

Catalogue no. 75-001-XPE



# PERSPECTIVES

ON LABOUR AND INCOME

**SPRING 2007**

Vol. 19, No. 1

- REVISITING WEALTH  
INEQUALITY
- WORK HOURS  
INSTABILITY
- CANADA'S  
UNEMPLOYMENT  
MOAIC, 2000 TO 2006
- THE ABORIGINAL  
LABOUR FORCE IN  
WESTERN CANADA
- YOUNG PENSIONERS
- DEFINING RETIREMENT
- VARIA  
*Personal debt*



Statistics  
Canada

Statistique  
Canada

Canada

## *At Your Service...*

### How to obtain more information

Specific inquiries about this product and related statistics or services should be directed to: *Perspectives on Labour and Income*, 9 A-6 Jean Talon, 170 Tunney's Pasture Driveway, Statistics Canada, Ottawa, Ontario, K1A 0T6 (telephone: (613) 951-4628; e-mail: [perspectives@statcan.ca](mailto:perspectives@statcan.ca)).

For information on the wide range of data available from Statistics Canada, you can contact us by calling one of our toll-free numbers. You can also contact us by e-mail or by visiting our website [www.statcan.ca](http://www.statcan.ca).

|  |  |
|--|--|
| National inquiries line  | 1 800 263-1136   |
| National telecommunications device<br>for the hearing impaired | 1 800 363-7629   |
| Depository Services Program inquiries                          | 1 800 700-1033   |
| Fax line for Depository Services<br>Program                    | 1 800 889-9734   |
| E-mail inquiries   | <a href="mailto:infostats@statcan.ca">infostats@statcan.ca</a> |
| Website  | <a href="http://www.statcan.ca">www.statcan.ca</a>             |

### Ordering/subscription information

This product can be ordered by

- telephone (Canada and United States) 1 800 267-6677
- fax (Canada and United States) 1 877 287-4369
- e-mail [infostats@statcan.ca](mailto:infostats@statcan.ca)
- mail Statistics Canada  
Finance Division  
R.H. Coats Bldg., 6th Floor  
100 Tunney's Pasture Driveway  
Ottawa, Ontario K1A 0T6
- In person from authorised agents and bookstores

When notifying us of a change in your address, please provide both old and new addresses.

### Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner and in the official language of their choice. To this end, the Agency has developed standards of service. To obtain a copy of these standards, please contact Statistics Canada toll free at 1 800 263-1136. They are also published on [www.statcan.ca](http://www.statcan.ca) under About Statistics Canada > Providing services to Canadians.

## PERSPECTIVES

ON LABOUR AND INCOME

## ■ Departments

## 3 Highlights

## 60 What's new?

## 65 Varia

*Personal debt in Canada and the U.S.*

**Perspectives on Labour and Income**  
(Catalogue no. 75-001-XPE; aussi disponible en français: *L'emploi et le revenu en perspective*, n° 75-001-XPF au catalogue) is published quarterly by authority of the Minister responsible for Statistics Canada.  
©Minister of Industry 2007. ISSN: 0840-8750.

PRICE: CAN \$20.00 per issue, CAN \$63.00 for a one-year subscription.

## Shipping charges outside Canada:

|                 | Single<br>issue | Annual<br>subscription |
|-----------------|-----------------|------------------------|
| United States   | CAN \$ 6.00     | CAN \$24.00            |
| Other countries | CAN \$10.00     | CAN \$40.00            |

All prices exclude sales taxes.

All rights reserved. This product cannot be reproduced and/or transmitted to any person or organization outside of the licensee's organization.

Reasonable rights of use of the content of this product are granted solely for personal, corporate or public policy research, or for educational purposes. This permission includes the use of the content in analyses and the reporting of results and conclusions, including the citation of limited amounts of supporting data extracted from this product. These materials are solely for non-commercial purposes. In such cases, the source of the data must be acknowledged as follows: Source (or "Adapted from", if appropriate); Statistics Canada, year of publication, name of product, catalogue number, volume and issue numbers, reference period and page(s). Otherwise, users shall seek prior written permission of Licensing Services, Client Services Division, 100 Tunney's Pasture Driveway, Statistics Canada, Ottawa, Ontario, K1A 0T6.

Indexed in the *Canadian Index*, *Canadian Periodical Index*, *P.A.I.S. International*, *Sociological Abstracts*, *Econlit*, *Canadian Business and Current Affairs* and *Employee Benefits Infosource*. Also indexed in French in *L'Index de l'Actualité* and *Point de Repère*.

## ■ Articles

## 6 Revisiting wealth inequality

*René Morissette and Xuelin Zhang*

Major changes in the wealth structure have taken place over the last two decades. Between 1984 and 2005, virtually all population subgroups experienced a greater increase in average wealth than in median wealth, suggesting that Canadian families are becoming increasingly unequal in their capacity to deal with income shocks. The increase would have been even greater without the marked aging of the population.

## 18 Work hours instability

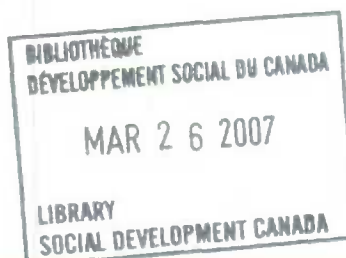
*Andrew Heisz and Sébastien LaRochelle-Côté*

Discussions related to work hours are typically driven by cross-sectional studies. Much less is known about the longitudinal perspective and the persistence of long hours or periods of underemployment. The annual hours of employees are examined over a five-year period to determine what proportion experience variable work years and how their well-being is affected.

## 22 Canada's unemployment mosaic, 2000 to 2006

*Ernest B. Akyeampong*

The unemployment rate is a well-known barometer of labour-market health. The rise in the national unemployment rate in the years immediately following the high-tech meltdown has been replaced by sustained annual declines. Of course not all parts of the country have shared equally in the improvement. The article tracks the range of unemployment rates for local labour markets (the 28 census metropolitan areas [CMAs] and the 10 provincial non-CMA areas). It also looks at the relative durations of unemployment.





## ■ Managing Editor

Henry Pold  
613-951-4608  
henry.pold@statcan.ca

## ■ Editors

Sheila Kulka  
Lahouaria Yssaad

## ■ Data Services

Joanne Bourdeau  
Laura Fraser

## ■ Production and Composition

Ann Trépanier  
Heather Berrea  
Annamma John

## ■ Printing

Dissemination Division

## ■ Cover Art

Dominique Pérusse

## Symbols

The following standard symbols are used in Statistics Canada publications:

- not available for any reference period
- not available for a specific reference period
- ... not applicable
- p preliminary
- r revised
- x confidential
- E use with caution
- F too unreliable to be published

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences – Permanence of Paper for Printed Library Materials, ANSI Z39.48 – 1984.

## 30 The Aboriginal labour force in Western Canada

*Jacqueline Luffman and Deborah Sussman*

By 2017, Aboriginal persons of working age (15 and older) are projected to number close to a million—about 3.4% of the working-age population overall. With anticipated labour shortages in many areas, this growing population may constitute an important pool of workers. Aboriginal and non-Aboriginal populations in Western Canada are compared in terms of employment, occupational distribution, and skill level.

## 45 Young pensioners

*Ted Wannell*

Since they entered the scene, baby boomers have been shaping social and economic structures. Now on the cusp of retirement, they may once again force change on the labour market. Many aspire and can afford to retire relatively young, raising concerns about labour supply and public pension programs. But increasing longevity in good health may persuade some to extend their working life. Trends in pension uptake between ages 50 and 60 and post-pension employment during the 1990s and the first part of this decade offer some clues as to the direction baby boomers may take.

## 55 Defining retirement

*Geoff Bowlby*

Even though the retirement wave will have significant labour market consequences over the next 20 years, no regular statistics are produced on retirement or the retired. Part of the problem stems from lack of clear definitions. For some, retirement means complete withdrawal from the labour force while for others it entails part- or even full-time work. The article examines the challenges faced by statistical organizations in measuring retirement and offers several recommendations to inform a discussion for arriving at international standards.



# Highlights

*In this issue*

## ■ Revisiting wealth inequality ... p. 6

- After increasing between 1984 and 1999, the gap between families in the top and bottom 20% of the wealth distribution continued to widen between 1999 and 2005. The wealthiest 20% of families held 75% of total household wealth in 2005, compared with 73% in 1999 and 69% in 1984.
- Part of the increased wealth among families in the top 20% was fuelled by growth in home equity. In both 1999 and 2005, the vast majority of these families—at least 95%—owned a house. Among homeowners, the median value of the principal residence rose \$75,000 between 1999 and 2005, reflecting the sharp increase in housing prices.
- While the median wealth of families overall rose 26% between 1984 and 2005, it fell substantially among those in which the major income recipient was aged 25 to 34. In 2005, these families had median wealth of \$13,400 (in 2005 dollars), much lower than the \$27,000 and \$17,400 registered in 1984 and 1999 respectively.
- The decrease in wealth among young families occurred mainly because the cumulative earnings of young men—the sum they receive over several years—fell substantially between the 1970s and the 1990s. Over the 1994-to-2004 period, their cumulative earnings averaged roughly \$267,000, much less than the \$330,000 for the 1973-to-1983 period.

## ■ Work hours instability ... p. 18

- Slightly less than half of employees worked roughly the same hours each year between 1997 and 2001. About one in three worked a standard, full-year full-time schedule in every year and 15% worked a shorter year.

- While it was common to work longer hours in a given year, it was rare to do so year after year. One in five workers worked longer hours in at least one year between 1997 and 2001, but less than 1% did so in every year.

- Typically, annual work hours varied by about five full-time work weeks. However, work hours variability was highly polarized with 1 in 5 employees having virtually none and 1 in 4 having variability exceeding eight weeks per year.

- Work hours instability was higher among employees in small firms, those with no pension plan, and those not covered by a collective agreement.

## ■ Canada's unemployment mosaic, 2000 to 2006 ... p. 22

- In terms of having low unemployment rates, the best areas since 2000 have been primarily in the Prairies—Calgary, non-CMA (census metropolitan area) Alberta, and non-CMA Manitoba. The poorest performers have been non-CMA Newfoundland and Labrador, Prince Edward Island, non-CMA Nova Scotia, non-CMA New Brunswick, and Windsor.
- In both 2000 and 2006, Calgary registered among the lowest unemployment rates (4.5% and 3.2% respectively); the highest rates were recorded in non-CMA Newfoundland and Labrador (21.3% and 19.3%).
- Of the 16 CMA and non-CMA areas that saw a deterioration in their unemployment rate ranking between 2000 and 2006, 9 were in Ontario. Of the 5 CMAs with the largest drops, 4 were in Ontario's Golden Horseshoe—Oshawa, Hamilton, Toronto, and Windsor.

- Unemployment duration showed signs of improvement between 2000 and 2006. At the national level, it fell by about 3 weeks, from 19.8 to 16.7. Declines were also registered in most areas—33 of the 38 considered.

### ■ The Aboriginal labour force in Western Canada ... p. 30

- By the end of 2017, Aboriginal persons of working age (15 and older) are expected to number close to a million—about 3.4% of the working-age population. In Western Canada, Aboriginal (off-reserve) employment grew 23% between 2001 and 2005, compared with only 11% for non-Aboriginals.
- While the unemployment rate gap narrowed over the period, the Aboriginal rate remained 2.5 times that of the non-Aboriginal labour force in 2005.
- The effect of postsecondary education on employment is particularly strong for Aboriginal women with a university degree. Indeed, these women had an employment rate 11 percentage points higher than non-Aboriginal women.
- Most of the growth in the Western off-reserve Aboriginal labour force was dominated by the three largest occupational sectors: sales and service (35%); business, finance and administration (19%); and trades, transport and equipment operators (18%).

### ■ Young pensioners ... p. 45

- Although public retirement pensions cannot be collected until one's seventh decade (age 60 for the Canada and Quebec Pension Plans, and 65 for Old Age Security), many private pension plans allow long-serving employees in their 50s to draw benefits. Tax data indicate that about one-fifth of workers begin collecting benefits from such plans before their 60<sup>th</sup> birthday.
- The pension take-up rate is very low (less than 1%) from ages 50 to 54. It spikes at age 55 (5% for men and 4% for women) as many plans

commence unreduced benefits at this milestone, given sufficient tenure. This peak is not surpassed until workers exit their 50s.

- About half of young pensioners worked for pay the year after they began receiving their pension. However, much of that work was either part-time or intermittent since only 30% earned at least \$5,000. Men were more likely than women to surpass the \$5,000 benchmark (34% versus 26%).
- The probability of non-trivial re-employment falls as the age at retirement increases. Those who retired at 50 were almost twice as likely as those retiring at 59 to earn at least \$5,000 in the following year.
- Very few young pensioners turn to self-employment as a significant source of income. Less than 1 in 10 earned some self-employment income, and 1 in 20 or less earned at least \$5,000.
- Early pensioners generally retired from high-paying jobs. Their average earnings in the year before retirement were at least 50% greater than those who did not retire. Among women, the post-retirement income of young pensioners exceeded the income of those who remained in the workforce.
- Young pensioners typically bring in about two-thirds of their pre-retirement income the year after they begin collecting their pension—very close to the 70% replacement rate recommended by many financial analysts. Pension income accounts for a greater proportion of the total income of women in this group (66% in 2004 compared with 61% for men).

### ■ What's new? ... p. 60

#### ■ From Statistics Canada

- Low-income rates among immigrants
- Regional differences in work hours
- Effects of international mobility on individual earnings
- Earnings losses of displaced workers
- Changes in provincial labour productivity

Labour productivity, hourly compensation, and unit labour cost

Wage differences between male and female university professors

#### ■ From other organizations

Tariff reductions and workers' wages in protected industries

Employment protections and productivity

Income splitting among the self-employed

Legal environment and high-performance work systems

Education and self-employment: Changes in earn-

ings and wealth inequality

R&D composition and labour productivity growth

The role of labour market information for adjustment: International comparisons

Work while in high school: Labour market and educational attainment effects





#### Perspectives

Subscribe to *Perspectives on Labour and Income* today!

**Save  
by extending your  
subscription!**

Save 20%  
by subscribing for 2 years!  
Only \$100.80 (plus taxes)

Save 30%  
by subscribing for 3 years!  
Only \$132.30  
(plus taxes)

|   |                                   |   |  |  |                       |  |                     |
|---|-----------------------------------|---|--|--|-----------------------|--|---------------------|
|  <b>MAIL</b><br>Statistics Canada<br>Financed Division<br>100 Tunney's Pasture<br>Driveway, 6th floor<br>Ottawa, Ontario<br>Canada K1A 0T6   |                                   |  <b>PHONE</b><br><b>1 800 267-6677</b><br>Quote PF026100 |  |  <b>FAX</b><br><b>1 877 287-4369</b><br><b>(613) 951-0581</b> |                       |  <b>E-MAIL</b><br><b>Infostats@statcan.ca</b> |                     |
| <b>METHOD OF PAYMENT</b><br>Charge to my: <input type="checkbox"/> MasterCard <input type="checkbox"/> VISA <input type="checkbox"/> American Express   |                                   |   |  |  |                       |  |                     |
| Card Number   |                                   |   |  | Expiry Date  |                       |  |                     |
| Authorized Signature  |                                   |   |  |  |                       |  |                     |
| Cardholder (Please print)   |                                   |   |  |  |                       |  |                     |
| <input type="checkbox"/> Payment Enclosed \$ _____  |                                   |   |  |  |                       |  |                     |
| Authorized Signature  |                                   |   |  |  |                       |  |                     |
| <b>Catalogue No.</b>  | <b>Title</b>                      |   |  | <b>Subscription</b>  | <b>Price (CDN \$)</b> | <b>Quantity</b>  | <b>Total CDN \$</b> |
| 75-001-XPE  | Perspectives on Labour and Income |   |  | 1 year   | 63.00                 |  |                     |
|   |                                   |   |  | 2 years  | 100.80                |  |                     |
|   |                                   |   |  | 3 years  | 132.30                |  |                     |
| No shipping charges for delivery in Canada. Outside Canada, please add shipping charges as indicated. Canadian clients add either 6% GST and applicable PST or HST (GST Registration No. R121491807). Clients outside Canada pay in Canadian dollars drawn on a Canadian bank or pay in equivalent US dollars, converted at the prevailing daily exchange rate, drawn on a US bank. Federal government departments must include with all orders their IS Organization Code _____ and IS Reference Code _____. |                                   |   |  |  |                       |  |                     |
| Your personal information is protected by the Privacy Act. Statistics Canada will use your information only to complete this sales transaction, deliver your product(s), announce product updates and administer your account. From time to time, we may also offer you other Statistics Canada products and services or ask you to participate in our market research.   |                                   |   |  |  |                       |  |                     |
| If you do not wish to be contacted again for promotional purposes <input type="checkbox"/> and/or market research <input type="checkbox"/> , check as appropriate.  |                                   |   |  |  |                       |  |                     |
| Subtotal  |                                   |   |  |  |                       |  |                     |
| Applicable GST (6%)   |                                   |   |  |  |                       |  |                     |
| Applicable PST  |                                   |   |  |  |                       |  |                     |
| Applicable HST (N.S., N.B., N.L.)   |                                   |   |  |  |                       |  |                     |
| Shipping charges U.S. CDN \$24, other countries CDN \$40  |                                   |   |  |  |                       |  |                     |
| <b>Grand Total</b>  |                                   |   |  |  |                       |  |                     |



# Revisiting wealth inequality

René Morissette and Xuelin Zhang

**W**ealth provides access to economic resources. To mitigate the impact of unexpected expenses or income losses, those with a reserve of wealth can liquidate some of their financial or real assets. More positively, sufficient net worth allows the possibility to reduce work hours, make riskier investments, or try self-employment. On the other hand, lack of wealth makes these options less likely.

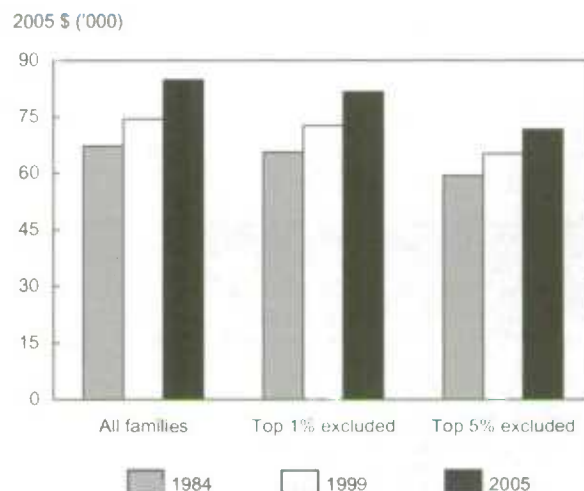
Between 1984 and 1999, wealth inequality rose in Canada (Morissette, Zhang and Drolet 2002, 2006). In 1984, families and unattached individuals (hereafter referred to simply as families) in the top 10% of the wealth distribution held 52% of household wealth, excluding the value of employer-sponsored pension plans. Fifteen years later, they held 56%, and in 2005, 58%.

Using the Assets and Debts Survey for 1984 and the Survey of Financial Security for 1999 and 2005, this article examines wealth distribution over the period from 1984 to 2005. Most of the analysis uses three different samples: all families, all families except those in the top 1%, and all families except those in the top 5%. Since the 1984 survey contained no information about employer-sponsored pensions, wealth, unless otherwise noted, excludes the value of work-related pension plans (see *Data sources and definitions*).

## Average and median wealth

Between 1984 and 1999, real (adjusted for inflation) median wealth grew by roughly 10% (Chart A). It rose a further 10% to 14% between 1999 and 2005, bringing the increase to between 21% and 26% over the

**Chart A** The median wealth (in constant dollars) of families rose by more than 20% between 1984 and 2005



Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

entire 1984-to-2005 period. In contrast, real average wealth increased between 51% and 70%, reflecting large increases in wealth at the top of the distribution.<sup>2</sup>

The growth was far from uniform across age groups. Average wealth rose faster among families with a major income recipient 35 and over (Chart B). For instance, it increased by at least 79% in families with a major income recipient 65 and over, but fell by up to 12% when the major income recipient was 25 to 34.

Part of the increase in average wealth resulted from the aging of the population, with more families having had time to accumulate financial and real assets. If the age structure had remained unchanged throughout the 1984-to-2005 period, average wealth would have risen less. Applying the 1984 age structure to the 2005

*The authors are with the Business and Labour Market Analysis Division. René Morissette can be reached at 613-951-3608 or [rene.morissette@statcan.ca](mailto:rene.morissette@statcan.ca); Xuelin Zhang can be reached at 613-951-4295 or [xuelin.zhang@statcan.ca](mailto:xuelin.zhang@statcan.ca).*

**Chart B Average wealth rose more for families with a major income recipient 35 or older**



Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

wealth distribution indicates that about one-quarter of the growth from 1984 to 2005 was caused by population aging. The remainder reflected growth within age groups.

### Wealth inequality 1984 to 2005

As numerous studies have shown (for example, Davies 1979 and 1993), wealth is highly concentrated. In 1984, families in the top 10% of the wealth distribution held 52% of aggregate household wealth whereas the bottom 50% held only 5% (Table 1).<sup>3</sup> Concentration increased from 1984 to 1999 and again from 1999 to 2005, as the top 10% of families came to own 56% of Canadians' net worth in 1999, and 58% in 2005.<sup>4</sup> Over the 1984-to-2005 period, only families in the top 10% increased their share of total wealth.<sup>5</sup>

Meanwhile, median net worth stagnated or fell in the bottom 40% of the distribution but rose substantially in the top 40%. For instance, median net worth fell by roughly \$7,500 (in 2005 dollars) in the lowest 10% over the 1984-to-2005 period, while increasing by between \$237,000 and \$659,000 (depending on the sample considered) in the highest 10%. Hence, wealth inequality rose as not all segments of the Canadian population enjoyed wealth increases.<sup>6</sup>

### Data sources and definitions

The 1984 **Assets and Debts Survey (ADS)** was a supplement to the May 1984 Survey of Consumer Finances. The 1999 **Survey of Financial Security (SFS)** was conducted from May to July 1999, and the 2005 SFS was conducted from May to July 2005. For all three surveys, the sample was based on the Labour Force Survey frame and represented all families in Canada except residents of the territories, households on Indian reserves, full-time members of the Armed Forces, and residents of institutions.<sup>1</sup>

Some differences between the surveys are worth noting. The ADS collected information on assets (except housing) and debts for each member of the family aged 15 and over and then aggregated to the family level. In contrast, the SFS collected this information directly at the family level. The SFS also used a supplementary 'high-income' sample to improve the quality of wealth estimates.

To make the concept of wealth comparable, the following must be excluded from the SFS: contents of the home, collectibles and valuables, annuities, and registered retirement income funds (RRIFs). Wealth is the difference between the value of a family's total assets and its total debts. Unless otherwise noted, it excludes the value of work-related pension plans as well as entitlements to future Canada/Quebec Pension Plan or Old Age Security benefits. It also excludes any measure of the discounted flow of future earnings by family members.

One particularly difficult issue is the measurement of the upper tail of the wealth distribution. Using a variety of data sources, Davies (1993) estimates that the share of total wealth held by the top 1% of families in 1984 may increase from 17% (using the ADS) to between 22% and 27% after adjustments. Similarly, the share held by the top 5% of families in 1984 may increase from 38% to between 41% and 46%.

A further complication arises because comparisons are made for two points in time and the degree of truncation may have changed. More precisely, assume, for simplicity, that the true wealth distribution remained unchanged between 1984 and 1999. Extending the argument of Davies (1993, 160) to the analysis of changes in the wealth distribution, if no family with wealth over \$10 million consented to an interview in 1984, and none with wealth over \$50 million consented in 1999, the 1984 ADS and 1999 SFS would show an (incorrect) increase in wealth inequality simply because of better interviewing techniques in the later survey. Most of the analysis in this paper therefore uses three different samples: all families, all families except those in the top 1% of the wealth distribution, and all families except those in the top 5%. The terms wealth and net worth are used interchangeably.

In fact, although both median and average wealth grew markedly, the proportion of families with zero or negative net worth showed no improvement. In 2005, 14% of families had more debts than assets, up from 11% in 1984 (Table 2). Also, more families had no financial wealth in 2005 (24%) than in 1984 (18%).<sup>7</sup>

**Table 1 Median wealth and share of total wealth**

|                        | Median wealth |         |           | Share |      |      | 2005 share with:   |                       |
|------------------------|---------------|---------|-----------|-------|------|------|--------------------|-----------------------|
|                        | 1984          | 1999    | 2005      | 1984  | 1999 | 2005 | 1984 age structure | 1984 family structure |
| <b>All families</b>    |               | 2005 \$ |           |       |      | %    |                    |                       |
| Bottom 10%             | -2,100        | -6,570  | -9,600    | -0.5  | -0.6 | -0.6 | -0.8               | -0.6                  |
| Second                 | 780           | 120     | 10        | 0.1   | 0.0  | 0.0  | 0.0                | 0.0                   |
| Third                  | 7,770         | 6,820   | 6,000     | 0.5   | 0.4  | 0.2  | 0.1                | 0.3                   |
| Fourth                 | 24,630        | 26,150  | 25,500    | 1.7   | 1.3  | 1.1  | 0.7                | 1.3                   |
| Fifth                  | 52,260        | 57,120  | 63,250    | 3.5   | 2.8  | 2.5  | 2.1                | 2.7                   |
| Sixth                  | 83,130        | 93,850  | 109,050   | 5.6   | 4.7  | 4.4  | 3.9                | 4.4                   |
| Seventh                | 120,690       | 148,610 | 173,590   | 8.2   | 7.4  | 6.9  | 6.6                | 6.9                   |
| Eighth                 | 170,210       | 221,770 | 263,000   | 11.5  | 11.0 | 10.5 | 10.4               | 10.2                  |
| Ninth                  | 256,740       | 344,890 | 413,750   | 17.5  | 17.4 | 16.8 | 17.0               | 16.2                  |
| Top 10%                | 534,980       | 723,590 | 1,194,000 | 51.8  | 55.7 | 58.2 | 60.0               | 58.6                  |
| <b>Top 1% excluded</b> |               |         |           |       |      |      |                    |                       |
| Bottom 10%             | -2,120        | -6,800  | -9,850    | -0.6  | -0.8 | -0.8 | -1.0               | -0.8                  |
| Second                 | 710           | 120     | 10        | 0.1   | 0.0  | 0.0  | 0.0                | 0.0                   |
| Third                  | 7,430         | 6,390   | 5,800     | 0.6   | 0.4  | 0.3  | 0.2                | 0.4                   |
| Fourth                 | 23,830        | 25,340  | 24,870    | 1.9   | 1.6  | 1.3  | 0.9                | 1.6                   |
| Fifth                  | 50,850        | 55,220  | 61,500    | 4.1   | 3.4  | 3.1  | 2.5                | 3.4                   |
| Sixth                  | 81,630        | 91,360  | 105,660   | 6.6   | 5.7  | 5.4  | 4.8                | 5.7                   |
| Seventh                | 117,890       | 144,470 | 168,000   | 9.5   | 9.0  | 8.6  | 8.1                | 8.7                   |
| Eighth                 | 165,080       | 214,310 | 250,970   | 13.4  | 13.3 | 12.9 | 12.7               | 12.9                  |
| Ninth                  | 246,300       | 326,650 | 392,720   | 20.1  | 20.7 | 20.5 | 20.6               | 20.2                  |
| Top 10%                | 470,000       | 644,390 | 939,340   | 44.2  | 46.6 | 48.6 | 51.3               | 47.8                  |
| <b>Top 5% excluded</b> |               |         |           |       |      |      |                    |                       |
| Bottom 10%             | -2,290        | -7,170  | -10,100   | -0.7  | -1.0 | -1.1 | -1.4               | -1.1                  |
| Second                 | 530           | 60      | 0         | 0.1   | 0.0  | 0.0  | -0.1               | 0.0                   |
| Third                  | 6,420         | 4,030   | 4,400     | 0.7   | 0.5  | 0.3  | 0.2                | 0.4                   |
| Fourth                 | 20,580        | 21,960  | 21,000    | 2.2   | 1.8  | 1.5  | 1.0                | 1.9                   |
| Fifth                  | 45,380        | 49,070  | 55,000    | 4.7   | 4.0  | 3.8  | 3.0                | 4.1                   |
| Sixth                  | 75,210        | 83,180  | 95,360    | 7.7   | 6.7  | 6.5  | 5.7                | 6.9                   |
| Seventh                | 107,170       | 129,720 | 151,000   | 11.1  | 10.4 | 10.3 | 9.7                | 10.4                  |
| Eighth                 | 149,800       | 190,780 | 224,970   | 15.5  | 15.4 | 15.3 | 15.2               | 15.3                  |
| Ninth                  | 211,930       | 279,320 | 333,050   | 22.0  | 22.8 | 23.3 | 23.7               | 22.7                  |
| Top 10%                | 341,090       | 472,910 | 578,180   | 36.8  | 39.5 | 40.2 | 43.1               | 39.4                  |

Note: Excluding the value of registered pension plans.

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

While wealth inequality rose between 1984 and 1999 (Morissette, Zhang and Drolet 2002, 2006), summary measures of inequality confirm that it kept rising between 1999 and 2005.<sup>8</sup> The Gini coefficient (which equals 0.0 if all families have the same amount of wealth and 1.0 if one family holds all household wealth) rose from 0.691 in 1984 to 0.727 in 1999 and then to 0.746 in 2005.<sup>9</sup>

Wealth inequality did not rise uniformly. It increased much more among non-elderly couples with children and lone-parent families than among unattached individuals and non-elderly couples with no children (Table 3).

The evolution of the Gini coefficient since 1970 provides a long-term perspective on wealth inequality. The Assets and Debts Survey looked at wealth distribution in 1970, 1977 and 1984. The 1984 survey was reweighted to make it consistent with the 1999 and 2005 Survey of Financial Security. Thus, comparable Gini coefficients are available over the following two sub-periods: 1970 to 1984 and 1984 to 2005.<sup>10</sup>

Wealth inequality, as measured by the Gini coefficient, displayed a U-shape between 1970 and 2005 (Chart C). It fell sharply between 1970 and 1977, remained fairly constant between 1977 and 1984, but rose substantially in subsequent years. As a result, it was no



**Table 2 Families with no wealth or no financial wealth**

|                        | 1984 | 1999 | 2005 |
|------------------------|------|------|------|
|                        | %    |      |      |
| <b>All families</b>    |      |      |      |
| Net worth ≤0           | 10.8 | 12.3 | 14.1 |
| Financial wealth ≤0    | 17.7 | 19.7 | 24.0 |
| <b>Top 1% excluded</b> |      |      |      |
| Net worth ≤0           | 10.9 | 13.4 | 14.2 |
| Financial wealth ≤0    | 17.8 | 19.9 | 24.1 |
| <b>Top 5% excluded</b> |      |      |      |
| Net worth ≤0           | 11.3 | 14.0 | 14.8 |
| Financial wealth ≤0    | 18.2 | 20.7 | 25.1 |

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

lower in 2005 than in 1970. Hence, Canada's wealth dispersion has been trending upwards since the mid-1980s. Similar patterns are observed when plotting the share of wealth held by the top 10% of families.

While wealth inequality first fell and then rose over the 1970-to-2005 period, median wealth trended upwards (Chart D). It rose sharply between 1970 and 1977, stagnated between 1977 and 1984, and then rose again after 1984. It amounted to roughly \$85,000 in 2005, more than twice the 1970 level (roughly \$40,000).

While population aging tended to increase average wealth between 1984 and 2005, it also affected the wealth distribution. In the absence of population aging, the share of total wealth held by the top 10% of families would have risen from 52% in 1984 to 60% in 2005 (Table 1). Since the actual figure in 2005 was 58%, it appears that population aging reduced the concentration of wealth at the top of the distribution.<sup>11</sup>

Some evidence suggests that changes in family structure had the opposite effect. If the top 1% or the top 5% of families are excluded, the share of aggregate

wealth held by the top 10% would have risen by one percentage point less between 1984 and 2005 if the proportion of unattached individuals and lone-parent families had remained unchanged. However, this no longer holds when all families are considered.

### Wealth by population subgroup

Although both median and average wealth rose between 1984 and 2005, not all population subgroups enjoyed increases. Young families (major income recipient aged 25 to 34) saw their median wealth fall by 50% or more (Table 4).<sup>12</sup> The situation was fairly similar in 1984 and 2005 for families with a major income recipient aged 35 to 54 without a university degree. However, this age group saw a solid 39% rise in median wealth when the major income recipient was a university graduate.

Other groups also benefited. Elderly unattached individuals saw their median wealth double, from roughly \$48,000 in 1984 to \$100,000 in 2005. Couples with children under 18 and those with no children also saw theirs increase—34% and 55% respectively. Growth among couples with children was far from uniform, however. For young couples, median wealth fell sharply between 1984 and 1999, rebounding between

**Table 3 Gini coefficient by family type**

|  | 1984  | 1999  | 2005  | 1984-2005<br>% change |
|--|-------|-------|-------|-----------------------|
| <b>Unattached individual</b>   |       |       |       |                       |
| Elderly  | 0.647 | 0.655 | 0.659 | 1.9                   |
| Non-elderly  | 0.853 | 0.868 | 0.888 | 4.1                   |
| <b>Non-elderly couple</b>  |       |       |       |                       |
| No children or other relatives                                       | 0.666 | 0.695 | 0.689 | 3.5                   |
| Children under 18 <sup>1</sup>                                       | 0.647 | 0.707 | 0.738 | 14.1                  |
| Children 18 and over or other relatives                              | 0.540 | 0.614 | 0.619 | 14.6                  |
| <b>Elderly couple</b> (no children or other relatives <sup>2</sup> ) | 0.540 | 0.541 | 0.576 | 6.7                   |
| <b>Lone-parent family</b>  | 0.807 | 0.897 | 0.886 | 9.8                   |
| <b>Other</b>   | 0.667 | 0.650 | 0.646 | -3.1                  |

1 At least one child of the major income recipient is under 18. Other relatives may also be in the family.

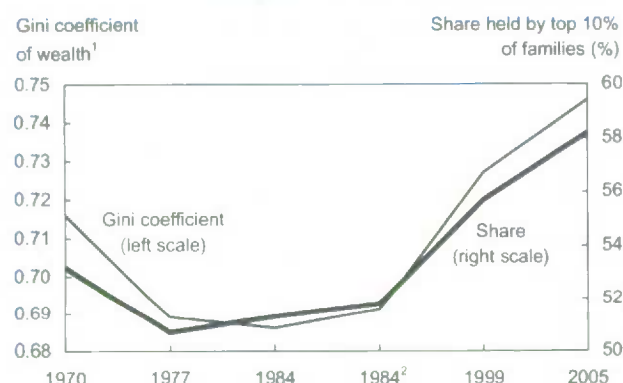
2 No children under 18.

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

**Table 4 Median and average wealth by characteristics of major income recipient**

|                              | Median wealth |               |               | Average wealth |                |                |
|------------------------------|---------------|---------------|---------------|----------------|----------------|----------------|
|                              | 1984          | 1999          | 2005          | 1984           | 1999           | 2005           |
|                              |               |               | 2005 \$       |                |                |                |
| <b>Overall</b>               | <b>67,300</b> | <b>74,400</b> | <b>84,800</b> | <b>148,500</b> | <b>202,900</b> | <b>251,700</b> |
| <b>Education level</b>       |               |               |               |                |                |                |
| Not a university graduate    | 60,800        | 62,300        | 68,500        | 137,500        | 167,400        | 214,700        |
| University graduate          | 114,800       | 135,900       | 144,900       | 218,100        | 333,500        | 364,800        |
| <b>Age</b>                   |               |               |               |                |                |                |
| Under 25                     | 3,500         | 200           | F             | 37,200         | 37,900         | F              |
| 25 to 34                     | 27,000        | 17,400        | 13,400        | 80,500         | 77,500         | 71,000         |
| 35 to 44                     | 84,700        | 69,100        | 84,200        | 158,500        | 175,000        | 238,300        |
| 45 to 54                     | 142,800       | 132,700       | 146,000       | 233,200        | 285,400        | 355,900        |
| 55 to 64                     | 148,700       | 177,500       | 203,500       | 242,300        | 348,900        | 409,000        |
| 65 and over                  | 93,100        | 145,200       | 157,000       | 162,100        | 244,100        | 301,700        |
| <b>Age/education</b>         |               |               |               |                |                |                |
| 25 to 34                     |               |               |               |                |                |                |
| Not a university graduate    | 24,400        | 12,800        | 10,500        | 72,100         | 57,400         | 57,800         |
| University graduate          | 47,500        | 35,600        | F             | 117,600        | 129,100        | F              |
| 35 to 54                     |               |               |               |                |                |                |
| Not a university graduate    | 92,700        | 75,800        | 87,500        | 176,500        | 179,800        | 245,100        |
| University graduate          | 150,100       | 166,700       | 208,500       | 252,000        | 359,800        | 432,100        |
| <b>Immigration status</b>    |               |               |               |                |                |                |
| Canadian-born                | 62,100        | 69,700        | 77,000        | 141,500        | 194,300        | 238,800        |
| Immigrant                    | 95,700        | 107,900       | 122,700       | 177,700        | 238,600        | 306,200        |
| In Canada 20 years or more   | 138,200       | 197,300       | 222,100       | 224,400        | 329,000        | 385,300        |
| In Canada 10 to 19 years     | 78,400        | 51,300        | F             | 131,700        | 162,200        | F              |
| In Canada less than 10 years | 20,300        | 15,100        | F             | 103,800        | 87,200         | F              |
| <b>Family type</b>           |               |               |               |                |                |                |
| Unattached individual        |               |               |               |                |                |                |
| Elderly                      | 47,700        | 80,600        | 100,000       | 90,600         | 159,100        | 199,100        |
| Non-elderly                  | 6,600         | 6,900         | 5,000         | 54,400         | 73,600         | 74,700         |
| Couple, no children          | 83,600        | 117,100       | 129,900       | 174,200        | 281,300        | 300,700        |
| Couple, children under 18    | 89,700        | 89,600        | 120,200       | 172,000        | 225,700        | 350,600        |
| Couple, children 18 and over | 179,500       | 192,900       | 259,500       | 289,700        | 360,000        | 476,500        |
| Elderly couple, no children  | 139,500       | 204,500       | 220,000       | 228,700        | 323,100        | 405,900        |
| Lone-parent family           | 2,200         | 4,200         | F             | 45,400         | 73,500         | F              |
| Other                        | 85,500        | 129,800       | 130,500       | 167,100        | 242,100        | 241,900        |

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

**Chart C The distribution of wealth has again become more unequal**

1 Excluding the value of registered pension plans (RPPs).

2 1984 data re-weighted for consistency with the Survey of Financial Security.

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

**Chart D After stagnating between 1977 and 1984, median wealth increased between 1984 and 2005**

1 1984 data re-weighted for consistency with the Survey of Financial Security.

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

1999 and 2005, although not to its 1984 level (Table 5).<sup>13</sup> In contrast, for those aged 45 to 54, median wealth rose steadily, climbing 45% between 1984 and 2005.

Lone-parent families and non-elderly unattached individuals had low median and average wealth, reflecting at least partially the absence of a second earner. For these two groups, median wealth was no higher than \$7,000 in 1999. This reflects the lack of assets these families have at their disposal to lessen the impact of unexpected expenses or earnings disruptions.

Average wealth rose more than median wealth in virtually all population subgroups (Table 4), suggesting that the increase in wealth inequality was widespread. For instance, the average wealth of immigrants arriving 20 or more years ago rose by more than \$150,000 while their median wealth increased by roughly \$85,000.<sup>14</sup>

### Wealth components

Average wealth did not improve over the 1984-to-2005 period for families in the bottom fifth of the distribution. In contrast, it rose about \$19,000 in the middle group and more than \$400,000 in the top fifth (Table 6).<sup>15</sup>

**Table 5 Wealth of non-elderly couples with children under 18**

|                               | 1984    | 1999    | 2005    |
|-------------------------------|---------|---------|---------|
| Age of major income recipient |         |         |         |
| 2005 \$                       |         |         |         |
| 25 to 54                      |         |         |         |
| Average                       | 172,400 | 224,600 | 350,700 |
| Median                        | 90,600  | 90,400  | 120,300 |
| Net worth ≤0 (%)              | 6.2     | 8.5     | 8.0     |
| 25 to 34                      |         |         |         |
| Average                       | 109,300 | 88,000  | 100,700 |
| Median                        | 50,700  | 35,500  | 45,600  |
| Net worth ≤0 (%)              | 9.5     | 16.0    | 15.4    |
| 35 to 44                      |         |         |         |
| Average                       | 188,200 | 228,000 | 348,500 |
| Median                        | 105,000 | 103,100 | 126,800 |
| Net worth ≤0 (%)              | 4.9     | 6.8     | 5.9     |
| 45 to 54                      |         |         |         |
| Average                       | 262,400 | 376,500 | 597,700 |
| Median                        | 166,300 | 186,100 | 241,900 |
| Net worth ≤0 (%)              | 2.8     | 3.4     | 4.8     |

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005



| Selected characteristics of persons in low-income families | Low income |      |      | Low income and no financial wealth <sup>1</sup> |      |      | Low income and financial wealth < income gap <sup>2</sup> |      |      |
|--|------------|------|------|---|------|------|---|------|------|
|  | 1983       | 1998 | 2004 | 1984  | 1999 | 2005 | 1984  | 1999 | 2005 |
| <b>All families</b>  | 13.8       | 13.6 | 12.5 | 5.0   | 5.3  | 4.6  | 9.8   | 9.5  | 9.1  |
| <b>Age of major income recipient (MIR)</b>                 |            |      |      |   | %    |      |   |      |      |
| Less than 25   | 28.8       | 47.5 | 38.2 | 13.3  | 22.7 | 17.6 | 24.6  | 38.9 | 32.8 |
| 25 to 34   | 14.6       | 18.0 | 17.7 | 6.3   | 9.4  | 7.2  | 11.4  | 14.6 | 13.6 |
| 35 to 44   | 10.5       | 12.9 | 12.3 | 3.8   | 4.8  | 4.2  | 8.0   | 8.8  | 8.8  |
| 45 to 54   | 8.9        | 8.3  | 8.1  | 3.1   | 2.6  | 3.5  | 6.5   | 5.4  | 5.8  |
| 55 to 64   | 12.2       | 12.1 | 9.4  | 3.1   | 3.2  | 1.6  | 6.5   | 6.6  | 5.7  |
| 65 and over  | 20.3       | 8.2  | 6.0  | 4.0   | 1.4  | 1.4  | 9.1   | 3.6  | 2.9  |
| <b>Education level of MIR</b>                              |            |      |      |   |      |      |   |      |      |
| Not a university graduate                                  | 15.1       | 15.1 | 14.3 | 5.4   | 6.0  | 5.8  | 10.7  | 10.7 | 10.9 |
| University graduate  | 6.1        | 8.5  | 7.4  | 2.6   | 3.0  | 1.3  | 4.1   | 5.6  | 4.0  |
| <b>Age/education of MIR</b>                                |            |      |      |   |      |      |   |      |      |
| 25 to 34   |            |      |      |   |      |      |   |      |      |
| Not a university graduate                                  | 16.0       | 19.9 | 22.1 | 6.6   | 10.8 | 9.9  | 12.5  | 16.5 | 17.8 |
| University graduate  | 7.7        | 11.9 | 8.5  | 4.6   | 4.9  | 1.6  | 6.1   | 8.6  | 5.0  |
| 35 to 54   |            |      |      |   |      |      |   |      |      |
| Not a university graduate                                  | 11.0       | 12.3 | 11.8 | 4.0   | 4.4  | 4.9  | 8.4   | 8.2  | 9.0  |
| University graduate  | 4.3        | 7.2  | 7.0  | 1.4   | 2.3  | 1.4  | 2.4   | 4.8  | 3.6  |
| <b>Family type</b>   |            |      |      |   |      |      |   |      |      |
| Unattached individual                                      |            |      |      |   |      |      |   |      |      |
| Elderly  | 47.9       | 21.3 | 16.5 | 8.3   | 3.3  | 2.4  | 19.5  | 9.4  | 7.2  |
| Non elderly  | 34.1       | 37.6 | 35.1 | 14.7  | 16.8 | 15.0 | 26.9  | 30.0 | 30.5 |
| Couple, no children  | 6.6        | 6.8  | 5.8  | 1.7   | 1.9  | 1.7  | 3.6   | 3.7  | 3.5  |
| Couple, children under 18                                  | 9.8        | 10.3 | 9.3  | 3.8   | 3.5  | 1.8  | 7.1   | 6.7  | 5.2  |
| Couple, children 18 and over                               | 3.0        | 3.2  | 2.9  | 0.6   | 1.0  | 0.9  | 1.3   | 1.2  | 1.4  |
| Elderly couple, no children                                | 5.2        | 1.5  | 0.5  | 0.5   | 0.4  | 0.3  | 1.6   | 0.9  | 0.3  |
| Lone-parent  | 49.9       | 44.5 | 46.5 | 20.7  | 24.0 | 27.5 | 42.7  | 37.5 | 41.7 |
| Female   | 53.6       | 49.3 | 50.0 | 21.9  | 26.7 | 29.6 | 45.7  | 42.1 | 44.6 |
| Other  | 14.9       | 9.8  | 6.9  | 5.8   | 3.5  | 3.1  | 12.1  | 5.7  | 5.3  |
| <b>Immigration status of MIR</b>                           |            |      |      |   |      |      |   |      |      |
| Canadian-born  | 13.6       | 12.2 | 10.7 | 5.2   | 5.1  | 4.3  | 9.9   | 8.6  | 8.2  |
| Immigrant  | 14.9       | 17.9 | 18.8 | 4.2   | 6.1  | 5.8  | 9.6   | 12.3 | 12.1 |
| Less than 10 years ago                                     | 23.1       | 35.6 | 34.5 | 7.3   | 12.8 | 9.7  | 15.7  | 25.6 | 21.2 |
| 10 years ago or more                                       | 12.9       | 11.3 | 12.6 | 3.4   | 3.7  | 4.2  | 8.2   | 7.4  | 8.6  |

1 Zero or negative financial wealth. Financial wealth is defined as net worth minus net equity in housing and net business equity.

2 The income gap is the difference between a family's low-income cutoff and its after-tax income.

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

Data on low income are often used to examine the extent to which families live in straitened circumstances. However, while after-tax income is a good indicator of a family's ability to sustain a given standard of living, wealth is also important—financial assets can be converted into cash and used for consumption.

Families with both low income and little or no financial wealth are more vulnerable than others since they have fewer resources to absorb negative shocks (Morissette 2002). Modest wealth is defined as insufficient to cover a family's low-income gap—that is, they would remain in low income even if they liquidated all their financial assets. These families would face short-term financial difficulties if unexpected and unfavourable events occurred.

The proportion of persons living in families with low income and no financial wealth remained virtually unchanged at 5% between 1984 and 2005. Similarly, those in families with low

income and modest financial wealth changed little—10% in 1984 and 9% in 2005.

Regardless of the measure used, female lone-parent families are by far the most financially vulnerable. In all years, more than 40% of persons in these families were in low income and would have stayed in that state even after liquidating their financial assets. Non-elderly unattached individuals are also vulnerable; 31% were in low income and had little financial wealth in 2005.

In all years, financial vulnerability was substantially lower for older age groups, no doubt reflecting an increase in earnings and wealth with age. Between 1984 and 2005, the financial vulnerability of families with a major income recipient under 25 rose. It also rose for those with a major income recipient aged 25 to 34 with no university degree. However, it fell among those with a major income recipient aged 65 and over. The improvement among elderly families reflects growing income from private and public pensions.

**Table 6 Average wealth components**

|                                 | 1984    | 1999    | 2005    | 1984-2005 |
|---------------------------------|---------|---------|---------|-----------|
| <b>Bottom fifth</b>             |         | 2005 \$ |         | Change    |
| <b>Assets</b>                   |         |         |         |           |
| Non-RRSP deposits               | 750     | 630     | 640     | -110      |
| Non-RRSP investments            | 130     | 140     | 160     | 30        |
| RRSPs/LIRAs                     | 90      | 730     | 810     | 720       |
| Other financial                 | 120     | 150     | 10      | -110      |
| Principal residence             | 1,850   | 4,650   | 6,380   | 4,520     |
| Other real estate               | 340     | 800     | 740     | 400       |
| Vehicles                        | 1,970   | 2,010   | 2,550   | 580       |
| Business equity                 | 580     | -370    | 770     | 190       |
| <b>Debts</b>                    |         |         |         |           |
| Mortgage on principal residence | 1,460   | 4,220   | 5,700   | 4,240     |
| Other debt                      | 7,270   | 10,440  | 14,110  | 6,850     |
| <b>Net worth</b>                | -2,890  | -5,920  | -7,760  | -4,860    |
| <b>Middle fifth</b>             |         |         |         |           |
| <b>Assets</b>                   |         |         |         |           |
| Non-RRSP deposits               | 9,940   | 7,690   | 8,780   | -1,160    |
| Non-RRSP investments            | 2,680   | 2,550   | 2,510   | -170      |
| RRSPs/LIRAs                     | 2,510   | 13,020  | 12,070  | 9,560     |
| Other financial                 | 1,210   | 1,440   | 20      | -1,190    |
| Principal residence             | 67,040  | 92,630  | 115,220 | 48,180    |
| Other real estate               | 8,330   | 7,490   | 8,660   | 330       |
| Vehicles                        | 9,160   | 10,960  | 12,210  | 3,040     |
| Business equity                 | 2,700   | 1,970   | 2,380   | -330      |
| <b>Debts</b>                    |         |         |         |           |
| Mortgage on principal residence | 26,870  | 49,190  | 57,380  | 30,500    |
| Other debt                      | 8,680   | 12,460  | 17,420  | 8,740     |
| <b>Net worth</b>                | 68,020  | 76,100  | 87,050  | 19,030    |
| <b>Top fifth</b>                |         |         |         |           |
| <b>Assets</b>                   |         |         |         |           |
| Non-RRSP deposits               | 50,800  | 48,370  | 59,090  | 8,290     |
| Non-RRSP investments            | 34,610  | 98,160  | 96,790  | 62,180    |
| RRSPs/LIRAs                     | 22,980  | 115,030 | 126,980 | 104,000   |
| Other financial                 | 17,170  | 19,230  | 1,840   | -15,340   |
| Principal residence             | 175,450 | 249,430 | 353,920 | 178,460   |
| Other real estate               | 60,740  | 83,520  | 153,160 | 92,420    |
| Vehicles                        | 18,390  | 24,480  | 26,930  | 8,540     |
| Business equity                 | 171,720 | 157,800 | 207,020 | 35,300    |
| <b>Debts</b>                    |         |         |         |           |
| Mortgage on principal residence | 15,760  | 28,570  | 39,550  | 23,790    |
| Other debt                      | 21,470  | 26,430  | 41,600  | 20,140    |
| <b>Net worth</b>                | 514,650 | 741,010 | 944,590 | 429,940   |

Sources: Statistics Canada, Assets and Debts Survey, 1984; Survey of Financial Security, 1999 and 2005

From an accounting view, two factors were mainly responsible for the widening gap between families in the bottom and top fifths of the wealth distribution: home equity and holdings in RRSPs and locked-in retirement accounts (LIRAs). The net value of the principal residence stagnated among families in the bottom fifth, but rose about \$155,000 among those in the top fifth.<sup>16</sup> Similarly, RRSP and LIRA holdings changed very

little in the former group while increasing roughly \$100,000 in the latter. Roughly 60% of the \$435,000 increase in dispersion between the two groups over the 1984-to-2005 period is explained by the increase in home equity and RRSPs or LIRAs among the top fifth of the distribution.<sup>17</sup> Adding growth in the value of stocks, bonds and mutual funds (roughly \$62,000 for the top group) accounts for 73% of the increase. If growth in the value of real estate other than the principal residence (\$92,000) is also added, almost the entire increase (94%) is accounted for.<sup>18</sup>

Several other points are worth noting. After almost tripling between 1984 and 1999, the stock, bond and mutual fund holdings of families in the top fifth stagnated between 1999 and 2005, likely a reflection of the downturn in the stock market after 2001. However, at the same time, these families substantially increased the value of real estate assets other than their principal residence. In addition, the strong growth in RRSPs among this group is consistent with the sharp increase in RRSP contributions made by high-income families over the 1986-to-2003 period (Morissette and Ostrovsky 2006).

### The role of inheritances

Part of the wealth gap may be due to inheritances, and questions asked in the 2005 Survey of Financial Security shed light on this issue. According to the survey, some 10% of families in the bottom fifth of the wealth distribution had received inheritances, compared with 36% in the top fifth. On average, the market value of inheritances for recipients in the former

**Table 7 Wealth gap between the bottom 20% and the top 20%, 2005**

|  | Average<br>wealth gap | Fraction of<br>gap explained |
|--|-----------------------|------------------------------|
|  | \$                    | %                            |
| <b>No controls</b>                         | 958,400               | ...                          |
| <b>A. Controlling for inheritances</b>     |                       |                              |
| 1 - Received in the past 10 years          | 929,700               | 3.0                          |
| 2 - Received in the past                   | 916,900               | 4.3                          |
| 3 - Value, annual growth = 1%              | 913,700               | 4.7                          |
| 4 - Value, annual growth = 3%              | 916,000               | 4.4                          |
| 5 - Value, annual growth = 5%              | 926,600               | 3.3                          |
| <b>B. Controlling for after-tax income</b> | 839,800               | 12.4                         |
| <b>C. Multiple controls<sup>1</sup></b>    | 896,100               | 6.5                          |
| C + A1                                     | 867,700               | 9.5                          |
| C + A2                                     | 857,700               | 10.5                         |
| C + A3                                     | 855,200               | 10.8                         |
| C + A4                                     | 857,200               | 10.6                         |
| C + A5                                     | 866,200               | 9.6                          |
| C + A1 + B                                 | 772,900               | 19.4                         |
| C + A2 + B                                 | 762,600               | 20.4                         |
| C + A3 + B                                 | 760,300               | 20.7                         |
| C + A4 + B                                 | 762,100               | 20.5                         |
| C + A5 + B                                 | 771,000               | 19.6                         |

Note: Based on 5,190 observations; families for whom the value of inheritances is unknown are excluded.

1 Including provincial indicators, a quadratic term for the age of the major income recipient, four indicators for the education level of the major income recipient, six indicators of family type and an indicator of work limitation. The dependent variable is the net worth of families.

Source: Statistics Canada, Survey of Financial Security

group was one-tenth (\$13,200) that of the latter group (\$136,600). Together, these two findings suggest that inheritances may explain part of the wealth gap.

Five measures of inheritance were considered (Table 7). Two refer to the market value of inheritances received anytime in the past or in the past 10 years. The other three measures assume that financial or real assets received in the past have not been consumed by households and have appreciated since the year of receipt at annual rates of 1%, 3% or 5% (after inflation).<sup>19</sup>

Whichever measure is considered, controlling for the value of inheritances received reduces the average wealth gap between the bottom and top fifths by between 3% and 5%. In contrast, after-tax income has a much bigger impact, explaining 12% of the gap.

Since conclusions about the influence of specific explanatory variables depend on the order in which these variables are entered, alternative specifications are considered. Rather than simply controlling for inheritances alone, they can be added to a specification that already includes a large set of controls: family type, province of residence, age and education of the major income recipient, and an indicator of work limitation. When this is done, the fraction of the wealth gap explained increases from about 7% to over 10%. Once again, this suggests that inheritances, however measured, account for a very small portion (around 3% to 4%) of the wealth gap between the bottom and top fifths.

Furthermore, adding after-tax income to inheritances and the large set of controls defined above increases the portion of the wealth gap that can be explained from around 10% to about 20%. This confirms that family income after tax does a better job than inheritances in explaining the wealth gap.

### Broader concepts of wealth, 1999 to 2005

Because the Assets and Debts Survey contained no information about employer-sponsored retirement plans, the wealth concept used so far has not taken into account the value of work-related pension plans. Including pensions in a broader concept of net worth suggests that median wealth grew between 19% and 23% over the 1999-to-2005 period.<sup>20</sup> In contrast, average wealth, broadly defined, increased by between 27% and 30%, depending on the samples considered.

As with the narrower wealth concept, almost no evidence is found that wealth inequality based on a concept that includes the value of registered pension plans fell between 1999 and 2005. In general, the share of total wealth held by the top tenth of the distribution rose slightly, if anything, between 1999 and 2005 (Table 8).<sup>21</sup> Furthermore, in all three samples, neither the Gini coefficient nor the coefficient of variation decreased over that period. Only the exponential measure showed a very small decrease (1% to 2%) when families in the top 5% of the wealth distribution were excluded.<sup>22</sup>

### Summary

Median wealth more than doubled between 1970 and 2005, having grown by about 20% to 25% since 1984. Thus, many Canadian families today are richer than their counterparts 20 or 35 years ago.



Table 8 Shares of total wealth

|                                      | All families |      | Top 1% excluded |      | Top 5% excluded |      |
|--------------------------------------|--------------|------|-----------------|------|-----------------|------|
|                                      | 1999         | 2005 | 1999            | 2005 | 1999            | 2005 |
| <b>Using RPP termination value</b>   |              |      |                 | %    |                 |      |
| Bottom 10%                           | -0.3         | -0.3 | -0.3            | -0.3 | -0.4            | -0.4 |
| Second                               | 0.2          | 0.1  | 0.2             | 0.2  | 0.2             | 0.2  |
| Third                                | 0.7          | 0.6  | 0.8             | 0.7  | 0.9             | 0.8  |
| Fourth                               | 1.9          | 1.7  | 2.2             | 1.9  | 2.4             | 2.1  |
| Fifth                                | 3.4          | 3.2  | 3.8             | 3.7  | 4.3             | 4.1  |
| Sixth                                | 5.5          | 5.2  | 6.2             | 6.0  | 6.9             | 6.7  |
| Seventh                              | 8.1          | 8.1  | 9.2             | 9.3  | 10.2            | 10.2 |
| Eighth                               | 12.0         | 12.2 | 13.7            | 13.9 | 14.8            | 15.3 |
| Ninth                                | 18.9         | 18.3 | 21.3            | 20.9 | 22.3            | 22.2 |
| Top 10%                              | 49.6         | 50.9 | 42.9            | 43.9 | 38.5            | 38.9 |
| <b>Using RPP going concern value</b> |              |      |                 |      |                 |      |
| Bottom 10%                           | -0.3         | -0.3 | -0.3            | -0.3 | -0.4            | -0.4 |
| Second                               | 0.2          | 0.1  | 0.2             | 0.2  | 0.2             | 0.2  |
| Third                                | 0.8          | 0.6  | 0.9             | 0.7  | 0.9             | 0.8  |
| Fourth                               | 1.9          | 1.7  | 2.2             | 1.9  | 2.4             | 2.1  |
| Fifth                                | 3.5          | 3.2  | 4.0             | 3.7  | 4.4             | 4.1  |
| Sixth                                | 5.6          | 5.3  | 6.4             | 6.1  | 7.1             | 6.8  |
| Seventh                              | 8.3          | 8.1  | 9.4             | 9.3  | 10.3            | 10.3 |
| Eighth                               | 12.2         | 12.2 | 13.8            | 14.0 | 14.8            | 15.3 |
| Ninth                                | 19.1         | 18.4 | 21.4            | 20.8 | 22.3            | 22.2 |
| Top 10%                              | 48.7         | 50.6 | 42.1            | 43.6 | 40.0            | 38.6 |

Note: Including the value of registered pension plans (RPPs).

Source: Statistics Canada, Survey of Financial Security, 1999 and 2005

Nevertheless, major changes in the wealth structure have taken place over the last two decades. While the median wealth of young families fell by half between 1984 and 2005, it rose by almost 40% for those in which the major income recipient was a university graduate aged 35 to 54. Median wealth of elderly unattached individuals doubled but remained negligible among lone-parent families.

During this period, the distribution of wealth, excluding the value of employer-sponsored pension plans, has become more unequal—and would have become even more unequal in the absence of population aging. The gap between families in the bottom and top 20% of the wealth distribution rose mainly

because the top 20% experienced a substantial increase in home equity and also allocated more of their financial assets to RRSP and LIRA holdings.

As measured by the Gini coefficient, wealth inequality fell sharply between 1970 and 1977, remained fairly constant between 1977 and 1984, but rose substantially in subsequent years. As a result, it was no lower in 2005 than in 1970. In virtually all population subgroups, average wealth rose more than median wealth, suggesting that the increase in wealth inequality was widespread. The growing wealth dispersion since the mid-1980s suggests that Canadian families are becoming increasingly unequal in their capacity to mitigate negative

income shocks in bad times or to initiate forward-looking strategies in good times.

## Perspectives

## ■ Notes

1 Includes penal institutions, mental hospitals, sanatoriums, orphanages and seniors' residences.

2 When all families are considered, real average wealth rose 70% during this period. When the top 1% (5%) of families are excluded, it increased by 59% (51%). For median wealth, the corresponding estimates are 26%, 25% and 21%.

3 To analyze trends in wealth inequality, the Gini coefficient and two other measures were used: the coefficient of variation and the exponential measure. The Gini coefficient is sensitive to changes in the middle of the wealth distribution, while the coefficient of variation is sensitive to changes at the top, and the exponential measure to changes at the bottom.

4 While the increase in the share of wealth held by the top 10% over the 1999-to-2005 period is not statistically significant at the 5% level (two-tailed test), the increase over the 1984-to-2005 period is significant at the 1% level. The corresponding increases observed over the 1984-to-2005 period for the other two samples are also significant at the 1% level.

5 When the top 1% or 5% of families are excluded, only the top 20% of the remainder saw their share of total wealth increase during that period.

6 When all families are considered, median wealth of the wealthiest 20% of families amounted to about \$551,000 in 2005, compared with \$465,000 in 1999 and \$336,000 in 1984. In contrast, median wealth in the bottom 20% of the distribution has stagnated over the past two decades; it was essentially zero in 1984 and negative (about -\$1,000) in both 1999 and 2005.

7 Financial wealth is defined as net worth minus net equity in housing and own business.

8 Whether all families are considered or the top 1% are excluded, the increase in the Gini coefficient between 1999 and 2005 is statistically significant at the 10% level. When the top 1% of families are excluded, the increase in the Gini coefficient is significant at the 1% level. In all three samples, the increase in the Gini coefficient between 1984 and 2005 is statistically significant at the 1% level.

9 As is well known, rigorous statements about whether wealth inequality rose from 1999 to 2005 require verifying that the 2005 Lorenz curve lies below the 1999 curve at all percentiles of the wealth distribution. For all three samples, this condition is satisfied when the bottom 0.5% of families are excluded. With this exclusion, wealth inequality unambiguously rose from 1999 to 2005 (and from 1984 to 2005). The growth in wealth inequality over the 1999-to-2005 period followed an increase in inequality in after-tax family income that took place during the 1990s (Frenette, Green and Picot 2006), suggesting that growing income dispersion contributed to the increase in wealth concentration.

10 The Gini coefficients, the estimates of median wealth, and the estimates of the share of wealth held by the top 10% of families for the 1970-to-1984 period (Charts C and D) are drawn from Oja (1987, 28).

11 Population aging leads to a decline in the relative importance of young families, who have lower-than-average wealth, and an increase in the relative importance of older families, who tend to have higher-than-average wealth. Re-weighting the 2005 data using six age groups (under 25, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and over) produces a Gini coefficient of 0.767. The actual Gini coefficient in 2005 was 0.746, suggesting that population aging tended to reduce wealth inequality between 1984 and 2005. Whether one uses the Gini coefficient, the exponential measure, or the coefficient of variation, this conclusion generally holds in all three samples. The only exception is observed with the coefficient of variation when all families are considered. Here the numbers suggest that population aging accounted for a very small portion (4%) of the increase over the 1984-to-2005 period.

12 The drop occurred mainly because cumulative earnings of young men—the sum they receive over several years—fell substantially between the 1970s and the 1990s. Over the 1994-to-2004 period, their cumulative earnings averaged roughly \$267,000, much less than the \$330,000 for the 1973-to-1983 period. In contrast, cumulative earnings of young women rose more than \$10,000, from about \$166,000 to \$177,000. The cumulative earnings of young men and women taken together fell from \$248,000 to \$222,000. Student loan debt played only a minor role. One reason is

that student debt is carried mainly by postsecondary graduates, who represent only a fraction of young individuals. In fact, the average owed on student loans rose by a modest \$3,300 between 1984 and 2005.

13 In 2005, 15.4% of these couples had zero (or negative) net worth, compared with only 9.5% in 1984.

14 For a detailed analysis of the wealth of immigrant families in 1999, see Zhang (2003).

15 Average wealth rose by roughly \$176,000 among families between the 75th and 95th percentiles.

16 In both 1999 and 2005, the vast majority of families in the top fifth (at least 95%) owned a house. Among homeowners, the median value of the principal residence rose a solid \$75,000 between 1999 and 2005, reflecting a sharp increase in housing prices. In contrast, home equity changed very little among families in the bottom 20%. This is not surprising since very few of these families—at most 6%—owned a house during the 1999-to-2005 period.

17 When families in the top 5% of the wealth distribution are excluded, the average wealth gap between the bottom 20% and those between the 75th and 95th percentiles rises by about \$180,000. Home equity, and RRSPs and LIRAs grow by roughly \$111,000 and \$63,000 respectively among the latter group. Thus, growth differences in these two assets explain about 97% of the widening gap.

18 Ideally, one would like to consider the increase in net wealth on real estate other than the principal residence. This requires data on mortgages held on secondary residences, which are not available in the 1984 Assets and Debts Survey.

19 The 92 families reporting inheritances but not their market value were excluded. The average wealth gap in this sub-sample amounts to \$958,400, very close to the \$952,350 shown in Table 6.

20 Defined-benefit pension plans are valued in two ways, one that generates a termination value and the other a going-concern value. Both methods assume that, for current plan members, plan membership is considered only up to the time of the survey.

21 The only exception is found when using the going-concern value of defined-benefit pension plans and excluding the top 5% of families.

22 In all three samples, median wealth of the top 20% rose at least 26%; for the bottom 20%, it fell 13% or more (using the termination value of defined-benefit pensions).

## ■ References

- Davies, J.B. 1979. "On the size distribution of wealth in Canada." *Review of Income and Wealth*. Vol. 25, no. 3. p. 237–259.
- . 1993. "The distribution of wealth in Canada." In *Research on Economic Inequality*. Vol. 4. Edward N. Wolff (ed.). Greenwich, Conn. JAI Press. p. 159–180.
- Frenette, Marc, David A. Green and Garnet Picot. 2006. "Rising income inequality in the 1990s: An exploration of three data sources." Chapter 3. In *Dimensions of Inequality in Canada*. David A. Green and Jonathan R. Kesselman (eds.). Vancouver. UBC Press.
- Morissette, René. 2002. "Families on the financial edge." *Perspectives on Labour and Income*. Vol. 14, no. 3. Autumn. Statistics Canada Catalogue no. 75-001-XPE. p. 9–20.
- Morissette, René and Yuri Ostrovsky. 2006. *Pension Coverage and Retirement Savings of Canadian Families, 1986 to 2003*. Statistics Canada Catalogue no. 11F0019MIE. Ottawa. Analytical Studies Branch Research Paper Series, no. 286. 48 p.  
<http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2006286.pdf> (accessed November 28, 2006).
- Morissette, René, Xuelin Zhang and Marie Drolet. 2002. "Wealth inequality." *Perspectives on Labour and Income*. Vol. 14, no. 1. Spring. Statistics Canada Catalogue no. 75-001-XPE. p. 15–22.
- . 2006. "The evolution of wealth inequality in Canada, 1984–1999." Chapter 5. In *International Perspectives on Household Wealth*. Edward N. Wolff (ed.). Cheltenham, U.K. Edward Elgar Publishing.
- Oja, G. 1987. *Changes in the Distribution of Wealth in Canada 1970–1984*. Statistics Canada Catalogue no. 13-588. Ottawa. Income Analytic Report, no. 1. 39 p.
- Zhang, Xuelin. 2003. *The Wealth Position of Immigrant Families in Canada*. Statistics Canada Catalogue no. 11F0019MIE. Ottawa. Analytical Studies Branch Research Paper Series, no. 197. 44 p.  
<http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2003197.pdf> (accessed November 28, 2006).

### *Are you moving?*

Please forward your name, old address, new address, telephone number and client reference number to: **Statistics Canada, Finance Division, R.H. Coats Bldg., 6th floor, 100 Tunney's Pasture Driveway, Ottawa, Ontario K1A 0T6**; or call 1 800 267-6677 (Canada and United States), fax 1 877 287-4369 (Canada and United States) or e-mail [infostats@statcan.ca](mailto:infostats@statcan.ca).

Please allow four weeks notice to ensure uninterrupted delivery.



# Work hours instability

Andrew Heisz and Sébastien LaRochelle-Côté

**T**he labour market is perpetually in flux, with jobs constantly being created and destroyed in all industries. At the same time, workers are quitting, being laid off, moonlighting, and shifting between full-time work, part-time work, and no work. Nevertheless, many workers still manage to obtain secure, stable employment. These people are able to plan for the future. They can buy a house with some certainty of having enough earnings to meet the mortgage payments. They can feel confident enough to marry or start a family. They can rest soundly, knowing they are not likely to face a significant shortage of work in the near future. But what about those in less secure circumstances? How many workers are unable to secure stable employment? What are their work patterns? And what could be the consequences?

Static measures of the labour market such as the unemployment rate, the part-time employment rate or average job tenure hide as much as they reveal. For instance, knowing that 14% of workers worked 50 hours or more during a typical week in 2005 sheds no light on how many of those workers were over-worked month after month. This paper examines the annual work hours of employees over a five-year period. This provides a parsimonious measure, combining job destruction, job change, change in weekly work hours, and multiple job holding into one indicator of overall worker well-being.

## Annual work hours instability

The Survey of Labour and Income Dynamics (see *Data source and definitions*) provides annual work hours over successive years, thereby allowing an assessment of work hours instability. Examining work hours from

a cross-sectional perspective first illustrates the advantage of looking at hours over several years (Table). More than half of employees worked a standard number of hours (1,750 to 2,199) in a year—52.5% in 1997 and 57.2% in 2001. Short hours were the second most common (28.1% and 24.7%) while long hours were relatively rare (12.4% and 12.2%). (Non-workers were not employed in the respective reference years, but were employed at some other time over the 1997-to-2001 period.)

Overall, the distribution of annual work hours looks remarkably stable. With no other information, it might be tempting to conclude that the same people worked long or short hours in both reference years. However,

**Table Employees by annual work hours**

|                        | 1997 | 2001 | Change |
|------------------------|------|------|--------|
|                        | %    |      |        |
| <b>All individuals</b> |      |      |        |
| Non-workers            | 7.0  | 5.9  | -1.1   |
| 1 to 1,199             | 16.7 | 12.8 | -3.9   |
| 1,200 to 1,749         | 11.4 | 11.9 | 0.5    |
| 1,750 to 2,199         | 52.5 | 57.2 | 4.7    |
| 2,200 to 2,399         | 4.8  | 4.2  | -0.6   |
| 2,400 or more          | 7.6  | 8.0  | 0.4    |
| <b>Men</b>             |      |      |        |
| Non-workers            | 4.6  | 3.6  | -1.0   |
| 1 to 1,199             | 9.8  | 6.5  | -3.3   |
| 1,200 to 1,749         | 7.2  | 6.3  | -0.9   |
| 1,750 to 2,199         | 60.8 | 66.0 | 5.2    |
| 2,200 to 2,399         | 6.3  | 6.1  | -0.2   |
| 2,400 or more          | 11.3 | 11.4 | 0.1    |
| <b>Women</b>           |      |      |        |
| Non-workers            | 9.5  | 8.2  | -1.3   |
| 1 to 1,199             | 23.7 | 19.2 | -4.5   |
| 1,200 to 1,749         | 15.7 | 17.6 | 1.9    |
| 1,750 to 2,199         | 44.0 | 48.1 | 4.1    |
| 2,200 to 2,399         | 3.2  | 2.3  | -0.9   |
| 2,400 or more          | 3.8  | 4.5  | 0.7    |

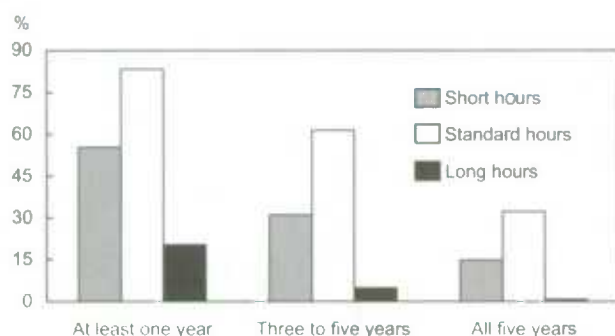
Source: Statistics Canada, Survey of Labour and Income Dynamics

*The authors are with the Business and Labour Market Analysis Division. Andrew Heisz can be reached at 613-951-3748 or [andrew.heisz@statcan.ca](mailto:andrew.heisz@statcan.ca), and Sébastien LaRochelle-Côté at 613-951-0803 or [sebastien.larochelle-cote@statcan.ca](mailto:sebastien.larochelle-cote@statcan.ca).*

the longitudinal data show that stability in work hours over the years is not the norm. In at least one year between 1997 and 2001, more than half of all employees worked short hours, 4 in 5 worked standard hours, and 1 in 5 worked long hours (Chart A). However, the proportion that worked the same broad class of hours in each year was small compared with the cross-sectional results. In all, less than half worked in the same hours group in all five years, with one-third working standard hours, one-seventh working short hours, and less than 1% working long hours. Hence, many more workers experienced at least one year of short or long work hours than the cross-sectional results would suggest. But at the same time, chronic long or short hours were also much less common.

Clearly, many employees had variable annual work hours. This instability can be summarized with the mean absolute deviation of work hours, which gives the average absolute difference between an individual's work hours in a typical year and an actual year (see *Data source and definitions*). A worker with the same annual hours across the five years would have a mean absolute deviation of zero. The typical mean absolute deviation was 200 hours, indicating that the average worker had a variation in annual work hours of about five full-time weeks. However, work-hours variability was strongly polarized, with 1 in 5 having virtually none and 1 in 4 having variability exceeding eight weeks per year.

**Chart A Less than half of workers were in the same annual work-hours category for all five years**



Source: Statistics Canada, Survey of Labour and Income Dynamics, 1997 to 2001

### Data source and definitions

This study uses the 1996 to 2001 longitudinal panel of the **Survey of Labour and Income Dynamics (SLID)**. In SLID, hours worked are collected by asking workers how many hours they 'usually' work for pay during the week, including time off for holidays, paid sick or maternity leave, and usual paid overtime, but excluding unusual paid overtime and all unpaid hours. The information about weekly hours worked is put together with other information about weeks worked to compute individual estimates of annual hours worked. Unpaid absences are subtracted from usual work hours.

The study uses a sample of approximately 8,100 individuals aged 25 to 54 in 1997 who worked at least once between 1997 and 2001. It excludes immigrants who arrived after 1996, emigrants who left before 2001, and individuals who were not physically in the country at any point over the period. Self-employed workers were also excluded.

**Standard hours:** full-year, full-time (1,750 to 2,199 hours)

**Short hours:** low part-time, part-year (1 to 1,199 hours); high part-time, part-year (1,200 to 1,749 hours)

**Long hours:** long hours (2,200 to 2,399 hours); very long hours (2,400 hours or more)

### Concepts and measurements

Representing annual hours as  $h_i$ , the mean absolute deviation is given by:

$$MAD_i = \left( \sum_{t=1}^5 |h_{it} - \bar{h}_i| \right) \div 5$$

In this formula,  $h_{it}$  represents the annual hours of individual  $i$  in year  $t$ , and  $\bar{h}_i$  is the annual hours for that same person averaged across all five years. Hence  $MAD_i$  simply gives the average absolute difference between an individual's work hours in a typical year and an actual year.

One group stands out as having extreme variability. These workers put in short hours in at least one year and long hours in at least one other. This group, the 'high-low' workers, accounted for less than 8% of the sample. Interestingly, two-thirds of the group managed to average a standard work schedule over the five years, but at the cost of greater instability in annual hours.

### Variable work hours: a cause for concern?

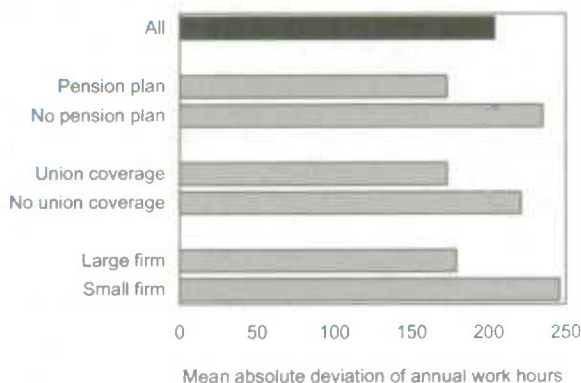
Are variable work hours a cause for concern? Such a pattern may reflect a choice by workers to trade work time for leisure, or the phenomenon may be concentrated among certain highly paid professions in which sabbaticals are the norm. While such a distinction is

difficult to make with any certainty, looking at job characteristics can shed some light on the issue. The job-quality literature often divides the labour market into 'good' and 'bad' jobs. Good jobs have stable full-time hours, pension coverage and permanence, while bad jobs do not. But to what extent is having a bad job associated with highly variable work hours? If workers with high variability in work hours display characteristics associated with low job quality, it then becomes difficult to argue that such hours are their choice.

For example, lack of pension plan coverage, lack of union coverage, and working for a small firm are three characteristics commonly assumed to signal low job quality. In fact, employees in all three of these situations have more variable annual hours than others (Chart B). Those with no pension plan had a 62-hour greater deviation than those with pension coverage, those with no union coverage had a 48-hour greater deviation than unionized employees, and those in a small firm had a 67-hour greater deviation than those in a large firm.

Other characteristics of non-standard work were also associated with variable annual hours. For example, while the overall mean absolute deviation in annual work hours was 204, the deviation was 333 hours for multiple job holders and 272 hours for low-wage workers.

**Chart B Workers with low job quality had more variable annual hours**



Source: Statistics Canada, Survey of Labour and Income Dynamics, 1997 to 2001

## Work hours and well-being

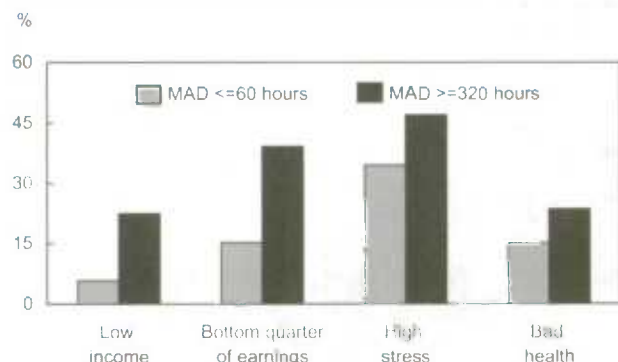
The desirability of having variable work hours may also be tested by looking to see if these workers have lower levels of well-being. That is, did employees with the highest deviation in hours (mean absolute deviation of 320 or more) have higher incidences of low income, low earnings, high stress or bad health than those with comparatively stable hours (mean absolute deviation of 60 hours or less)?

Work-hours instability was associated with having one or more spells of low income over the period; 22.5% of workers in the high deviation group experienced at least one year of low income compared with 5.8% of those in the stable hours group (Chart C). Variability was also associated with having low average annual earnings over the period; 39.2% of those in the high deviation group fell into the bottom quarter of annual earnings, compared with 15.3% in the stable group. Thus, employees with variable annual hours did not maintain a particularly high standard of living through averaging periods of over- and underwork.

The incidence of stress was also much higher in the high variability group. Some 47% of employees in this group reported feeling high stress compared with 34.5% of those with stable hours.

Finally, fully 23.6% of employees with highly varying work hours reported being in bad health at least once between 1997 and 2001 compared with 15.2% of those with stable work hours.

**Chart C Workers with variable annual hours had lower well-being**



Source: Statistics Canada, Survey of Labour and Income Dynamics, 1997 to 2001



To test whether the relationship between working-hours variability and stress or bad health is spurious, a number of regressions controlling for background characteristics such as demographic factors, industry of employment, and job-quality factors were performed. The regressions also included a series of variables designed to assess the well-being of the individual at the beginning of the period, including a dummy variable indicating whether in 1996 the person lived in a low-income family, was very stressed, or was in bad health. The models also included the mean annual hours observed over the 1997-to-2001 period to account for the likelihood that stress and bad health were related to the levels of hours worked. The descriptive results regarding instability in annual hours and stress and bad health were robust and unaffected by background or initial well-being characteristics.

## Conclusion

Discussions related to work hours are typically driven by cross-sectional studies. Much less is known about the persistence of long hours or periods of underemployment. If work hours for many employees are unstable, the possibility arises that time crunch or lack of work may be a smaller problem than the cross-sectional results imply. However, a lack of stability in work hours for individuals might itself be an indicator of low job quality or low well-being. The lack of studies examining the amount and consequences of variation in working hours over time has created a serious gap in our understanding of working time.

Employees face substantial variability in work hours. The occurrence is found more often among those with low-quality and non-standard jobs. Such workers also have higher incidences of low income, lower annual earnings, and a greater likelihood of being very stressed or in bad health. This suggests that it is fairly unlikely many employees are choosing to have variable annual work hours.

A number of policy prescriptions, driven by the polarization of hours seen in cross-sectional results, have called for reducing working time to control the rising trend in overwork. For example, concern over what was regarded as the inequitable allocation of working

hours led to the creation in 1994 of the Advisory Group on Working Time and the Distribution of Work, whose report included the recommendation for "a new public policy priority that emphasizes redistribution and reduction in working time." (Canada 1994, 52). However, few people put in long work hours year after year. Indeed, for many, a period of overwork compensates for a period of underwork, with the end result being an average full-year, full-time work schedule. This lack of persistence in long work hours, plus the high level of individual work-hours variability would form a significant obstacle to the success of working-time regulation.

This study also provides a new perspective on work-life balance. Other research shows that having too many work hours is the most important contributor to stress (Higgins and Duxbury 2002). The present study adds that variation in annual work hours is also an important determinant of stress and bad health. This suggests that policies designed to reduce work-hours variability and not just reduce working time could also benefit workers.

## Perspectives

### References

- Canada. 1994. Advisory Group on Working Time and the Distribution of Work. *Report of the Advisory Group on Working Time and the Distribution of Work*. Hull, Que. Human Resources and Development Canada. HRDC Catalogue no. MP43-336/1994. 96 p.
- Higgins, Chris and Linda Duxbury. 2002. *The 2001 National Work-Life Conflict Study: Report One*. Report prepared for the Healthy Communities Division, Health Canada. Ottawa. 79 p.

This article is adapted from *Work Hours Instability in Canada* by Andrew Heisz and Sébastien LaRochelle-Côté. The research paper is available on the Statistics Canada Web site at <http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2006278.pdf>.

# Canada's unemployment mosaic, 2000 to 2006

Ernest B. Akyeampong

The unemployment rate is a well-known barometer of labour-market health. The rise in the national unemployment rate in the years immediately following the high-tech meltdown has been replaced by sustained annual declines, resulting in a rate of 6.3% for 2006. This is not only below the 6.8% registered during the boom, but a 30-year low as well.<sup>1</sup>

Of course not all parts of the country have shared equally in the improvement. Some have done better, others worse. Normally, comparisons involve the 10 provinces or 5 regions of Canada, but within each, many distinct labour markets can be found. This article focuses on the 28 census metropolitan areas (CMAs) and the 10 provincial non-CMA areas (see *Data source and definitions*). Using the Labour Force Survey (LFS), the article first tracks unemployment rate dispersion for local labour markets (CMAs and non-CMA areas) between 2000 and 2006. It then examines the comparative labour market performance of these areas based on unemployment rates and rankings, and unemployment duration. Unemployment levels, labour force, and employment are provided in an appendix.

## Unemployment rate dispersion rising

The impressive performance of the national unemployment rate in recent years hides considerable geographic disparities. For example, in 2006 the unemployment rate in the Québec CMA averaged 5.2% compared with 8.4% in nearby Montréal. Similarly, the unemployment rate in Kitchener (5.2%) was much lower than in Windsor (9.0%).

That the unemployment rate will differ by geographic area is generally understood. All things being equal, the dispersion is expected to narrow in periods of economic growth, when the national rate is usually falling

*Ernest B. Akyeampong is with the Labour and Household Surveys Analysis Division. He can be reached at 613-951-4624 or [ernest.akyeampong@statcan.ca](mailto:ernest.akyeampong@statcan.ca).*

## Measuring dispersion

For a number of reasons, gaps always exist between the national unemployment rate and rates registered by various CMAs and non-CMAs. An increase in the dispersion rate means the gap is widening, and vice versa. In this paper, dispersion rates for CMAs and non-CMA areas are calculated as a weighted mean of the differences between the area and national unemployment rates. Specifically, the absolute difference between each area rate and the national rate is multiplied by the area labour force. These products are summed and the total divided by the national labour force to produce aggregate dispersion. Finally, this is divided by the national unemployment rate to produce percent dispersion.

This is expressed algebraically as:

$$\frac{\sum_{i=1}^{38} |u_i - u_n| \cdot \frac{LF_i}{LF_n}}{u_n}$$

where

$u_i$  = unemployment rate in area  $i$

$u_n$  = national unemployment rate

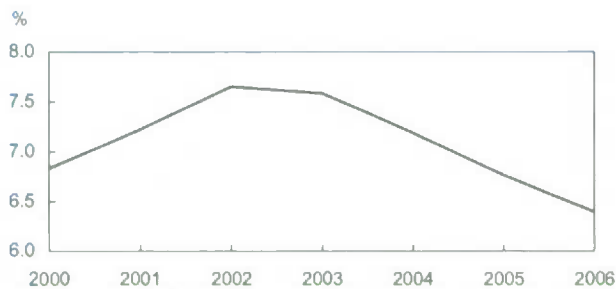
$LF_i$  = labour force in area  $i$

$LF_n$  = national labour force

The dispersion of the average duration of unemployment was calculated in the same fashion.

(Guillemette 2006). However, the reverse has been the case in the current expansion, just as it was in the boom years of the late 1980s (Gower 1996). The variation around the national rate has tended to increase among CMAs and non-CMA areas in the past five years (2002 to 2006) as the national rate has drifted down (Charts A and B) (see *Measuring dispersion*).

Several reasons have been suggested for the rise in dispersion during the current expansion. First, the economic growth may not be strong or widespread (Guillemette 2006). The current expansion has been strongest in Western Canada (Cross and Bowlby 2006; White, Michalowski and Cross 2006), while

**Chart A** Canada's 2006 unemployment rate lowest in 30 years

Source: Statistics Canada, Labour Force Survey, 2000 to 2006

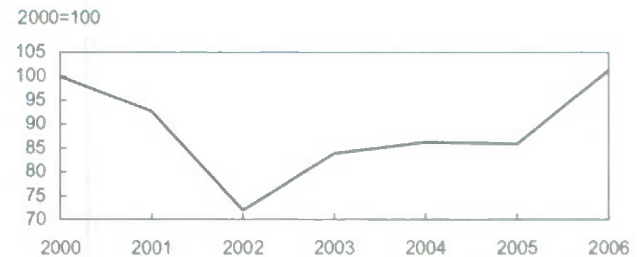
performance in some large metropolitan areas such as Toronto and Montréal has been more moderate. Others suggest that programs such as Employment Insurance may be discouraging the migration of some unemployed from underperforming areas to 'hot' labour markets, thereby accentuating the dispersion (Guillemette 2006).

### Trends and patterns in unemployment rates

Starting from a low of 6.8% in the boom year of 2000, the national unemployment rate rose to 7.2% in 2001, in line with the high-tech meltdown. Unemployment peaked in 2002 (7.7%), stalled the following year at 7.6%, and then declined steadily to 6.3% in 2006 (Chart A). With few exceptions, most areas displayed similar trends (Table 1). The five areas with no clear trends were Prince Edward Island, Windsor, Thunder Bay, non-CMA Ontario, and Regina.

In both 2000 and 2006, Calgary registered among the lowest unemployment rates (4.5% and 3.2% respectively);<sup>2</sup> the highest rates were recorded in non-CMA Newfoundland and Labrador (21.3% and 19.3%).

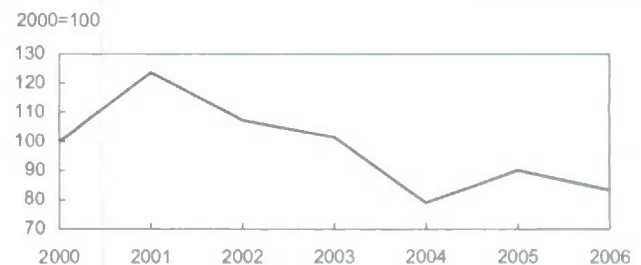
Some areas emerged as perennial best performers, defined here as having the lowest unemployment rates in five of the seven years. Others were perennial poor performers. Nearly all the best performers were in the Prairies (Calgary, non-CMA Alberta, and non-CMA Manitoba, the exception being Victoria). The Alberta areas maintained their enviable position largely as a result of the prosperity brought on by the oil and gas industry and the increased activity in construction. The poor performers were non-CMA

**Chart B** Unemployment rate dispersion has been increasing since 2002

Source: Statistics Canada, Labour Force Survey, 2000 to 2006

Newfoundland and Labrador, Prince Edward Island, non-CMA Nova Scotia, non-CMA New Brunswick, and Windsor.

Both nationally and in a substantial majority of CMAs and non-CMA areas, the unemployment rate in 2006 was lower than in 2000. In eight areas, however, the opposite was true. Except for Montréal, the areas were in Ontario, a province hit by reduced activity in manufacturing overall and the auto industry in particular. High energy costs and reduced exports, due in part to the appreciating Canadian dollar, adversely affected these industries. A similar fate befell the manufacturing industries of Montréal; particularly hard-hit were its aerospace industry as well as the clothing and textile industry. Montréal also saw an employment drop in public administration.

**Chart C** Dispersion in the duration of unemployment dropped sharply between 2001 and 2004

Source: Statistics Canada, Labour Force Survey, 2000 to 2006



**Table 1 Unemployment rate by region**

|                                  | 2000        | 2002        | 2004        | 2006        |
|----------------------------------|-------------|-------------|-------------|-------------|
|                                  | %           |             |             |             |
| <b>Canada</b>                    | <b>6.8</b>  | <b>7.7</b>  | <b>7.2</b>  | <b>6.3</b>  |
| <b>Atlantic</b>                  | <b>11.2</b> | <b>11.4</b> | <b>10.7</b> | <b>9.9</b>  |
| <b>Newfoundland and Labrador</b> | <b>16.7</b> | <b>16.7</b> | <b>15.7</b> | <b>14.8</b> |
| St. John's                       | 9.5         | 9.2         | 9.0         | 8.1         |
| Non-CMA areas                    | 21.3        | 21.4        | 20.0        | 19.3        |
| <b>Prince Edward Island</b>      | <b>12.1</b> | <b>12.0</b> | <b>11.3</b> | <b>11.0</b> |
| <b>Nova Scotia</b>               | <b>9.1</b>  | <b>9.6</b>  | <b>8.8</b>  | <b>7.9</b>  |
| Halifax                          | 6.3         | 7.6         | 6.0         | 5.0         |
| Non-CMA areas                    | 11.4        | 11.1        | 11.0        | 10.3        |
| <b>New Brunswick</b>             | <b>10.0</b> | <b>10.2</b> | <b>9.8</b>  | <b>8.8</b>  |
| Saint John                       | 7.3         | 8.3         | 7.9         | 6.1         |
| Non-CMA areas                    | 10.6        | 10.6        | 10.1        | 9.3         |
| <b>Quebec</b>                    | <b>8.5</b>  | <b>8.6</b>  | <b>8.5</b>  | <b>8.0</b>  |
| Saguenay                         | 9.9         | 11.4        | 11.0        | 8.8         |
| Québec                           | 8.1         | 6.4         | 5.8         | 5.2         |
| Trois-Rivières                   | 10.8        | 10.2        | 10.7        | 8.1         |
| Sherbrooke                       | 8.1         | 7.9         | 6.9         | 7.9         |
| Montréal                         | 7.8         | 8.6         | 8.7         | 8.4         |
| Gatineau                         | 6.0         | 6.8         | 6.6         | 5.6         |
| Non-CMA areas                    | 9.7         | 9.5         | 9.3         | 8.6         |
| <b>Ontario</b>                   | <b>5.8</b>  | <b>7.1</b>  | <b>6.8</b>  | <b>6.3</b>  |
| Ottawa                           | 5.6         | 7.5         | 6.6         | 5.1         |
| Kingston                         | 7.0         | 6.8         | 6.4         | 6.2         |
| Greater Sudbury                  | 8.3         | 9.2         | 8.2         | 7.2         |
| Oshawa                           | 5.8         | 6.8         | 5.4         | 6.5         |
| Toronto                          | 5.5         | 7.4         | 7.5         | 6.6         |
| Hamilton                         | 5.1         | 6.7         | 6.3         | 5.9         |
| St. Catharines–Niagara           | 6.0         | 7.4         | 7.4         | 6.4         |
| London                           | 6.1         | 7.1         | 5.9         | 6.2         |
| Windsor                          | 5.4         | 8.1         | 8.7         | 9.0         |
| Kitchener                        | 5.6         | 5.7         | 5.1         | 5.2         |
| Thunder Bay                      | 6.5         | 6.6         | 8.2         | 7.5         |
| Non-CMA areas                    | 6.2         | 6.6         | 5.8         | 6.0         |
| <b>Prairies</b>                  | <b>5.0</b>  | <b>5.3</b>  | <b>4.9</b>  | <b>3.8</b>  |
| <b>Manitoba</b>                  | <b>5.0</b>  | <b>5.1</b>  | <b>5.3</b>  | <b>4.3</b>  |
| Winnipeg                         | 5.3         | 5.3         | 5.5         | 4.6         |
| Non-CMA areas                    | 4.3         | 4.8         | 5.0         | 3.8         |
| <b>Saskatchewan</b>              | <b>5.1</b>  | <b>5.7</b>  | <b>5.3</b>  | <b>4.7</b>  |
| Regina                           | 4.9         | 5.5         | 5.0         | 4.9         |
| Saskatoon                        | 5.6         | 6.1         | 6.2         | 4.4         |
| Non-CMA areas                    | 5.0         | 5.5         | 5.1         | 4.7         |
| <b>Alberta</b>                   | <b>5.0</b>  | <b>5.3</b>  | <b>4.6</b>  | <b>3.4</b>  |
| Calgary                          | 4.5         | 5.7         | 5.0         | 3.2         |
| Edmonton                         | 5.6         | 5.2         | 4.8         | 3.9         |
| Non-CMA areas                    | 4.9         | 4.9         | 4.1         | 3.3         |
| <b>British Columbia</b>          | <b>7.1</b>  | <b>8.5</b>  | <b>7.2</b>  | <b>4.8</b>  |
| Abbotsford                       | 7.5         | 7.5         | 6.4         | 4.5         |
| Vancouver                        | 5.8         | 7.7         | 6.7         | 4.4         |
| Victoria                         | 6.7         | 7.0         | 5.3         | 3.7         |
| Non-CMA areas                    | 9.2         | 10.2        | 8.3         | 5.6         |

Source: Statistics Canada, Labour Force Survey, 2000 to 2006

**Data source and definitions**

The **Labour Force Survey (LFS)** collects information each month on labour market activity from the civilian, non-institutionalized population 15 years of age and over. The territories are excluded from the national total, as are persons living on Indian reserves. The survey samples approximately 54,000 households, with each remaining in the sample for six consecutive months.

A **census metropolitan area (CMA)** consists of an urban core with a population of 100,000 or more, together with adjacent urban or rural areas that have a high degree of economic and social integration with the core. Subtracting CMAs from the provincial total produces residuals consisting of smaller urban and rural areas. These are referred to as **non-CMA areas**. All of Prince Edward Island is defined as a non-CMA. While these provincial residuals obviously contain many local variations in labour market conditions, such detail is beyond the scope of this article.

The duration of unemployment describes how long (usually in weeks) someone has continuously been looking for a job. The LFS, by design, measures periods of continuous incomplete job search. Information on completed spells can be obtained from longitudinal data sources such as the Survey of Labour and Income Dynamics (SLID).

**Losses in ranking centred in Ontario**

One way of demonstrating the fortunes of the CMAs and non-CMA areas is by way of changes in unemployment rate rank between 2000 and 2006 (Table 2). By this measure, labour markets in Ontario fared worst. Of the 16 areas that saw a deterioration in rank over the period, 9 were in Ontario. In Quebec, Montréal and to a lesser

**Table 2 Areas ranked by unemployment rate**

|                                   | 2000 | 2002 | 2004 | 2006 | 2000 to<br>2006 |
|-----------------------------------|------|------|------|------|-----------------|
|                                   | Rank |      |      |      | change          |
| Calgary                           | 2    | 7    | 3    | 1    | 1               |
| Non-CMA Alberta                   | 3    | 2    | 1    | 2    | 1               |
| Victoria                          | 22   | 17   | 8    | 3    | 19              |
| Non-CMA Manitoba                  | 1    | 1    | 3    | 4    | -3              |
| Edmonton                          | 10   | 3    | 2    | 5    | 5               |
| Saskatoon                         | 10   | 9    | 15   | 6    | 4               |
| Vancouver                         | 14   | 24   | 21   | 6    | 8               |
| Abbotsford                        | 25   | 21   | 17   | 8    | 17              |
| Winnipeg                          | 7    | 4    | 10   | 9    | -2              |
| Non-CMA Saskatchewan              | 5    | 5    | 6    | 10   | -5              |
| Regina                            | 3    | 5    | 3    | 11   | -8              |
| Halifax                           | 20   | 23   | 14   | 12   | 8               |
| Ottawa                            | 10   | 21   | 19   | 13   | -3              |
| Québec                            | 27   | 10   | 11   | 14   | 13              |
| Kitchener                         | 10   | 7    | 6    | 14   | -4              |
| Gatineau                          | 16   | 14   | 19   | 16   | 0               |
| Non-CMA British Columbia          | 30   | 32   | 28   | 16   | 14              |
| Hamilton                          | 6    | 13   | 16   | 18   | -12             |
| Non-CMA Ontario                   | 19   | 11   | 11   | 19   | 0               |
| Saint John                        | 24   | 27   | 25   | 20   | 4               |
| Kingston                          | 23   | 14   | 17   | 21   | 2               |
| London                            | 18   | 18   | 13   | 21   | -3              |
| St. Catharines-Niagara            | 16   | 19   | 23   | 23   | -7              |
| Oshawa                            | 14   | 14   | 9    | 24   | -10             |
| Toronto                           | 9    | 19   | 24   | 25   | -16             |
| Greater Sudbury                   | 29   | 29   | 26   | 26   | 3               |
| Thunder Bay                       | 21   | 11   | 26   | 27   | -6              |
| Sherbrooke                        | 27   | 25   | 22   | 28   | -1              |
| St. John's                        | 31   | 29   | 31   | 29   | 2               |
| Trois-Rivières                    | 35   | 32   | 34   | 29   | 6               |
| Montréal                          | 26   | 28   | 29   | 31   | -5              |
| Non-CMA Quebec                    | 32   | 31   | 32   | 32   | 0               |
| Saguenay                          | 33   | 36   | 35   | 33   | 0               |
| Windsor                           | 8    | 26   | 29   | 34   | -26             |
| Non-CMA New Brunswick             | 34   | 34   | 33   | 35   | -1              |
| Non-CMA Nova Scotia               | 36   | 35   | 35   | 36   | 0               |
| Prince Edward Island              | 37   | 37   | 37   | 37   | 0               |
| Non-CMA Newfoundland and Labrador | 38   | 38   | 38   | 38   | 0               |

Note: Area with the lowest unemployment rate is ranked number 1.  
Source: Statistics Canada, Labour Force Survey, 2000 to 2006

degree Sherbrooke also lost some ground, while in Saskatchewan, Regina and the non-CMA areas saw their rankings decline.

Of the five CMAs that registered the largest drops in ranking between 2000 and 2006, four were in Ontario's Golden Horseshoe (Oshawa, Hamilton, Toronto and

Windsor) and the fifth was Regina (Table 3). The better performance of the western labour markets is also evident in their strongly positive rank changes. Four of the five areas with the best improvement were in British Columbia: Victoria, Abbotsford, non-CMA British Columbia, and Vancouver. B.C.'s

**Table 3 Areas with largest changes in unemployment rate rank**

|                          | 2000 to 2006 |
|--------------------------|--------------|
| <b>Improved</b>          |              |
| Victoria                 | 19           |
| Abbotsford               | 17           |
| Non-CMA British Columbia | 14           |
| Québec                   | 13           |
| Vancouver and Halifax    | 8            |
| <b>Worse</b>             |              |
| Regina                   | -8           |
| Oshawa                   | -10          |
| Hamilton                 | -12          |
| Toronto                  | -16          |
| Windsor                  | -26          |

Source: Statistics Canada, Labour Force Survey, 2000 to 2006

labour market improvements came on the heels of gains in resource-based industries, construction and transportation, and in increased exports to the Far East, notably China. The Québec CMA also showed a significant improvement in ranking. Industries here registering respectable employment growth included public administration; information, culture and recreation; and transportation and warehousing.

### Average unemployment duration falls in most CMAs

Average unemployment duration (weeks of continuous job search) provides one measure of the degree of difficulty faced by those searching for a job (Table 4).<sup>3</sup>

Unlike trends in the unemployment rate, a positive picture emerges from the average unemployment duration (Chart C). At the national level, duration fell by about 3 weeks (from 19.8 to 16.7 weeks) between 2000 and 2006. Declines were also registered in most areas

**Table 4 Average duration of unemployment by region**

|                                  | 2000        | 2006        | Change      |              |
|----------------------------------|-------------|-------------|-------------|--------------|
|                                  | Weeks       |             |             | %            |
| <b>Canada</b>                    | <b>19.8</b> | <b>16.7</b> | <b>-3.1</b> | <b>-15.7</b> |
| <b>Atlantic</b>                  | <b>20.4</b> | <b>16.0</b> | <b>-4.4</b> | <b>-21.6</b> |
| <b>Newfoundland and Labrador</b> | <b>25.9</b> | <b>19.1</b> | <b>-6.8</b> | <b>-26.3</b> |
| St. John's                       | 25.9        | 17.0        | -8.9        | -34.4        |
| Non-CMA areas                    | 25.9        | 19.7        | -6.2        | -23.9        |
| <b>Prince Edward Island</b>      | <b>13.2</b> | <b>14.3</b> | <b>1.1</b>  | <b>8.3</b>   |
| <b>Nova Scotia</b>               | <b>20.1</b> | <b>14.7</b> | <b>-5.4</b> | <b>-26.9</b> |
| Halifax                          | 21.3        | 12.6        | -8.7        | -40.8        |
| Non-CMA areas                    | 19.6        | 15.5        | -4.1        | -20.9        |
| <b>New Brunswick</b>             | <b>16.2</b> | <b>14.4</b> | <b>-1.8</b> | <b>-11.1</b> |
| Saint John                       | 19.9        | 12.6        | -7.3        | -36.7        |
| Non-CMA areas                    | 15.6        | 14.6        | -1.0        | -6.4         |
| <b>Quebec</b>                    | <b>24.8</b> | <b>20.4</b> | <b>-4.4</b> | <b>-17.7</b> |
| Saguenay                         | 20.7        | 22.4        | 1.7         | 8.2          |
| Québec                           | 27.4        | 17.7        | -9.7        | -35.4        |
| Trois-Rivières                   | 33.0        | 21.7        | -11.3       | -34.2        |
| Sherbrooke                       | 24.4        | 18.7        | -5.7        | -23.4        |
| Montréal                         | 24.5        | 21.8        | -2.7        | -11.0        |
| Gatineau                         | 23.8        | 17.4        | -6.4        | -26.9        |
| Non-CMA areas                    | 24.4        | 18.9        | -5.5        | -22.5        |
| <b>Ontario</b>                   | <b>17.7</b> | <b>15.8</b> | <b>-1.9</b> | <b>-10.7</b> |
| Ottawa                           | 17.2        | 13.5        | -3.7        | -21.5        |
| Kingston                         | 17.4        | 16.0        | -1.4        | -8.0         |
| Greater Sudbury                  | 18.6        | 13.9        | -4.7        | -25.3        |
| Oshawa                           | 13.5        | 16.0        | 2.5         | 18.5         |
| Toronto                          | 17.9        | 16.7        | -1.2        | -6.7         |
| Hamilton                         | 19.7        | 16.4        | -3.3        | -16.8        |
| St. Catharines–Niagara           | 17.6        | 13.4        | -4.2        | -23.9        |
| London                           | 17.3        | 15.6        | -1.7        | -9.8         |
| Windsor                          | 16.2        | 15.2        | -1.0        | -6.2         |
| Kitchener                        | 18.2        | 13.1        | -5.1        | -28.0        |
| Thunder Bay                      | 21.1        | 16.0        | -5.1        | -24.2        |
| Non-CMA areas                    | 17.7        | 15.4        | -2.3        | -13.0        |
| <b>Prairies</b>                  | <b>14.0</b> | <b>11.6</b> | <b>-2.4</b> | <b>-17.1</b> |
| <b>Manitoba</b>                  | <b>16.2</b> | <b>14.3</b> | <b>-1.9</b> | <b>-11.7</b> |
| Winnipeg                         | 16.2        | 15.2        | -1.0        | -6.2         |
| Non-CMA areas                    | 16.1        | 12.1        | -4.0        | -24.8        |
| <b>Saskatchewan</b>              | <b>15.8</b> | <b>11.5</b> | <b>-4.3</b> | <b>-27.2</b> |
| Regina                           | 16.8        | 12.5        | -4.3        | -25.6        |
| Saskatoon                        | 16.4        | 9.2         | -7.2        | -43.9        |
| Non-CMA areas                    | 15.1        | 12.1        | -3.0        | -19.9        |
| <b>Alberta</b>                   | <b>12.6</b> | <b>10.5</b> | <b>-2.1</b> | <b>-16.7</b> |
| Calgary                          | 13.7        | 9.1         | -4.6        | -33.6        |
| Edmonton                         | 12.1        | 8.4         | -3.7        | -30.6        |
| Non-CMA areas                    | 12.3        | 14.1        | 1.8         | 14.6         |
| <b>British Columbia</b>          | <b>19.0</b> | <b>14.7</b> | <b>-4.3</b> | <b>-22.6</b> |
| Abbotsford                       | 21.7        | 11.2        | -10.5       | -48.4        |
| Vancouver                        | 18.4        | 16.0        | -2.4        | -13.0        |
| Victoria                         | 18.2        | 21.2        | 3.0         | 16.5         |
| Non-CMA areas                    | 19.4        | 12.4        | -7.0        | -36.1        |

Source: Statistics Canada, Labour Force Survey, 2000 and 2006

(33). Whereas 8 areas registered a higher unemployment rate in 2006, only 5 areas had a higher average unemployment duration (Prince Edward Island, Saguenay, Oshawa, non-CMA Alberta, and Victoria). Indeed, except for Oshawa, all areas in Ontario had shorter durations in 2006. The rise in duration in Victoria is intriguing since this CMA was among those registering the best improvement in unemployment rate.

In addition to the fairly steep drop in average unemployment duration in most areas, the degree of dispersion tightened. In 2000, duration ranged from just over 12 weeks in Edmonton and non-CMA Alberta to 33 weeks in Trois Rivières (Table 4). By 2006, it ranged from around 8 weeks in Edmonton to about 22 weeks in Saguenay, Trois Rivières and Montréal.

### Summary

The benefits of the current economic expansion have not been shared equally by the various CMA and non-CMA areas across Canada. The unequal distribution is clearly evident in the disparities observed in unemployment rate movements in the different geographical areas.

The past four years have witnessed an improvement in unemployment rates in many areas. Alberta and British Columbia CMAs and non-CMA areas especially have recorded significant improvements, reflecting the boom in oil, gas and other resource-based industries, as well as increased activity in construction and transportation. Only two CMAs, Windsor and Thunder Bay, have seen some recent deterioration or fluctuation in their unemployment rates. In Windsor,



this was primarily due to setbacks in manufacturing industries in general and the auto industry in particular. The overall result has been an increase in the unemployment rate dispersion over the past several years.

However, the overall picture emerging from the average duration of unemployment in the 2000s is more encouraging. Not only did the average weeks of continuous job search fall between 2000 and 2006 in most areas, the difference between the shortest and longest also shrank.

### Perspectives

## Appendix

Areas in Ontario registered the largest increases in numbers unemployed. This paper examined shifts in unemployment through the unemployment rate and ranking, both measures being abstract. However, the number of people unemployed is also of interest.

At the national level, the number of unemployed increased by 2.4% (26,000) between 2000 and 2006. Almost all of the 15 areas registering increases in unemployment numbers were located in Ontario (11) and Quebec (3). The other CMA recording an increase was Regina. Some of the increases were fairly large. For example, unemployment rose in Windsor by 81% (7,000), in Toronto by 38% (54,000), and in Oshawa by 38% (3,000). In Montréal, it rose by 19% (27,000).

The remaining 23 areas recorded decreases in unemployment, with significant declines being registered in Québec (-28% or -8,000), Edmonton (-22% or -6,000), Victoria (-40% or -4,000), and non-CMA British Columbia (-35% or -24,000).

**Table A1 Unemployment by region**

|                                  | 2000           | 2006           | Change       |              |
|----------------------------------|----------------|----------------|--------------|--------------|
|                                  | '000           | '000           | '000         | %            |
| <b>Canada</b>                    | <b>1,082.8</b> | <b>1,108.4</b> | <b>25.6</b>  | <b>2.4</b>   |
| All CMAS                         | 654.2          | 716.3          | 62.1         | 9.5          |
| All non-CMA areas                | 428.6          | 392.1          | -36.5        | -8.5         |
| <b>Atlantic</b>                  | <b>126.6</b>   | <b>118.3</b>   | <b>-8.3</b>  | <b>-6.6</b>  |
| <b>Newfoundland and Labrador</b> | <b>39.8</b>    | <b>37.5</b>    | <b>-2.3</b>  | <b>-5.8</b>  |
| St. John's                       | 8.8            | 8.2            | -0.6         | -6.8         |
| Non-CMA areas                    | 31.0           | 29.3           | -1.7         | -5.5         |
| <b>Prince Edward Island</b>      | <b>8.6</b>     | <b>8.5</b>     | <b>-0.1</b>  | <b>-1.2</b>  |
| <b>Nova Scotia</b>               | <b>41.4</b>    | <b>38.1</b>    | <b>-3.3</b>  | <b>-8.0</b>  |
| Halifax                          | 12.6           | 10.8           | -1.8         | -14.3        |
| Non-CMA areas                    | 28.8           | 27.3           | -1.5         | -5.2         |
| <b>New Brunswick</b>             | <b>36.8</b>    | <b>34.2</b>    | <b>-2.6</b>  | <b>-7.1</b>  |
| Saint John                       | 4.8            | 4.0            | -0.8         | -16.7        |
| Non-CMA areas                    | 32.0           | 30.2           | -1.8         | -5.6         |
| <b>Quebec</b>                    | <b>314.7</b>   | <b>328.7</b>   | <b>14.0</b>  | <b>4.4</b>   |
| Saguenay                         | 7.2            | 6.8            | -0.4         | -5.6         |
| Québec                           | 28.7           | 20.8           | -7.9         | -27.5        |
| Sherbrooke                       | 6.5            | 7.0            | 0.5          | 7.7          |
| Trois-Rivières                   | 7.4            | 5.9            | -1.5         | -20.3        |
| Montréal                         | 142.5          | 169.8          | 27.3         | 19.2         |
| Gatineau                         | 8.5            | 9.5            | 1.0          | 11.8         |
| Non-CMA areas                    | 114.0          | 108.9          | -5.1         | -4.5         |
| <b>Ontario</b>                   | <b>355.6</b>   | <b>434.6</b>   | <b>79.0</b>  | <b>22.2</b>  |
| Ottawa                           | 25.3           | 25.9           | 0.6          | 2.4          |
| Kingston                         | 4.9            | 5.1            | 0.2          | 4.1          |
| Oshawa                           | 9.0            | 12.4           | 3.4          | 37.8         |
| Toronto                          | 142.5          | 196.6          | 54.1         | 38.0         |
| Hamilton                         | 18.5           | 23.5           | 5.0          | 27.0         |
| St. Catharines-Niagara           | 12.1           | 12.9           | 0.8          | 6.6          |
| Kitchener                        | 13.2           | 13.8           | 0.6          | 4.5          |
| London                           | 14.8           | 16.2           | 1.4          | 9.5          |
| Windsor                          | 9.0            | 16.3           | 7.3          | 81.1         |
| Greater Sudbury                  | 6.8            | 6.1            | -0.7         | -10.3        |
| Thunder Bay                      | 4.2            | 5.0            | 0.8          | 19.0         |
| Non-CMA areas                    | 95.3           | 100.9          | 5.6          | 5.9          |
| <b>Prairies</b>                  | <b>137.3</b>   | <b>117.3</b>   | <b>-20.0</b> | <b>-14.6</b> |
| <b>Manitoba</b>                  | <b>28.8</b>    | <b>26.5</b>    | <b>-2.3</b>  | <b>-8.0</b>  |
| Winnipeg                         | 20.0           | 18.5           | -1.5         | -7.5         |
| Non-CMA areas                    | 8.9            | 8.0            | -0.9         | -10.1        |
| <b>Saskatchewan</b>              | <b>25.7</b>    | <b>24.0</b>    | <b>-1.7</b>  | <b>-6.6</b>  |
| Regina                           | 5.3            | 5.6            | 0.3          | 5.7          |
| Saskatoon                        | 6.8            | 5.9            | -0.9         | -13.2        |
| Non-CMA areas                    | 13.5           | 12.5           | -1.0         | -7.4         |
| <b>Alberta</b>                   | <b>82.8</b>    | <b>66.8</b>    | <b>-16.0</b> | <b>-19.3</b> |
| Calgary                          | 25.8           | 21.8           | -4.0         | -15.5        |
| Edmonton                         | 28.9           | 22.7           | -6.2         | -21.5        |
| Non-CMA areas                    | 28.1           | 22.3           | -5.8         | -20.6        |
| <b>British Columbia</b>          | <b>148.6</b>   | <b>109.6</b>   | <b>-39.0</b> | <b>-26.2</b> |
| Vancouver                        | 63.6           | 54.8           | -8.8         | -13.8        |
| Victoria                         | 11.1           | 6.7            | -4.4         | -39.6        |
| Abbotsford                       | 5.5            | 3.9            | -1.6         | -29.1        |
| Non-CMA areas                    | 68.4           | 44.2           | -24.2        | -35.4        |

Source: Statistics Canada, Labour Force Survey, 2000 and 2006

**Table A2 Labour force by region**

|                                  | 2000            | 2006            | Change         |             |
|----------------------------------|-----------------|-----------------|----------------|-------------|
|                                  | '000            |                 | '000           | %           |
| <b>Canada</b>                    | <b>15,847.0</b> | <b>17,592.8</b> | <b>1,745.8</b> | <b>11.0</b> |
| All CMAS                         | 10,560.3        | 11,874.2        | 1,313.9        | 12.4        |
| All non-CMA areas                | 5,286.7         | 5,718.6         | 431.9          | 8.2         |
| <b>Atlantic</b>                  | <b>1,129.9</b>  | <b>1,199.8</b>  | <b>69.9</b>    | <b>6.2</b>  |
| <b>Newfoundland and Labrador</b> | <b>237.8</b>    | <b>253.1</b>    | <b>15.3</b>    | <b>6.4</b>  |
| St. John's                       | 92.2            | 101.6           | 9.4            | 10.2        |
| Non-CMA areas                    | 145.6           | 151.5           | 5.9            | 4.1         |
| <b>Prince Edward Island</b>      | <b>71.3</b>     | <b>77.1</b>     | <b>5.8</b>     | <b>8.1</b>  |
| <b>Nova Scotia</b>               | <b>452.8</b>    | <b>480.0</b>    | <b>27.2</b>    | <b>6.0</b>  |
| Halifax                          | 200.9           | 215.7           | 14.8           | 7.4         |
| Non-CMA areas                    | 251.8           | 264.3           | 12.5           | 5.0         |
| <b>New Brunswick</b>             | <b>368.0</b>    | <b>389.6</b>    | <b>21.6</b>    | <b>5.9</b>  |
| Saint John                       | 65.7            | 65.9            | 0.2            | 0.3         |
| Non-CMA areas                    | 302.3           | 323.7           | 21.4           | 7.1         |
| <b>Quebec</b>                    | <b>3,717.5</b>  | <b>4,094.2</b>  | <b>376.7</b>   | <b>10.1</b> |
| Saguenay                         | 72.7            | 77.2            | 4.5            | 6.2         |
| Québec                           | 354.3           | 397.4           | 43.1           | 12.2        |
| Trois-Rivières                   | 68.6            | 73.2            | 4.6            | 6.7         |
| Sherbrooke                       | 79.8            | 88.8            | 9.0            | 11.3        |
| Montréal                         | 1,819.7         | 2,026.7         | 207.0          | 11.4        |
| Gatineau                         | 142.4           | 169.7           | 27.3           | 19.2        |
| Non-CMA areas                    | 1,180.0         | 1,261.1         | 81.1           | 6.9         |
| <b>Ontario</b>                   | <b>6,172.7</b>  | <b>6,927.3</b>  | <b>754.6</b>   | <b>12.2</b> |
| Ottawa                           | 454.3           | 509.0           | 54.7           | 12.0        |
| Kingston                         | 70.1            | 82.4            | 12.3           | 17.5        |
| Greater Sudbury                  | 82.3            | 84.2            | 1.9            | 2.3         |
| Oshawa                           | 155.9           | 189.7           | 33.8           | 21.7        |
| Toronto                          | 2,597.7         | 2,998.7         | 401.0          | 15.4        |
| Hamilton                         | 362.1           | 395.3           | 33.2           | 9.2         |
| St. Catharines-Niagara           | 202.5           | 203.1           | 0.6            | 0.3         |
| London                           | 243.5           | 261.8           | 18.3           | 7.5         |
| Windsor                          | 166.4           | 181.3           | 14.9           | 9.0         |
| Kitchener                        | 234.4           | 265.2           | 30.8           | 13.1        |
| Thunder Bay                      | 65.0            | 66.5            | 1.5            | 2.3         |
| Non-CMA areas                    | 1,538.4         | 1,690.2         | 151.8          | 9.9         |
| <b>Prairies</b>                  | <b>2,747.1</b>  | <b>3,066.5</b>  | <b>319.4</b>   | <b>11.6</b> |
| <b>Manitoba</b>                  | <b>581.1</b>    | <b>613.5</b>    | <b>32.4</b>    | <b>5.6</b>  |
| Winnipeg                         | 375.4           | 400.7           | 25.3           | 6.7         |
| Non-CMA areas                    | 205.7           | 212.8           | 7.1            | 3.5         |
| <b>Saskatchewan</b>              | <b>499.2</b>    | <b>515.6</b>    | <b>16.4</b>    | <b>3.3</b>  |
| Regina                           | 108.7           | 115.2           | 6.5            | 6.0         |
| Saskatoon                        | 121.9           | 133.9           | 12.0           | 9.8         |
| Non-CMA areas                    | 268.5           | 266.5           | -2.0           | -0.7        |
| <b>Alberta</b>                   | <b>1,666.8</b>  | <b>1,937.5</b>  | <b>270.7</b>   | <b>16.2</b> |
| Calgary                          | 567.7           | 676.9           | 109.2          | 19.2        |
| Edmonton                         | 520.0           | 584.0           | 64.0           | 12.3        |
| Non-CMA areas                    | 579.1           | 676.6           | 97.5           | 16.8        |
| <b>British Columbia</b>          | <b>2,079.9</b>  | <b>2,305.1</b>  | <b>225.2</b>   | <b>10.8</b> |
| Abbotsford                       | 73.8            | 86.3            | 12.5           | 16.9        |
| Vancouver                        | 1,095.7         | 1,241.9         | 146.2          | 13.3        |
| Victoria                         | 166.4           | 182.0           | 15.6           | 9.4         |
| Non-CMA areas                    | 743.9           | 794.9           | 51.0           | 6.9         |

Source: Statistics Canada, Labour Force Survey, 2000 and 2006

**Table A3 Employment by region**

|                                  | 2000            | 2006            | Change         |             |
|----------------------------------|-----------------|-----------------|----------------|-------------|
|                                  | '000            | '000            | '000           | %           |
| <b>Canada</b>                    | <b>14,764.2</b> | <b>16,484.3</b> | <b>1,720.1</b> | <b>11.7</b> |
| All CMAS                         | 9,906.0         | 11,157.8        | 1,251.8        | 12.6        |
| All non-CMA areas                | 4,858.2         | 5,326.5         | 468.3          | 9.6         |
| <b>Atlantic</b>                  | <b>1,003.3</b>  | <b>1,081.5</b>  | <b>78.2</b>    | <b>7.8</b>  |
| <b>Newfoundland and Labrador</b> | <b>198.0</b>    | <b>215.7</b>    | <b>17.7</b>    | <b>8.9</b>  |
| St. John's                       | 83.5            | 93.4            | 9.9            | 11.9        |
| Non-CMA areas                    | 114.6           | 122.2           | 7.6            | 6.6         |
| <b>Prince Edward Island</b>      | <b>62.7</b>     | <b>68.6</b>     | <b>5.9</b>     | <b>9.4</b>  |
| <b>Nova Scotia</b>               | <b>411.4</b>    | <b>441.8</b>    | <b>30.4</b>    | <b>7.4</b>  |
| Halifax                          | 188.3           | 204.8           | 16.5           | 8.8         |
| Non-CMA areas                    | 223.0           | 237.0           | 14.0           | 6.3         |
| <b>New Brunswick</b>             | <b>331.2</b>    | <b>355.4</b>    | <b>24.2</b>    | <b>7.3</b>  |
| Saint John                       | 60.9            | 61.9            | 1.0            | 1.6         |
| Non-CMA areas                    | 270.3           | 293.5           | 23.2           | 8.6         |
| <b>Quebec</b>                    | <b>3,402.8</b>  | <b>3,765.4</b>  | <b>362.6</b>   | <b>10.7</b> |
| Saguenay                         | 65.6            | 70.4            | 4.8            | 7.3         |
| Québec                           | 325.6           | 376.6           | 51.0           | 15.7        |
| Sherbrooke                       | 73.3            | 81.9            | 8.6            | 11.7        |
| Trois-Rivières                   | 61.2            | 67.3            | 6.1            | 10.0        |
| Montréal                         | 1,677.2         | 1,856.8         | 179.6          | 10.7        |
| Gatineau                         | 133.8           | 160.2           | 26.4           | 19.7        |
| Non-CMA areas                    | 1,066.0         | 1,152.1         | 86.1           | 8.1         |
| <b>Ontario</b>                   | <b>5,817.1</b>  | <b>6,492.7</b>  | <b>675.6</b>   | <b>11.6</b> |
| Ottawa                           | 429.1           | 483.1           | 54.0           | 12.6        |
| Kingston                         | 65.1            | 77.3            | 12.2           | 18.7        |
| Oshawa                           | 146.9           | 177.3           | 30.4           | 20.7        |
| Toronto                          | 2,455.3         | 2,802.1         | 346.8          | 14.1        |
| Hamilton                         | 343.6           | 371.9           | 28.3           | 8.2         |
| St. Catharines–Niagara           | 190.4           | 190.2           | -0.2           | -0.1        |
| Kitchener                        | 221.2           | 251.4           | 30.2           | 13.7        |
| London                           | 228.7           | 245.6           | 16.9           | 7.4         |
| Windsor                          | 157.4           | 165.1           | 7.7            | 4.9         |
| Greater Sudbury                  | 75.5            | 78.1            | 2.6            | 3.4         |
| Thunder Bay                      | 60.9            | 61.5            | 0.6            | 1.0         |
| Non-CMA areas                    | 1,443.1         | 1,589.3         | 146.2          | 10.1        |
| <b>Prairies</b>                  | <b>2,609.8</b>  | <b>2,949.2</b>  | <b>339.4</b>   | <b>13.0</b> |
| <b>Manitoba</b>                  | <b>552.3</b>    | <b>587.0</b>    | <b>34.7</b>    | <b>6.3</b>  |
| Winnipeg                         | 355.4           | 382.2           | 26.8           | 7.5         |
| Non-CMA areas                    | 196.9           | 204.8           | 7.9            | 4.0         |
| <b>Saskatchewan</b>              | <b>473.5</b>    | <b>491.6</b>    | <b>18.1</b>    | <b>3.8</b>  |
| Regina                           | 103.4           | 109.6           | 6.2            | 6.0         |
| Saskatoon                        | 115.1           | 128.0           | 12.9           | 11.2        |
| Non-CMA areas                    | 255.0           | 254.0           | -1.0           | -0.4        |
| <b>Alberta</b>                   | <b>1,584.0</b>  | <b>1,870.7</b>  | <b>286.7</b>   | <b>18.1</b> |
| Calgary                          | 541.9           | 655.1           | 113.2          | 20.9        |
| Edmonton                         | 491.1           | 561.3           | 70.2           | 14.3        |
| Non-CMA areas                    | 551.0           | 654.2           | 103.2          | 18.7        |
| <b>British Columbia</b>          | <b>1,931.3</b>  | <b>2,195.5</b>  | <b>264.2</b>   | <b>13.7</b> |
| Vancouver                        | 1,032.1         | 1,187.1         | 155.0          | 15.0        |
| Victoria                         | 155.3           | 175.2           | 19.9           | 12.8        |
| Abbotsford                       | 68.3            | 82.3            | 14.0           | 20.5        |
| Non-CMA areas                    | 675.6           | 750.8           | 75.2           | 11.1        |

Source: Statistics Canada, Labour Force Survey, 2000 and 2006

**■ Notes**

1 Caution must be exercised when comparing recent LFS employment and unemployment estimates with those prior to 1976—when the questionnaire underwent significant changes.

2 In actual fact, in 2000 Calgary's unemployment rate (4.5%) was bettered by that of non-CMA Manitoba (4.3%).

3 The LFS average durations in Table 4 are, by survey design, for incomplete job search. These are shorter than completed search durations provided by other surveys such as the Survey of Labour and Income Dynamics (SLID). Notwithstanding, the LFS data still provide useful insights on labour market health.

**■ References**

- Cross, Philip and Geoff Bowlby. 2006. "The Alberta economic juggernaut: The boom on the rose." *Canadian Economic Observer*. Vol. 19, no. 9. September. Statistics Canada Catalogue no. 11-010-XIB.  
<http://www.statcan.ca/english/freepub/11-010-XIB/00906/feature.htm> (accessed January 2, 2007).
- Gower, Dave. 1996. "Canada's unemployment mosaic in the 1990s." *Perspectives on Labour and Income*. Vol. 8, no. 1. Spring. Statistics Canada Catalogue no. 75-001-XPE. p. 16–22.
- Guillemette, Yvan. 2006. *Misplaced Talent: The Rising Dispersion of Unemployment Rates in Canada*. Toronto. C.D. Howe Institute. 5 p.
- White, P., M. Michalowski and P. Cross. 2006. "The west coast boom." *Canadian Economic Observer*. Vol. 19, no. 5. May. Statistics Canada Catalogue no. 11-010-XIB.  
<http://www.statcan.ca/english/freepub/11-010-XIB/00506/feature.htm> (accessed January 2, 2007).



# The Aboriginal labour force in Western Canada

Jacqueline Luffman and Deborah Sussman

**A**s Canada's labour market tightens, employers are scouring many sources in their search for skilled workers. One such source is the Aboriginal population. By the end of 2017, Aboriginal people of working age (15 and older) will number close to a million—about 3.4% of the working-age population overall (Statistics Canada 2005). With anticipated shortages in many areas of the labour force, this growing population may constitute an important pool of labour.

Aboriginal people have a much younger average age than other Canadians and their educational attainment is generally lower. Geographically, they are concentrated in remote areas (some reserves and in the North) and in a few urban centres (mostly Western Canadian cities). They are also less likely to be self-employed. All these factors play a major role in their labour market experiences and are critical to understanding both the challenges and opportunities for their future employment growth.

Over the coming years, the proportion of Aboriginal people in the young adult population (aged 20 to 29) is projected to grow significantly—more than for the same age group overall. Certain provinces will be particularly affected. For example, in Saskatchewan, the proportion of Aboriginal people in their 20s is expected to almost double—from 17% of the Aboriginal population in 2001 to 30% in 2017. Similarly, the proportion in Manitoba, also 17% in 2001, is projected to grow to 23%. These young people offer an enormous potential for increasing Aboriginal people's participation in the labour market, especially in

these provinces (Consulbec 2002). The degree to which such provinces can integrate these young people into the labour force will become increasingly important.

How do Aboriginal and non-Aboriginal people compare in terms of employment, occupational distribution, and skill levels. Are gaps between the two closing? Are some segments of the Aboriginal population faring better than others? What is the relationship between educational attainment and labour market success? This article uses the 2005 Labour Force Survey (LFS) to compare characteristics of the off-reserve Aboriginal and the non-Aboriginal populations in the Western Canada labour force. Using the 2001 Census, the labour force situation of the entire Aboriginal population is also presented in an appendix. Where possible, comparisons will be made between the two sources (see *Data sources and definitions*).

## Aboriginal unemployment higher in 2001

In 2001, Aboriginal people made up about 2.7% of Canada's working-age population and about 2.5% of its labour force (see *Appendix*). Of the roughly 652,000 Aboriginal people aged 15 or over, 61% lived in Western Canada. Nationally, they had lower participation and employment rates (60.6% and 49.7% respectively) than non-Aboriginals (66.1% and 61.8%), and a much higher unemployment rate (18.0% versus 6.5%).

Aboriginal labour market performance varied considerably from one region of the country to another. Provinces with the highest percentage of Aboriginal people—Manitoba and Saskatchewan—had Aboriginal unemployment rates of about 18% and 22% respectively. This was more than four times the unemployment rate of the non-Aboriginal population in both these provinces. Aboriginal unemployment rates were also high in the Atlantic provinces (where the proportion of Aboriginal people is lower), ranging from 20% in Nova Scotia to 32% in Newfoundland and Labrador.

---

*Jacqueline Luffman is with Dissemination Division. She can be reached at 613-951-1563 or [jacqueline.luffman@statcan.ca](mailto:jacqueline.luffman@statcan.ca). Deborah Sussman is with the Labour and Household Surveys Analysis Division. She can be reached at 613-951-4226 or [deborah.sussman@statcan.ca](mailto:deborah.sussman@statcan.ca).*

## Manitoba and British Columbia led Aboriginal job growth

How have Aboriginal people been faring since 2001? The only source of labour market information on Aboriginal people since the 2001 Census is the Labour Force Survey, which covers only those living off-reserve in Western Canada. This segment is the focus of the rest of the article.<sup>1</sup>

Aboriginal people form a significant part of the labour force in Western Canada where the economy, particularly in Alberta and British Columbia, has enjoyed renewed growth in recent years.<sup>2</sup> This growth was driven by mining and construction in Alberta and by construction, real estate and transportation in British Columbia (White, Michalowski and Cross 2006). Aboriginal employment grew 23% between 2001 and 2005 compared with only 11% for non-Aboriginals.

Over the same period, the Aboriginal unemployment rate dropped 3 percentage points while their participation rate rose—particularly among women (Table 1). Although the unemployment gap narrowed, the Aboriginal unemployment rate still remained more than double that of the non-Aboriginal population in 2005.

With its abundance of natural resources, Alberta has led job growth in the West.<sup>3</sup> Not surprisingly then, Aboriginal people in Alberta had the highest labour force participation (70.0%) and employment rates (64.1%) and the lowest unemployment rate (8.5%) among the Western provinces. Alberta's economic prosperity benefited everyone as evidenced by its overall unemployment rate of only 3.9% in 2005.

Aboriginal people in Manitoba and British Columbia saw the highest growth in employment between 2001 and 2005 (Chart A). Manitoba's growth rate was 30%,

### Aboriginals in cities faring better

Although the largest CMAs offer more varied opportunities for employment, some are still struggling with high rates of unemployment within their Aboriginal population. In 2001, the highest percentage shares of working-age Aboriginal people were found in Saskatoon (7.5%), Winnipeg (7.4%) and Regina (6.5%). In absolute terms, Winnipeg had the largest number of Aboriginal people (35,800) of all the CMAs, followed by Edmonton (26,500). In 2001, Aboriginal people in Saskatoon and Regina had the lowest par-

ticipation rates and highest unemployment rates among the Western CMAs. In 2005, Regina still had the lowest participation and the highest unemployment rates among Aboriginal people. The gap in labour market outcomes between Aboriginal and non-Aboriginal people varies greatly by city, even within the same province. In 2005, Vancouver and Calgary had the highest labour force participation rates, even surpassing non-Aboriginals. Calgary had the lowest unemployment rate, followed by Victoria.

|                       | Winnipeg | Saskatoon | Regina | Edmonton | Victoria | Calgary | Vancouver |
|-----------------------|----------|-----------|--------|----------|----------|---------|-----------|
| <b>2001</b>           |          |           |        |          |          |         |           |
| <b>Non-Aboriginal</b> |          |           |        |          |          |         |           |
| Participation rate    | 68.6     | 70.1      | 70.8   | 71.9     | 63.8     | 74.8    | 65.8      |
| Employment rate       | 65.5     | 66.6      | 67.6   | 68.6     | 60.2     | 71.5    | 61.5      |
| Unemployment rate     | 4.5      | 4.9       | 4.6    | 4.5      | 5.6      | 4.3     | 6.5       |
| <b>Aboriginal</b>     |          |           |        |          |          |         |           |
| Participation rate    | 63.5     | 56.8      | 56.8   | 65.9     | 62.1     | 74.7    | 62.3      |
| Employment rate       | 55.1     | 45.3      | 46.3   | 57.4     | 53.4     | 67.7    | 53.5      |
| Unemployment rate     | 13.2     | 20.2      | 18.5   | 12.1     | 13.9     | 9.4     | 14.0      |
| <b>2005</b>           |          |           |        |          |          |         |           |
| <b>Non-Aboriginal</b> |          |           |        |          |          |         |           |
| Participation rate    | 69.8     | 71.7      | 72.0   | 70.5     | 64.8     | 73.7    | 67.1      |
| Employment rate       | 66.7     | 68.4      | 69.0   | 67.5     | 62.0     | 70.8    | 63.4      |
| Unemployment rate     | 4.4      | 4.5       | 4.2    | 4.3      | 4.3      | 3.9     | 5.6       |
| <b>Aboriginal</b>     |          |           |        |          |          |         |           |
| Participation rate    | 63.8     | 62.4      | 59.9   | 66.0     | 63.6     | 75.1    | 70.9      |
| Employment rate       | 57.5     | 54.3      | 50.6   | 58.7     | 58.1     | 70.8    | 60.4      |
| Unemployment rate     | 9.8      | 12.9      | 15.5   | 11.1     | 8.6      | 5.7     | 14.8      |

Sources: Statistics Canada, Census of Population, 2001; Labour Force Survey, 2005

five times the non-Aboriginal rate. Although British Columbia's Aboriginal participation rate (66%) was lower than Alberta's, it was up from 2001. By contrast, Saskatchewan continued to have the lowest Aboriginal employment rate (52%), despite a small increase since 2001. In addition, Saskatchewan had the largest employment rate gap in 2005 (14 percentage points compared with 7 for all of Western Canada).

### Employment rate gap narrows

The Aboriginal employment rate was 58% in 2005, up from 54% in 2001. Because the rate increased less than 1 percentage point among non-Aboriginals while increasing strongly among Aboriginal people, the gap between the two groups narrowed, particularly for women (Chart B).

Labour force participation rates among men appear to be stabilizing for both populations. The gap, however, decreased slightly for men and much more for women. With rising employment, unemployment rates declined for both Aboriginal men and women in 2005.

### Aboriginal education levels improving

The large gap in educational attainment between Aboriginal and non-Aboriginal people has been well-documented. Although Aboriginal people living off-reserve are generally better educated than their on-reserve counterparts, they still lag behind non-Aboriginals.

Western Canadians are increasingly likely to have university degrees—18% in 2005 versus 15% in 2001. During the same short period, Aboriginal people living off-

**Table 1 The off-reserve Aboriginal labour force in Western Canada**

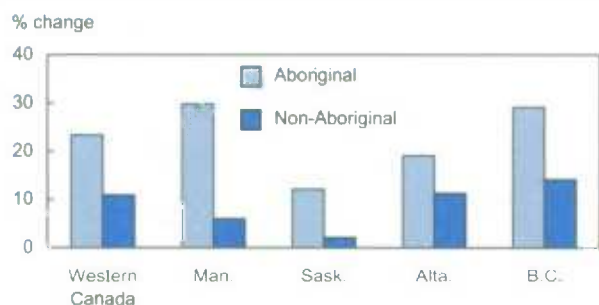
|                         | 2001       |                | 2005       |                |
|-------------------------|------------|----------------|------------|----------------|
|                         | Aboriginal | Non-Aboriginal | Aboriginal | Non-Aboriginal |
|                         | '000       |                |            |                |
| Population 15 and over  | 281        | 6,690          | 324        | 7,317          |
| Labour force            | 181        | 4,575          | 215        | 5,025          |
| Employment              | 153        | 4,320          | 189        | 4,790          |
| Unemployment            | 28         | 255            | 26         | 235            |
| <b>Both sexes</b>       | %          |                |            |                |
| Aboriginal labour force | 3.8        | ...            | 4.1        | ...            |
| Employment rate         | 54.4       | 64.5           | 58.3       | 65.5           |
| Unemployment rate       | 15.5       | 5.6            | 12.1       | 4.7            |
| Participation rate      | 64.4       | 68.4           | 66.4       | 68.7           |
| <b>Men</b>              |            |                |            |                |
| Aboriginal labour force | 3.7        | ...            | 3.8        | ...            |
| Employment rate         | 59.3       | 70.2           | 63.0       | 71.0           |
| Unemployment rate       | 17.0       | 6.3            | 12.5       | 4.7            |
| Participation rate      | 71.5       | 74.5           | 72.0       | 74.5           |
| <b>Women</b>            |            |                |            |                |
| Aboriginal labour force | 4.0        | ...            | 4.5        | ...            |
| Employment rate         | 50.2       | 59.2           | 54.4       | 60.0           |
| Unemployment rate       | 13.9       | 6.0            | 11.7       | 4.6            |
| Participation rate      | 58.4       | 62.5           | 61.6       | 62.9           |
| <b>Manitoba</b>         |            |                |            |                |
| Aboriginal labour force | 7.3        | ...            | 8.5        | ...            |
| Employment rate         | 55.2       | 65.2           | 59.2       | 65.9           |
| Unemployment rate       | 14.2       | 4.2            | 10.1       | 4.3            |
| Participation rate      | 64.4       | 68.1           | 65.8       | 68.9           |
| <b>Saskatchewan</b>     |            |                |            |                |
| Aboriginal labour force | 6.1        | ...            | 6.6        | ...            |
| Employment rate         | 48.9       | 66.0           | 51.7       | 65.6           |
| Unemployment rate       | 17.5       | 4.2            | 16.2       | 4.3            |
| Participation rate      | 59.3       | 68.9           | 61.7       | 68.6           |
| <b>Alberta</b>          |            |                |            |                |
| Aboriginal labour force | 3.3        | ...            | 3.4        | ...            |
| Employment rate         | 60.6       | 70.0           | 64.1       | 70.0           |
| Unemployment rate       | 11.6       | 4.3            | 8.5        | 3.8            |
| Participation rate      | 68.6       | 73.1           | 70.0       | 72.8           |
| <b>British Columbia</b> |            |                |            |                |
| Aboriginal labour force | 2.7        | ...            | 3.0        | ...            |
| Employment rate         | 51.4       | 60.1           | 56.1       | 62.0           |
| Unemployment rate       | 19.1       | 7.4            | 15.0       | 5.6            |
| Participation rate      | 63.5       | 64.9           | 66.0       | 65.6           |

Sources: Statistics Canada, Census of Population, 2001; Labour Force Survey, 2005

reserve have shown tremendous growth in university education attainment—60% more Aboriginal people now have university degrees (from 5% of all Aboriginal people in 2001 to 7% in 2005).<sup>4</sup> Consequently, the proportion of Aboriginal people with less than high school education also dropped, from 45% to 37% (Chart C). The proportion with a postsecondary certificate or diploma also dropped slightly for both Aboriginal and non-Aboriginal people.



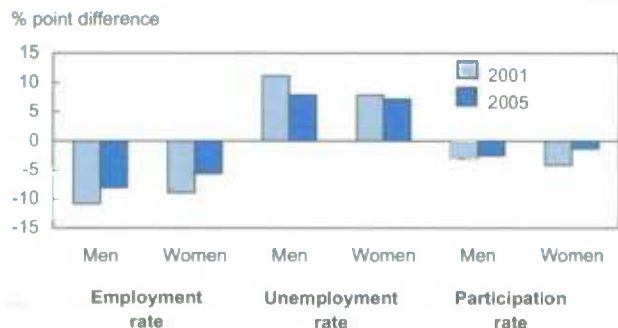
**Chart A Employment growth of working-age  
Aboriginals and non-Aboriginals,  
2001 to 2005**



Sources: Statistics Canada, Census of Population, 2001;  
Labour Force Survey, 2005

High school non-completion rates for Aboriginal youth have been a major concern. A high school diploma is generally considered a minimum requirement for most jobs in today's economy. Since 1981, the gap in educational attainment between Aboriginal and non-Aboriginal people has narrowed. Between 2001 and 2005, the proportion of 20-to-24 year-old Aboriginal youth in Western Canada who had not finished high school dropped from 41% to 31% (Chart D). The share of non-Aboriginal youth without high school completion also decreased. The gap between the two youth populations continues to be high at 21

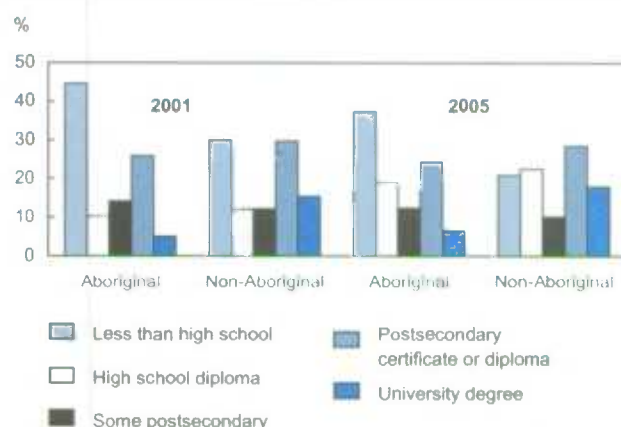
**Chart B Western Canada labour force gaps**



Note: Gaps refer to the difference between the percentage of  
Aboriginal and non-Aboriginal people.

Sources: Statistics Canada, Census of Population, 2001;  
Labour Force Survey, 2005

**Chart C Education level distribution for  
Western Canada off-reserve  
Aboriginals and non-Aboriginals**

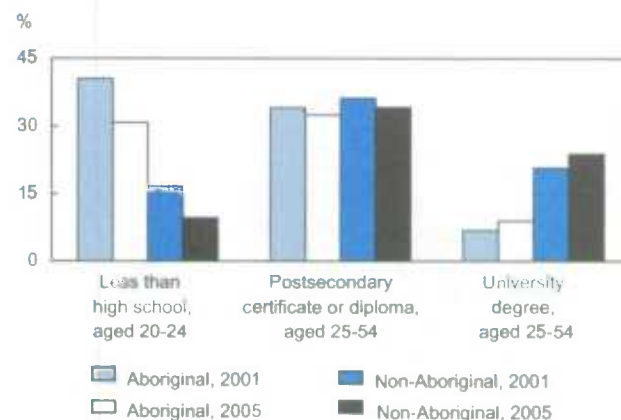


Note: Excludes full-time students.

Sources: Statistics Canada, Census of Population, 2001;  
Labour Force Survey, 2005

percentage points (24 points in 2001). On the other hand, among persons aged 25 to 54, the proportions with a postsecondary certificate or diploma were very similar for both Aboriginal and non-Aboriginal people.

**Chart D Educational attainment gap in  
Western Canada continues to narrow**



Sources: Statistics Canada, Census of Population, 2001;  
Labour Force Survey, 2005

### Postsecondary education beneficial

The likelihood of employment increases and the likelihood of unemployment decreases significantly with more education. This pattern can be illustrated with the off-reserve labour force data for Western Canada (Table 2). Among the least educated (no high school diploma), employment rates were very low in 2005 for both Aboriginal and non-Aboriginal populations (36% and 41% respectively). Among the very well-educated (university degree), Aboriginal employment rates surpassed those of the non-Aboriginal population in 2005—84% compared with 77%.<sup>5</sup>

The effect of postsecondary education on employment is particularly strong for Aboriginal women. With a university education, they had an employment rate 11 percentage points higher than non-Aboriginal women. For men, the difference was only 4 points. On the other hand, among those who did not complete postsecondary education, the gap was in the opposite direction for both women (-11 points) and men (-6 points), indicating the importance of educational credentials for Aboriginal workers. (Ciceri and Scott 2006 found a similar pattern.)

### Occupational distribution static

Even though off-reserve Aboriginal people in Western Canada had higher labour force participation and employment rates, and lower unemployment rates in 2005 than in 2001, their occupational profile changed very little (Table 3). Overall, the top three occupations in both years were sales and service (mainly retail sales clerks and cash-

**Table 2 Western Canada education levels, 2005**

|                                      | Employment rate | Unemployment rate | Employment gap <sup>1</sup> |       |
|--------------------------------------|-----------------|-------------------|-----------------------------|-------|
|                                      |                 |                   | 2005                        | 2001  |
| <b>Both sexes</b>                    |                 | %                 | % point                     |       |
| <b>Aboriginal</b>                    |                 |                   |                             |       |
| Less than high school                | 36.3            | 21.2              | -5.1                        | -7.0  |
| High school diploma                  | 70.2            | 9.3               | 1.8                         | -2.5  |
| Some postsecondary                   | 57.5            | 13.6              | -8.5                        | -10.7 |
| Postsecondary certificate or diploma | 76.0            | 8.2               | 2.4                         | -2.4  |
| University degree                    | 84.1            | 3.9               | 7.6                         | -2.2  |
| <b>Non-Aboriginal</b>                |                 |                   |                             |       |
| Less than high school                | 41.4            | 8.6               |                             |       |
| High school diploma                  | 68.4            | 4.8               |                             |       |
| Some postsecondary                   | 66.0            | 5.2               |                             |       |
| Postsecondary certificate or diploma | 73.6            | 3.5               |                             |       |
| University degree                    | 76.5            | 3.5               |                             |       |
| <b>Men</b>                           |                 |                   |                             |       |
| <b>Aboriginal</b>                    |                 |                   |                             |       |
| Less than high school                | 43.2            | 20.4              | -6.9                        | -14.8 |
| High school diploma                  | 75.4            | 9.7               | -0.6                        | -9.2  |
| Some postsecondary                   | 63.8            | 10.7 <sup>E</sup> | -5.7                        | -9.8  |
| Postsecondary certificate or diploma | 80.7            | 9.5               | 2.0                         | -2.5  |
| University degree                    | 82.3            | F                 | 3.8                         | 2.1   |
| <b>Non-Aboriginal</b>                |                 |                   |                             |       |
| Less than high school                | 50.1            | 8.0               |                             |       |
| High school diploma                  | 76.0            | 5.0               |                             |       |
| Some postsecondary                   | 69.5            | 5.5               |                             |       |
| Postsecondary certificate or diploma | 78.7            | 3.4               |                             |       |
| University degree                    | 78.5            | 3.5               |                             |       |
| <b>Women</b>                         |                 |                   |                             |       |
| <b>Aboriginal</b>                    |                 |                   |                             |       |
| Less than high school                | 30.0            | 22.1              | -2.4                        | -9.1  |
| High school diploma                  | 65.5            | 9.0               | 4.2                         | -5.4  |
| Some postsecondary                   | 52.1            | 16.4              | -10.5                       | -10.4 |
| Postsecondary certificate or diploma | 72.4            | 7.1               | 3.9                         | -1.5  |
| University degree                    | 85.2            | F                 | 10.8                        | 3.1   |
| <b>Non-Aboriginal</b>                |                 |                   |                             |       |
| Less than high school                | 32.4            | 9.4               |                             |       |
| High school diploma                  | 61.3            | 4.6               |                             |       |
| Some postsecondary                   | 62.6            | 4.7               |                             |       |
| Postsecondary certificate or diploma | 68.5            | 3.7               |                             |       |
| University degree                    | 74.4            | 3.5               |                             |       |

<sup>1</sup> Difference between Aboriginal and non-Aboriginal employment rates.

Sources: Statistics Canada, Census of Population, 2001; Labour Force Survey, 2005

iers, food and beverage occupations, protective service, and child care and home support); trades, transport and equipment operators (mainly mechanics, contractors, construction trade workers, and transportation

**Table 3 Western Canada labour force by occupation**

| Occupation   | 2001       |                | 2005             |                |
|--|------------|----------------|------------------|----------------|
|  | Aboriginal | Non-Aboriginal | Aboriginal       | Non-Aboriginal |
|  | 173        | 4,519          | 206              | 4,953          |
|  |            |                | '000             |                |
|  |            |                | %                |                |
| Sales and service                                  | 29.6       | 24.1           | 30.5             | 24.9           |
| Trades, transport and equipment operators          | 20.1       | 15.1           | 19.7             | 16.1           |
| Business, finance and administration               | 14.2       | 17.4           | 15.0             | 17.6           |
| Social science, education, government and religion | 8.4        | 7.5            | 8.6              | 7.7            |
| Unique to primary industry                         | 7.1        | 6.7            | 5.6              | 5.7            |
| Management   | 6.1        | 10.4           | 5.3              | 8.5            |
| Unique to processing, manufacturing and utilities  | 6.0        | 4.5            | 5.3              | 4.5            |
| Health   | 3.6        | 5.4            | 4.4              | 5.8            |
| Natural and applied sciences                       | 2.9        | 6.2            | 3.4              | 6.5            |
| Art, culture, recreation and sport                 | 2.0        | 2.7            | 2.2 <sup>E</sup> | 2.9            |

Note: Off-reserve Aboriginal people only.

Sources: Statistics Canada, Census of Population, 2001; Labour Force Survey, 2005

equipment operators); and business, finance and administration (mainly clerical workers, and administrative and regulatory workers). These three accounted for almost two-thirds of the off-reserve Aboriginal labour force in Western Canada.

On the surface, the non-Aboriginal labour force showed a similar pattern, with the top three occupations being the same and representing just under 60% of the total. However, non-Aboriginals exhibited some differences within these categories. For example, within sales and service occupations, a larger proportion were wholesale, technical, insurance and real estate sales specialists. Similarly, within the business, finance and administration group, they held a greater share of the professional occupations in business and finance.

Most of the growth in the off-reserve Aboriginal labour force over the period was dominated by

the three largest occupational sectors: sales and service (35%); business, finance and administration (19%); and trades, transport and equipment operators (18%). Non-Aboriginal job growth showed a similar pattern, with the same three being the top contributors to growth. A notable difference, however, was that management occupations, an area with relatively few Aboriginal workers, lost 53,000 jobs.

### Aboriginal youth in the labour force

In 2005, almost one-quarter of the Aboriginal labour force in Western Canada was aged 15 to 24 (10% aged 15 to 19, and 13% 20 to 24). This compares with only 16% among the non-Aboriginal labour force (7% 15 to 19, and 10% 20 to 24).

While participation rates for non-Aboriginals aged 20 to 24 fell between 2001 and 2005, they

increased for their Aboriginal counterparts, likely as a result of higher education levels (Table 4). In particular, more Aboriginal men 20 to 24 had completed high school than ever before, narrowing the employment and labour force participation gap between the two groups. In fact, the 2005 participation rate for Aboriginal men (82%) was slightly higher than for non-Aboriginal men (81%). In contrast, Aboriginal women in this age group continued to have a much lower labour force participation rate (65% versus 77%)—partly because young Aboriginal women are more likely to be out of the labour force for personal or family reasons.

Aboriginal youth (particularly those 15 to 19) were found mainly in sales and service jobs (cashiers, food service, retail sales, cooks, and food and beverage servers).<sup>6</sup> This was followed by trades, transport and equipment operators and related occupations (construction trades helpers, labourers and handlers, truck and delivery drivers) and business, finance and administrative occupations (customer service clerks, tellers, receptionists, shippers and receivers), both of which were led by the 20-to-24 segment. The occupational pattern for young non-Aboriginals was similar, except for a higher concentration in business, finance and administration.

### Skilled Aboriginal trades workers in high demand

Disparity in educational attainment implies that the skill level (see *Data source and definitions*) of jobs held by Aboriginal people tends to be considerably lower than for non-Aboriginal people (Table 5). Fewer Aboriginal workers have a university degree, so many professions



## Data sources and definitions

The **Labour Force Survey (LFS)** collects monthly information on labour market activity from the civilian, non-institutionalized population 15 years of age and over. Residents of the territories are surveyed but the data are excluded from the national total. Persons living on Indian reserves are also excluded. The survey consists of a rotating panel sample of approximately 54,000 households, with each household remaining in the sample for six consecutive months. The LFS divides the working-age population into three mutually exclusive classifications: employed, unemployed, and not in the labour force. For a full listing and description of LFS variables, see *Guide to the Labour Force Survey* (Statistics Canada catalogue no. 71-543-GIE).

### Aboriginal identity

One of the greatest challenges is measuring the Aboriginal population. The 2001 Census identifies Aboriginal people in several ways:

- self-identification as an Aboriginal person (North American Indian, Métis or Inuit)
- Aboriginal ancestry—persons who reported at least one Aboriginal origin in the census question on ethnic origin.
- member of an Indian Band or First Nation (self-reported)
- Registered or Treaty Indian—persons who reported being registered under the *Indian Act* of Canada. Treaty Indians are registered under the *Indian Act* and can prove descent from a Band that signed a treaty.

In 1991 and previous censuses, Aboriginal persons were identified using the ethnic origin (ancestry) question. Beginning in August 2002, the LFS added two questions to allow Aboriginal people in Alberta living off-reserve to identify themselves. In April 2004, the questions were extended to British Columbia, Saskatchewan and Manitoba. The first question asked if the respondent was an Aboriginal person—that is, North American Indian, Métis or Inuit. If yes, a second question asked specifically to which group they belonged. Because of historical changes in the census to the ethnic origin and Aboriginal identity questions, this article focuses on the 2001 Census Aboriginal identity question, which is the same as in the 2005 Labour Force Survey. Self-identification is now used more often to define affiliation with an Aboriginal group (Guimond 2003).

**Labour force:** Persons 15 years of age and over who were employed or unemployed during the survey reference week.

**Participation rate:** Labour force expressed as a percentage of the population. The participation rate for a particular group is the labour force in that group expressed as a percentage of the population for that group.

**Employment rate:** The percentage of the population employed.

**Occupational classification and skill level:** The National Occupational Classification comprises more than 500 occupations. The Essential Skills Research Project, carried out by Human Resources and Skills Development Canada, estimated the skill level of each occupation. The assigned code reflects both the education level usually required in the labour market and some criteria covering experience, specific training, and responsibility related to health and safety (as in the case of police officers and nurses). The skill levels are university degree; a college diploma or certificate, or apprenticeship training; no more than a high school diploma.

Managers are treated separately, given the diversity of their experience and education. The skill levels attributed to occupations date from the early 1990s, so levels for some occupations may differ slightly in 2001 or 2005. For example, occupations requiring a college diploma or certificate in 1991 may have required a university degree in 2001 or 2005. Similarly, occupations previously requiring high school graduation may now require a college diploma.

### Differences between the census and the Labour Force Survey

In the census, the labour force refers to persons aged 15 and over who were either employed or unemployed during the week prior to Census Day (May 15, 2001). In the LFS, information is collected for the week containing the 15<sup>th</sup> day of the month.

Both the census and the LFS use the National Occupational Classification for Statistics 2001 coding system. However, the census is a self-completed survey whereas the LFS is conducted using trained interviewers who understand the occupational descriptions and can probe for further information. For more information, see Statistics Canada (2002).

may not be accessible to them. Indeed, they are under-represented in occupations normally requiring a university education and over-represented in occupations requiring a high school diploma or less. Disparity has widened among the latter group since 2001.

Although Aboriginal numbers are increasing at universities, most of those taking postsecondary education do so at the college or trade level. According to the National Graduates Survey, Aboriginal people accounted for 17% of Manitoba's college-level gradu-

ates in 2000, but only 9% at the bachelor's level (Vaillancourt 2005). The proportion of graduates at the college level roughly reflected the proportion of Aboriginal people in the general Manitoban population, while they were under-represented at the bachelor's level. Aboriginal graduates also tended to choose different fields of study—health, parks, recreation and fitness—while their non-Aboriginal counterparts tended to choose engineering technologies. This survey also found that Aboriginal college graduates were

#### Table 4 Western Canada, 20 to 24 year-olds

|                       | 2001            |                    | 2005              |                    |
|-----------------------|-----------------|--------------------|-------------------|--------------------|
|                       | Aborig-<br>inal | Non-<br>Aboriginal | Aborig-<br>inal   | Non-<br>Aboriginal |
|                       |                 |                    | '000              |                    |
| Population            | 34              | 543                | 39                | 652                |
| Labour force          | 24              | 448                | 28                | 517                |
| Employment            | 19              | 401                | 24                | 483                |
| Unemployment          | 5               | 47                 | 4                 | 34                 |
| <b>Both sexes</b>     |                 |                    | %                 |                    |
| Participation rate    | 68.7            | 80.1               | 72.8              | 79.3               |
| Employment rate       | 56.2            | 73.6               | 62.2              | 74.1               |
| Unemployment rate     | 18.2            | 6.2                | 14.5              | 6.6                |
| <b>Men</b>            |                 |                    |                   |                    |
| Participation rate    | 79.2            | 82.4               | 82.2              | 81.4               |
| Employment rate       | 63.8            | 75.0               | 69.0              | 75.3               |
| Unemployment rate     | 19.5            | 9.1                | 16.1 <sup>E</sup> | 7.5                |
| <b>Women</b>          |                 |                    |                   |                    |
| Participation rate    | 59.8            | 77.7               | 64.5              | 77.2               |
| Employment rate       | 49.7            | 72.1               | 56.3              | 72.8               |
| Unemployment rate     | 16.8            | 7.1                | F                 | 5.7                |
| <b>Education</b>      |                 |                    |                   |                    |
| <b>Both sexes</b>     |                 |                    |                   |                    |
| Less than high school | 40.4            | 16.9               | 28.5              | 9.7                |
| High school diploma   | 17.0            | 16.1               | 30.6              | 31.6               |
| <b>Men</b>            |                 |                    |                   |                    |
| Less than high school | 43.2            | 19.6               | 25.9              | 11.7               |
| High school diploma   | 18.7            | 18.4               | 35.2              | 33.6               |
| <b>Women</b>          |                 |                    |                   |                    |
| Less than high school | 38.1            | 13.9               | 30.8              | 7.7                |
| High school diploma   | 15.6            | 13.8               | 26.6              | 29.6               |

Note: Off-reserve Aboriginal people only.

Sources: Statistics Canada, Census of Population, 2001; Labour Force Survey, 2005

employment growth in Canada between 1991 and 2001, much of Western Canada's job growth in subsequent years has been in occupations normally requiring a college diploma or certificate, or apprenticeship training. Western Canada added 283,000 such jobs between 2001 and 2005, accounting for just over 60% of job growth. Aboriginal people accounted for about 15,000 of these positions—46% of their total job growth during these years. Indeed, about one-third of both Aboriginal and non-Aboriginal people in 2005 were in jobs requiring college education or apprenticeship training. This category includes police officers, firefighters, trade professions, as well as registered nursing assistants.

In Alberta, the need for skilled workers is so critical that the provincial government is promoting the trades, particularly among Aboriginal youth (Jacobs 2006). According to the Alberta government, some 1,100 Aboriginal people (on- and off-reserve) were apprentices in 2006, up dramatically from 200 four years ago. The

less likely to be employed (80% had a job two years later compared with 90% of non-Aboriginal college graduates), and that compared with counterparts outside Manitoba, their earnings were lower. Aboriginal graduates also tended to be less likely to enter their program directly from secondary school. Accordingly, they tended to be older and, at the bachelor's level, less likely to be single and more likely to have children.

Although occupations normally requiring a university education accounted for almost half of total

Table 5 Western Canada jobs by skill level

|   | 2001            |                    | 2005            |                    |
|---|-----------------|--------------------|-----------------|--------------------|
|   | Aborig-<br>inal | Non-<br>Aboriginal | Aborig-<br>inal | Non-<br>Aboriginal |
|   |                 |                    |                 |                    |
| <b>Total</b>  | <b>173</b>      | <b>4,519</b>       | <b>206</b>      | <b>4,953</b>       |
| Managerial level                                    | 11              | 472                | 11              | 419                |
| University degree                                   | 15              | 678                | 21              | 796                |
| College diploma or certificate<br>or apprenticeship | 53              | 1,437              | 68              | 1,705              |
| High school diploma or less                         | 95              | 1,932              | 106             | 2,034              |

Note: For a discussion of skill levels, see *Data source and definitions*.

Sources: Statistics Canada, Census of Population, 2001; Labour Force Survey, 2005

Construction Sector Council and the Aboriginal Human Resource Development Council of Canada are also forecasting shortages. Since more than 62,000 construction workers across Canada are expected to retire within the next 10 years, the shortage could represent a major opportunity for Aboriginal youth, irrespective of where they live.

### Summary

Historically, Aboriginal people have not fared well in the labour market as lower educational attainment has channelled them into less skilled jobs. They also have higher unemployment rates. Labour force indicators from 2001 show that living in more remote locations has been a factor—Aboriginal people living on reserves had an unemployment rate of 27% in 2001, nearly four times that of Canada as a whole.

The good news is that Aboriginal people are starting to benefit from the increasingly tighter labour market conditions, particularly in Alberta and British Columbia. In fact, labour-force participation rates for Aboriginal people living off-reserve surpassed those of the non-Aboriginal population in both Calgary and Vancouver in 2005. Employment among Aboriginal people in the West rose 23% between 2001 and 2005, versus only 11% among non-Aboriginals. In addition, their unemployment rate dropped 3 percentage points, the improvement in education levels likely being an important factor. In fact, while only 7% of working-age Aboriginal people had a university degree, those that did were even more likely than non-Aboriginals to hold a job in 2005 (84% versus 77%).

The proportion of Aboriginal people living off-reserve in Western Canada who work in occupations requiring college, trade or apprenticeship training (such as trades and construction) has grown over the last few years. Such skills, particularly in the primary industries, can be easily applied anywhere in Canada, and as such may be one of the keys to employment mobility, particularly for more remote areas. With on-reserve populations expected to increase and housing shortages forecast, the establishment of trade education programs in these locations could be particularly relevant. Nevertheless, in 2005, one-third of the Aboriginal labour force in Western Canada was employed in occupations requiring only a high school education.

The evidence concerning Aboriginal people's labour market outcomes in Western Canada shows that progress is being made. Nevertheless, substantial gaps remain between the Aboriginal and non-Aboriginal populations. For example, young Aboriginal women (20 to 24) who live off-reserve continue to have lower rates of labour force participation and high school completion than their non-Aboriginal counterparts. Secondly, the employment gap remains high in cities such as Regina and Saskatoon, which are home to a large portion of the Aboriginal population. In spite of these challenges, current trends seem to signal improvement in the labour market performance of Aboriginal people.

---

### Perspectives

---



## APPENDIX

**Table A1 Aboriginal population 15 and older**

In 2001, the majority of the Aboriginal population lived in Western Canada (61%) while 20% lived in Ontario.

Provincially, Manitoba had the largest share of Aboriginal people (11%); Nunavut led the territories (80%).

Yukon had the largest share of North American Indians (85%); not surprisingly, Nunavut had the highest percentage of Inuit.

Alberta had the largest share of Métis (45%).

|                           | Total population <sup>1</sup> | Aboriginal identity |
|---------------------------|-------------------------------|---------------------|
|                           |                               | '000                |
| <b>Canada</b>             | <b>23,901</b>                 | <b>652</b>          |
| <b>Atlantic</b>           | <b>1,847</b>                  | <b>38</b>           |
| Newfoundland and Labrador | 419                           | 14                  |
| Prince Edward Island      | 107                           | 1                   |
| Nova Scotia               | 732                           | 12                  |
| New Brunswick             | 589                           | 12                  |
| Quebec                    | 5,832                         | 56                  |
| Ontario                   | 9,048                         | 133                 |
| <b>Western Canada</b>     | <b>7,107</b>                  | <b>395</b>          |
| Manitoba                  | 869                           | 96                  |
| Saskatchewan              | 756                           | 79                  |
| Alberta                   | 2,322                         | 103                 |
| British Columbia          | 3,160                         | 118                 |
| Northwest Territories     | 27                            | 12                  |
| Yukon                     | 22                            | 5                   |
| Nunavut                   | 17                            | 13                  |

<sup>1</sup> Includes the Aboriginal groups (North American Indian, Métis and Inuit) and multiple Aboriginal responses.

Source: Statistics Canada, Census of Population, 2001

**Table A2 Area of residence**

Twenty-eight percent of Aboriginal people lived on reserves in 2001.

|                        | On reserve  | Off-reserve |             |
|------------------------|-------------|-------------|-------------|
|                        |             | Rural       | Urban       |
|                        |             | %           |             |
| <b>Age 15 and over</b> | <b>27.8</b> | <b>20.3</b> | <b>52.0</b> |
| 15 to 24               | 29.3        | 18.9        | 51.8        |
| 25 to 54               | 26.5        | 19.9        | 53.6        |
| 55 and over            | 30.5        | 24.1        | 45.5        |

Source: Statistics Canada, Census of Population, 2001

**Table A3 Population by age**

The Aboriginal age distribution is considerably younger than the non-Aboriginal.

Thirteen percent of the non-Aboriginal population was 65 and over compared with only 4% of the Aboriginal population.

In contrast, one-third of the Aboriginal population was under 15 compared with only one-fifth of the non-Aboriginal population.

|                 | Aboriginal | Non-Aboriginal |
|-----------------|------------|----------------|
|                 |            | '000           |
| <b>All ages</b> | <b>976</b> | <b>28,663</b>  |
| 0 to 4          | 103        | 1,599          |
| 5 to 9          | 113        | 1,868          |
| 10 to 14        | 108        | 1,947          |
| 15 to 19        | 93         | 1,951          |
| 20 to 24        | 76         | 1,868          |
| 25 to 34        | 149        | 3,825          |
| 35 to 44        | 146        | 4,928          |
| 45 to 54        | 96         | 4,297          |
| 55 to 64        | 53         | 2,795          |
| 65 and over     | 40         | 3,585          |

Source: Statistics Canada, Census of Population, 2001

**Table A4 Top 10 Aboriginal occupations**

The most common occupational category for Aboriginal men in 2001 was construction trades—7.4% compared with only 4.1% of non-Aboriginal men. Such jobs include plumbers, carpenters, painters, and shinglers. Just under one-third of Aboriginal men in these occupations lived on-reserve and were younger (37) than their non-Aboriginal counterparts (40).

The most common occupations for Aboriginal men on-reserve in 2001 were in the forestry, mining, fishing, and oil and gas extraction industries. Such jobs include logging machinery operators, oil and gas drillers, and trappers and hunters.

The most common occupations among Aboriginal women in 2001 were clerical, which include general office clerks, data entry clerks, library clerks, letter carriers, and bank and financial clerks. Although 13.4% of Aboriginal women were found in these occupations, slightly more non-Aboriginal women had jobs in this area (14.7%).

The most common occupations among Aboriginal women living on-reserve in 2001 were in child care and home support. Aboriginal women on-reserve were also highly likely to be secondary or elementary teachers or counsellors.

|  | Aboriginal  |              | Non-Aboriginal |              |
|--|-------------|--------------|----------------|--------------|
|  | Average age | %            | Average age    | %            |
| <b>Men</b>   | <b>36</b>   | <b>100.0</b> | <b>40</b>      | <b>100.0</b> |
| Construction trades  | 37          | 7.4          | 40             | 4.1          |
| Trades helpers, construction and transportation labourers and related        | 33          | 6.9          | 36             | 3.5          |
| Motor vehicle and transit drivers  | 40          | 6.4          | 42             | 5.2          |
| Forestry, mining, oil and gas extraction and fishing, excluding labourers    | 37          | 5.7          | 40             | 1.4          |
| Cleaners   | 37          | 4.6          | 40             | 2.7          |
| Other sales and service occupations  | 24          | 3.9          | 27             | 3.3          |
| Protective services  | 36          | 3.7          | 39             | 2.4          |
| Mechanics  | 38          | 3.6          | 40             | 2.6          |
| Primary production labourers   | 32          | 3.5          | 33             | 1.3          |
| Clerical occupations   | 34          | 3.4          | 37             | 4.9          |
| <b>Women</b>   | <b>36</b>   | <b>100.0</b> | <b>39</b>      | <b>100.0</b> |
| Clerical occupations   | 35          | 13.4         | 39             | 14.7         |
| Salespersons and cashiers  | 30          | 7.6          | 32             | 8.2          |
| Paralegals, social service workers and occupations in education and religion | 36          | 6.5          | 37             | 3.4          |
| Childcare and home support   | 37          | 6.2          | 40             | 3.3          |
| Cleaners   | 39          | 6.0          | 42             | 2.6          |
| Other sales and service occupations  | 30          | 5.3          | 32             | 4.3          |
| Secretaries  | 37          | 4.0          | 43             | 5.0          |
| Food and beverage service  | 28          | 3.9          | 29             | 2.9          |
| Secondary and elementary school teachers and educational counsellors         | 40          | 3.8          | 42             | 4.1          |
| Assisting occupations in support of health services                          | 39          | 2.8          | 39             | 2.5          |

Source: Statistics Canada, Census of Population, 2001

Research has shown that many people on reserves would prefer to have a job close to home rather than a better job somewhere else (EKOS 2004). Although Aboriginal youth were more likely to prefer the best job available, those aged 25 to 44 had the greatest preference for staying close to home, as did those who had a college level education. Indeed, the emotional support of family was considered an important factor in the choice of employment, a sentiment that increased with age and education.

**Table A5 Top 10 occupations, 15 to 24 year-olds**

The most common occupations for Aboriginal youth were in sales and service, accounting for almost 1 in 4 jobs held by this group. Other common jobs were clerical, trades and cleaners. Non-Aboriginal youth showed a similar pattern.

Among Aboriginal youth on-reserve, jobs in child care and home support as well as education and social services were also prominent.

Sales and service jobs were common among Aboriginal youth of both sexes. Trades, labourer, and primary industry-related occupations were more common among young men, with the latter being particularly important for those on-reserve. Clerical, child care and home support, education and social service, and secretarial jobs were more popular among young Aboriginal women, with the latter three areas being relatively more plentiful among those on-reserve.

|   | Aboriginal   | Non-Aboriginal |
|---|--------------|----------------|
|   | %            |                |
| <b>Both sexes</b>   | <b>100.0</b> | <b>100.0</b>   |
| Other sales and service   | 13.0         | 13.0           |
| Salespersons and cashiers   | 11.1         | 15.5           |
| Clerical occupations  | 8.0          | 10.4           |
| Trades helpers, construction and transportation labourers and related         | 5.6          | 3.5            |
| Food and beverage service   | 5.5          | 5.3            |
| Cleaners  | 4.7          | 2.9            |
| Primary production labourers  | 3.9          | 2.2            |
| Childcare and home support  | 3.5          | 1.9            |
| Paralegals, social service workers and occupations in education and religion  | 3.4          | 1.8            |
| Chefs and cooks   | 3.1          | 2.8            |
| <b>Men</b>  | <b>100.0</b> | <b>100.0</b>   |
| Other sales and service   | 12.9         | 14.4           |
| Trades helpers, construction and transportation labourers and related         | 9.6          | 6.3            |
| Primary production labourers  | 6.3          | 3.5            |
| Salespersons and cashiers   | 5.0          | 9.0            |
| Construction trades   | 5.0          | 3.0            |
| Cleaners  | 4.8          | 3.7            |
| Clerical occupations  | 4.7          | 7.5            |
| Labourers in manufacturing and utilities                                      | 4.4          | 3.6            |
| Forestry, mining, oil and gas extraction and fishing, excluding labourers     | 4.4          | 1.0            |
| Chefs and cooks   | 3.8          | 3.9            |
| <b>Women</b>  | <b>100.0</b> | <b>100.0</b>   |
| Salespersons and cashiers   | 17.9         | 22.4           |
| Other sales and service   | 13.1         | 11.5           |
| Clerical occupations  | 11.7         | 13.4           |
| Food and beverage service   | 9.9          | 8.5            |
| Childcare and home support  | 6.1          | 3.3            |
| Paralegals, social services workers and occupations in education and religion | 5.7          | 3.2            |
| Cleaners  | 4.5          | 2.0            |
| Secretaries   | 2.4          | 2.1            |
| Chefs and cooks   | 2.3          | 1.7            |
| Travel and accommodation (including casino occupations)                       | 1.9          | 1.6            |

Source: Statistics Canada, Census of Population, 2001

**Table A6 Hourly earnings of employees**

Aboriginal employees earned less on average than their non-Aboriginal counterparts (\$14.20 versus \$15.50 per hour).

These average hourly earnings mask important distributional differences. For example, 1 in 4 Aboriginal employees earned less than \$10 per hour, compared with only 1 in 6 non-Aboriginal employees.

|                    | Aboriginal   |              |              | Non-Aboriginal |              |              |
|--------------------|--------------|--------------|--------------|----------------|--------------|--------------|
|                    | Both sexes   | Men          | Women        | Both sexes     | Men          | Women        |
| <b>Overall</b>     | <b>14.20</b> | <b>14.80</b> | <b>13.60</b> | <b>15.50</b>   | <b>16.10</b> | <b>14.80</b> |
|                    | \$           |              |              |                |              |              |
| \$0.01 to \$9.99   | 24.8         | 20.7         | 28.6         | 16.5           | 12.1         | 21.1         |
| \$10.00 to \$15.99 | 32.8         | 30.6         | 34.8         | 28.3           | 24.6         | 32.1         |
| \$16.00 to \$19.99 | 13.8         | 13.6         | 14.0         | 15.2           | 14.5         | 16.0         |
| \$20.00 and over   | 28.6         | 35.1         | 22.6         | 40.0           | 48.8         | 30.8         |
|                    | %            |              |              |                |              |              |

Source: Statistics Canada, Labour Force Survey, 2005

Only 29% of Aboriginal employees earned \$20 or more per hour, compared with 40% of non-Aboriginal employees.



**Table A7 Labour market rates by province, age and sex**

|                              | Participation rate |             |             | Employment rate |             |             | Unemployment rate |             |            |
|------------------------------|--------------------|-------------|-------------|-----------------|-------------|-------------|-------------------|-------------|------------|
|                              | Aboriginal         |             |             | Aboriginal      |             |             | Aboriginal        |             |            |
|                              | Off-reserve        | On-reserve  | Other       | Off-reserve     | On-reserve  | Other       | Off-reserve       | On-reserve  | Other      |
| <b>Province or territory</b> |                    |             |             | %               |             |             |                   |             |            |
| <b>Canada</b>                | <b>64.1</b>        | <b>51.4</b> | <b>66.1</b> | <b>54.2</b>     | <b>37.7</b> | <b>61.8</b> | <b>15.4</b>       | <b>26.6</b> | <b>6.5</b> |
| Newfoundland and Labrador    | 58.2               | F           | 56.4        | 40.0            | 44.0        | 45.2        | 31.3              | 42.6        | 19.8       |
| Prince Edward Island         | 63.5               | F           | 68.3        | 49.3            | 45.3        | 60.0        | 22.3              | F           | 12.1       |
| Nova Scotia                  | 64.4               | 51.9        | 60.9        | 54.1            | 37.0        | 55.1        | 16.0              | 28.6        | 9.7        |
| New Brunswick                | 64.6               | 53.7        | 62.5        | 50.2            | 33.0        | 55.4        | 22.2              | 38.5        | 11.3       |
| Quebec                       | 60.0               | 52.9        | 63.8        | 50.9            | 40.8        | 59.0        | 15.1              | 23.0        | 7.6        |
| Ontario                      | 65.4               | 57.3        | 66.9        | 57.6            | 45.2        | 63.3        | 11.9              | 21.1        | 5.4        |
| Manitoba                     | 64.4               | 46.0        | 68.1        | 55.2            | 32.3        | 65.2        | 14.2              | 29.7        | 4.2        |
| Saskatchewan                 | 59.3               | 42.8        | 68.9        | 48.9            | 29.2        | 66.0        | 17.5              | 31.8        | 4.2        |
| Alberta                      | 68.6               | 45.5        | 73.1        | 60.6            | 33.5        | 70.0        | 11.6              | 26.4        | 4.3        |
| British Columbia             | 63.5               | 57.6        | 64.9        | 51.4            | 41.6        | 60.1        | 19.1              | 27.7        | 7.4        |
| Yukon                        | 71.1               | 68.8        | 81.2        | 54.4            | 48.4        | 75.3        | 23.4              | 29.7        | 7.3        |
| Northwest Territories        | 69.3               | 62.6        | 87.2        | 59.7            | 50.7        | 84.3        | 13.8              | 19.0        | 3.5        |
| Nunavut                      | 61.1               | ...         | 93.2        | 47.6            | ...         | 90.6        | 22.1              | ...         | 2.8        |
| <b>Sex</b>                   |                    |             |             |                 |             |             |                   |             |            |
| Men                          | 70.4               | 55.8        | 72.4        | 58.5            | 38.0        | 67.6        | 16.9              | 31.8        | 6.7        |
| Women                        | 58.6               | 47.0        | 60.1        | 50.5            | 37.4        | 56.4        | 13.8              | 20.4        | 6.3        |
| <b>Age</b>                   |                    |             |             |                 |             |             |                   |             |            |
| <b>Both sexes</b>            |                    |             |             |                 |             |             |                   |             |            |
| 15 to 24                     | 54.6               | 31.8        | 63.6        | 43.2            | 19.5        | 56.8        | 20.9              | 38.6        | 10.7       |
| 25 to 54                     | 75.5               | 67.3        | 85.1        | 65.0            | 50.7        | 80.3        | 13.9              | 24.7        | 5.7        |
| <b>Men</b>                   |                    |             |             |                 |             |             |                   |             |            |
| 15 to 24                     | 58.1               | 34.6        | 64.4        | 45.2            | 19.9        | 56.9        | 22.2              | 42.5        | 11.6       |
| 25 to 54                     | 83.1               | 72.4        | 90.9        | 70.3            | 50.5        | 85.7        | 15.4              | 30.3        | 5.7        |
| <b>Women</b>                 |                    |             |             |                 |             |             |                   |             |            |
| 15 to 24                     | 51.4               | 28.8        | 62.8        | 41.3            | 19.1        | 56.6        | 19.6              | 33.7        | 9.9        |
| 25 to 54                     | 69.0               | 62.2        | 79.5        | 60.5            | 50.9        | 75.0        | 12.4              | 18.2        | 5.6        |

Source: Statistics Canada, Census of Population, 2001

In 2001, Aboriginal people made up about 2.7% of Canada's population and about 2.5% of the labour force.

Aboriginal participation and employment rates (60.6% and 49.7% respectively) fell short of the non-Aboriginal rates (66.1% and 61.8%), and their unemployment rate was much higher (18.0% versus 6.5%).

In Manitoba and Saskatchewan, the provinces with the highest percentages of Aboriginal people, Aboriginal unemployment rates were 18.2% and 21.6% respectively. These were over four times the non-Aboriginal rates.

Aboriginal unemployment rates were high in the Atlantic provinces (where the proportion of Aboriginal people is lower), ranging from 20.4% in Nova Scotia to 31.9% in Newfoundland and Labrador.

Despite the greater likelihood of Aboriginal people being unemployed in Atlantic Canada, their labour force participation was on a par with non-Aboriginals, and in some cases higher.

In contrast, some provinces and territories such as Saskatchewan and Nunavut had a high level of Aboriginal unemployment, as well as a low labour force participation.

Aboriginal men had the highest unemployment rate in 2001, at 20.6%. This was higher than the rate for Aboriginal women (15.3%) and three times the rate of non-Aboriginal men (6.7%).

Aboriginal women, while faring better than Aboriginal men, still faced an unemployment rate more than twice that of non-Aboriginal women (6.3%).

Young Aboriginal men (15 to 24) had a particularly difficult time finding work; their unemployment rate was 26.3% in 2001. Although youth traditionally have higher unemployment rates than the core working-age population, this rate was more than twice that of young non-Aboriginal men.

Young Aboriginal women also faced higher unemployment than their non-Aboriginal counterparts—22.2% versus 9.9%.

The employment rate was only 37.7% among the on-reserve Aboriginal population—almost the same as in the 1996 Census. More than one-quarter of the Aboriginal population 15 and over lived on reserves in 2001, and this is expected to grow to 40% by 2017 (Statistics Canada 2005).

Although population growth was strong among working-age Aboriginal people, both on- and off-reserve, employment increased more rapidly among those living off-reserve. Those on-reserve may be disadvantaged in terms of employment prospects, given remote locations and limited access to education, training, job market information, and child care (EKOS 2004). Indeed, more than half had not completed high school in 2001, compared with 44% living off-reserve and 31% of non-Aboriginals.

Aboriginals living on-reserve experienced higher unemployment—about 1 in 4 of those in the labour force in 2001. The rate for Aboriginal people living off-reserve was much lower at 15.4%, but still more than twice the non-Aboriginal rate (6.5%).

### Perspectives

#### ■ Notes

- 1 In 2001, Aboriginal people living off-reserve in Western Canada accounted for 43% of the total Aboriginal population in Canada and 70% of the Aboriginal population in the West.
- 2 In 2005, Aboriginal people made up 8% of the labour force in Manitoba, 7% in Saskatchewan, and about 3% in Alberta and in British Columbia.
- 3 Alberta is in the midst of the strongest period of economic growth ever recorded by any province in Canada's history. Its total GDP rose 43% between 2002 and 2005 and showed no signs of slowing down in 2006. Most of this increase reflects the soaring price of oil and gas exports, which have led to expanded business investment in pipelines as well as non-residential (office buildings, petrochemical plants) and residential construction (Cross and Bowlby 2006).
- 4 In absolute terms, the off-reserve Aboriginal population with a university degree in Western Canada grew from 14,000 to 22,000.
- 5 For the 25-to-54 core working-age group, the employment rate of university-educated Aboriginal workers still surpassed that of their non-Aboriginal counterparts, although the difference was considerably smaller (89% versus 86%).
- 6 Full-time students looking for full-time work were removed from the unemployed category. The census and the LFS treat students in the labour force differently. The census removes only high school students from the unemployment

category, whereas the LFS removes both full-time high school and university students looking for work.

#### ■ References

- Ciceri, Coryse and Katherine Scott. 2006. *The Determinants of Employment Among Aboriginal Peoples*. Paper submitted to the Policy and Research Coordination Directorate, Strategic Policy and Planning Branch, Human Resources and Social Development Canada. 53 p.
- Consulbec. 2002. *Connecting the Dots: A Study of Perceptions, Expectations and Career Choices of Aboriginal Youth*. Prepared for the Aboriginal Human Resources Development Council of Canada.
- Cross, Philip and Geoff Bowlby. 2006. "The Alberta economic juggernaut: The boom on the rise." *Canadian Economic Observer*. Vol. 19, no. 9. September. Statistics Canada Catalogue no. 11-010-XIB.  
<http://www.statcan.ca/english/freepub/11-010-XIB/00906/feature.htm> (accessed January 10, 2007).
- EKOS Research Associates. 2004. *Fall 2003 Survey of First Nations People Living On-reserve*. Final report. Prepared for Indian and Northern Affairs Canada. Ottawa. 78 p.
- Guimond, Eric. 2003. "Fuzzy definitions and population explosion: Changing identities of Aboriginal groups in Canada." In *Not Strangers in These Parts: Urban Aboriginal Peoples*. David Newhouse and Evelyn Peters (eds.). Policy Research Initiative. p. 35-49.

Jacobs, Mindelle. 2006. "Poor education has domino effect." *Edmonton Sun*. March 2, 2006.

Statistics Canada. 2002. *2001 Census Dictionary*. Statistics Canada Catalogue no. 92-378-XIE.  
<http://www12.statcan.ca/english/census01/Products/Reference/dict/index.htm> (accessed January 16, 2007).

---. 2005. *Projections of the Aboriginal populations, Canada, provinces and territories, 2001 to 2017*. Statistics Canada Catalogue no. 91-547-XIE.

<http://www.statcan.ca/english/freepub/91-547-XIE/91-547-XIE2005001.htm> (accessed January 10, 2007).

Vaillancourt, Chantal. 2005. *Manitoba Postsecondary Graduates from the Class of 2000: How Did They Fare?* Statistics Canada Catalogue no. 81-595-MIE. 74 p.

<http://www.statcan.ca/english/research/81-595-MIE/81-595-MIE2005029.pdf> (accessed January 10, 2007).

White, P., M. Michalowski and P. Cross. 2006. "The west coast boom." *Canadian Economic Observer*. Vol. 19, no. 5. May. Statistics Canada Catalogue no. 11-010-XIB.  
<http://www.statcan.ca/english/freepub/11-010-XIB/00506/feature.htm> (accessed January 10, 2007).

### Back Issues: *Did you miss something?*

*Don't worry!* Back issues of **Perspectives on Labour and Income** are available.

Feature articles in these issues include:

- |                    |   |
|--------------------|---|
| <b>Winter 2006</b> | The core-age labour force • Earnings instability • Training through the ages • Balancing career and care • Measuring housing affordability • Varia: <i>Minimum wage</i> • Cumulative index 1989-2006  |
| <b>Autumn 2006</b> | Converging gender roles • Wives as primary breadwinners • Education and earnings • Is the workplace becoming safer? • The GST credit • Increased work stoppages • Fact-sheets: <i>Unionization, Gambling</i>  |
| <b>Summer 2006</b> | Does it pay to go back to school? • Who gets student loans? • Cracking the RRSP nest egg • On sick leave • Screening job applicants • Unemployment since 1971 • Varia: <i>Work absences, Retirement</i>   |
| <b>Spring 2006</b> | Education and income of lone parents • Shifts in spending patterns of older Canadians • Recent changes in employment by industry • On the road again • Aging, health and work • Disability in the workplace • Fact sheets: <i>The labour market in 2005, Trusteed pension plans</i> |

For more information, contact **Statistics Canada, Dissemination Division, Circulation Management, 100 Tunney's Pasture Driveway, Ottawa, Ontario K1A 0T6**. Or, call toll free **1 800 267-6677**.

### Perspectives on Labour and Income

*The quarterly for labour market and income information*



# Young pensioners

*Ted Wannell*

**T**wo separate and irreconcilable views of the coming wave of baby-boom retirements seem to have emerged. One is the vision of marketers of financial products: young retirees, free of workplace shackles, strolling barefoot along a southern beach or listening to the loons from the deck of a dream cottage. From this perspective, early retirement is the reward for hard work and good planning.

The competing vision is darker: labour shortages left in the wake of retiring boomers and pressure on the government purse as they draw public pensions and become more intensive users of the health care system. Commentators who focus on these issues favour longer careers in general and fewer disincentives for seniors to work.

However, the private dream does not have to be the public policy nightmare. Recent research has shown that retirement is not an all-or-nothing proposition. Many people return to the workforce or never leave after retiring from long-term jobs (see, for example, Pyper and Giles 2002; Schellenberg, Turcotte and Ram 2005; Statistics Canada 2006a). And only a minority of recent retirees state outright that they would not continue working under any circumstances (Schellenberg and Silver 2004). Health and personal or family responsibilities are the most frequently mentioned reasons for retirement (Statistics Canada 2006b), indicating that a return to work is often possible if conditions change.

Although previous studies have yielded important insights into the retirement process, they share the common constraint of being based on general population surveys. Although the transition to retirement may be a prolonged process for an individual, the actual event of retiring from a job is a relatively rare

occurrence given the numbers employed. Accordingly, relatively few such events are observed in sample surveys. Following respondents over a period of time or asking retrospective questions increases the number of retirement observations, but accurately estimating patterns of post-retirement employment remains a challenge (Pyper and Giles 2002).

This study uses a large sample of taxfilers to address the issue of post-retirement employment (see *Data source and definitions*). The sample size enables the calculation of rates and trends for relatively rare events, such as retirement. The file lacks direct measures on the retirement process, so inferences are required based on the available information. However, patterns relating to the receipt of various types of retirement income are clear enough to provide intuitive markers of retirement behaviour. The file's real shortcoming is the much narrower range of personal characteristics (age, sex and marital status) with which to classify the results. As such, this study is very much a complement to survey-based studies.

The focus is relatively narrow: those who begin receiving private pension income before their 60<sup>th</sup> birthday—roughly one-fifth of taxfilers. These individuals represent the greatest potential loss of labour supply to the economy. Since they are generally not yet eligible for public pensions and can expect a relatively long life span, they should also be more likely than older retirees to seek re-employment.

This article looks at the trends in pension uptake and post-pension employment over the 1990s and early 2000s. Following individuals over time allows for observation of pre- and post-pension income, enabling the calculation of income replacement rates.

The findings generally accord with survey results showing a recent upturn in the median retirement age, an increase in the participation rate of older workers, and a falling-off in pension plan coverage. Re-employment patterns, income replacement rates, and the measurement of pension coverage are noted.

---

*Ted Wannell is with the Labour and Household Surveys Analysis Division. He can be reached at 613-951-3546 or [ted.wannell@statcan.ca](mailto:ted.wannell@statcan.ca).*

## Data source and definitions

Retirement is not straightforward to measure. The transition can take many paths (Pyper and Giles 2002; Statistics Canada 2006a; Bowlby 2007). Many do not lead to an immediate cessation of all work, instead involving some reduction in working hours and a weaker attachment to the labour force. The potential loss of working hours to the economy is obviously greater the younger the age at which the transition begins.

While individuals become eligible for public pensions in their 60s (as early as 60 for C/QPP and 65 for OAS and GIS), many employer-sponsored registered pension plans (RPPs) provide substantial retirement benefits for long-serving workers in their 50s. The magic number of 85 (age combined with years of service) signals the availability of unreduced pension benefits in many public-sector plans. Some employees may also choose to retire before they 'hit their numbers' if they are dissatisfied with their work or have other employment opportunities. Furthermore, some employers use special retirement incentives or reduced penalties to shrink their workforce in economic downturns. All these factors contribute to the receipt of RPP income before the age of 60.

This study uses the **Longitudinal Administrative Database (LAD)** to identify taxfilers who began collecting RPP benefits in their 50s. The LAD is based on a 20% sample of T1 tax records, which at the time of analysis covered a 22-year period ending in 2004. Each year's data are used to ascertain current family structure.

The LAD variable 'pension and superannuation income' combines RPP income with registered retirement income fund (RRIF) income, but the latter should be inconsequential before the age of 70.<sup>1</sup> The variable is used to define early pensioners under the following conditions:

- Initial receipt begins between the ages of 50 and 59.
- The recipient had positive employment or self-employment income in the year preceding initial receipt, indicating a transition from work.
- The recipient did not claim the disability deduction in the first two years of receipt, which would indicate difficulties in pursuing post-retirement employment.
- The recipient did not receive C/QPP benefits in the first two years of receipt since this may also be an indicator of disability.<sup>2</sup>
- Pension and superannuation income did not drop to zero in the year following initial receipt. This eliminates individuals who change employers and are unable to transfer all previous RPP assets to the new employer's plan or an RRSP.

Each of the cohorts in this study covers three years. The first year identifies a set of workers with positive earnings and no pension. The second marks a transition year for those who began collecting a pension. The third year provides an earnings and income comparison with the first year, which should be relatively free of partial-year effects common to transition years. Note that the non-pension comparison group contains some individuals who began receiving pensions in the third year. The cohorts are 1989 to 1991, 1994 to 1996, 1999 to 2001, and 2002 to 2004.

A **registered pension plan (RPP)** is sponsored by an employer or union and is usually funded through both employee and employer contributions. RPPs must satisfy certain conditions and be registered for the purposes of the federal *Income Tax Act*. Contributions to RPPs are tax-deductible, the investment income in them is tax-deferred, and payments from them are taxable.

A **registered retirement savings plan (RRSP)** is set up by an individual, including the self-employed, and is registered for the purposes of the federal *Income Tax Act*. Contribution limits are based on earned income. RRSPs provide retirement income based on accumulated contributions and return on investment in the plan. Contributions to an RRSP are tax-deductible, the investment income in it is tax-deferred, and payments from it are taxable.

A **registered retirement income fund (RRIF)** is for individuals, established at a financial institution, and registered under the *Income Tax Act* to provide income in retirement. RRIFs are set up by directly transferring monies from RRSPs or lump-sum payments from RPPs. Amounts withdrawn from RRIFs are taxable. A minimum amount must be withdrawn each year, beginning in the year after the RRIF is established.

The **Canada and Quebec Pension Plans (C/QPP)** are contributory, earnings-related social insurance programs that ensure a measure of income protection to contributors and their families against loss of income due to retirement, disability or death. The CPP operates in all provinces and territories except Quebec, where the similar QPP is in effect.

**Old Age Security (OAS)** is a taxable monthly payment to people age 65 and older based on years of residency in Canada. The **Guaranteed Income Supplement (GIS)** is a non-taxable benefit paid to lower-income OAS recipients. Both benefits are income-tested and can be clawed back as income increases.

## Early pension uptake peaked in the mid-1990s

Early pension uptake depends on two factors: having RPP assets (the pension plan coverage rate) and the decision to convert those assets into a stream of pen-

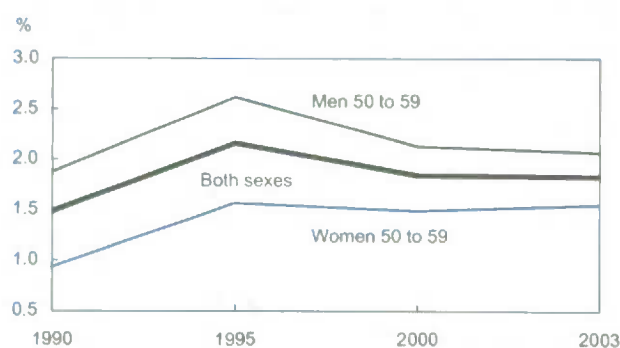
sion income. This would most often coincide with retirement from a long-term job, but could also be based on a decision to commence deferred pension payments from an earlier job. At the individual level,



deciding to take a pension is complicated with many variables to consider. However, at the aggregate level, some clear trends are evident.

The pension take-up rate increased sharply from 1.5% in 1990 to 2.2% in 1995, before falling back to 1.8% per year in 2000 and 2003 (Chart A). Estimates of pension plan coverage based on the LAD (see *An alternative measure of pension coverage*) suggest that coverage may have peaked in the mid 1990s, indicating that coverage is at least part of the story. However, deficit-fighting in the public sector and downsizing in the private sector at that time led many large organizations to offer early retirement incentives in the form of lump sum payments or reduced early retirement penalties. These measures also played a role in the mid-1990s peak in early retirement.

**Chart A Downsizing in the mid-1990s bumped up early pension take-up rates**



Source: Statistics Canada, Longitudinal Administrative Database

The trend for men closely paralleled the overall. For women, whose coverage is lower than men's, the 2003 rate was equivalent to the 1995 rate, indicating a convergence of pension coverage rates for men and women.

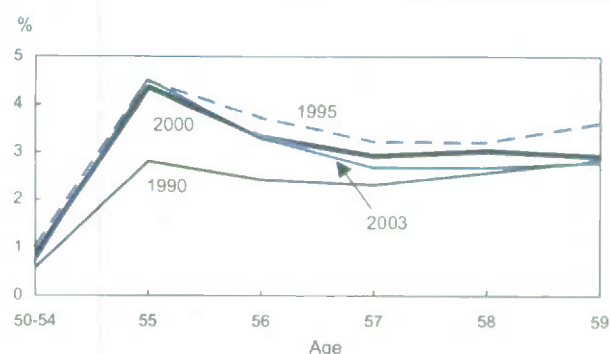
### Early pension uptake peaks at age 55

Many public-sector pension plans allow employees to retire without benefit penalties at age 55 given minimum tenure requirements—typically 30 years of service.<sup>3</sup> Early retirement penalties result in very low uptake rates for those under age 55, averaging less than 1% per year in each period except 1995 (Chart B). At age

55, take-up rates spike as those most disposed to retirement 'hit their numbers'. The rate dips for ages 56 to 59 and does not surpass the age 55 peak until age 60 is reached.

The take-up rate increased at all ages between 1990 and 1995, highlighted by a large absolute jump at age 55. Among all taxfilers, the age 55 take-up rate remained within a tenth of a percentage point of that peak over the eight subsequent years while dropping back at all other ages. However, the overall stability of the age 55 spike masks a tailing-off of the rate for men—from 5.4% in 1995 to 5.0% in 2003—and an increasing propensity for women to retire at 55—from 3.3% to 4.0% (data not shown).

**Chart B Early pension take-up peaks at age 55, in line with common eligibility criteria**



Source: Statistics Canada, Longitudinal Administrative Database

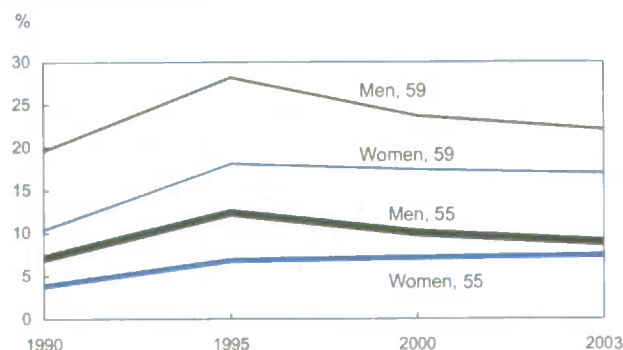
### Cumulative rates highlight differing trends for men and women

Pension take-up rates can also be summarized by calculating the percentage of a hypothetical population that would retire by a certain age given the age-specific rates in any period. This is equivalent to the standard method used to calculate life expectancy (see *An alternative measure of pension coverage*). The calculation provides the proportion of a cohort that would retire by age 55 or age 59 if the patterns observed in one period (say 1990) existed over longer periods of time.

The cumulative take-up rates for men (both at age 55 and 59) clearly peaked in 1995 and fell back in both 2000 and 2003 (Chart C). In contrast, the rate for



**Chart C Cumulative pension take-up rates dropped after 1995 for men but not for women**



Source: Statistics Canada, Longitudinal Administrative Database

women at age 55 increased in every period while the rate at 59 declined only marginally. The overall effect is that the cumulative take-up rates of men and women are converging over time.

### Young pensioners' employment affected by public-sector cuts

Although more than half of early pensioners in the two most recent cohorts had at least some employment earnings in the year following their retirement, re-employment was significantly lower in 1996, at 40.1% (Chart D).<sup>5</sup> The slump in re-employment in the mid-1990s was likely the result of a combination of low aggregate demand and a relative flood of competing job-seekers from the early take-up peak. For example, national unemployment averaged 9.6% in 1996, barely down from a recessionary peak of 10.3% in 1991, before falling to 7.2% in both 2001 and 2004.

### An alternative measure of pension coverage

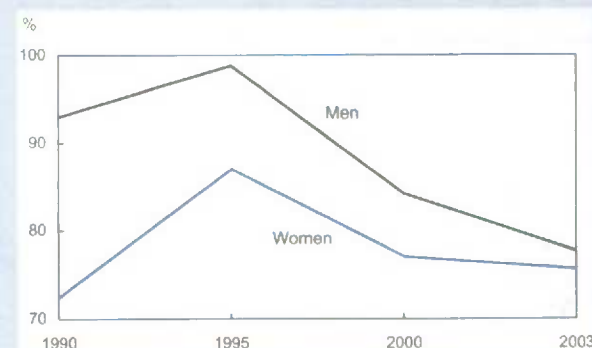
Estimates of pension plan coverage are available from several surveys. Employee surveys may suffer from employees' poor knowledge of their pension plans (Morissette and Drolet 2001). Information from employers may be more accurate in terms of current coverage, but not all employees currently covered will necessarily receive a pension in the future. Most pension plans have a lengthy waiting period before employees are 'vested' in the plan, meaning they have the right to eventually receive retirement benefits. Employees who leave the company before they are vested are typically entitled to a return of their contributions (if any) but will not receive benefits in the future. Employees who change jobs frequently may spend a considerable portion of their careers covered by pension plans without receiving benefits from those plans in their retirement.

Tax data enable calculation of an alternative measure of pension coverage that is akin to the estimation of life expectancy. Life expectancy is based on 'life tables', which show probability of surviving from birth to age 1, age 1 to 2, and so on for any period or cohort. These survival rates can then be transformed into a single estimate of life expectancy. Similarly, the survival rate without a pension can be calculated for each pair of ages from 50 to 69.<sup>4</sup> When chained together, these rates give the probability of reaching age 69 without any pension income. The pension coverage rate is 1 minus this probability.

This method accounts for all private pension entitlements accumulated over one's career. The rate may be biased upwards if many people convert RRSPs to RRIFs before age 69. It may be biased downwards if many decide to keep working and not collect their pension entitlements until after age 69. It can also be affected by the business cycle—if, for example, organizations use pension incentives to reduce their workforces in times of slack demand.

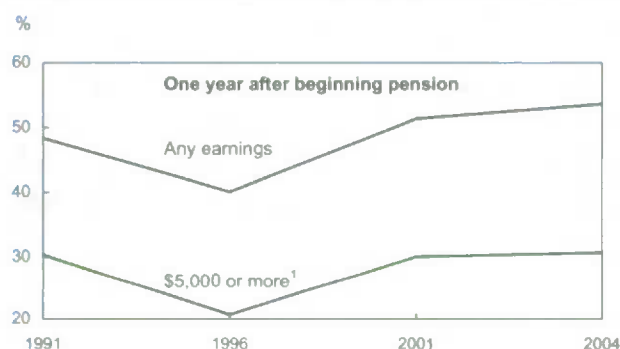
These calculations indicate that pension coverage peaked in the mid-1990s; almost all men and 87% of the women retiring at that time could expect at least some private pension income. Since then, the cumulative probability of receiving pension income has dropped precipitously for men and more moderately for women. As a result, the male-female gap in lifetime pension coverage fell from almost 20 percentage points in 1990 to just 2 points in 2003.

### Cumulative pension take-up rate for 69-year-old men and women



Source: Statistics Canada, Longitudinal Administrative Database

**Chart D After a trough in 1996, the proportion of young pensioners with employment earnings increased**



<sup>1</sup> In 2004 dollars.

Source: Statistics Canada. Longitudinal Administrative Database

Moreover, 1996 was the peak year for public-sector cutbacks, with average employment there falling by more than 100,000 from 1995.

Much employment for pensioners is short-term and/or part-time. In raising the bar to \$5,000 (2004 dollars), labour market attachment loosens appreciably. Focusing on 2001 and 2004, just 30% of early pensioners earned at least \$5,000 from employment in the year after retirement.

**Chart E One year after retirement, women were less likely to be re-employed**



<sup>1</sup> In 2004 dollars.

Source: Statistics Canada. Longitudinal Administrative Database

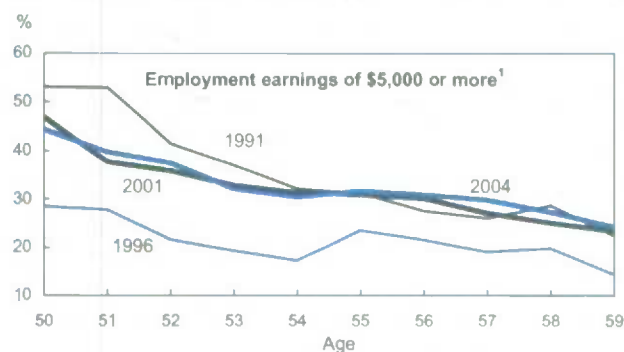
Recent studies have shown that women still contribute more time to housework (Marshall 2006) and are more intensively engaged in elder care (Pyper 2006). These factors undoubtedly contribute to the lower re-employment rate of women (Chart E). Using at least \$5,000 of employment earnings as the participation measure, the gap between men and women ranged from 5 to 8 percentage points during the study period.

**After pension uptake, the probability of re-employment declines with age**

Since those who retire before age 55 are likely to have reduced pension entitlements and more years of retirement to finance, greater labour force attachment could be expected among them than among older retirees. Indeed, those first collecting a pension at age 59 were only about half as likely to earn at least \$5,000 from a job as their 50-year-old counterparts (Chart F). In each period, labour force attachment generally falls as age at uptake increases, but with some notable differences over time.

As noted earlier, re-employment was much lower in 1996 than in the other years, and this extended across the age range. The re-employment rates were very similar in the 2000s and 1991 from age 54 up, but appreciably lower from ages 50 to 53.

**Chart F The older the pensioner, the less likely re-employment**



<sup>1</sup> In 2004 dollars.

Source: Statistics Canada. Longitudinal Administrative Database

### Non-pensioners are much more likely than pensioners to remain employed

The probability of working for pay falls as age increases for those who begin to collect a pension in any year, but one would expect that to also be the case for the rest of the population. This comparison group includes those who may take up a pension in the following year or exit the labour force for any reason. In fact, those not receiving pension benefits in any year participated in the labour market at a much higher rate, with less drop-out through their 50s, than those who began collecting pensions (Chart G). Indeed, it would be very surprising not to find a large gap in labour force participation between these two groups, but the magnitude of the difference highlights the loss of potential labour supply.

A substantial gap in labour market attachment between pensioners and non-pensioners is evident at age 50 and widens for older cohorts. Among those who started receiving pensions at age 50 in 2003, 71% earned some employment income the following year, compared with 87% for non-pensioners the same age. At age 59, the corresponding figures were 46% and 76%.

The employment gap between pensioners and non-pensioners is even wider when the bar is raised to a minimum of \$5,000 of employment income. This level has very little effect on the attachment indicator for non-pensioners, but as noted earlier, significantly reduces the proportion of pensioners considered significant participants in the labour market. Although the

**Chart G Labour force attachment of pensioners is much lower**



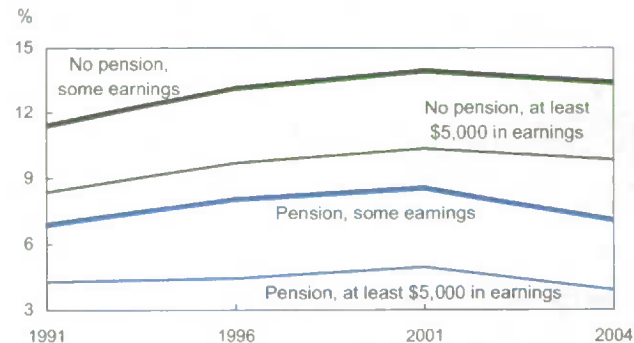
Source: Statistics Canada, Longitudinal Administrative Database, 2004

figures decline for both groups in the older cohorts, non-pensioners remain more than twice as likely as pensioners to be earning at least \$5,000. The gap between pensioners and non-pensioners was greatest in 1996, when the re-employment rate of pensioners was particularly low (data not shown).

### Self-employment rates are lower among pensioners

Although the retired organization man hanging out his shingle as a consultant is a popular image in the business media, the reality is different. Less than 1 in 10 early pensioners earned any self-employment income in the year following their retirement (Chart H). And that figure dropped to 1 in 20 or less for those with at least \$5,000 of self-employment earnings. In both cases, non-pensioners were far more likely to earn self-employment income.

**Chart H Self-employment among pensioners lags behind**



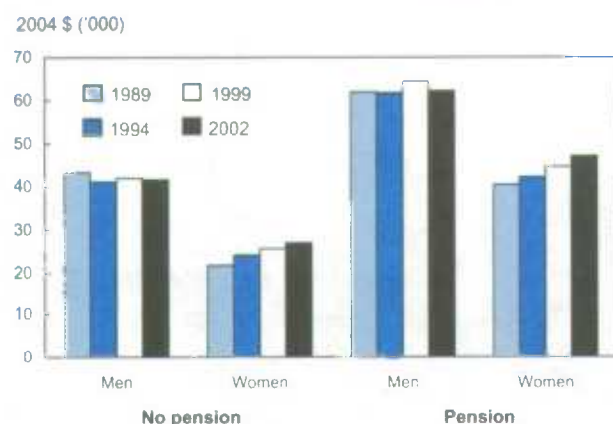
Note: Earnings are from self-employment and in 2004 dollars.  
Source: Statistics Canada, Longitudinal Administrative Database

### Young pensioners retired from high-paying jobs

Previous studies of early retirees have reported high levels of education and pre-retirement salary (Kieran 2001). The LAD data also show dramatically higher pre-pension earnings for young pensioners (Chart I). The median pre-pension salary for men was over \$60,000 (2004 dollars) compared with just over \$40,000 for those not collecting a pension the following year. Although the earnings of women were gen-



**Chart I Young pensioners had much higher median earnings in the previous year**



Source: Statistics Canada, Longitudinal Administrative Database

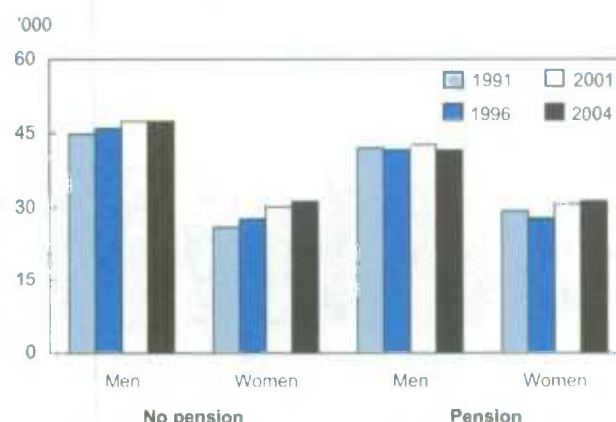
erally lower, the gap between pre-pensioners and other workers was even greater. In each period, women going on to collect pensions earned about two-thirds more than their counterparts' median salary. In fact, since 2001, women retiring the subsequent year earned more than men continuing in the workforce.

### Women in retirement brought in as much income as those who continued working

In the year following pension uptake, total income provides a better comparison because of the drop-off in employment earnings already noted for young pensioners. Despite the loss of employment earnings, the median total income of women taking a pension in their 50s remained at least as high as the total income of their working counterparts (Chart J). The gap between the two groups was as high as 11% in 1991, but has since closed as the income of working women in their 50s grew more.

Among men in their 50s, pensioners had a lower median income than continuing workers. The gap doubled from 7% in 1991 to 14% in 2004 as the real income of pensioners stagnated while increasing by 6% for those who continued working.

**Chart J Women's median taxable income was less affected in the year following pension uptake**



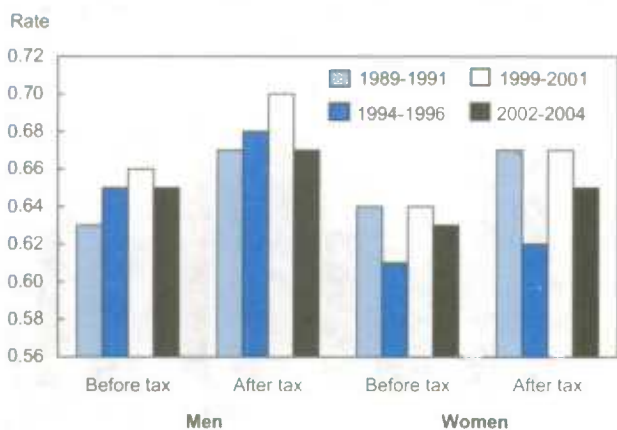
Source: Statistics Canada, Longitudinal Administrative Database

### Young pensioners replace about two-thirds of their pre-retirement income

In the financial planning industry, a widely cited rule of thumb is that workers should aim to replace 70% of their salary after they retire. Others argue that 70% is too high since most retirees will be free of many common expenses (mortgages, children's education, retirement savings, work-related expenses) and suggest that 50% might be a more reasonable target (Hamilton 2001). Regardless of the merits of either argument, the typical early pensioner falls into the upper end of this range, replacing approximately two-thirds of pre-retirement income the year after beginning to receive pension payments (Chart K). Pre-tax replacement rates ranged from 61% for women in 1996 to 66% for men in 2001. The pre-tax replacement rate for men was usually slightly higher.

### Progressive income tax increases replacement rate

A progressive income tax structure is characterized by ascending income brackets with progressively higher tax rates. When income falls from one year to the next, the last dollar earned is likely in a lower tax bracket, or

**Chart K Men had higher income replacement rates**

Source: Statistics Canada, Longitudinal Administrative Database

less income falls in the highest bracket. In either case, an individual's average tax rate will fall so that the drop in after-tax income is less than the drop in pre-tax income.

For men, the difference between pre- and after-tax income replacement rates fell from 4 percentage points in 1989–1991 to 2 percentage points in 2002–2004, likely due to the trimming of top marginal tax rates in several provinces. For women, the after-tax increase in replacement rates varied from 1 to 3 percentage points. Since women's incomes have been increasing faster than men's, a level effect offsets some of the rate trend effect noted for men. As a result, no clear trend is evident for women.

### Pension benefits account for almost two-thirds of post-retirement income

Young pensioners counted on RPP benefits for more than half of their income in each cohort. However, their importance increased markedly for all periods after 1991 (Table). RPP benefits accounted for 56% of young pensioners' total income in 1991, jumped to 64% in 1996, and then settled back slightly in the 2000s. The jump in 1996 is mainly attributable to rising real pension benefits combined with a business-cycle-related drop in re-employment earnings. Over the longer run, transfer payments (Employment Insur-

**Table Components of early pensioner income**

|                          | 1991          | 1996          | 2001          | 2004          |
|--------------------------|---------------|---------------|---------------|---------------|
| <b>Both sexes</b>        |               |               |               |               |
|                          | <b>46,100</b> | <b>43,600</b> | <b>46,900</b> | <b>45,300</b> |
|                          |               | 2004\$        |               |               |
|                          |               | %             |               |               |
| Employment earnings      | 22.8          | 16.1          | 23.0          | 23.6          |
| Self-employment earnings | 2.0           | 1.6           | 2.6           | 2.0           |
| Other market income      | 14.5          | 14.7          | 11.3          | 9.9           |
| Pension income           | 55.7          | 64.0          | 61.0          | 62.3          |
| Transfers                | 5.0           | 3.7           | 2.1           | 2.2           |
| <b>Men</b>               |               |               |               |               |
|                          | <b>50,900</b> | <b>49,800</b> | <b>54,400</b> | <b>52,100</b> |
|                          |               | 2004\$        |               |               |
|                          |               | %             |               |               |
| Employment earnings      | 23.8          | 17.5          | 24.3          | 25.7          |
| Self-employment earnings | 2.4           | 1.8           | 2.8           | 2.3           |
| Other market income      | 12.8          | 14.3          | 11.0          | 9.2           |
| Pension income           | 56.6          | 63.5          | 59.9          | 60.7          |
| Transfers                | 4.5           | 3.0           | 2.0           | 2.1           |
| <b>Women</b>             |               |               |               |               |
|                          | <b>32,700</b> | <b>30,400</b> | <b>34,500</b> | <b>35,200</b> |
|                          |               | 2004\$        |               |               |
|                          |               | %             |               |               |
| Employment earnings      | 18.3          | 11.2          | 19.7          | 19.0          |
| Self-employment earnings | 0.0           | 1.0           | 2.0           | 1.4           |
| Other market income      | 22.3          | 16.1          | 12.2          | 11.6          |
| Pension income           | 52.3          | 65.8          | 63.5          | 65.6          |
| Transfers                | 7.0           | 5.9           | 2.6           | 2.3           |

Source: Statistics Canada, Longitudinal Administrative Databank

ance, social assistance, disability), and other market income (mainly investment income and RRSP withdrawals) have declined for this group.

The trends differ slightly for men and women. RPP benefits for women rose through the period, while for men they stagnated after 1996—although a considerable gap still exists. Other market income peaked for men in 1996, but declined for women over the period. Employment earnings and transfer payments followed similar trends for men and women. Putting it all together, women were more reliant on RPP benefits in each year from 1996 onwards, with the gap increasing marginally in each period.

### Conclusion

While some commentators are concerned about the effects that baby boomers retiring will have on labour supply and public pension programs, many individuals aspire to and can afford to retire at a relatively young age. The main public pension plans, C/QPP and

OAS/GIS, provide retirement benefits at ages 60 and 65, respectively, but at quite low rates. In contrast, many employer pension plans (RPPs) offer substantial benefit payments to contributors in their 50s who meet long-service milestones.

According to tax data, about 1 in 5 workers collect pension benefits before the age of 60. The pension uptake rate peaked in the mid-1990s when governments and other large organizations were downsizing, often by way of early retirement incentives. Although the business cycle at this time may also have contributed to this phenomenon, trends in pension coverage seen in both tax and survey data indicate that the same level is unlikely to recur, especially for men.

Since most pension plans specify substantial benefit penalties before the age of 55, retirement before that age is rare. On average, less than 1% of workers aged 50 to 54 begin receiving pension benefits. As the penalties drop off at age 55, the uptake rate jumps to about 4.5% of workers per year. The age 55 spike has been trending down somewhat for men but up for women. For both sexes, those most disposed to retirement leave at 55. The rate subsequently falls and does not surpass the earlier peak until workers are in their 60s.

Since young pensioners have many years of expenses ahead and high levels of experience, some may choose to continue working to supplement their pensions. About half of recent cohorts had at least some employment income the year after they began receiving their pension. However, that proportion falls to less than a third if the benchmark is raised to a mere \$5,000. Similarly, pensioner participation in self-employment is very low. Both employment and self-employment rates of comparable non-pensioners are much higher than for pensioners. Overall then, most early pensioners have a relatively weak attachment to the labour market.

This weak attachment may well be due to lack of financial need. Before retiring, they were earning far more, on average, than their counterparts. In retirement, their total income approaches the income of those still working, although a gap is opening up for men. Taxation is another factor. The progressive income tax structure works to increase the replacement rate of after-tax income compared with the pre-tax rate. Moreover, the employment earnings of pensioners are taxed at the marginal rate of their last dollar of pension earnings. This virtually ensures that their labour will be taxed at a higher rate in 'retirement' than

it was before collecting a pension. This effect may dissuade some from working or depress the number of hours for those that do work.

Counting all sources of income, the typical early pensioner replaces almost two-thirds of pre-retirement income—near the upper end of recommended replacement rates. Over 60% of their income, on average, comes from pension benefits, followed by employment earnings (24%) and other market income—mainly RRSP withdrawals and other investments (10%). Moreover, income for most early pensioners will rise as they hit the benchmark ages of 60 and 65 and become eligible for C/QPP and OAS and GIS benefits. As a result, labour market attachment will likely become even weaker.

The question remains whether early retirement should be a public policy concern, especially with respect to future labour supply. Although the data definitely show a recovery in re-employment among early pensioners since the mid-1990s, age- and sex-specific rates have remained essentially flat in the 2000s. Thus it is unlikely that early pensioners will represent a growing source of labour supply in the years to come.

On the other hand, the tax-record measure of pension coverage indicates (as do numerous survey sources) that RPP coverage is on the decline among younger cohorts—more so for men than for women. Since workers without RPPs generally earn less and their accumulated RRSP wealth is lower, on average, than the RPP assets of covered workers, their working careers tend to be longer. To the extent that this portion of the workforce is growing, the proportion of older workers in the labour market is likely to increase.

In addition, as the population ages, longer-run economic effects will probably come into play. If labour shortages do develop, higher wages may draw more pensioners back into the labour market. Or the demand structure may change so that shortages occur only in some sectors or geographic regions. Investment, productivity growth and health trends will also be important factors in the long run, since they have cumulative effects on society's ability to support an aging population.

*The author gratefully acknowledges the assistance of André Bernard, Small Area and Administrative Data Division.*



## ■ Notes

1 Since RRSPs can be managed more flexibly than RRIFs (in terms of deposits and withdrawals), there is no clear reason to convert them into RRIFs before the mandatory age of 69. Some people may opt for a steady stream of income at an earlier age in the form of an annuity financed from RRSP savings, but such income is not included in the pension and superannuation income variable.

2 This condition is shortened to one year for 59 year-olds since they may choose to initiate C/QPP retirement benefits at age 60. In general, only C/QPP disability or survivor benefits can be paid to a person in their 50s.

3 For these defined-benefit plans, benefits are typically based on the product of average earnings (over a given period), years of service, and a percent per year factor. Some plans allow members to retire before achieving the prescribed numbers but with significant reductions to benefits.

4 The series is stopped at age 69 since the pension income variable also captures the conversion of RRSP funds into RRIF-generated income, which typically takes place at age 70 (Wannell 2006).

5 Using the Survey of Labour and Income Dynamics, Pyper and Giles (2002) found re-employment rates of about 50% for workers in their 50s who voluntarily left long-term jobs between 1993 and 1997. Over two-thirds of these voluntary job leavers reported retirement as the reason for leaving their career job.

## ■ References

- Bowlby, Geoff. 2007. "Defining retirement." *Perspectives on Labour and Income*. Vol. 19, no. 1. Spring. Statistics Canada Catalogue no. 75-001-XPE. p. 55–59.
- Hamilton, Malcolm. 2001. "The financial circumstances of elderly Canadians and the implications for the design of Canada's retirement income system." In *The State of Economics in Canada: Festschrift in Honour of David Slater*. Patrick Grady and Andrew Sharpe (eds.). Montréal: McGill-Queen's University Press. p. 225–253.
- Kieran, Patrick. 2001. "Early retirement trends." *Perspectives on Labour and Income*. Vol. 13, no. 4. Winter. Statistics Canada Catalogue no. 75-001-XPE. p. 7–13.
- Marshall, Katherine. 2006. "Converging gender roles." *Perspectives on Labour and Income*. Vol. 18, no. 3. Autumn. Statistics Canada Catalogue no. 75-001-XPE. p. 7–19.
- Morissette, René and Marie Drolet. 2001. "Pension coverage and retirement savings." *Perspectives on Labour and Income*. Vol. 13, no. 2. Summer. Statistics Canada Catalogue no. 75-001-XPE. p. 39–46.
- Pyper, Wendy. 2006. "Balancing career and care." *Perspectives on Labour and Income*. Vol. 18, no. 4. Winter. Statistics Canada Catalogue no. 75-001-XPE. p. 37–47.
- Pyper, Wendy and Philip Giles. 2002. "Approaching retirement." *Perspectives on Labour and Income*. Vol. 14, no. 4. Winter. Statistics Canada Catalogue no. 75-001-XPE. p. 9–16.
- Schellenberg, Grant and Cynthia Silver. 2004. "You can't always get what you want: Retirement preferences and experiences." *Canadian Social Trends*. No. 75. Winter. Statistics Canada Catalogue no. 11-008. p. 2–7. <http://www.statcan.ca/english/freepub/11-008-XIE/0030411-008-XIE.pdf> (accessed February 8, 2007).
- Schellenberg, Grant, Martin Turcotte and Bali Ram. 2005. "Post-retirement employment." *Perspectives on Labour and Income*. Vol. 17, no. 4. Winter. Statistics Canada Catalogue no. 75-001-XPE. p. 14–17.
- Statistics Canada. 2006a. *New Frontiers of Research on Retirement*. Leroy O. Stone (ed.). Statistics Canada Catalogue no. 75-511-XIE. Ottawa. 444 p. <http://www.statcan.ca/english/freepub/75-511-XIE/0010675-511-XIE.pdf>.
- . 2006b. *The Wealth of Canadians: An Overview of the Results of the Survey of Financial Security, 2005*. Statistics Canada Catalogue no. 13F0026MIE001. Ottawa. Pension and Wealth Research Paper Series. 40 p. <http://www.statcan.ca/english/research/13F0026MIE/13F0026MIE2006001.pdf> (accessed February 8, 2007).
- Wannell, Ted. 2006. "Cracking the RRSP nest egg." *Perspectives on Labour and Income*. Vol. 18, no. 2. Summer. Statistics Canada Catalogue no. 75-001-XPE. p. 19–27.

# Defining retirement

Geoff Bowlby

*This paper was originally presented to the Paris Group, a body of statisticians and economists from national statistical organizations around the world interested in improving labour statistics. Part of the seventh session of the Paris Group, held in Budapest, dealt with the issue of aging and labour markets. The goal of the paper was to begin international dialogue on how national statistical organizations can measure retirement.*

Currently 32 million, Canada's population is rapidly aging. Like many countries, Canada experienced a baby boom in the 20 years after World War II, followed by a period of declining fertility. Throughout its history, this baby-boom generation has had a major impact on society and the economy, and now is poised to transform the size and nature of the workforce.

With the eldest baby boomers having turned 60 in 2006, it is expected that a considerable number of people will retire in coming years. The inevitable wave of retirement will change the general nature of society as a greater share of the population moves from work to activities more typical of retirement. As a result, labour force participation is expected to fall, putting pressure on an already tight labour market (Chart A).

## How will the retirement boom affect labour markets?

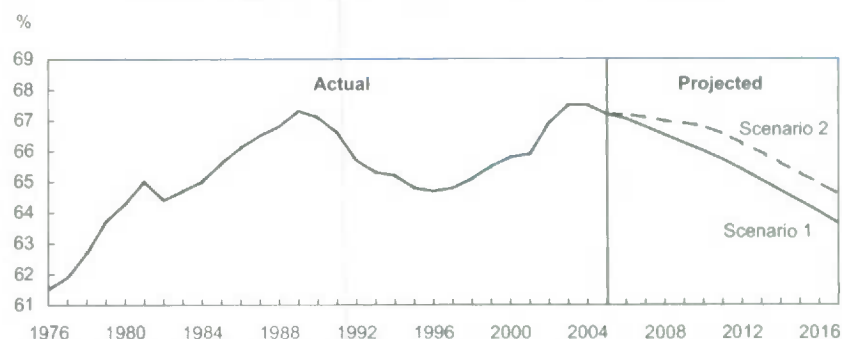
Although far from a sophisticated approach to labour force forecasting, the following discussion serves to illustrate the impact of the baby boomers' exit from the labour force.

Because people age and retire, rates of labour force participation are much lower for older people than

for younger people. Suppose the current rates of labour force participation by age group stay the same.<sup>1</sup> Under this simple scenario, the labour force participation rate should fall considerably with the aging of the population. The downward pressure has already begun and should continue for at least the next 25 years. From highs around 67.5% in 2004, the rate in Canada could be around 60% within 20 years, all else being equal.

Participation rates in that range would be extremely low for Canada. In fact, they have not been at such a low level since the early 1970s, when women began entering the labour force in large numbers and expanding the labour supply.

**Chart A** Unless labour force participation by age changes, the overall rate will decline steadily for years



Scenario 1: Medium population growth, participation by age group constant at 2005 rates.  
Scenario 2: Medium population growth, participation among older people rising for next five years then constant.

Sources: Statistics Canada, Labour Force Survey, Population Projections

*Geoff Bowlby is with Environment Accounts and Statistics Division. He can be reached at 613-951-3325 or [geoff.bowlby@statcan.ca](mailto:geoff.bowlby@statcan.ca).*

Whether aging boomers push the relative supply of labour to these lows remains to be seen. A variety of reasons could keep them in the labour market longer than earlier generations. Indeed, the Labour Force Survey has been showing a slow upward movement in the retirement age in recent years, a switch from a long-term downward trend (Chart B). On the other hand, boomers may exit sooner than retirees in the past. In any case, the inevitable exit of a large number of employed baby boomers (over 7.5 million) should put downward pressure on the size of the labour supply.

What would be the effect on unemployment rates, the most popular indicator of the state of the labour market? That would depend on labour demand, which has more to do with aggregate economic conditions and technological change than with demographics, making the answer difficult to predict. If demand for labour were to rise, even marginally, in this upcoming era of labour supply contraction, then unemployment rates could fall. Whatever the eventual labour demand scenario, the unemployed should benefit from job opportunities provided by the thousands of Canadians retiring. The aging of the population should therefore exert downward pressure on the unemployment rate. Indeed, in 2005, as the labour supply contracted (in part because of the aging workforce) and demand boomed, the unemployment rate hit record lows.

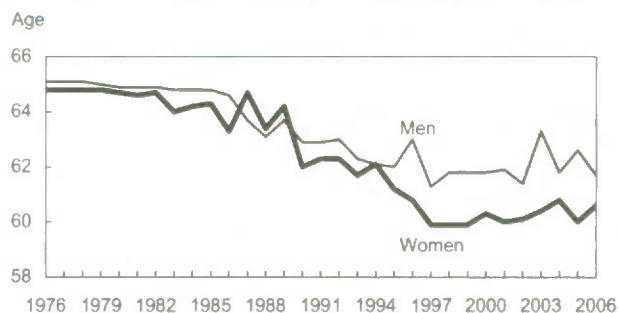
### Measuring retirement

The above discussion is not meant to be a rigorous forecasting of labour market trends. Rather, it is designed to show the potential impact of the inevitable retirement wave. Even though this wave will have significant labour market consequences over the next 20 years, no regular statistics are produced on the retired population.

There are some reasons for this. Only recently has the need for retirement data grown. Secondly, the concept of retirement is fuzzy, to say the least. Retirement can mean different things to different people, and measuring it is difficult for national statistical organizations. Having an international standard would assist in deciding what data or range of data should be produced.

So what is retirement? It is both an event and a state of being. For example, a retirement party is held for someone to celebrate the event. Subsequently, a person enters retirement, a new phase of life.

**Chart B After a decade of decline, retirement age seems to have plateaued**



Source: Statistics Canada, Labour Force Survey

Measuring the event of retirement probably has lower priority for statistical agencies. When it comes to labour statistics, measuring life events is perhaps not required to the same extent as measuring the state of human activity. For example, estimates of the number of layoffs or exits from employment (the event) are less in demand than estimates of the number of unemployed (the state, which is a result of the event). Thus, any international standard should perhaps focus first on defining and then measuring the people who are in the state of retirement rather than on counting how many retirements have taken place.

With that in mind, how might national statistical organizations proceed? First of all, household surveys would likely be the main instrument for determining retirement statistics. Supplementing these would be administrative records such as pension or taxation records. Business surveys may provide some important information on human resource preparation for retirement or on retirement events, but are limited by the reality that the retired population will mostly not be working.

### Conceptual difficulties

A plethora of definitions exist for the state of retirement (Smeeding and Quinn 1997). Because these range from very broad to more precise, the choice of definition noticeably affects the size of the population being measured. For some, retirement means complete withdrawal from the labour force, while for others it entails remaining partly or even fully active in the labour market.



Some of the complications in measuring the retired population stem from the myriad of work arrangements from which a person may have exited (Table). The concept of retirement is more applicable in some cases than in others. For example, someone who has left a full-time job at older age, is not working, and receives a pension has undoubtedly retired. But what about a self-employed farmer who has scaled back operations in older age but is still farming? Examining a set of similar scenarios could be useful.

Such an exercise is also useful for demonstrating two important facts about measuring the retired population: they should be of an older age, and their previous activity matters (but not for everyone).

To elaborate, younger people by definition ought not to be considered retired since the concept of retirement is typically reserved for older people (exact age being up for discussion). Secondly, although the retired are defined by their previous activity, their current labour market activity also plays a role. For example, an employee who worked for a long period and then stopped working in older age, never intending to work again, should be counted as retired on the basis of past labour market activity and the nature of the exit. But what if such a person were currently employed? Should they still be considered retired?

**Table Definitions of retirement**

| Individual   | Retired? |
|--|----------|
| Full-time employee for a long period, stopped working in older age, now not working                      | Yes      |
| Full-time employee for a long period, stopped working in older age, now working part time at another job | ?        |
| Full-time employee for a long period, now working part time in older age for same employer               | ?        |
| Self-employed business owner in older age, business now controlled by or sold to someone else            | Yes      |
| Self-employed business owner not in older age, business now controlled by or sold to someone else        | No       |
| Self-employed business owner in older age working reduced hours  | ?        |
| Employee working at a series of short-term jobs, stopped working in older age                            | ?        |
| Person who never worked or whose last job was long ago, person now in older age                          | ?        |

In reality, many people do not become retired overnight. Rather, a transition occurs as one moves from more intense labour market activity toward relative inactivity. At what point along this gradient should a person be considered retired? At an early stage they could perhaps be considered semi-retired.

### Statistics Canada measures

In addition to complications in defining the retired, another reality is that household survey measuring instruments will always have limitations. One could have a very precisely defined concept of retirement, for example, but never be able to measure it. As a result, it may be useful to examine what has already been applied.

#### *The standard definition*

According to Statistics Canada's standard definition, 'retired' refers to a person who is aged 55 and older, is not in the labour force, and receives 50% or more of his or her total income from retirement-like sources. Ironically, the person who led the research for this definition, which was instituted in the late 1990s, has since retired. Very little is now known about the background research for this definition.

The definition seems reasonable and perhaps has the advantage of being an objective measure that is not reliant upon personal perceptions. However, it has one important limitation: it can only be applied using household surveys that have both a labour module and an income module. As a result, only two surveys, the Survey of Labour and Income Dynamics (SLID) and the Census can apply this definition. Other key household surveys, such the Labour Force Survey (LFS), cannot.

While SLID and the Census can be very important tools for retirement research, they may be less timely than what potential users of retirement data may demand. Timely statistics may become increasingly important if the retirement wave leads to significant labour shortages.

#### *Survey of Labour and Income Dynamics*

In a recent compendium, an article on work to retirement transitions defines retirement as "a condition achieved when a person leaves the labour market for good and receives retirement income (C/QPP, private pension, etc.). Retirement is deemed to have been achieved when a person has spent at least a year out of the labour market, has received retirement income during that period, and does not return to the labour market before the survey ends." (Deschênes and Stone 2006, 220).

Like the standard definition, this one is an objective measure. It is intended for use in a longitudinal survey, although retrospective questions in a cross-sectional survey asking when the person last worked could be used to determine who has been out of the labour market for a year or more. As with the standard definition, the definition above requires both labour and income modules and is subject to timeliness limitations.

### *General Social Survey*

The General Social Survey (GSS), an annual survey with rotating topics, asked a series of questions on retirement in 2002. Three types of respondents were categorized as retired: those whose main activity in the last 12 months was 'retired'; those whose main activity was something else but who said yes to the question "Have you ever retired?"; and those whose main activity was something else and who said they had never retired, but who said yes when asked if they had stopped working for a reason that was deemed to be retirement-related. Unlike the previous definitions, this one is not objective, instead relying on self perception of retirement status.

Some research using this definition has recently been published by Statistics Canada. According to the 2002 GSS, about 1.8 million Canadians were identified as having retired in the 10 years preceding the survey (Schellenberg and Turcotte 2005). These individuals had worked in the past and were 50 or older.

Again, the definition of who is retired seems reasonable. And again, the main limitation is the infrequent production of the data. Although much of the 2002 GSS content will be repeated with the 2007 survey, the rising demand for information on the older population may mean that other potential sources of retirement data ought to be investigated.

### *Labour Force Survey*

It seems natural for a labour force survey to measure the retired population, since all concepts of the state of retirement are defined by a person's past and present labour force status. However, in Canada this is not done. In fact, the LFS questionnaire pays relatively little attention to the older population. On top of this, very little information is collected on the 'not in the labour force' population since the survey focuses on characterizing the employed and unemployed.

Although the LFS cannot measure the number of retired people, it is the key source of data on average and median retirement age. During the interview, all

those not working are asked when they last worked. If the date is within the past year, they are asked the main reason they left their last job or business, to which they may respond 'retired'. The month and year of retirement is assumed to be the same as when the person last worked. Knowing this and the person's current age means an age of retirement can be estimated. Those who retired under 50 are excluded from the calculation (Gower 1997). Interestingly, these data show that the median retirement age fell from 65.0 in the mid-1970s to 60.6 in 1997—a time when the public sector was offering early retirement incentives to cut payrolls. Since 1997, the age has inched back up and was 61.0 in 2005.

Finally, although one cannot determine the number of retired using the current LFS questions, a mapping of the survey population who are not in the labour force provides some insight. This group can be divided into a number of parts, some of which are more likely to be retired than others. For example, of the 8 million people not in the labour force in 2005, about 3.5 million were 65 and older. Another 1.2 million did not want any work and were 55 to 64. Since 1997, all of the increase in the not in the labour force population can be accounted for by these two groups.

## Conclusion

Demand for data on retirement will increase in the near future as the inevitable wave of retirement begins to affect many facets of Canadian life, including the size of the labour supply. The following recommendations may inform the discussion:

- ❑ Measuring the state of retirement should take priority over measuring retirement events.
- ❑ Household surveys probably provide the best estimate of the retired population. Given the possible use of retirement data in understanding labour shortages, the data should be produced on a timely basis.
- ❑ The state of retirement should not necessarily mean economic inactivity. In reality, retirement is a progression toward such inactivity. Selecting a definition of retirement is really about deciding when a person is economically inactive enough to be counted as retired.
- ❑ People of relatively young age should not be considered retired.
- ❑ Activities should continue toward the development of a standard definition of retirement.

## ■ Note

1 The age groups used in this analysis were 15–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69, and 70 or older.

## ■ References

- Deschênes, Nathalie and Leroy O. Stone. 2006. "The probability of reaching the state of retirement: a longitudinal analysis of variations between men and women." Ch. 13. In *New Frontiers of Research on Retirement*. Leroy O. Stone (ed.). Statistics Canada Catalogue no. 75-511-XIE. Ottawa. p. 219–245.  
<http://www.statcan.ca/english/freepub/75-511-XIE/0010675-511-XIE.pdf> (accessed January 30, 2007).
- Gower, Dave. 1997. "Measuring the age of retirement." *Perspectives on Labour and Income*. Vol. 9, no. 2. Summer. Statistics Canada Catalogue no. 75-001-XPE. p. 11–17.
- Schellenberg, Grant, Martin Turcotte and Bali Ram. 2005. "Preparing for retirement." *Canadian Social Trends*. No. 78. Autumn. Statistics Canada Catalogue no. 11-008-XIE. p. 8–11.  
<http://www.statcan.ca/english/freepub/11-008-XIE/0020511-008-XIE.pdf> (accessed January 30, 2007).
- Smeeding, Timothy M. and Joseph F. Quinn. 1997. *Cross-National Patterns of Labor Force Withdrawal*. Paper presented at the Fourth International Research Seminar of the Foundation for International Studies on Social Security, June 15–17, 1997, Sigtuna, Sweden.

**We welcome your views** on articles and other items that have appeared in *Perspectives*. Additional insights on the data are also welcome, but to be considered for publication, communications should be factual and analytical. We encourage readers to inform us about their current research projects, new publications, data sources, and upcoming events relating to labour and income.

Statistics Canada reserves the right to select and edit items for publication. Correspondence, in either official language, should be addressed to *Perspectives on Labour and Income*, 170 Tunney's Pasture Driveway, 9-A5 Jean Talon, Statistics Canada, Ottawa, Ontario K1A 0T6. Fax 613-951-4179; e-mail: [perspectives@statcan.ca](mailto:perspectives@statcan.ca).



# What's new?

## *Recent reports and studies*

### ■ FROM STATISTICS CANADA

#### ■ *Low-income rates among immigrants*

The economic situation of new immigrants to Canada showed no improvement after the turn of the millennium, even though they had much higher levels of education and many more were in the skilled immigrant class than a decade earlier.

In 2002, low-income rates among immigrants during their first full year in Canada were 3.5 times higher than among Canadian-born people. By 2004, this had edged down to 3.2. These rates were higher than at any time during the 1990s, when they were around three times.

The increase in low income was concentrated among immigrants who had arrived within the last two years. This suggests they had more problems adjusting over the short term during the years since 2000.

One possible explanation may have been the downturn in the technology sector after 2000. The proportion of recent immigrants in information technology and engineering occupations rose dramatically over the 1990s.

Overall, the large increase in educational attainment of new immigrants, and the shift to the skilled class immigrant, had only a small impact on the likelihood of being in low income.

For more information, see the January 30, 2007 issue of *The Daily* on the Statistics Canada's Web site ([www.statcan.ca](http://www.statcan.ca)).

#### ■ *Regional differences in work hours*

Workers in the Prairie provinces, as well those in Ontario, put in more working hours on average in 2004 than their counterparts in other regions.

Workers in Alberta led, averaging 1,880 hours—equivalent to 36 hours a week for a full-year worker. Their counterparts in Manitoba and Saskatchewan combined were close behind with 1,860, followed by workers in Ontario, with 1,850.

In contrast, workers in British Columbia averaged 1,790 hours. Those in the Atlantic region put in 1,780, while workers in Quebec reported the fewest hours, at 1,750.

Regional differences in work hours were larger among men. Employed men in Manitoba and Saskatchewan reported 2,080 hours, while their counterparts in Alberta worked 2,060 hours. Men in Quebec averaged 1,900 hours, the least.

There is no easy explanation for regional differences. Factors that can be readily measured in household surveys include differences in unionization rates, industrial structure (e.g., the type of industries found in the regions), job characteristics (such as firm size and management responsibilities), and demographic factors (e.g., age, sex, education, marital status and work experience).

Differences in industrial structure and job characteristics accounted to a large extent for the share of workers with short years (less than 1,500 hours), as well as one-third to two-thirds of the differences in the share of workers with a standard full-time, full-year schedule (1,900 to 2,300 hours).

However, they did not account for much of the regional differences in the share of 'long-year' workers (more than 2,300 hours). They also did not explain why Quebec had a much larger share of workers with a low full-year and full-time schedule (1,500 to 1,900 hours).

For more information, see the January 22, 2007 issue of *The Daily* on the Statistics Canada's Web site ([www.statcan.ca](http://www.statcan.ca)).

### ■ *Effects of international mobility on individual earnings*

Men who left Canada to live abroad for a period of time had, on average, substantially higher earnings than those who never left. However, most of these differences were already apparent in their pre-move earnings patterns.

The effects of leaving and coming back as measured by the change in relative earnings levels appear to be much more moderate. The change also varied significantly by the number of years spent away and pre-departure income levels.

Overall, men who left for two to five years appear to have done best in terms of their earnings. Their post-return earnings were 12% higher in their first five years back, compared with their last five years before leaving (after accounting for their expected earnings growth had they stayed in Canada). Those who left for only one year showed a more moderate 7% average increase in their relative earnings.

Men who were away six years or more were found to have lower earnings after their return than otherwise might have been expected. However, these patterns varied significantly, and might well have been due to particular events related to the return, such as moving into retirement.

For more information, see the January 18, 2007 issue of *The Daily* on the Statistics Canada's Web site ([www.statcan.ca](http://www.statcan.ca)).

### ■ *Earnings losses of displaced workers*

High-seniority employees who lost their job during the 1990s as a result of firm closures and mass layoffs suffered substantial losses in earnings, even five years later.

Workers losing their job through firm closures or mass layoffs experienced average earnings losses that represented at least 9% of their pre-displacement earnings. Losses incurred by workers with substantial seniority were more pronounced.

Five years after they lost a job, men who had at least five years of seniority and found another job experienced losses of between 18% and 28% of their former earnings. For women, the losses ranged between 24% and 26% of their pre-displacement earnings.

In 2000 dollars, the average loss in earnings for high-seniority men five years after losing their job varied between \$7,100 and \$10,900. The corresponding range for women was between \$5,500 and \$6,100.

In any given period, regular economic activity leads to resource reallocation resulting from technological changes, changes in trade patterns, consumer preferences, and numerous other factors. While such resource reallocation is generally thought to have overall beneficial effects, leading to increased productivity and living standards, it can expose some workers to job loss.

For more information, see the January 16, 2007 issue of *The Daily* on the Statistics Canada's Web site ([www.statcan.ca](http://www.statcan.ca)).

### ■ *Changes in provincial labour productivity*

Relative levels of total-economy labour productivity remained fairly stable in most provinces from 1997 to 2005, when these changes in provincial productivity, measured in 1997 dollars, are compared with the national average change.

However, the most notable exception was Newfoundland and Labrador, which experienced much stronger average productivity growth than other provinces. Its productivity growth was so strong that it moved from sixth place in overall productivity in 1997 to third place in 2005, behind Ontario and Alberta.

Nationally, labour productivity grew at an average annual rate of 1.6% from 1997 to 2005. But in Newfoundland and Labrador, it increased 3.2%. The only other province where labour productivity growth exceeded the national average was Saskatchewan, where the average annual increase was 2.1%.

The smallest gains occurred in Quebec and Prince Edward Island, both at 1.3% annually, and in Alberta, where the average increase was 1.2%. Other provinces were at or near the national average.

For more information, see the January 15, 2007 issue of *The Daily* on the Statistics Canada's Web site ([www.statcan.ca](http://www.statcan.ca)).

### ■ **Labour productivity, hourly compensation, and unit labour cost**

Labour productivity in Canadian businesses fell by 0.1% between July and September 2006, slightly less than the 0.3% decline posted in the second quarter. This was the second straight decline following seven consecutive quarters of positive growth.

Productivity gains in mining; oil and gas extraction; financial, insurance and real estate services; rental services; and wholesale trade were completely offset by losses in manufacturing and construction.

In the first three-quarters of 2006, productivity posted an average quarterly growth of 0.5% in the United States, while Canada's average remained at zero. A substantial slowdown in both countries in productivity growth was observed compared with 2005.

With the value of the Canadian dollar remaining unchanged against the U.S. dollar, the increase in the unit labour cost of Canadian businesses moved closer to the increases experienced by their American counterparts.

For more information, see the December 11, 2006 issue of *The Daily* on the Statistics Canada's Web site ([www.statcan.ca](http://www.statcan.ca)).

### ■ **Wage differences between male and female university professors**

More women are teaching full time in Canadian universities, and although they still earn less on average than their male counterparts, the difference has narrowed.

Among full-time professors who began their jobs in the 1960s, men earned about \$10,000 to \$15,000 more per year than women, depending on their age. Among more recent cohorts starting work since the mid-1980s, men were earning about \$5,000 more than women.

The difference in salaries narrowed because successive cohorts of male faculty earned less throughout their career than their predecessors did. In other words, female professors gained ground relative to male professors because new male faculty members were earning less. In contrast, the earnings profile of women academics born between 1930 and 1934 did not differ greatly from that of women born between 1965 and 1969.

For more information, see the December 8, 2006 issue of *The Daily* on the Statistics Canada's Web site ([www.statcan.ca](http://www.statcan.ca)).

### ■ **From other organizations**

#### ■ **Tariff reductions and workers' wages in protected industries**

Microdata on individual Canadian workers are used to investigate the effect on wages of the tariff reductions mandated by the Canada-U.S. Free Trade Agreement (CUSFTA). The findings indicate that relative wages fell in industries that faced the deepest tariff cuts, regardless of whether or not workers belonged to a union. This suggests that CUSFTA reduced the returns to industry-specific human capital for workers in the most heavily affected industries. See "Do tariff reductions affect the wages of workers in protected industries? Evidence from the Canada-U.S. Free Trade Agreement" by James Townsend, *Canadian Journal of Economics*, February 2007, Vol. 40, no. 1, p. 69-92.

#### ■ **Employment protections and productivity**

Theory predicts that mandated employment protections may reduce productivity by distorting production choices. Firms facing worker dismissal costs will curtail hiring below efficient levels and retain unproductive workers, both of which should affect productivity.

These theoretical predictions have rarely been tested. This study uses the adoption of wrongful-discharge protections by U.S. state courts over the last three decades to evaluate the link between dismissal costs and productivity.

Drawing on establishment-level data from the Annual Survey of Manufacturers and the Longitudinal Business Database, the study estimates suggest that wrongful-discharge protections reduce employment flows and firm entry rates. Moreover, analysis of plant-level data provides evidence of capital deepening and a decline in total factor productivity following the introduction of wrongful-discharge protections.

This last result is potentially quite important and suggests that mandated employment protections reduce productive efficiency, as theory would suggest.



However, this analysis also presents some puzzles including, most significantly, evidence of strong employment growth following adoption of dismissal protections. See *Do employment protections reduce productivity? Evidence from U.S. States* by David H. Autor, William R. Kerr and Adriana D. Kugler, National Bureau of Economic Research, January 2007, <http://www.nber.org/papers/w12860>.

### ■ ***Income splitting among the self-employed***

Under individual taxation with progressive marginal tax rates, households in which the distribution of income is unequal benefit from attributing income to the lower-income household member. Self-employment provides greater potential to 'split' income because of the absence of reports from a third party.

Using the Canadian experience as a case study, this paper develops a unique estimator of the incidence of income splitting among self-employed couples. The results suggest that the incidence of income splitting among self-employed men in Canada is non-trivial, but no evidence is found that self-employed women attribute income to their spouses. See "Income splitting among the self-employed" by Herbert J. Schuetze, *Canadian Journal of Economics*, November 2006, Vol. 39, no. 4, p. 1195-1220.

### ■ ***Legal environment and high-performance work systems***

This paper compares management flexibility in employment decision making in the United States and Canada through a survey of organizations in Pennsylvania and Ontario that investigates the impact of differences in their legal environments.

Compared with their Ontario counterparts, organizations in Pennsylvania have a higher degree of flexibility in employment outcomes, such as higher dismissal and discipline rates, yet do not experience any greater flexibility or simplicity in management hiring and firing decisions.

One explanation may lie in the finding that organizations in Pennsylvania experience greater legal pressures on decision making, reflecting the generally more intense conflict in United States employment law.

By contrast, high-performance work systems, which some have looked to as a possible management-driven mechanism for enhancing fairness in employment, had more modest effects. See "Flexibility and fairness in liberal market economies: The comparative impact of the legal environment and high-performance work systems" by Alexander J. S. Colvin, *British Journal of Industrial Relations*, March 2006, Vol. 44, no. 1, p. 73-97.

### ■ ***Education and self-employment: Changes in earnings and wealth inequality***

This study looks at the interaction between education and occupation choices and its implication for the relationship between the changes in earnings inequality and the changes in wealth inequality in the United States over the 1983 to 2001 period.

Among households whose head is a college graduate, the ratio of average household earnings between the self-employed and workers increased by 57%. At the same time, the ratio of the average household wealth increased by 137%. This suggests that both earnings and wealth inequality increased over this period. Did this change in relative average earnings lead to the change in relative average wealth?

The paper presents a model of wealth distribution including education and occupation choices, where earnings opportunities are dictated by productivity processes that are education-occupation specific. By calibrating these productivity processes to match the earnings observations separately for 1983 and 2001, the study derives the model-implied changes in wealth inequality between different education-occupation groups of households. This exercise leads to one-third of the change in the relative average wealth between college self-employed and college worker households. See *Education and Self-Employment: Changes in Earnings and Wealth Inequality* by Yaz Terajima, Bank of Canada, November 2006, <http://www.bankofcanada.ca/en/res/wp/2006/wp06-40.html>.

### ■ ***R&D composition and labour productivity growth***

For 16 OECD countries from 1973 to 2000, growth in labour productivity was highly responsive to business research and development (R&D)

expenditures. Increasing business R&D intensity by 10% increased labour productivity in the long run by 2.4 to 5%.

R&D expenditures on higher education also had a significant positive effect on labour productivity growth. Decomposing the sectoral R&D into a pure R&D intensity effect and a sectoral size effect shows that elasticity of labour productivity with respect to these variables differed by sector. The positive size effect dominated the high-tech manufacturer, whereas the intensity effect drove the positive correlation between medium-low-tech manufacturer R&D and labour productivity. See *Research and Development Composition and Labour Productivity Growth in 16 OECD Countries* by Ram C. Acharya and Serge Coulombe, Industry Canada, May 2006, <http://strategis.ic.gc.ca/epic/site/eas-aes.nsf/en/ra01974e.html>.

### ■ ***The role of labour market information for adjustment: International comparisons***

Labour Market Information (LMI) is a policy instrument that governments use to coordinate labour market adjustments. Many approaches are utilized in the provision of this information in OECD countries. This report examines approaches in five OECD countries (Canada, the United Kingdom, Germany, the United States and Australia) to assess their efficiency in facilitating adjustments in labour markets.

The report finds that although Canada has well-developed, labour-market information mechanisms, further efforts should be made by the Canadian government to improve the delivery system. In particular, attempts should be made to simplify information content, improve user awareness, and tailor information to the needs of users in order to facilitate labour market adjustments. See *The Role of Labour Market Information for Adjustment: International Comparisons*, Centre for the Study of Living Standards, December 2006, [http://www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp).

### ■ ***Work while in high school: Labour market and educational attainment effects***

Based on Statistics Canada's 1991 School Leavers Survey and its 1995 follow-up, this paper aims to assess the impact of working while in high school both on the probability of graduating from high school and on future wages. The results for both men and women show a strong negative effect of working while in school on the probability of graduation, although the results for females are more sensitive to the specifications used.

There is very little evidence that working while in school had a positive effect on wages at the time of the 1995 interview. See "Work while in high school in Canada: Its labour market and educational attainment effects" by Daniel Parent, *Canadian Journal of Economics*, November 2006, Vol. 39, no. 4, p. 1125-1150.

---

#### Perspectives

---

# Varia

*In this issue: Personal debt in Canada and the U.S.*

## PREVIOUS UPDATES

Work absences – Summer 2006  
Retirement – Summer 2006  
Gambling – Autumn 2006  
Unionization – Autumn 2006  
Minimum wage – Winter 2006

## ECONOMIC AND SOCIAL INDICATORS

Provincial wealth inequality – Spring 2005  
Tourism – Summer 2005  
Residential construction – Autumn 2005  
Education – Winter 2005  
Taxfilers – Spring 2005  
Property taxes – Autumn 2003

## CONTACTS

### Administrative data

*Small area and administrative data*  
Customer Services  
613-951-9720

### Business surveys

*Annual Survey of Manufactures and Logging*  
Client Services  
613-951-9497

*Annual surveys of service industries*  
Patti Dow  
613-951-4612

*Business Conditions Survey of Manufacturing Industries*  
Claude Robillard  
613-951-3507

### Census

*Labour force characteristics*  
Sandra Swain  
613-951-6908

*Income statistics*  
John Gartley  
613-951-6906

### Employment and income surveys

*Labour Force Survey*  
Marc Lévesque  
613-951-4090

*Survey of Employment, Payrolls and Hours*  
Sylvie Picard  
613-951-4003

*Employment Insurance Statistics Program*  
Robert Keay  
613-951-4008

*Major wage settlements*  
Workplace Information Directorate (Human Resources and Social Development Canada)  
819-997-3117 or 1 800 567-6866

*Labour income*  
Anna MacDonald  
613-951-3784

*Survey of Labour and Income Dynamics*  
*Survey of Financial Security*  
*Survey of Household Spending*  
Client Services  
613-951-7355 or 1 888 297-7355

### General Social Survey

*Education, work and retirement*  
*Aging and social support*  
*Time use*  
Client Services  
613-951-5979

### Pension surveys

*Pension Plans in Canada Survey*  
Michel Palardy  
613-951-7559

*Quarterly Survey of Trusteed Pension Funds*  
Gregory Sannes  
613-951-4034

### Special surveys

*Survey of Work Arrangements*  
Ernest B. Akyeampong  
613-951-4624

*Adult Education and Training Survey*  
Client Services  
613-951-7608 or 1 800 307-3382

*National Graduates Survey*  
Client Services  
613-951-7608



# Personal debt in Canada and the U.S.

Although the U.S. economy and population are almost 10 times the size of Canada's, the two countries show several similarities. Both have relatively high per-capita income and living standards. Given geographic proximity to the U.S. and a smaller economy, Canada is affected more than other countries by changes in the U.S. economy and in its commercial and financial institutions—especially when such institutions have branches in Canada. Since the U.S. is Canada's major trading partner (taking 81% of total exports in 2005 compared with 64% in 1980, and accounting for 67% and 64% of imports), the U.S. recessions of the early 1980s and 1990s, as well as the boom beginning in the late 1990s, spread to Canada within short order. Both countries have also experienced almost the same rate of inflation—goods and services worth \$1.00 in the respective currencies in 1980 cost \$2.43 in Canada and \$2.37 in the U.S. in 2005.

Population characteristics are also similar. Two-thirds of persons 16 years old and over in each country participate in the labour force. A greater proportion of women were working in 2005 than in 1980. Both populations are aging, the median age increasing between 1980 and 2005 from 28.9 to 38.0 in Canada and from 29.8 to 35.9 in the U.S. Since both countries have large immigrant populations, the median age is affected by the mix of native-born persons, the age of immigrants and emigrants, and fertility and mortality rates by age. Over the last 25 years, the proportion of persons 65 and over has risen from 9.4% to 13.1% in Canada and from 11.2% to 12.3% in the U.S. In both countries, the proportions of persons living alone and female lone-parent families have risen.

*For further information, contact Raj K. Chawla, Labour and Household Surveys Analysis Division. He can be reached at 613-951-6901 or [raj.chawla@statcan.ca](mailto:raj.chawla@statcan.ca).*

## Definitions

### Personal income

Sum of income from labour, unincorporated business, interest and investments, and government transfers received by individuals and non-profit or fraternal organizations.

### Personal disposable income

Personal income less income taxes and other mandatory deductions paid to government.

### Personal consumption expenditure

Sum of expenditure on food and beverages, clothing, housing, furniture, medical care, transportation, communications, and recreation.

### Personal saving

Personal income less consumption expenditure, taxes, and transfers to government, corporations and non-residents.

### Consumer debt

Amounts outstanding on credit cards, vehicle loans, other personal loans, instalment or revolving debts, and unpaid bills.

### Per-capita debt

Total debt (consumer debt plus mortgages) divided by the population. Per-capita disposable income and expenditure are derived in the same fashion. Comparisons of per-capita amounts are in Canadian dollars after converting the U.S. data by purchasing power parities.

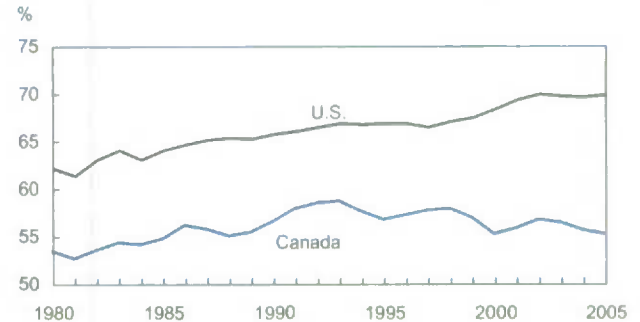
### Personal savings rate

Personal savings as a percentage of personal disposable income.

Age is a key determinant of personal consumption expenditure, income and saving, but spending is also much affected by key monetary variables such as disposable income and access to credit. The following charts highlight various aspects of Canadian and American income, spending, saving and debt over the last 25 years.

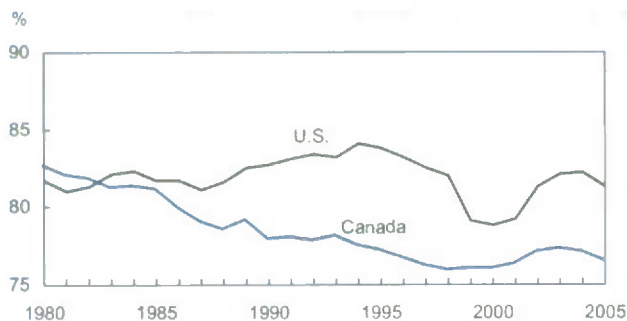
## Personal consumption expenditure constitutes a larger share of GDP in the U.S.

Consumer spending is a key contributor to a country's economic health. Consumer spending as a percentage of GDP is much lower in Canada, ranging from 52.8% to 58.9% over the last 25 years, compared with 61.4% to 70.0% in the U.S. In other words, consumer spending has boosted the economy more in the U.S. than in Canada.



Sources: Statistics Canada, National Income and Expenditure Accounts; U.S. Department of Commerce

## Canadians pay more income taxes and transfers to government



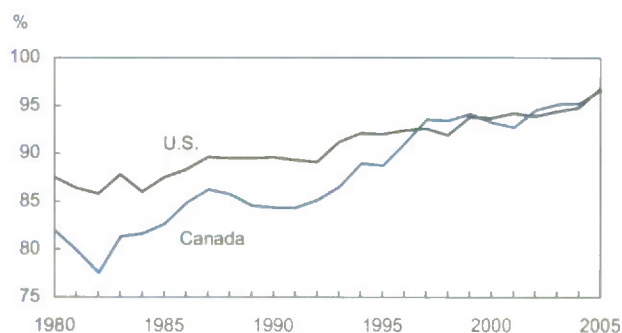
Sources: Statistics Canada, National Income and Expenditure Accounts; U.S. Department of Commerce

Even though both countries have a progressive income tax system, their marginal tax rates, methods of taxation, and allowable deductions vary considerably. In Canada, a relatively larger share of personal income goes for federal and provincial income taxes, Canada or Quebec Pension Plan contributions, and Employment Insurance premiums (17.3% in 1980 and 23.4% in 2005). Americans, on the other hand, paid 18.3% and 18.7% of their income for federal and state income taxes, social security contributions, and unemployment insurance.<sup>1</sup> The gap between total and disposable income has widened over time in Canada while remaining almost unchanged in the U.S. However, the mix of deductions in the U.S. has changed considerably: Income taxes accounted for 79.4% of deductions in 1980 compared with 57.7% in 2005.

### Note

<sup>1</sup> The higher rate of transfers to governments in Canada can be attributed partly to the funding of universal health care and security benefits. In the U.S., Medicaid is available only to people with limited income, while Medicare is available to those 65 and older.

## Canadians and Americans spend a similar proportion of their income



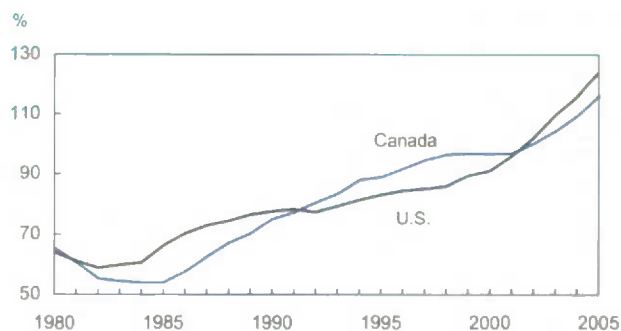
Sources: Statistics Canada, National Income and Expenditure Accounts; U.S. Department of Commerce

Until the mid 1990s, both Canadians and Americans managed to spend less than their disposable income. However, from 1996 onwards, they spent almost all of it, leaving very little for saving.

## Both Canadians and Americans have increased their debt-to-income ratios

Credit can be used to meet regular or unexpected consumption needs, or even to acquire assets. Debt load, measured by the ratio of total debt to disposable income was almost the same for Canadians and Americans at the beginning of the 1980s. After that, they parted ways: Americans had the greater debt load between 1983 and 1991 and Canadians between 1992 and 2000. From 2001, debt grew steadily in both countries and by 2002 had surpassed disposable income. By 2005, for each dollar of disposable income, Canadians owed \$1.16 and Americans \$1.24.

Some of the increased indebtedness between 2001 and 2005 may be attributed to relatively low rates of interest, easy credit through home equity loans, and increased limits and incentives on credit cards issued by competing financial institutions.



Sources: Bank of Canada, Public Information Service; U.S. Federal Reserve, Financial and Business Statistics



## Canadians use more consumer credit for their personal spending



Sources: Bank of Canada, Public Information Service; U.S. Federal Reserve, Financial and Business Statistics

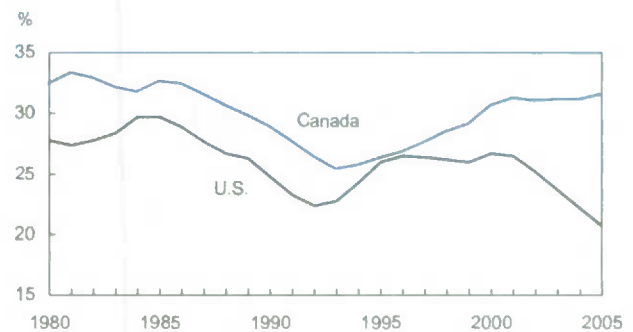
Between 1980 and 2005, consumer credit represented between 21 and 38 cents of each dollar of personal spending in Canada. In the U.S., the amount was between 19 and 27 cents. Since 1986, when the Reagan administration cancelled tax deductibility for interest paid on consumer loans, Americans have been using less of this kind of credit. Consequently, since 1988, the gap between the U.S. and Canada in the use of consumer credit has widened.

Non-homeowners in both countries, who have neither mortgage debt nor access to home-equity line of credit, can increase limits on their credit cards or use personal loans to finance unexpected needs or other budgetary shortfalls.

## Consumer credit is still a relatively small share of total household debt in both countries

In Canada, consumer credit fluctuated between 26% and 33% of total household debt over the 1980-to-2005 period. These proportions indicate two distinct trends: a steady fall between 1985 and 1993 and a rise thereafter. A drop in the share of consumer credit means an increase in the share of mortgages. The increase in mortgage debt during this period in Canada was largely due to baby boomers purchasing their first home. However, the increasing use of consumer credit since 1992 is likely due to a combination of factors, including stagnant incomes in the 1990s, easier credit in the early 2000s, and changing demographics and lifestyles.

With Americans also experiencing stagnant incomes in the 1990s, their use of consumer credit rose between 1992 and 1996. Tax deductibility for mortgage interest on the principal residence may encourage Americans to mortgage or re-mortgage their home, using such funds for consumption, investment, home renovation, paying off loans, or some other purpose.



Sources: Bank of Canada, Public Information Service; U.S. Federal Reserve, Financial and Business Statistics

## The conventional mortgage rate is usually higher in Canada than in the U.S.



Note: Five-year mortgage rate charged by banks in Canada; rate charged by institutions on commitments for fixed-rate, first mortgages in the U.S.

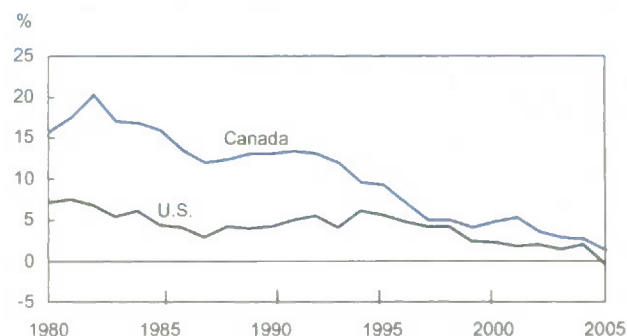
Sources: Bank of Canada, Public Information Service; U.S. Federal Reserve, Financial and Business Statistics

Because of the size of the market and competition among financial institutions and private lenders, the conventional five-year mortgage rate in the U.S. is usually lower than in Canada. The gap in rates was at a maximum during the economic recessions of 1981–1982 and 1989–1991. In both countries, mortgages were highest in 1981—18.4% in Canada and 16.6% in the U.S. By 2005, they had dropped to less than 6%. Since 1996, conventional mortgage rates in the two countries have been quite close (higher in Canada by half a percentage point or less).

## The personal savings rate has been falling

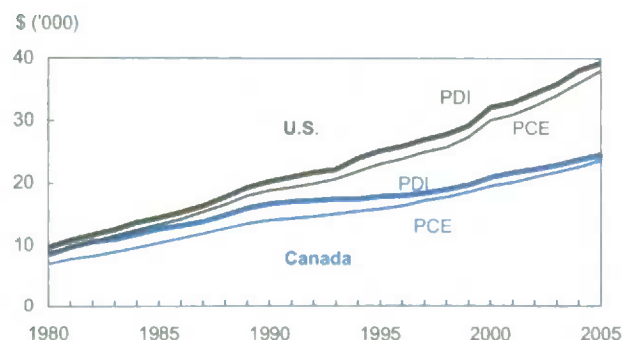
While the personal savings rate in Canada has consistently been higher than in the U.S., rates in both countries have been falling. Rates peaked at 20.2% in Canada in 1982 and at 7.5% in the U.S. in 1981. The high rates of interest during those years likely spurred saving and investing; on the other hand, those who borrowed paid dearly. By the late 1990s, however, the two rates were converging, reaching 1.2% in Canada and -0.4% in the U.S. in 2005.

The reasons for the decline are the same in both countries: more personal consumption and higher mandatory transfers (income taxes and contributions for security programs). In 1982, Canadians spent 63.4 cents of each income dollar on consumption and 20.0 cents on transfers; Americans spent 73.7 cents and 20.7 cents. By 2005, Canadians were spending 74.0 cents on consumption and 25.1 cents on transfers, Americans 78.6 cents and 21.7 cents.



Sources: Statistics Canada, National Income and Expenditure Accounts; U.S. Department of Commerce

## On a per-capita basis, consumption expenditure outpaced disposable income in both Canada and the U.S.



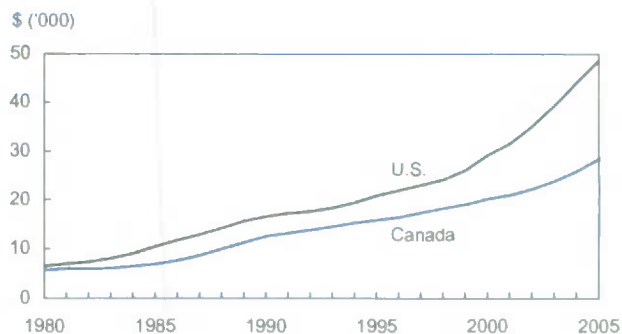
Note: Amounts in Canadian dollars after converting U.S. data on personal disposable income (PDI) and personal consumption expenditure (PCE) based on purchasing power parity.

Sources: Statistics Canada, Demography Division, National Income and Expenditure Accounts; U.S. Bureau of the Census and Department of Commerce

Over the 1980-to-2005 period, per capita consumption expenditure in Canada more than tripled from \$6,870 to \$23,560, while disposable income rose proportionally less—\$8,390 to \$24,400 (2.9 times). In the U.S., expenditures and disposable income rose more steeply—from CAN\$8,770 to \$37,980 (4.3 times) and from CAN\$9,710 to \$39,260 (4.0 times). The disparity between Canada and the U.S. in both per-capita spending and disposable income has increased and, as consumer spending has outgrown disposable income, both Canadians and Americans have had to finance their spending through credit.

## Per capita, Americans have more debt than Canadians

The per-capita debt of Canadians has risen 5.2 times over the last 25 years, from \$5,470 in 1980 to \$28,390 in 2005. For Americans, it jumped 7.5 times, from CAN\$6,510 to \$48,700. Per-capita debt has been increasing steadily in both countries, but the disparity between the two countries, almost non-existent at the beginning of the 1980s, began to increase sharply from 1999 onwards. This is partly due to Americans opting to take on more mortgage debt (including refinancing). Increasing mortgage debt for refinancing purposes or taking out home-equity loans implies that homeowners in both countries are using their homes as a source of cash to finance their spending rather than as an investment.



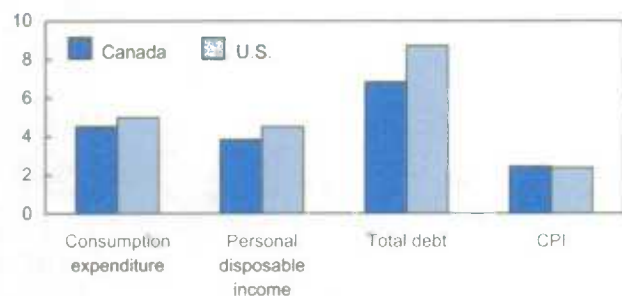
Note: Amounts in Canadian dollars after converting U.S. data on total household debt based on purchasing power parity.

Sources: Statistics Canada, Demography Division; Bank of Canada, Public Information Service; U.S. Federal Reserve, U.S. Bureau of the Census and Financial and Business Statistics



## In both countries, total household debt outgrew consumer spending as well as disposable income

2005/1980 ratio



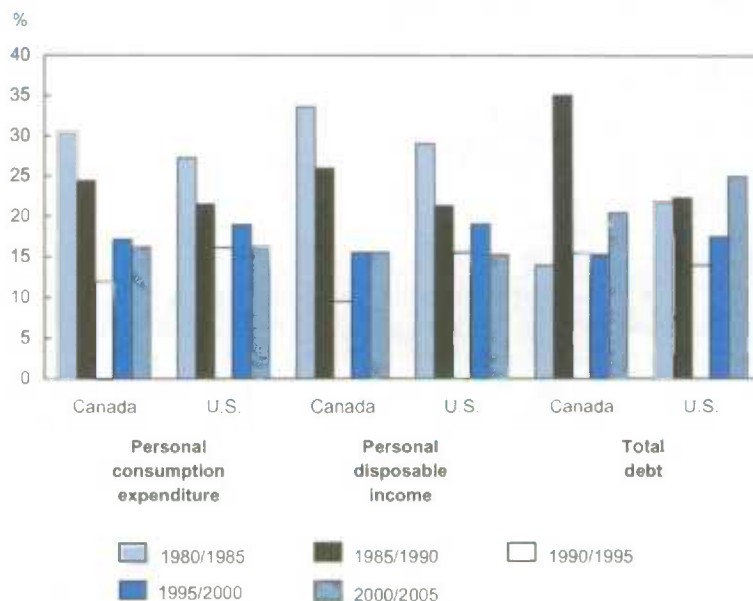
Sources: Statistics Canada, National Income and Expenditure Accounts; Bank of Canada, Public Information Service; U.S. Federal Reserve, U.S. Department of Commerce and Financial and Business Statistics

In terms of aggregates in their respective currencies, household debt rose in Canada from \$134 billion in 1980 to \$916 billion by 2005 (6.8 times), and in the U.S. from \$1.3 trillion to 11.2 trillion (8.6 times). Even though inflation was almost the same in both countries, consumer spending and disposable income increased less in Canada. Consumer spending, for instance, rose from \$168 billion to \$760 billion in Canada and from \$1.8 trillion to \$8.7 trillion in the U.S.

## Growth in household debt, consumer spending and disposable income varied with economic activity in both Canada and the U.S.

Of the total growth in household debt between 1980 and 2005, 35.0% occurred between 1985 and 1990 in Canada compared with 22.2% in the U.S. This was a period when baby boomers in Canada were likely purchasing their first home. The largest growth in debt for Americans (24.8%) occurred between 2000 and 2005 compared with 20.4% for Canadians. This was a period of economic prosperity with lower rates of unemployment and inflation accompanied by lower interest rates and easy access to credit.

Since consumer spending and disposable income (in current dollars) are highly sensitive to the rate of inflation, they showed relatively more growth during the 1980-to-1985 period of high inflation—30.5% of the growth in consumer spending in Canada and 27.2% in the U.S. During the 2000-to-2005 period of low inflation, these rates fell to 16.2% in both Canada and the U.S. A similar pattern is seen in the overall growth of disposable income.



Sources: Statistics Canada, National Income and Expenditure Accounts; Bank of Canada, Public Information Service; U.S. Federal Reserve, U.S. Department of Commerce and Financial and Business Statistics



# CANADIAN Observer ECONOMIC

Statistics Canada's **Canadian Economic Observer (CEO)** delivers the most thorough, monthly economic briefing available. Each month as a subscriber you receive current and reliable information to help you stay abreast of the economic performance of the country, your province and the specific economic sectors in which you're interested.

**CEO is presented in two parts:**

## CEO-The Magazine

- Sector-by-sector analysis of economic indicators
- Developments in provincial and international economies
- Highlights of economic events in Canada and around the world
- A summary table of current economic conditions
- Feature articles spotlighting major issues and industry sectors

## CEO-The Statistical Summary

- Detailed figures in tabular form on markets, prices, industrial sectors, international and domestic trade, and much more
- More than 1,100 economic indicators covering: market sectors, imports, exports, demographics, unemployment, and much more
- User-friendly tables and graphs



## What's in a typical issue?

Statistical charts and tables are blended with expert commentary to provide a quick, concise, wide-ranging overview of the economy.

## NEW - CEO now available in an electronic format!

Enjoy the complete print edition in an electronic format (PDF) for 25% less than the cost of the print version. Subscribing to the electronic format also gives you access to our archives of articles. Visit our website at [www.statcan.ca](http://www.statcan.ca) to download it today!

## Your annual subscription to the CEO print version includes:

- **12 issues of Canadian Economic Observer**, your source for the latest trends, analyses and data on Canada's economy.
- **A FREE edition of CEO's Annual Historical Supplement**—a fact-filled compendium, putting at your fingertips the economic trends that have characterized Canada's development from as far back as 1926 right up to the present... all in one easy-to-use volume.

## Subscribe to the Canadian Economic Observer

Canadian Economic Observer (Cat. No. 11-010-XPB)

**Order** 1 year subscription: \$243.00

**Order** 2 year subscription: \$388.80 **Save 20%**

**Order** 3 year subscription: \$510.30 **Save 30%**

In Canada, please add **either** GST and applicable PST **or** HST. Print version: no shipping charges for delivery in Canada. For shipments to the United States, please add \$6 per issue or item ordered. For shipments to other countries, please add \$10 per issue or item ordered. (Federal government clients must indicate their IS Organization Code and IS Reference Code on all orders.)

## Use one of four convenient ways to order:

**CALL** Toll-free 1 800 267-6677

**FAX** Toll-free 1 877 287-4369

**MAIL** Statistics Canada, Finance,  
6-H, R.H. Coats Building, Tunney's Pasture,  
Ottawa, Ontario K1A 0T6

**E-MAIL** [infostats@statcan.ca](mailto:infostats@statcan.ca)

[www.statcan.ca](http://www.statcan.ca)

Visit our website



# PERSPECTIVES

## ON LABOUR AND INCOME

### To keep up with ...

- the distribution of income and trends in wages in the country
- the education levels and the training of the labour force in Canada
- updates on research under way in the labour and income field
- the availability of new income and labour market data

### ... you need

**PERSPECTIVES ON LABOUR AND INCOME** (Catalogue no. 75-001-XPE) from Statistics Canada.

A yearly subscription to **Perspectives on Labour and Income** (four issues) costs just \$63.

Mail your order to Statistics Canada, Finance Division,  
R.H. Coats Bldg., 6th floor, 100 Tunney's Pasture  
Driveway, Ottawa, Ontario K1A 0T6. Or fax  
1 877 287-4369 (Canada and United States) or call  
1 800 267-6677 (Canada and United States) and use  
your VISA or MasterCard, or e-mail [infostats@statcan.ca](mailto:infostats@statcan.ca)