Canada were also the most likely to indicate that they had experienced limitations at work as a result of limited reading skills. Among foreign-born men and women who have been limited at work because of their literacy skills, the majority indicated that training programs teaching job-related reading and writing skills would be helpful.

## **Immigrant women most disadvantaged**

In 1989, 28% of adults born outside Canada had extreme difficulty reading English or French, attaining level one or two in reading skills. Foreign-born women were particularly disadvantaged, with 32% having



## **Measuring reading skills**

Before 1989, surveys or censuses did not collect direct measures of literacy. In 1989, however, Statistics Canada, in collaboration with the National Literacy Secretariat of Multiculturalism and Citizenship Canada of the Department of the Secretary of State, conducted the Survey of Literacy Skills Used in Daily Activities.

This survey measured literacy skills in English or French among adults aged 16-69. Respondents performed tasks, similar to those encountered during daily life, designed to separately measure reading, numeracy, and writing skills. From the survey results, four reading skill levels were established. Respondents with level one reading

skills had the greatest difficulty understanding printed material and were the most likely to identify themselves as not being able to read. Those with level two reading skills could use printed material for limited purposes such as finding a familiar word within a simple text. With level three reading skills, respondents could use printed material in a variety of situations provided that the text was simple and clearly laid out. Those with level four skills could meet most everyday reading requirements.

The study, by design, omitted those who could not comprehend dialogue in English or French. The study did not test reading proficiency in languages other than English or French.



difficulty with printed material (levels one and two). Foreign-born men were also disadvantaged (24% with levels one and two) compared to Canadian-born men and women (12% with levels one and two).

Less than one-half (41%) of all women born outside Canada could meet most

daily reading demands (level four), compared with 56% of foreign-born men, 65% of Canadian-born men, and 68% of Canadian-born women. Among women born outside Canada and living in cities with populations exceeding 500,000, only 39% had level four reading skills. In

contrast, 58% of foreign-born men and 70% of Canadian-born men and women living in large cities had the reading skills necessary to meet most everyday requirements.

### Barriers for immigrant women

Immigrants bring with them the imprint of their former societies. Gender differences in educational attainment may exist within the foreign-born population. In certain countries or regions of the world, males have higher educational attainment and literacy levels than females or if males undertake different programs of study. Also, according to academics, advocacy groups, and government advisory boards, foreign-born women are less likely than foreign-born men to become proficient in English or French because of family responsibilities, the financial need for immediate employment, or restricted access to language training programs.

### Restricted employment opportunities

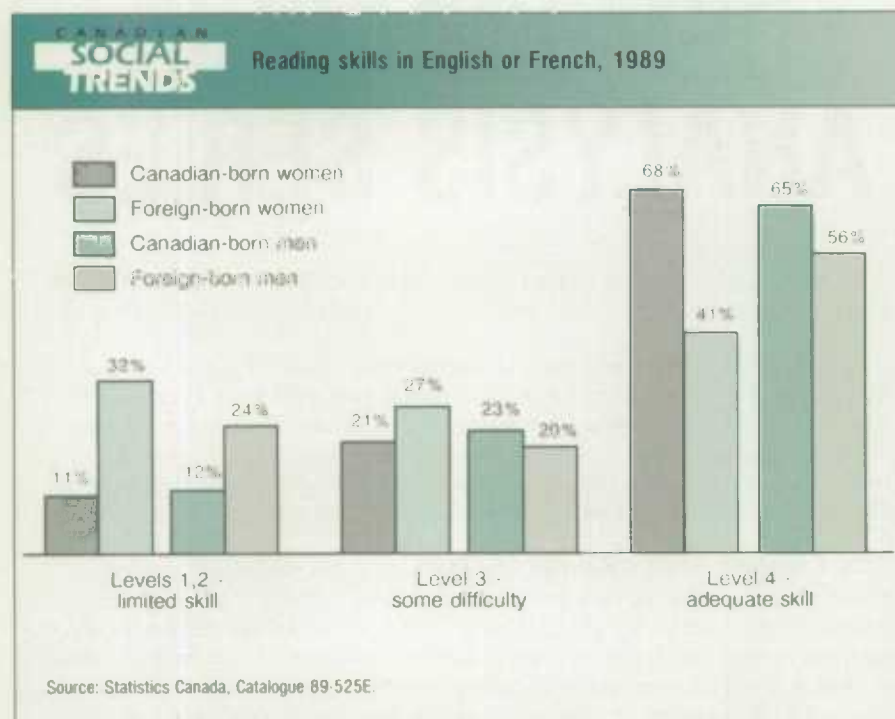
Reading skills, associated with knowledge gathering and information processing, are particularly important within an industrial society. These skills are required for most occupations, including those in the growing service sector, such as occupations in finance, business, education, and health. Reading skills also increase workers' access to training and retraining programs, and enhance their ability to adjust to changes within the labour market.

Respondents who worked for at least one week or more in the year preceding the survey were asked if their reading or writing skills in English or French were adequate for their current or previous job, if their reading or writing skills limited job opportunities, and if their reading skills were adequate for other areas of their lives.

Those not born in Canada were more likely than other adults to indicate that they had experienced one or more limitations associated with reading or writing skills. About 60% of foreign-born workers who had extreme difficulty with printed material (levels one and two) indicated that they had experienced one or more types of limitations associated with weak literacy skills.

### Job-related literacy programs wanted

People who perceived limitations resulting from their reading and writing skills were asked which of four types of literacy training programs might be useful. Foreign-born respondents preferred a program that would teach job-related reading and writing skills (73%), followed by one



### Language training for new immigrants

On January 7, 1992, a new federal language training policy for immigrants was announced. This policy included two programs administered by Employment and Immigration Canada: Language Instruction for Newcomers to Canada (LINC) and Labour Market Language Training (LMLT). The new policy is intended to increase the number of language training opportunities available to immigrants; provide immigrants with more flexible training options to fit their individual needs and circumstances; achieve a better match between the training offered and individual needs through improved assessment and referrals; ensure that more immigrants receive timely assistance during the early stages of their settlement in Canada; ensure that more immigrants have access to language training, regardless of their immigrant or labour market status; and incorporate information on Canadian values into language training programs.

Some training arrangements may include child-care and transportation support to facilitate the participation of immigrants, many of whom are women, who would otherwise be unable to pursue training.

**Language Instruction for Newcomers (LINC):** Through LINC, adult immigrants will learn basic communications skills to enable them to function in society. LINC training will normally be offered during the immigrant's first year in Canada. Approximately 80% of Employment and Immigration Canada's funds for language training are dedicated to this program.

**Labour Market Language Training (LMLT):** The LMLT program will provide specialized or beyond basic level language training to adult immigrants so that they may effectively use their existing or potential occupational knowledge and skills. LMLT will assist both unemployed and employed immigrants including Canadian citizens.

that would teach everyday reading and writing skills (63%). On the other hand, Canadian-born respondents preferred courses that would provide preparation for a specific job (65%), followed by a program that would help them to continue their formal education (63%).

When asked who should pay for these programs, the majority of both Canadian- and foreign-born respondents felt that the government should provide funding. Support for funding from government was higher among those not born in Canada (68%) than among Canadian-born adults (about 56%).

Responses that favoured government funding of literacy programs did not preclude individual or employer-sponsored financial support. Rather, they were consistent with the variety of existing literacy programs and funding arrangements involving provincial and federal governments.

### Conclusion

Efforts to improve literacy skills in Canada may be guided by three major findings. First, compared to Canadian-born adults, foreign-born adults, especially foreign-born women, were more likely to have limited reading skills in English or French. Second, many foreign-born men and women, particularly those with very limited reading skills (levels one and two) have experienced general and job-related restrictions. Third, most foreign-born workers who have experienced limitations in their lives as a result of their reading and writing skills perceive literacy training programs as useful, and would like to have such programs funded by the government.

The survey did not investigate the nature and effectiveness of various existing literacy training methods and programs. However, the findings of the survey were consistent with calls for a combination of program types and a flexible approach to literacy training that would consider user characteristics and preferences. Increasing immigration levels imply that literacy training programs for new residents will become an increasingly necessary and important component of literacy programs.

**Monica Boyd** is a Professor with the Department of Sociology, Carleton University.



# THE CURRENT DEMOGRAPHIC ANALYSIS SERIES

On April 22, 1992, the tenth issue of Statistics Canada's **CURRENT DEMOGRAPHIC ANALYSIS** series was released. This issue focuses on "Marriage and Conjugal Life in Canada".

The **CURRENT DEMOGRAPHIC ANALYSIS** series consists of annual and occasional reports devoted to the analysis of major demographic shifts and socioeconomic trends related to population issues. The series provides accurate, quantified information about demographic and socioeconomic phenomena and describes the relationships which exist among the different trends. Discussions of social phenomena in an historical context are emphasized to increase understanding of the links which unite social processes as they evolve.

The **CURRENT DEMOGRAPHIC ANALYSIS** series provides an easily-readable, reliable analysis of demographic trends and includes a wide variety of tables and clear illustrations to support the arguments presented. These reports are oriented toward non-specialists interested in population issues, as well as to social-science students and human-geography or sociology teachers in schools and universities. Demographers and other experts will also appreciate the up-to-date information presented, especially the inclusion of data series, often sparse in more specialized works.

Each issue focuses on an important demographic issue in Canada. The following works have already appeared in the series:

- Fertility in Canada: From Baby-boom to Baby-bust
  - Income of Immigrants in Canada: A Census Data Analysis
  - Caribbean Immigrants: A Demoeconomic-analysis
  - New Trends in the Family: Demographic Facts and Figures
- Other issues in progress include:
- The Aging of the Population
  - The Evolution of Mortality.

In addition, the **CURRENT DEMOGRAPHIC ANALYSIS** series includes a separate annual "Report on the Demographic Situation in Canada", published each autumn, over-viewing the most recent fluctuations in fertility, mortality, migration, and other demographic trends affecting the population of Canada and the provinces.

These reports also include international data, so that trends in Canada can be related to world trends in population dynamics. The latest information from Statistics Canada is complemented with occasional references to data compiled by leading international agencies, such as the United Nations, the Council of Europe, Eurostat, and CELADE. A variety of charts and tables are included, covering chronological series long enough to demonstrate the evolution of the demographic changes discussed. Explanations of common errors made when interpreting demographic data are provided to facilitate understanding of the information.

"The Report on the Demographic Situation in Canada" also contains a section discussing a specific topic in detail, such as the fertility of singles, changes in the linguistic balance, abortion, the consequences of early marriage and pregnancy, or a comparison of evolving demographic trends in Canada and the United States.

For more information about the **CURRENT DEMOGRAPHIC ANALYSIS** series, contact:

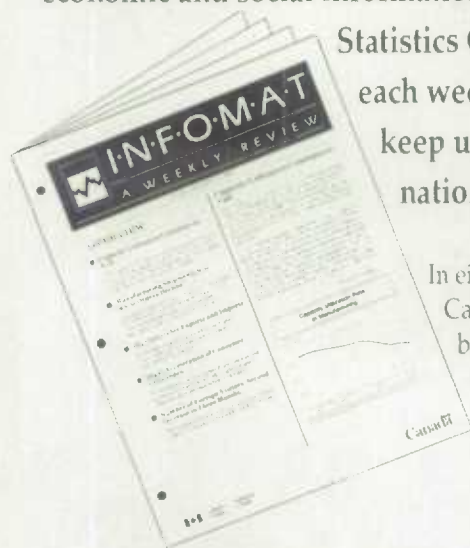
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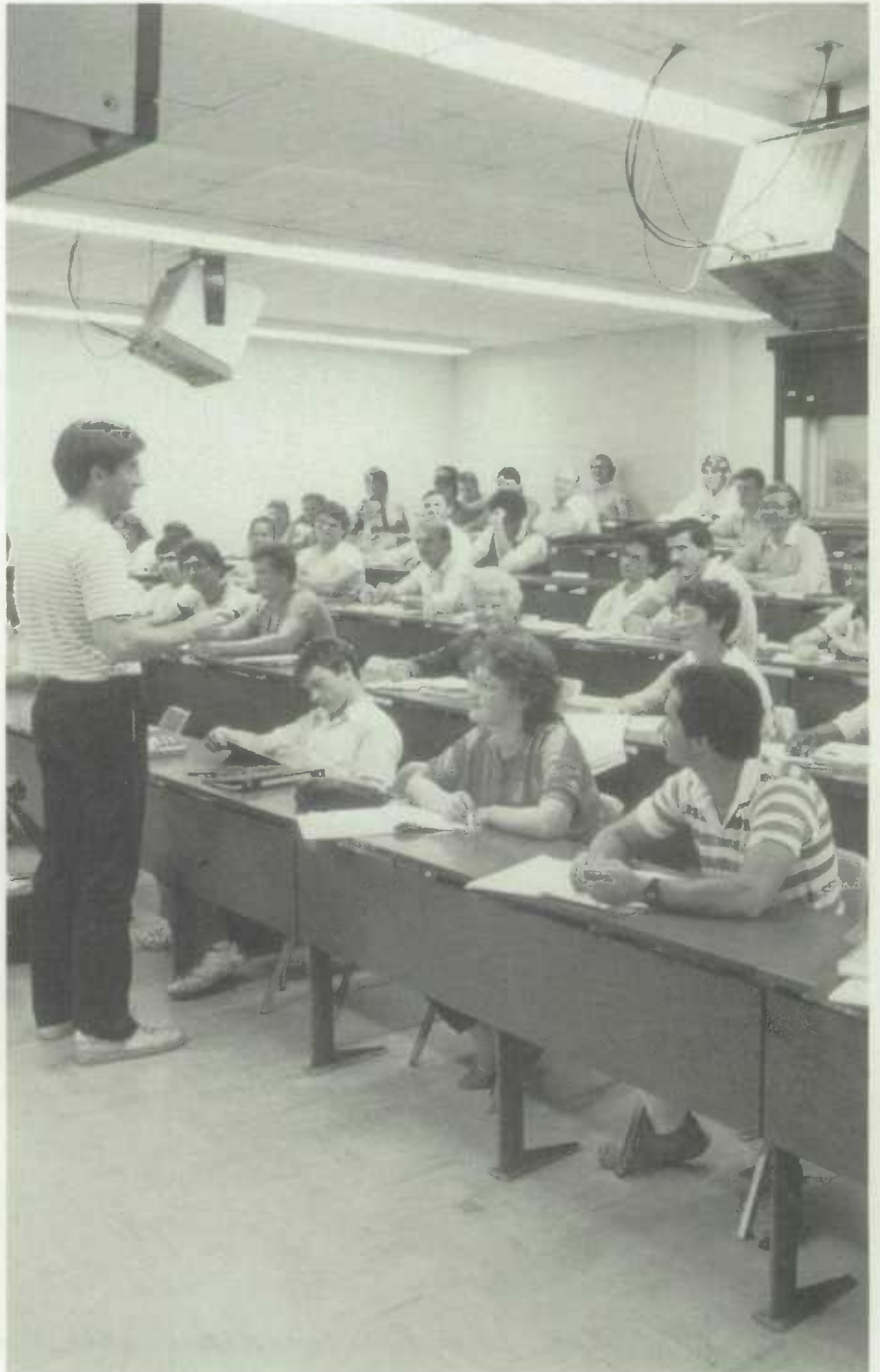
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# MATURE STUDENTS

by Cynthia Haggag-Guenette

**O**ver the past three decades, an increasing number of Canadians, particularly women, have enrolled part-time in postsecondary programs. On average, these students are older than past generations of students, an indication that they may be people returning to school after an absence. A rising proportion of adult Canadians also have been enrolling in courses to complete their primary and secondary education or to upgrade job-related skills.

By October 1990, over 700,000 mature students (aged 25-64)<sup>1</sup> were enrolled in an educational institution. Over one-half of these students were women, who tended to be older than their male counterparts. Also, most mature students were enrolled part-time, and of those, the vast majority were employed.





### Characteristics of mature students

By October 1990, about 705,000 Canadians aged 25-64 – 5% of people that age – were attending a recognized educational institution either full- or part-time. This was up from an estimated 378,000 (3% of people aged 25-64) in October 1980.

The majority of mature students in 1990 (477,000) studied part-time and were employed full-time. The remainder were full-time students (227,000), most of whom were not employed (either unemployed or not in the labour force). This distribution remained unchanged since 1980.

Between 1980 and 1990, the proportion of female mature students increased steadily to 60% from 54%. Over the same period, the percentage of male students declined to 40%. These changes resulted from a rising enrolment rate among women aged 25-64 (to 6% from 3%) and a relatively static rate among men that age (3%).

Enrolment rates increased particularly sharply among Canadians aged 40-64. Still, in 1990, two-thirds of all mature students were aged 25-34: close to 40% were 25-29 and 25% were 30-34. About 15% were aged 35-39, and the remaining 20% were aged 40 and over.

Part-time mature students tended to be older than those studying full-time. For example, 71% of part-time students were aged 30 and over, in contrast to 54% of full-time students. Women tended to be older than men. Among part-time mature students, 73% of women and 68% of men

were aged 30 and over, and among those enrolled full-time, the percentages were 61% and 46%.

### Reasons for returning to school

Among mature students, reasons for taking courses varied. Nonetheless, job-related reasons were cited most often by both part- and full-time students, followed by personal or family responsibilities. Job-

related reasons included obtaining a new job, upgrading job skills or increasing career advancement opportunities. Many students with relatively low levels of educational attainment probably return to school to upgrade their education, while students with more advanced schooling may more likely be returning to keep abreast of new techniques and innovations in their field.



### About the data

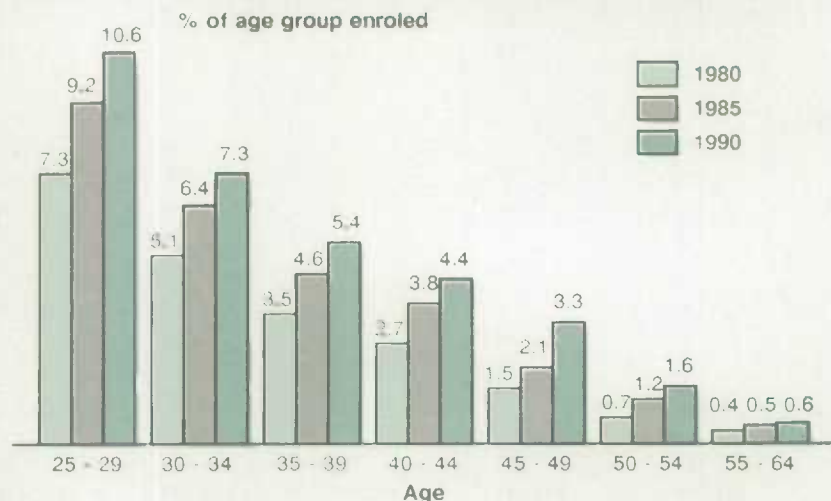
Data on part-time and full-time students were collected from the October 1980, 1985 and 1990 Labour Force Survey conducted by Statistics Canada. Educational institutions included public and private primary and secondary schools, vocational and trade schools, community colleges, collèges d'enseignement général et professionnel (CÉGEPs), and universities. Credit courses given by churches and voluntary organizations were included if they were affiliated with a recognized educational institution. Employer-sponsored credit courses given at work were excluded, unless classroom instruction was given in a recognized educational institution.

Credit courses included courses toward a certificate, diploma, or degree. These could be correspondence, television, or short professional courses given to practitioners in law, medicine, social work etc. Student nurses and medical interns were included, as were students taking credit courses for personal interest. All non-credit personal interest courses were excluded.

The study of mature students continuing, upgrading or completing their education included all students aged 25-64. Students aged 15-24 were excluded.

Part-time or full-time enrolment status depended on the registration status given by the school, and usually was determined by the number of courses taken. Employed mature students were divided into those employed full- or part-time; those not in the labour force and those unemployed were grouped as people not employed.

**CANADIAN SOCIAL TRENDS**  
Enrolment rates of mature students, by age, 1980-1990



Source: Statistics Canada, Labour Force Survey, 1980-1990.

<sup>1</sup> In this article, mature students are defined as all students aged 25-64.

### Most have postsecondary education

Mature students tend to have much higher levels of educational attainment than Canadians overall. While 70% of mature students had completed at least some postsecondary education, one-half of the population that age had completed only high school.

Among mature students, those studying full-time were more likely than their part-time counterparts to have a university degree. In 1990, 29% of full-time and 24% of part-time mature students had a university degree. More part-time than full-time mature students, however, had completed a non-university postsecondary program. In 1990, 36% of those enrolled part-time had completed a community college certificate or diploma program, compared with 25% of full-time students.

More men than women among mature students had a postsecondary degree or diploma. In 1990, this was the case for 63% of men studying part-time and 60% of those studying full-time, whereas the proportions were 58% and 48% for women.

### Postsecondary enrolment highest

Not surprisingly, most mature students are enrolled in postsecondary institutions. Over time, there has been a steady increase in university enrolment. By 1990, about one-half of all mature students were enrolled in universities, while about one-third were enrolled in colleges.

Enrolment in community colleges and CEGEPS was more likely to be part-time than full-time, while the reverse was true for university enrolment. In 1990, 40% of part-timers, compared with 35% of those

in school full-time were taking college-level courses. In contrast, 40% of part-time mature students were in university, compared with 48% of their full-time counterparts.

In 1990, equal proportions (about 40%) of both male and female part-time mature students and female full-time mature students were enrolled in community colleges and in universities. However, male full-time students were much more likely to be in university than in college: 56% compared with 30%.

Enrolment in courses to complete primary or secondary education was much less common, and students in these programs were more likely to be women than men. For example, among those studying part-time in 1990, 13% of women, compared with 8% of men were enrolled at this

### Profile of mature students, 1990

	Full-time students			Part-time students		
	Men	Women	Total	Men	Women	Total
	%	%	%	%	%	%
<b>Age</b>						
25-29	54	39	46	32	27	29
30-34	23	25	24	26	24	25
35-39	13	17	15	16	18	17
40-44	6	11	9	13	15	14
45-49	2	5	4	8	10	9
50-54	0	2	2	2	4	3
55-64	1	1	1	2	2	2
<b>Education</b>						
Grade 0-8	3	4	4	2	2	2
Some sec., no postsecondary	16	28	22	21	24	23
Some postsecondary	21	20	20	14	16	16
Postsecondary cert. or diploma	26	24	25	38	35	36
University degree	34	24	29	25	23	24
<b>Enrolled in</b>						
Primary or secondary school	5	10	7	8	13	11
Community college, CEGEP	30	38	35	42	38	40
University	56	41	48	39	40	40
Other	9	11	10	11	9	10
<b>Labour force status</b>						
Employed full-time	16	10	13	86	64	72
Employed part-time	19	22	21	4	15	11
Not working <sup>1</sup>	64	69	67	10	21	17
<b>Total %</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Number</b>	<b>107,277</b>	<b>119,770</b>	<b>227,047</b>	<b>172,457</b>	<b>304,877</b>	<b>477,334</b>

<sup>1</sup> Either unemployed or not in the labour force.

Source: Statistics Canada, 1990 Labour Force Survey.



level. Comparable figures for full-time mature students were 10% for women and 5% for men.

#### Part-timers employed full-time

Most part-time mature students are employed, in contrast to a relatively small proportion of those studying full-time. In 1990, 83% of part-time students aged 25-64 were employed: 72%, full-time and 11%, part-time. The remainder were not employed. Only 34% of those studying full-time had a job: 13% were employed full-time and 21%, part-time.

Levels of educational attainment varied considerably by employment status. Among mature students, those employed

full-time tended to have the highest level of education, while those not employed had the lowest. In 1990, 48% of male and 26% of female part-time mature students employed full-time had a university degree, compared with just under 20% of both male and female students not employed. Similarly, among full-time mature students, 48% of male and 37% of female full-time workers had graduated from university, compared with about 12% of those not employed.

#### Occupations

Occupations of employed mature students varied by enrolment status. Among full-time students, men and women were

clustered in a few occupations, while among part-time students, gender differences were more apparent.

Most full-time mature students were employed in teaching, clerical and service occupations. Among full-time students in 1990, 53% of men and 57% of women were employed in these occupations. Women were also clustered in occupations in medicine (15%), while men were more evenly distributed among the remaining occupations.

Most women in part-time studies were in clerical (32%), managerial or administrative (18%), teaching (16%), or medicine (11%) occupations. Comparable men were employed in managerial or administrative (21%), natural science (13%), fabricating (10%), or sales (9%) and service (9%) occupations.

#### Conclusion

As the structure of the labour market changes, requiring higher skill levels among workers, it is not surprising that more Canadians enrol in courses to upgrade their education.

Part-time students, most of whom are employed full-time, are generally older students who have completed college certificates and diplomas. Many are likely returning to school to upgrade or learn new skills to increase job opportunities.

On the other hand, full-time students are mainly young men and women. Most are not employed and likely are continuing their schooling full-time to obtain an initial certificate or degree, or to finish graduate studies before looking for work. These students may have fewer personal or family responsibilities and may be supported financially by parents, summer jobs, grants or spouses who work.

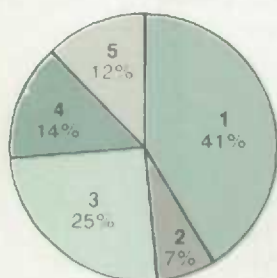
**Cynthia Haggag-Guenette** is an analyst with Labour Division.



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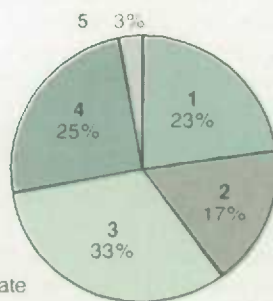
#### Highest educational level of total population and mature students aged 25-64, 1990

Total population  
aged 25-64



- 1 High school
- 2 Some postsecondary
- 3 Postsecondary certificate
- 4 University
- 5 Grade 0-8

Students  
aged 25-64



Source: Statistics Canada, Labour Force Survey, 1990.

#### Selected occupations of mature students, 1990

	Full-time students		Part-time students	
	Men	Women	Men	Women
	%			
Managerial, Administrative	7	5	21	18
Natural Sciences	6	1	13	2
Teaching	30	24	6	16
Medicine	2	15	4	11
Clerical	10	18	5	32
Sales	5	9	9	4
Service	13	15	9	8
Fabricating	7	-	10	1
Construction	4	-	7	-
<b>Total Number</b>	<b>38,188</b>	<b>37,325</b>	<b>155,915</b>	<b>239,673</b>

Source: Statistics Canada, 1990 Labour Force Survey.

# E-STAT: An Electronic Learning Package for Canadian Schools

E-STAT is a data package with graphing and mapping capabilities, developed by Statistics Canada to enable students to track a broad range of statistical data trends. E-STAT is currently being tested in 58 schools across Canada, and following fine-tuning, will be available for the 1992-93 school year.

E-STAT displays data from the Census and CANSIM, a comprehensive electronic time series data base on prices, labour, national accounts, manufacturing, finance, trade, agriculture, etc. Selected demographic and social data such as population estimates and vital statistics are also included.

E-STAT uses software to graphically display CANSIM data and map Census data. It gives students the opportunity to have hands-on experience in information retrieval and data manipulation, while at the same time helping to teach problem-solving techniques.

Designed for use on a personal computer with CD-ROM technology, this user-friendly package provides search and display capabilities for accessing both the Statistics Canada: CANSIM Disc (with approximately 250,000 time series), and the 1986 Census CD-ROM (with 414 census variables for many census geographic areas). A mapping capability

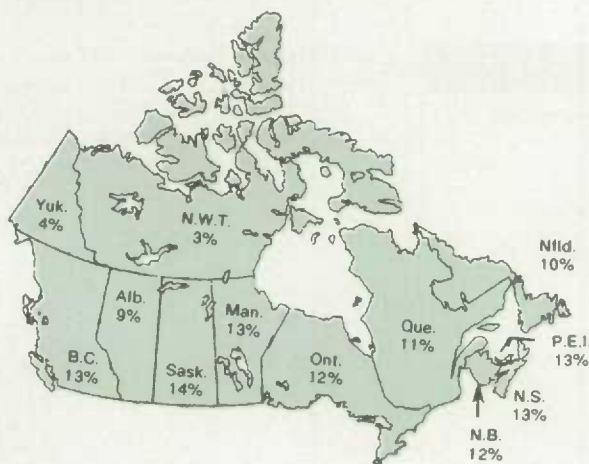
for display of census data is included, in addition to a number of graphics options for displaying time series data. Also, lists of related data series for specific teacher lesson plans (such as cultural diversity, family studies, and international trade) are provided.

E-STAT can be used to support data analysis and enquiry related to themes explored in *Canadian Social Trends*. For example, background data used in the article "Canadians and Retirement" (CST, Autumn 1992) can be accessed through E-STAT to examine the impact of varying ages of retirement on the size of the retired population. As well, using the mapping capability of E-STAT, one can quickly see the proportion of seniors in each province.

An IBM or 100% IBM compatible personal computer, a colour monitor with EGA card or higher, a CD-ROM player, a mouse, and MS-DOS with CD-ROM extensions are required to use the E-STAT package.

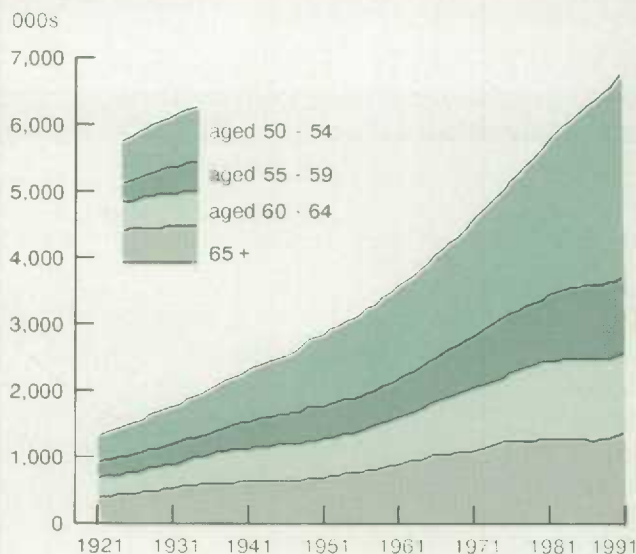
To obtain further information about the package, contact: the Statistics Canada Regional Office nearest you, or Joel Yan, Yves Dupuis, Ruth Kelly, Johanne Chénier, Electronic Data Dissemination Division, Statistics Canada, Ottawa, K1A 0T6, telephone: (613) 951-8200 or 1-800-465-1222, facsimile: (613) 951-1134.

Percentage aged 65 and over, Canada, 1991



Source: Statistics Canada, 1991 Census.

Population by age, Canada, 1921-1991



Source: Statistics Canada, CANSIM.



# SOCIAL INDICATORS

	1984	1985	1986	1987	1988	1989	1990	1991
<b>POPULATION</b>								
Canada, June 1 (000s)	24,978.2	25,102.4	25,353.0	25,612.3	25,909.2	26,240.3	26,610.4	27,000.4 <sup>f</sup>
Annual growth (%)	0.8	0.7	0.7	1.0	1.1	1.3	1.4	1.5 <sup>ff</sup>
Immigration <sup>1</sup>	87,504	84,062	88,051	125,696	152,285	174,495	199,527	219,480 <sup>f</sup>
Emigration <sup>1</sup>	48,826	46,252	44,816	51,040	40,528	37,437	39,649	39,233 <sup>ff</sup>
<b>FAMILY</b>								
Birth rate (per 1,000)	15.0	14.8	14.7	14.4	14.5	15.0	15.3	15.1 <sup>f</sup>
Marriage rate (per 1,000)	7.4	7.3	6.9	7.1	7.2	7.3	7.1	7.2 <sup>f</sup>
Divorce rate (per 1,000)	2.6	2.4	3.1	3.4	3.1	3.1	2.9	*
Families experiencing unemployment (000s)	1,039	990	915	872	789	776	841	1,417
<b>LABOUR FORCE</b>								
Total employment (000s)	10,932	11,221	11,531	11,861	12,244	12,486	12,572	12,340
- goods sector (000s)	3,404	3,425	3,477	3,553	3,693	3,740	3,626	3,423
- services sector (000s)	7,528	7,796	8,054	8,308	8,550	8,745	8,946	8,917
Total unemployment (000s)	1,384	1,311	1,215	1,150	1,031	1,018	1,109	1,417
Unemployment rate (%)	11.2	10.5	9.5	8.8	7.8	7.5	8.1	10.3
Part-time employment (%)	15.3	15.5	15.5	15.2	15.4	15.1	15.4	16.4
Women's participation rate (%)	53.6	54.6	55.3	56.4	57.4	57.9	58.4	58.2
Underutilization rate - % of paid workers	35.1	34.4	34.1	33.3	33.7	34.1	*	*
<b>INCOME</b>								
Median family income	32,739	34,736	36,858	38,851	41,238	44,460	46,069	*
% of families with low income (1986 Base)	15.6	14.3	13.6	13.1	12.2	11.1	12.1	*
Women's full-time earnings as a % of men's	65.6	64.9	65.8	65.9	65.3	65.8	67.6	*
<b>EDUCATION</b>								
Elementary and secondary enrolment (000s)	4,946.1	4,927.8	4,938.0	4,972.9	5,024.1	5,083.9	5,149.3 <sup>p</sup>	*
Full time postsecondary enrolment (000s)	782.8	789.8	796.9	805.4	816.9	832.3	856.3	887.0 <sup>p</sup>
Doctoral degrees awarded	1,878	2,000	2,218	2,384	2,415	2,600	2,672	2,947
Government expenditures on education - as a % of GDP	5.8	6.0	5.7	5.6	5.5	5.4	5.5	*
<b>HEALTH</b>								
% of deaths due to cardiovascular disease								
- men	42.8	41.7	41.4	40.5	39.5	39.1	37.3	*
- women	46.6	45.3	44.9	44.0	43.4	42.6	41.2	*
% of deaths due to cancer - men	25.5	25.4	25.9	26.4	27.0	27.2	27.8	*
- women	25.5	25.7	25.5	26.1	26.4	26.4	26.8	*
Government expenditures on health - as a % of GDP	5.8	5.8	6.0	5.9	5.9	6.0	6.2	*
<b>JUSTICE</b>								
Crime rates (per 100,000)								
- violent	714	749	808	856	898	948	1,013	1,097
- property	5,607	5,560	5,714	5,731	5,630	5,503	5,844	6,368
- homicides	2.7	2.8	2.2	2.5	2.2	2.5	2.5	3.0 <sup>p</sup>
<b>GOVERNMENT</b>								
Expenditures on social programmes <sup>2</sup> (1990 \$000,000)	151,003.3	155,990.6	157,737.2	160,670.7	164,293.2	170,125.0	175,640.0	*
- as a % of total expenditures	55.6	55.8	56.4	56.1	56.2	56.2	56.7	*
- as a % of GDP	26.2	26.2	26.1	25.5	24.7	25.0	26.3	*
UI beneficiaries (000s)	3,221.9	3,181.5	3,136.7	3,079.9	3,016.4	3,025.2	3,261.0	3,663.0
OAS and DAS/GIS beneficiaries <sup>m</sup> (000s)	2,490.9	2,569.5	2,652.2	2,748.5	2,835.1	2,919.4	3,005.8	3,098.5
Canada Assistance Plan beneficiaries <sup>m</sup> (000s)	1,894.9	1,923.3	1,892.9	1,904.9	1,853.0	1,856.1	1,930.1	2,282.2
<b>ECONOMIC INDICATORS</b>								
GDP (1986 \$) - annual % change	+6.3	+4.8	+3.3	+4.2	+5.0	+2.3	-0.5	-1.7
Annual inflation rate (%)	4.4	3.9	4.2	4.4	4.0	5.0	4.8	5.6
Urban housing starts	110,874	139,408	170,863	215,340	189,635	183,323	150,620	130,094

- Not available \* Not yet available <sup>p</sup> Preliminary data <sup>m</sup> Figures as of March. <sup>ff</sup> Updated postcensal estimates <sup>f</sup> Updated data.

<sup>1</sup> For year ending May 31st.

<sup>2</sup> Includes Protection of Persons and Property; Health; Social Services; Education; Recreation and Culture.

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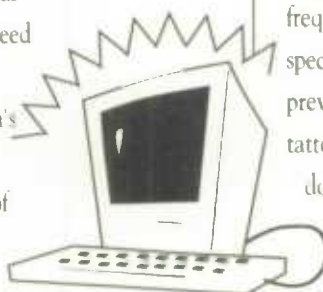
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