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PERSPECTIVES

ON LABOUR AND INCOME

SUMMER 1997
Vol. 9, No. 2

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Summer 1997 Vol. 9 No. 2

PERSPECTIVES

ON LABOUR AND INCOME

Departments

Articles

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PERSPECTIVES
ON LABOUR AND INCOME

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: Heather Berrea, What's new? Co-ordinator, *Perspectives on Labour and Income*, 5-D Jean Talon Building, Statistics Canada, Ottawa K1A 0T6. Telephone (613) 951-8613; fax (613) 951-4179; Internet: berrhea@statcan.ca.

For the record:

"Employment and industrial development in the North," published in the Spring 1997 issue, provided incorrect participation and employment rates for the Yukon in 1994 (Table 1). The correct figures are 75% and 65%, respectively.

Symbols

The following standard symbols are used in Statistics Canada publications:

..	figures not available
...	figures not appropriate or not applicable
-	nil or zero
--	amount too small to be expressed
p	preliminary figures
r	revised figures
x	confidential to meet secrecy requirements of the Statistics Act

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.

Highlights

Job sharing ... p. 6

- Job sharing has become a viable option for certain workers wishing to work part time in full-time positions. It has also become more widely available in both unionized and non-unionized large workplaces.
- Job sharers, most of whom were women (84%), represented 171,000 or 8% of part-time paid workers in 1995. As a whole, they were older than other part-timers, better educated and more likely to work in professional occupations.
- One in four job sharers filled teaching or nursing positions, compared with one in seven regular part-timers. Half of job sharers were parents with children at home, compared with 35% of regular part-timers.
- Quebec had the most job sharers (55,000) in 1995 and the highest job-sharing rate at 11% (job sharers as a percentage of all part-time workers).
- Shared jobs are more likely to be permanent and unionized (81% and 36%, respectively) than are regular part-time positions (71% and 23%). They are also likely to offer more benefits and higher average hourly pay. Job sharers are more likely to have worked over a decade for the same employer.

Measuring the age of retirement ... p. 11

- Over the past 20 years, the age of retirement has changed dramatically. The median age was close to 65 in the late 1970s and early 1980s. Starting in the mid-1980s, it declined considerably, so that by 1995 the median age was 62.
- Several factors have lowered the retirement age. In 1987, the minimum age at which one could draw benefits from the Canada Pension Plan declined from 65 to 60. During the 1990s, government cutbacks and corporate downsizing, as well as the popularity of early retirement incentives, may also have influenced recent retirement behaviour.
- People who retired at any time from 1976 to 1980 or from 1991 to 1995 were studied. The percentage of those who retired before age 55 more than doubled between these two periods, from 4% to 10%, as did that aged 55 to 59, from 12% to 24%. While 38% of retirees chose to retire between the ages of 65 and 69 in the 1976-to-1980 period, only 22% retired at this age from 1991 to 1995.
- People employed in the public sector (which includes education, health and social services, and government) saw the greatest decline in median retirement age over the study period (almost 5 years, from 64.6 to 59.8). Employees in the private sector registered a drop of 2 years, from 65.1 to 63.1, while self-employed people saw only a slight change, from 65.3 to 65.1.
- In the 1990s, workers who stayed with the same employer for 20 years or more retired 3 years earlier than those with less tenure (60.8 versus 64.1). The opposite was true for the self-employed: those with 20 years or more retired one year later (65.8 versus 64.6).
- Industries posting early retirement ages were communication (57.8), local government (58.9), utilities (59.1) and the federal government (59.3). Agriculture (65.6) and business services (65.3) registered high median ages.
- The drop in median age from the late 1970s to the early 1990s varied from only 0.7 years in British Columbia to 4.5 in Newfoundland. The other Atlantic provinces (except for Prince Edward Island) and Quebec also showed a relatively fast drop in median retirement age.

Family income after separation ... p. 18

- From 1987 to 1993, it is estimated that 829,200 legally married Canadians separated. In all, 963,000 children under the age of 18 were dependent on these persons prior to separation – or 1.2 children per separated person.

- The year after separation, the majority of men were single (52%), while most women headed single-parent families (68%). The great majority of women found themselves with children (89%), a less common experience for men (36%). The proportion of women with children five years after separation dropped to 76%, whereas that for men in the same situation grew to 42%.

- A significant proportion of both men and women became part of a couple in the years following separation. Though men did so earlier, the gap between the sexes was small; one year after separation 30% of men and 26% of women had formed new unions. The gap widens with time, however; five years after separation 54% of men had a new partner, but only 45% of women did.

- Between the year before and the year after separation, women suffered a 23% median loss in adjusted family income (taking into account the number of family members). This represented a decrease of close to $3,900 (in 1993 dollars). They recovered a major portion of their losses in succeeding years, but five years after separation they were still 5% ($1,000) below their pre-separation adjusted family income. Two factors explain these losses: women generally have a lower personal income than men and most have custody of children upon separation.

- These changes vary according to family type. Women who formed a new union experienced a gain one year after separation. Those heading single-parent families or remaining single, on the contrary, registered appreciable losses and made up a smaller proportion of it over time.

- Men's adjusted family income, in contrast, went up about 10% ($2,000) one year after separation. The gain rose to 15% ($2,800) five years post-separation. The size of the gain varied according to family composition. Single men had the highest increases and single fathers the lowest.

- One year after separation, recipients of support payments (women) had heavier losses in adjusted family income (-29% or -$6,100) than separated women generally (-23% or -$3,900). Payers (men) experienced gains in adjusted family income (20% or $4,200) twice those of separated men in general (10% or $2,000).

Computers in the workplace ... p. 29

- In 1994, 48% of workers (or 6.2 million) used computers on the job, a marked increase from 35% in 1989. Computer use at work was highest among 25 to 44 year-olds (54%), especially among women (60%). Despite higher levels of computer literacy among 15 to 19 year-olds, computer use at work was low for this group (16%), perhaps because many were working in lower-level service jobs.

- A gap exists between computer literacy and actual use of computers on the job. In 1989, 59% of workers could use a computer, yet only 35% did so in their job. By 1994, while 70% of the employed were able to use a computer, only 48% did so at work. The gap was smallest for university graduates and greatest for workers whose highest level of education was a high school diploma.

- The heaviest users of information technology are the so-called "knowledge workers" – those in natural sciences, engineering or mathematics; managerial or administrative positions; social sciences, and teaching – as well as those in the clerical field.

- The use of computers grew significantly in the manufacturing and processing occupations, gaining around 260,000 new computer users – a growth rate of 132% between 1989 and 1994. Even with this growth, only 30% of these workers reported using computers on the job in 1994. Sales workers experienced a similar growth, resulting in an additional quarter of a million users.

- Average weekly hours of computer use on the job increased from 16 in 1989 to 18 in 1994. Natural sciences, engineering and mathematics occupations; clerical occupations; and artistic, literary and recreational occupations recorded 25, 23 and 21 hours, respectively, in 1994.

- In 1994, 34% of the employed reported that their work had been greatly affected by the introduction of computers or automated technology in the previous five years, up from 29% in 1989. One group reported high percentages in both five-year periods: by 1994, 53% of men in managerial and professional occupations (compared with 45% in 1989) had been greatly affected by such change.

- Workers who experienced technological change in their jobs tended to view it in positive terms: higher skill requirements, more interesting work, and less apparent threat to job security than might be expected.

After high school ...

... p. 37

- Finishing high school is a longer process for some than for others. According to the 1991 School Leavers Survey, 18% of 20 year-olds had left high school before graduation. Data from the follow-up survey in 1995 indicate that by the time these same people were 24, their high school leaver rate had fallen to 15%.

- Young men are more likely to leave high school before graduation than are women. In 1995, 18% of 22 to 24 year-old men were high school leavers, compared with just 10% of women.

- Four out of five youths who were high school graduates in 1995 went on to postsecondary education or training toward a certificate, diploma or degree. In contrast, just one in four young high school leavers had done so.

- Among high school graduates, a larger proportion of women than men had continued their education (83% versus 77%). Among leavers, men were somewhat more likely than women to have taken further education or training.

- Some 42% of high school graduates reported university as their highest level of further education, and 29% reported college or CEGEP education. Only 7% of graduates took training at a trade or vocational school, or through a registered apprenticeship program.

- Leaving high school before graduation appears to have especially serious consequences for young women. Fully 30% of young female leavers were unemployed, compared with 17% of male leavers.

- Young people are keenly aware of the importance of education and training in the current labour market. In 1995, 8 out of 10 youths intended to take further education, training or instruction over the next five years. Further schooling did not figure into the futures of 23% of those without a high school diploma and 19% of graduates who had not taken any other education or training.

What's new?

... p. 43

- The Survey of Consumer Finances has just released two income studies: *Income After Tax, Distributions by Size in Canada, 1995*, which focuses on the effects of transfer payments and income tax on the distribution of family incomes; and *Characteristics of Dual-Earner Families, 1995*, which explores various demographic and economic characteristics of dual-earner families and compares them with those of other husband-wife families.

- *Retirement Savings through RPPs and RRSPs, 1991 to 1995* considers those who did and did not participate in retirement programs in the early nineties, by age, sex and income characteristics.

- *Labour Force Update* is a new quarterly publication that features the latest information and trends on a labour market topic. The Spring 1997 issue covers youths in the labour market. Commentary, charts and analytical tables are included.

- The first of a series of 1996 Census releases, "Population and dwelling counts," provides a national overview of changes in population distribution between 1991 and 1996. For example, Canada's population growth rate was the highest of all G-7 industrialized nations. The Census counted 28,846,761 people in Canada, up more than 1.5 million since 1991.

- The Survey of Labour and Income Dynamics (SLID) is being used by researchers at Queen's University to study multiple jobholding (moonlighting). This research will examine characteristics of moonlighters as well as the extent and type of multiple jobholding by parents of preschoolers. It will also link moonlighting behaviour with income levels. In subsequent waves of the SLID, issues related to duration of moonlighting spells will be examined.

- Analysts at Human Resources Development Canada will be using the SLID to study the social and labour market policy implications of the changing knowledge-based economy. More specifically, work is under way in the following areas: displaced workers, old jobs versus new jobs, low income dynamics, and school-to-work transitions.

- Statistics Canada is sponsoring its ninth Economic Conference, September 29 and 30, at the Château Laurier hotel in Ottawa. Topics to be addressed include technical change and training; investment patterns, and future challenges.

Job sharing

Katherine Marshall

If two heads are better than one, then perhaps job sharing is the ideal work arrangement. Simply put, two people voluntarily share the responsibilities of one full-time job, allowing employers to retain valued employees who prefer to work part time (see *Data sources and definitions* and Singh, 1991). Job sharing may also help to introduce a broader range of skills and experience to the workplace while providing a framework for continuity in the tasks performed. It also means, however, less opportunity for career advancement and increased administrative procedures (see *Advantages and disadvantages*).

Although already established in Europe, job sharing first formally appeared in the United States in the 1970s, emerging as a means of offering part-time hours in career-oriented positions normally requiring full-time work. Teaching and nursing were among the first professional positions to be shared, filled largely by women wanting to combine career and family. The public sector and large private sector corporations also adopted job sharing as an option for their employees.

This article looks at who job shares in Canada, and considers how shared jobs compare with regular part-time jobs. The 1995 Survey of Work Arrangements is used in the analysis as it offers first-time national data on this alternative work option.[1]

Job sharing on the rise?

Although no data exist to track the number of people job sharing over time, some trend information is available on organizations offering job sharing as a work option. For example, the number of major collective agreements with job sharing provisions, and hence the number of employees formally entitled to this work option, rose from 3% of employees in 1986 to 12% in 1993 (Chart A), remaining relatively stable since then. (Other unionized employees may have had the option to job share, but official

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Data sources and definitions

The Survey of Work Arrangements (SWA), a supplement to the November 1995 Labour Force Survey (LFS), collected, among other things, data on the work schedules of paid workers. The SWA asked respondents who worked part time (fewer than 30 hours) whether they did so "because [they split] the job with someone else (a job sharing arrangement)." A note on the questionnaire reminded interviewers to make sure respondents did not confuse job sharing with shift work. Since the question is new to the SWA, and the concept relatively unfamiliar, data quality cannot be tested. Full-time workers were not asked about job sharing because they were not likely to have such an arrangement.

The Bureau of Labour Information at Human Resources Development Canada (HRDC) has maintained, since 1986, information on job sharing provisions contained in all major collective agreements in Canada. It includes all agreements (more than 1,000 in 1996) covering union membership of 500 and over.

The annual Compensation Planning Outlook Survey, administered by the Conference Board of Canada, covers mainly medium and large Canadian organizations operating in a variety of regions and sectors. The 10-page questionnaire covers issues in compensation, human resources management, industrial relations, and benefits and working conditions, and includes information on job sharing arrangements.

Paid worker: any person who receives remuneration, usually in the form of a wage or salary from an employer.

Part-time: the LFS assigns a part-time status to all persons who usually work fewer than 30 hours a week at their main or sole job.

Qualified data: all sample survey estimates, such as those in the SWA and LFS, will have some level of sampling error. Measurement of the standard error of an estimate is expressed as the coefficient of variation (CV), which is expressed as a percentage of the estimate. For the SWA, an estimate of 40,500 or more at the Canada level will have an acceptable CV of less than 16.5%. Estimates of 18,000 to 40,499 must be qualified, or used with greater caution, because their CV is likely to fall between 16.6% and 33.3%, which means the estimate is subject to high levels of error. Estimates between 10,000 and 17,999 are not reliable and are considered confidential, while those under 10,000 are not releasable.

Job sharing: refers to a voluntary arrangement in which employees (usually two), with the approval of their employer, share a single job on an ongoing basis. It is still largely an employee-initiated arrangement.

Work sharing: refers to any comprehensive arrangement requiring workers to accept reduced hours in order to avert layoffs. This situation occurs usually when a business, for reasons beyond its control, experiences a slackening demand for its goods and services in the short run.

Advantages and disadvantages

In 1982, the Commission of Inquiry into Part-time Work compiled survey results from 104 job sharers and 37 employers of job sharers (CIPW, 1983). Below are some advantages and disadvantages most often cited by job sharers and employers.

Advantages – employees

* helps increase balance between work and family
* have more energy and less stress
* more flexibility with schedule
* keeps skills current
* more job satisfaction
* chance to ease into retirement

Advantages – employers

* productivity is higher
* employees are more innovative
* brings a wider range of skills to the job
* greater organization and commitment to the job
* more enthusiasm and less time off work
* opportunity to keep valued employees

Disadvantages – employees

* more difficult to advance in career
* less opportunity for training
* lack of some benefits
* less recognition as a career person
* harder to change jobs
* work time can extend into time off

Disadvantages – employers

* more supervision required
* compensation costs can increase
* increased discussion and communication needed
* administrative procedures change
* workspace difficulties
* personal conflicts with co-sharer

provisions had not been negotiated into their collective agreement.) Similarly, according to the Conference Board of Canada, the relative number of medium and large non-unionized organizations offering job sharing programs has risen. In 1994, the first year such organizations were asked about job sharing, 38% said they offered the option to some or all of their employees; in 1995 the proportion had increased to 41%, and by 1996, to 43%. Such figures show that job sharing has become more widely available in both unionized and non-unionized large workplaces.[2]

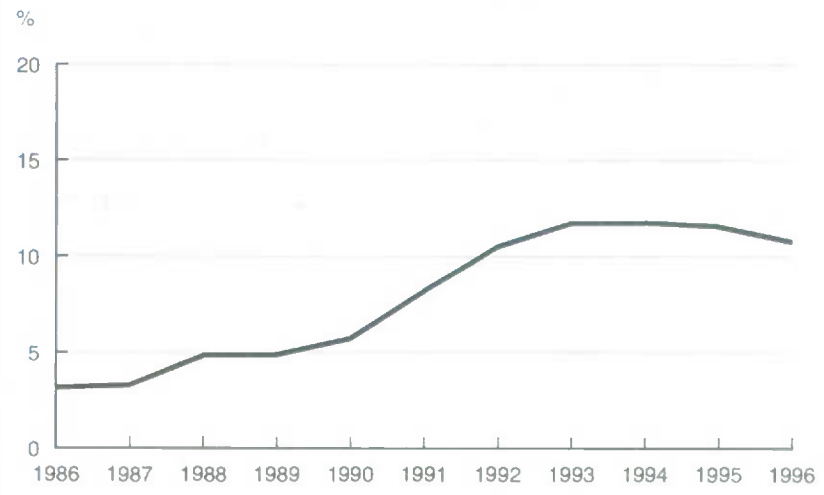
Who job shares?

Among paid workers in November 1995, one in 5 worked part time (19%). Almost one in 3 employed women worked part time, compared with one in 10 men (Table 1). Of all part-timers, 8% said they shared a job with someone else. Of women working part time, almost one in 10 shared a job; just one in 20 male part-timers did so. Although women held the bulk of part-time jobs (72%), they occupied an even larger majority of shared jobs (84%).

Compared with other part-time workers, people in job sharing positions tend to be older, better educated, and more likely to work in professional occupations. In 1995, more than half of job sharers were aged 35 and over, compared with 40% of regular part-timers; half of job sharers had graduated from college or university and 40% worked as professionals, compared with 37% and 25%, respectively, of regular part-timers (Table 2). Half of job sharers had children at home, versus 35% of regular part-timers. Although job sharers and regular part-timers worked roughly the same number of hours, more job sharers with pre-school aged children,

Chart A

One in 10 unionized employees * has access to job sharing provisions.



Source: Bureau of Labour Information, Human Resources Development Canada

* *Employees belonging to major unions only (membership over 500).*

Table 1
Paid workers by work status and sex

	Both sexes	Men	Women
		'000	
Total employed	11,084	5,776	5,309
Full-time	8,968	5,192	3,776
Part-time	2,116 **	584	1,532
Job share	171	28 *	143
Non-job share	1,935	552	1,383
		%	
Total employed	100	100	100
Full-time	81	90	71
Part-time	19	10	29
Part-time	100 (100)	100 (28)	100 (72)
Job share	8 (100)	5*(16*)	9 (84)
Non-job share	91 (100)	95 (29)	90 (71)

Sources: Labour Force Survey and Survey of Work Arrangements, 1995
Note: Distributions in parenthesis are to be read across.
* *Qualified data (see* Data sources and definitions*).*
** *This total includes the 10,500 part-timers who did not state whether or not they job shared.*

given the choice, said they would keep their current working hours (64%); only 54% of other part-timers with young children would do so. These findings suggest that job sharing's original appeal – allowing career people with children to better balance work and family – continues today. [3]

The types of professional position shared have changed little since job sharing was introduced. Teaching and nursing made up 25% of all job sharing occupations in November 1995, compared with 14% of all other regular part-time work (Chart B). This finding is not surprising, given that these professions have been traditionally female-dominated.

Most common in Quebec

Although most part-time workers in 1995 were in Ontario (over 800,000), less than 7% of these (53,000) job shared. Quebec, on the other hand, was home to fewer part-timers (almost 500,000) but slightly more job sharers (55,000), who represented 11% of all part-timers in the province (Table 3).

Shared jobs are higher quality

The belief that people who job share are more likely than regular part-timers to work in the public sector, in large private sector firms and in urban areas is not fully supported by the findings. The SWA results show that slightly more job sharers than regular part-time workers were public employees (19% versus 14%) (Table 4); however, virtually the same proportion of job sharers and regular part-timers worked in firms with 100 or more employees (one in 5). As well, over 80% of both lived in an urban area.

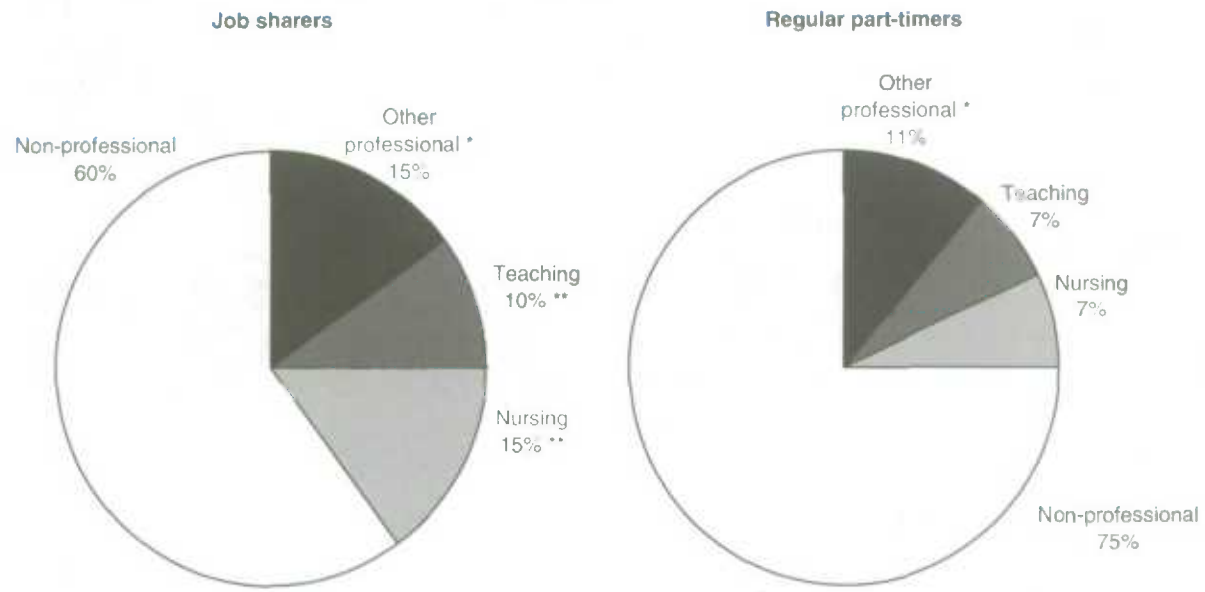
However, the attributes of shared jobs do differ from those of regular part-time work. In 1995, more than 80% were permanent and 36% unionized, compared with 71% and 23%, respectively, for regular part-time jobs. One in 5 job sharers had worked in the job for over 10 years, compared with one in 10 regular part-timers.[4] The average hourly pay was better as well, at $13.51 for shared and $10.96 for regular part-time (a reasonable finding considering the educational and occupational attainment among these workers). Benefits offered to job sharers were also considerably better than those offered regular part-timers. For example, 45% of job sharers said they received paid vacation,[5] compared with 29% of regular part-timers (Chart C). Approximately one in 3 job sharers was entitled to a supplementary health care plan, paid sick leave, dental plan, and private pension. Just under one in 5 regular part-timers enjoyed each of these benefits. Full-time workers were twice as likely as job sharers to be so entitled.

Table 2
Selected demographic characteristics of job sharers and regular part-timers

	Total part-time	Job share	Regular part-time
		%	
Aged 35 or over	**41**	54	40
Diploma or degree	**38**	49	37
Professional occupation *	**26**	40	25
Children <25 at home	**36**	50	35
Children <16 at home	**40**	48	40
Children <6 and prefer current hours	**55**	64	54

Source: Survey of Work Arrangements, 1995
* *Includes managerial and administrative; natural sciences, engineering and mathematics; social sciences; religion; teaching; medicine and health; and artistic, literary and recreational occupations.*

Chart B
Four in ten job sharers are professionals.



Source: Survey of Work Arrangements, 1995
* *Includes managerial and administrative; natural sciences, engineering and mathematics; social sciences; religion; other medicine and health; and artistic, literary and recreational occupations.*
** *Qualified data (see* Data sources and definitions*).*

Summary

Findings show that 171,000 (8%) of part-time paid workers were job sharing in November 1995, and that most of these workers (84%) were women. Compared with regular part-time employees, people who job shared were much more likely to be university-educated, hold professional occupations, and have children at home. Also, shared jobs were more often permanent and unionized, and offered more benefits and higher pay than regular part-time positions. Quite simply, a shared job was more likely to be a "good" part-time job than was a regular part-time position.

Although it is still not a widely practised work arrangement, job sharing is becoming an increasingly

Table 3
Job sharers and regular part-timers by region

	All part-timers	Distribution	part-timers	Distribution	Job sharers	Distribution	as % all part-timers
	'000	%	'000	%	'000	%	%
Canada	**2,116** *	**100**	**1,935**	**100**	**171**	**100**	**8**
Atlantic	142	7	133	7	--	--	--
Quebec	484	23	429	22	55	32	11
Ontario	814	38	758	39	53	31	7
Prairies	376	18	347	18	28 **	16 **	7 **
British Columbia	300	14	268	14	27 **	16 **	9 **

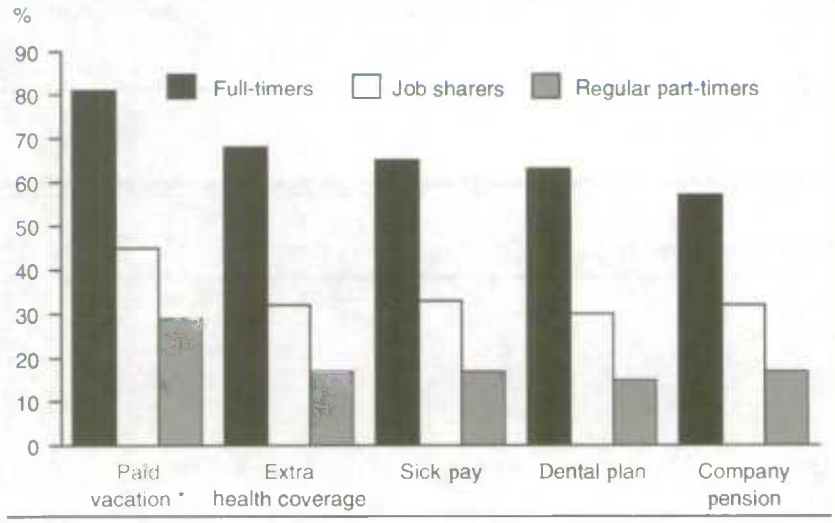
Source: Survey of Work Arrangements, 1995
* *This total includes the 10,500 part-timers who did not state whether or not they job shared.*
** *Qualified data (see* Data sources and definitions*).*

Table 4
Selected characteristics of job sharers and regular part-timers

	Total part-time	Job share	Regular part-time
		%	
Public employee	15	19	14
Firm size 100 +	19	21	19
Urban residence *	83	84	83
Permanent job	72	81	71
Job tenure >10 years	12	22	11
Unionized	24	36	23
		$	
Hourly pay **	11.22	13.51	10.96

Source: Survey of Work Arrangements, 1995
* *Population concentration of 1,000 or more and a population density of 400 or more per square kilometre.*
** *Derived average for all workers, including those salaried and paid by the hour.*

Chart C
Job sharers are more likely to have employment benefits than are regular part-timers.



Source: Survey of Work Arrangements, 1995
* *See note 5.*

important work option. More employers are offering alternative work arrangements as a way of keeping valued employees and creating a committed workforce. □

Notes

1 The Workplace and Employee Survey is currently being developed by Statistics Canada. A pilot test, including employee- and employer-related questions on job sharing, was conducted during December 1995 and April 1996.

2 Neither HRDC nor the Conference Board survey covers smaller union or non-unionized organizations.

3 Another reason people may choose to work fewer hours is to attend school. Some 21% of job sharers and 34% of regular part-time workers gave school as the main reason for working part time.

4 This refers to the length of time the respondent had been at the current job, not to the length of time he or she had been job sharing. For example, for a high school teacher who had taught at the same school for 15 years but had shared the position for the last 5, job tenure would be 15 years.

5 Although employment standards and labour laws generally entitle employees to at least two weeks of paid vacation, some workers do not enjoy such a benefit. These include some contract, term, casual and on-call workers. It is possible that some workers who were expected to take pay in lieu of vacation time may have responded negatively to the related survey question.

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Measuring the age of retirement

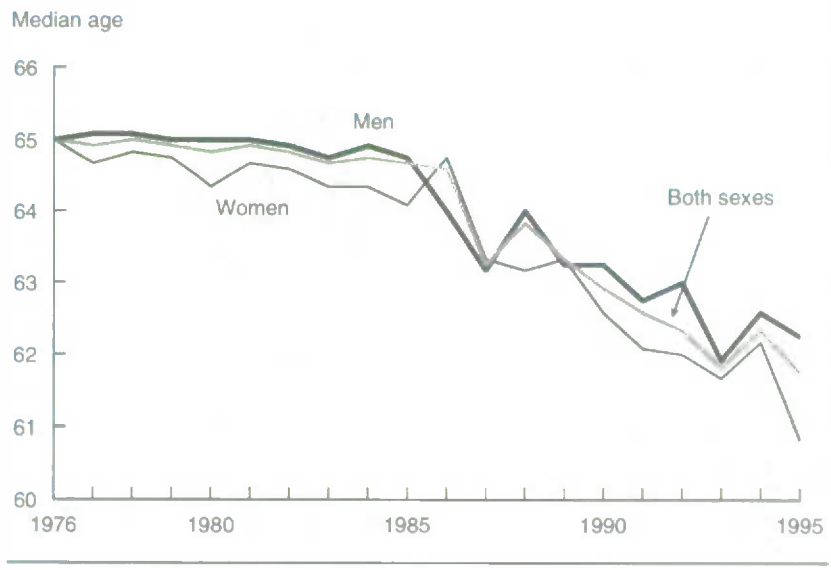
Dave Gower

As the first of the baby boomers turn 50, retirement is becoming an increasingly important topic. Yet measuring retirement is not as simple as one might think. How does one decide who is retired and who is not? Is it necessary to be in receipt of a pension? Can a person who has a part-time job still be considered retired? (For a brief discussion of these issues, see *Data source and definition.*)

Until now, little information has been available on who is retiring, and at what age. To fill this gap, data from the Labour Force Survey (LFS) have been reorganized back to 1976, which should allow study of emerging retirement trends.

The purpose of this article is to present a method of estimating the distribution of ages at retirement (and from these distributions, medians), and to describe what these distributions look like over time, by such characteristics as retirees' education, sex, employment class and industry of *last employment*.

Chart
Retirees are younger than ever.



Source: Labour Force Survey

Earlier retirement...

Over the past couple of decades,[2] the age of retirement has changed dramatically. The median age was close to 65 in the late 1970s and early 1980s. Starting in the mid-1980s, it declined considerably (Chart), both in Canada and abroad.

Between 1986 and 1993, median retirement age dropped more or less steadily. The sharp drop between 1986 and 1987 is likely explained by the lowering in 1987 of the minimum age at which one could draw benefits from the Canada Pension Plan – from 65 to 60. In 1988, retirement age increased, probably because most people wishing to take advantage of this early retirement option had done so the previous year. After 1988, however, the trend toward earlier retirement resumed.

During the 1990s, the age has fluctuated, presumably because of such factors as government cutbacks and corporate downsizing. The popularity of early retirement incentives as a tool for workforce adjustment may also have influenced recent retirement behaviour.

Over most of the past two decades, women retired slightly earlier than men, with the two sexes following a similar trend. There were exceptions, however. In 1986, for example, women retired later than men.

but not for everyone

This study looks at people who retired at any time during the 5-year period at either end of the data series (1976 to 1980 and 1991 to 1995). Initially, the most popular age for retirement was between 65 and 69 (38% of retirees); at the end of the study period, it was 60 to 64 (37%) (Table 1).

The change is more noticeable, however, in the proportion of those retiring at younger and older ages. The percentage under age 55 more than doubled, from 4% to 10%, as did that aged 55 to 59, from 12% to 24%. On the other hand, fewer people waited past age 65.

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Data source and definition

The Labour Force Survey asks people who are not working, and who have left their last job within the year prior to being surveyed, why they left this job. One of the response categories is "retired." An analysis of data for this question revealed that most self-described retirees tended to fit an expected profile of retirement; that is, they were over age 50 and not working full time in the half-year following their response to the survey.

Self-reporting of retirement will miss some retirees; for example, those who have left a job because of sickness or layoff, and who, although they would not initially call themselves retired, never work again. On the other hand, some who declare themselves retired may later decide to return to the workforce. So this series should be taken as an indicator of the retirement process.

Future data should help to provide a more complete measure of work departures, including such information as lifetime work history and availability of a pension.[1]

Measuring retirement

The Labour Force Survey (LFS) was designed to measure a certain point in time: one reference week each month. The new data on retirement, while derived from the LFS, are based on a cumulation of events over time. This difference has a number of statistical and conceptual implications.

A comparison of regular LFS data with those in this study illustrates the difference. During 1995, for example, an average of 4,778,000 people aged 50 and over were counted as "not in the labour force," that is, neither working nor looking for work. Of these, some 273,000 had worked in the past 12 months. Of this group, 113,000 had retired. (For another 94,000 the main reason for leaving that job was a layoff, and for 28,000, illness or injury.)

These data refer to people who worked in the past year. Many of the remainder are also retired, but how many there are, and when they retired, is not known.

To provide a meaningful series on retirement, the data are reorganized. Each survey month is scanned and everyone who claims to have retired in the previous year is recorded. The month of retirement is taken to be the same as the month last worked. A list of retirees is then organized according to the *month in which they retired*, rather than the month of the survey. Special adjustments to the sampling weights produce an unbiased estimate of retirees in the country.

To calculate the age at retirement, the number of months between retirement and the survey is established. The reported age (in whole years) is then reduced by this amount. Because the respondent's actual birthday is not known, it is assumed to be 6 months prior to the survey. This assumption may misjudge a person's retirement age by as much as .5 years. Such errors should cancel out, however, and should eventually disappear because survey procedures were revised in late 1996.

As very few people under age 50 report retirement as a reason for leaving their job, only those aged 50 or over when they retired are included in this study.

For all retired people (except for a few "permanently unable to work") information is gathered on the last job, specifically, that on industry, occupation, length of tenure and employment class (paid worker or self-employed).

The fact that these data refer to the last job is important to the analysis. Some people's last job may not be indicative of their careers; these people may have switched jobs shortly before retirement. For this reason, those with brief job tenures are best considered a "residual" group, that is, representing people with a wide but unknown mix of work histories.

The LFS keeps respondents in the sample for 6 consecutive months. For this study, however, only the response in the first month is used. This self-perceived retirement status is not updated thereafter, even though the respondent's situation may change after that first interview.

According to a preliminary study, a few retirees took jobs in the following 5 months. Many of these jobs were part-time, which may mean simply that someone had decided to fill in the time or to supplement a pension.

The majority of people over 50 who left the workforce gave reasons other than retirement for leaving the last job. The two most common reasons were "laid off" and "sickness or disability." A high percentage of this group re-entered the labour force within 5 months of the initial LFS interview. Many more likely found jobs later. In the context of the current exercise, those who remained out of the workforce would be missed from the analysis.

To see how many retirees might be missing, the study compared numbers from the new data set with those for new beneficiaries of the Canada and Quebec Pension Plan (C/QPP). During the 1990s, the LFS-derived numbers covered about three-quarters of this group, not all of whom would receive full C/QPP pensions. Most people leaving long-term careers should be captured by the database, however.

Not everyone joined this trend, however. About one person in 14 retiring in the 1990s waited until age 70 or later.[3]

Sector/class of work and length of tenure

Many factors influence the timing of retirement. Among the most important are the type of last job and length of tenure[4] (Table 2).

For workers overall, the median age of retirement declined from 64.9 to 62.3 over the study period. People employed in the public sector (which includes education, health and social services, and government), already the youngest to retire from 1976

Table 1
Distribution of ages at retirement

	1976-1980		1991-1995	
	'000	%	'000	%
Total	**407**	**100**	**620**	**100**
50-54	15	4	59	10
55-59	48	12	149	24
60-64	142	35	228	37
65-69	154	38	139	22
70+	48	12	45	7

Source: Labour Force Survey

to1980, saw the greatest decline in median age (4.8 years, from 64.6 to 59.8). Employees in the private sector retired an average half-year later than public sector workers at the beginning of the period, a gap that increased to about 3 years in the 1990s (63.1 versus 59.8).

Self-employed people, whose median age of retirement remained steady over the study period (shifting from 65.3 to 65.1), retired later than paid workers. Those with unincorporated businesses and no employees retired last. Industry accounts for much of the age difference between self-employed and paid workers.

How long one worked in a job prior to retirement seems to have a strong correlation with retirement age. This is not surprising. People who stay with one employer for a long time have an opportunity to build up substantial entitlements in a pension plan if one is available. Furthermore, employers offering good pension plans (for example, school boards, some large companies and governments) often provide longer tenure. As might be expected, early retirement is more prevalent in such workplaces. Employer pensions have also been linked with higher retirement incomes (Gower, 1995).

In the 1990s, workers with job tenure of 20 years or more retired an average 3 years earlier than those with under 20 years (aged 60.8 versus 64.1). Among the self-employed, however, the opposite was true. Those with 20 years or more retired, on average, one year later (65.8 versus 64.6). This, combined with their slower rate of decline in median retirement age, suggests that self-employed workers reach the decision to retire in a very different manner.

Industry and education make a difference

Public and private are very broad definitions. A more detailed examination reveals some notable patterns; for instance, early retirement ages were recorded in communication, both federal and local governments, and utilities (Table 3).

Overwhelmingly, the 11 industries whose workers retired before age 63 were also those with the fastest decline in retirement age (more than 2 years). In contrast, those recording relatively late retirement ages also experienced the least decrease.

Undoubtedly, many factors are at play here. In particular, certain industries that were downsizing in the 1990s may have introduced early retirement programs (see Appendix).

Months chosen for retirement

Not surprisingly, people favour some months over others to make the leap. Two months stand out: June and December, with the former more popular. People who retire during the summer tend to be slightly younger than those who do so in autumn or winter.

Little has changed over the two decades. The patterns for men and women are similar, though women are more likely to retire in June. This may relate to the number of women retiring from teaching.

Distribution of retirees by month of departure, 1991-1995

	Both sexes		Men		Women	
	%	Median age	%	Median age	%	Median age
All months	**100.0**	**62.3**	**100.0**	**62.4**	**100.0**	**61.8**
January	7.6	62.8	7.8	62.3	7.1	63.2
February	5.9	61.9	6.3	62.2	5.2	61.4
March	7.5	61.3	8.2	62.3	6.2	60.4
April	7.7	62.3	7.3	62.3	8.6	62.4
May	6.9	62.2	6.8	62.7	7.1	61.8
June	16.3	61.8	14.8	62.1	19.1	60.8
July	6.8	61.1	6.8	61.8	6.6	60.2
August	6.4	62.3	6.0	63.3	7.0	61.6
September	8.4	63.1	8.7	63.3	7.6	61.8
October	7.6	63.3	7.6	63.3	7.4	62.8
November	6.9	62.8	7.0	63.4	6.7	62.3
December	12.2	62.0	12.7	61.9	11.3	62.4

Source: Labour Force Survey

Table 2
Median age at retirement, and length and sector/class of employment

		1976-1980		1991-1995	
Job tenure	Sector/class	'000	Median age	'000	Median age
Overall	**All retirees (aged 50+) ***	**407**	**64.9**	**620**	**62.3**
	Public paid workers	100	64.6	183	59.8
	Private paid workers	233	65.1	342	63.1
	Self-employed	62	65.3	89	65.1
<20 years	**All retirees (aged 50+) ***	**206**	**65.1**	**269**	**64.1**
	Public paid workers	48	64.9	59	62.1
	Private paid workers	132	65.3	169	64.6
	Self-employed	24	65.1	39	64.6
20+ years	**All retirees (aged 50+) ***	**196**	**64.8**	**349**	**60.8**
	Public paid workers	52	62.2	124	58.6
	Private paid workers	101	64.9	173	61.3
	Self-employed	37	66.1	50	65.8

Source: Labour Force Survey
Note: Job tenure and sector/class refer to last job prior to retirement. See note 4.
* *Because unpaid family workers are not accounted for in the sub-categories but are included in the totals, numbers do not add to totals.*

Overall, men tended to retire slightly later than women (aged 62.4 versus 61.8). This difference held for people in most education groups except those with only a high school diploma (Table 4).

Changes in the LFS data prevent a comparison of education groups over time, but in the 1990s, at least, differences between those lacking high school graduation and those with higher education were much greater than those between the sexes. People with a postsecondary certificate, diploma or degree, for example, retired 3 years earlier than those with 8 years of schooling or less.

Differences between provinces have widened

At the beginning of the study period, provincial retirement findings were uniform (Table 5). The highest median retirement age (65.2 in Prince Edward Island) was almost the same as the lowest (64.8 in British Columbia).

By the 1990s, however, differences had increased considerably. The gap between the highest age (64.2 in Saskatchewan) and the lowest (60.4 in Newfoundland) widened to 3.8 years.

While Canadians everywhere opted for earlier retirement, the drop in median age varied from only 0.7 years in British Columbia to 4.5 in Newfoundland. The other Atlantic provinces (except for Prince Edward Island) and Quebec also showed a relatively fast drop in median retirement age.

Different factors influence provincial findings. For example, in Saskatchewan, the prevalence of

Table 3
Median age at retirement by industry,* and change over time

	1976-1980	1991-1995	Change between periods
Agriculture	65.3	65.6	*0.3*
Business services	66.0	65.3	*-0.7*
Other services	65.4	64.8	*-0.6*
Construction	65.3	64.8	*-0.5*
Retail trade	65.1	64.7	*-0.4*
Wholesale trade	65.0	63.7	*-1.3*
Finance, insurance and real estate	65.1	62.6	*-2.5*
Health and social services	64.9	62.3	*-2.6*
Other primary	64.8	62.2	*-2.6*
Manufacturing	64.8	61.8	*-3.0*
Transportation and storage	64.8	61.1	*-3.7*
Education	64.8	61.0	*-3.8*
Provincial government	64.9	60.0	*-4.9*
Federal government	62.0	59.3	*-2.7*
Utilities	64.6	59.1	*-5.5*
Local government	65.0	58.9	*-6.1*
Communication	63.0	57.8	*-5.2*

Source: Labour Force Survey
* *According to last job prior to retirement.*

International trends

A falling employment rate is not necessarily indicative of earlier retirement. For example, the rate could drop if more people were working intermittently. Nonetheless, the Organisation for Economic Co-operation and Development (OECD) reports that for 16 of its member countries, most have seen declining work activity since the mid-1970s among 55 to 64 year-olds, especially among men. Canada's results are about in the middle (OECD, 1995).

More recent Canadian data show a continuation of the 1975-to-1991 movements listed below. Employment rates in 1996 for Canadian men aged 55 to 59 and 60 to 64 were 66.6% and 41.4%, respectively. Comparable figures for women were 45.1% and 22.0% (Labour Force Survey).

Employment rate in selected OECD countries

	1975	1991	Change		1975	1991	Change
	%		% point		%		% point
Men aged 55 to 59				**Women aged 55 to 59**			
Australia	85.8	65.6	*-20.2*	Spain	26.0	20.7	*-5.3*
United Kingdom *	89.7	71.6	*-18.1*	New Zealand	32.3	30.0	*-2.3*
France *	81.3	64.2	*-17.1*	Germany *	37.2	35.2	*-2.0*
Finland	74.2	57.4	*-16.8*	Finland	56.7	55.8	*-0.9*
Netherlands	76.8	60.6	*-16.2*	Ireland	20.1	19.3	*-0.8*
Ireland	76.1	60.2	*-15.9*	France *	41.9	41.2	*-0.7*
Spain	84.4	68.9	*-15.5*	United Kingdom *	51.7	51.9	*0.2*
Canada *	**83.6**	**69.5**	***-14.1***	Australia	30.6	33.7	*3.1*
New Zealand	66.0	53.3	*-12.7*	Netherlands	17.1	21.9	*4.8*
Germany *	82.7	70.2	*-12.5*	Portugal	36.4	41.6	*5.2*
Portugal	80.4	73.9	*-6.5*	Japan *	48.1	54.5	*6.4*
Norway	86.6	81.2	*-5.4*	United States *	45.2	53.5	*8.3*
United States *	79.8	74.4	*-5.4*	**Canada ***	**34.5**	**42.9**	***8.4***
Sweden	88.9	85.0	*-3.9*	Norway	49.6	63.0	*13.4*
Japan *	89.3	91.7	*2.4*	Sweden	60.1	78.4	*18.3*
Italy *	..	..	..	Italy *	..	..	..
Men aged 60 to 64				**Women aged 60 to 64**			
Netherlands	62.3	20.8	*-41.5*	France *	28.9	15.3	*-13.6*
France *	55.1	19.1	*-36.0*	Finland	27.8	19.7	*-8.1*
Finland	55.1	28.0	*-27.1*	Germany *	15.2	9.8	*-5.4*
Spain	68.6	43.0	*-25.6*	United Kingdom *	28.6	24.1	*-4.5*
Canada *	**67.9**	**44.3**	***-23.6***	Spain	19.5	15.1	*-4.4*
United Kingdom *	74.6	51.0	*-23.6*	Netherlands	10.4	7.5	*-2.9*
Germany *	55.2	31.9	*-23.3*	New Zealand	32.3	30.0	*-2.3*
Australia	66.1	43.4	*-22.7*	Australia	15.4	14.4	*-1.0*
Ireland	76.1	60.2	*-15.9*	**Canada ***	**23.4**	**22.5**	***-0.9***
Portugal	73.7	58.1	*-15.6*	Ireland	20.1	19.3	*-0.8*
Norway	76.9	62.2	*-14.7*	Portugal	27.2	28.0	*0.8*
New Zealand	66.0	53.3	*-12.7*	Italy *	8.5	9.9	*1.4*
United States *	61.6	52.0	*-9.6*	United States *	31.3	33.6	*2.3*
Sweden	72.3	62.9	*-9.4*	Japan *	37.6	40.2	*2.6*
Italy *	42.1	34.4	*-7.7*	Norway	40.0	47.5	*7.5*
Japan *	76.8	70.6	*-6.2*	Sweden	37.6	53.4	*15.8*

Source: Organisation for Economic Co-operation and Development
Notes: Second column data for Germany are for 1990; change is for 1975 to 1990.
Data for Ireland and New Zealand are for ages 55 to 64.
Earliest data for New Zealand are for 1986; change is for 1986 to 1991.
* *G-7 country.*

agriculture may help to explain the high and relatively stable retirement age. Further east, Quebec's lowering of the minimum age of entitlement from 65 to 60 in 1984 – three years before a similar move by the Canada Pension Plan – may have accelerated the trend to younger retirement in that province.

British Columbia has the second highest retirement age after Saskatchewan, with almost no change since the late 1970s. The reason for this is not immediately obvious and is

Table 4
Median age at retirement by sex and education, 1991-1995

	Both sexes		Men		Women	
Education	'000	Median age	'000	Median age	'000	Median age
Total	**620**	**62.3**	**404**	**62.4**	**217**	**61.8**
0-8 years	125	64.6	94	64.7	31	64.4
Some secondary	122	63.0	81	63.3	41	62.0
High school graduation	113	61.1	63	61.0	51	61.7
Some postsecondary	28	62.2	16	62.2	13	61.2
Postsecondary certificate, diploma or degree	232	61.2	151	61.3	81	61.0

Source: Labour Force Survey

complicated by the fact that the province designation is based on where the person was living when surveyed (that is, after retirement). Migration to British Columbia after retirement, as well as immigration patterns in general, may play a role (Monette, 1996).

A complex picture

This article notes retirement patterns connected to downsizing, geographical location, self-employment status, and the public and private sectors, among others.[5] Of the many subgroups examined, virtually all showed a movement toward younger retirement. Yet many people are still working close to or beyond the "traditional" retirement age of 65. Some of these, like many self-employed, may choose to do so for various reasons. Others, particularly those with lower levels of education, may have little choice but to carry on until they qualify for an old age pension at 65.

Certain groups in society are much more likely to retire younger than others. Workers with postsecondary education and those with long-term jobs tend to leave early, especially if they worked in the public sector.

It is tempting, but risky, to predict that retirement age will continue to drop. The statistics of the mid-1990s were undoubtedly affected by early retirement incentives; it is quite likely, then, that the ages may level out or even increase in future. As in the past, changes in legislation and business practices will play a major role. □

Notes

1 The Survey of Labour and Income Dynamics (SLID) captures information on lifestyle transitions as well as sources of income. These data, however, start in 1993 and hence do not provide a measure of long-term trends.

2 The available data series starts in 1976. Because it is necessary to look back one year to determine who retired, the most recent data available at writing were for people who retired in 1995.

3 People in certain occupations (for example, some tenured university professors) seem to work to quite advanced ages. And for many the transition from work to retirement takes more than one step. In fact, of those who waited until 70 or later to retire, 44% had held a part-time job prior to retirement, compared with about 16% of all retirees.

4 The data relate to the retiree's last job. At least some of those with less than 20 years' tenure may have held a long-term job sometime earlier. If those jobs could also be measured, differences in retirement age between people with short and long job tenures would probably increase.

5 Topics not touched on here that are also raised by the data set include the effect of a growing number of highly educated workers, the retirement decisions of working spouses, and the characteristics of people who hold "bridging" (usually part-time and/or service) jobs prior to retirement.

References

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Table 5
Median age at retirement by province

	1976-1980		1991-1995		Change between periods
	'000	Median age	'000	Median age	Years
Canada	**407**	**64.9**	**620**	**62.3**	***-2.6***
Saskatchewan	21	65.1	23	64.2	*-0.9*
British Columbia	52	64.8	76	64.1	*-0.7*
Alberta	32	64.9	50	63.0	*-1.9*
Prince Edward Island	2	65.2	3	62.3	*-2.9*
Ontario	164	65.0	263	62.3	*-2.7*
Manitoba	20	65.0	29	62.2	*-2.8*
Quebec	84	64.9	131	61.1	*-3.8*
Nova Scotia	14	65.0	21	60.7	*-4.3*
New Brunswick	11	64.9	15	60.7	*-4.2*
Newfoundland	6	64.9	9	60.4	*-4.5*

Source: Labour Force Survey

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Appendix
Retirement patterns by industry *

	1976-1980		1991-1995	
	'000	Median age	'000	Median age
All workers (aged 50+)	**407**	**64.9**	**620**	**62.3**
Agriculture	32	65.3	24	65.6
Business services	10	66.0	20	65.3
Other services **	26	65.4	35	64.8
Construction	18	65.3	30	64.8
Retail trade	44	65.1	52	64.7
Wholesale trade	16	65.0	23	63.7
Finance, insurance and real estate	20	65.1	40	62.6
Health and social services	27	64.9	52	62.3
Other primary	9	64.8	14	62.2
Manufacturing	80	64.8	95	61.8
Transportation and storage	28	64.8	34	61.1
Education	29	64.8	72	61.0
Provincial government	11	64.9	21	60.0
Federal government	18	62.0	36	59.3
Utilities	6	64.6	11	59.1
Local government	12	65.0	22	58.9
Communication	8	63.0	21	57.8
Paid workers (aged 50+)	**333**	**64.9**	**526**	**61.8**
Agriculture	4	65.9	4	65.2
Business services	8	66.0	14	65.0
Other services **	17	65.6	22	64.9
Construction	12	65.3	21	64.8
Retail trade	33	65.1	37	64.3
Wholesale trade	13	65.1	17	64.2
Finance, insurance and real estate	19	65.0	34	62.8
Health and social services	25	64.9	49	62.3
Manufacturing	77	64.8	91	61.6
Other primary	7	64.8	11	61.3
Education	29	64.8	71	60.9
Transportation and storage	25	64.7	31	60.8
Provincial government	11	64.9	21	60.0
Federal government	18	62.0	36	59.3
Utilities	6	64.6	11	59.1
Local government	12	65.0	22	58.9
Communication	8	63.0	21	57.8
Self-employed	**62**	**65.3**	**89**	**65.1**
Agriculture	21	65.4	18	65.9
Retail trade	10	65.2	15	65.4
Other primary	1	66.1	3	65.0
Construction	6	65.3	9	64.9
Other services **	9	65.4	13	64.8

Source: Labour Force Survey

Note: These categories describe the last job held prior to retirement. They may or may not reflect a person's lifetime work history.

* *Excludes some groups with too small a sample to provide a reliable estimate, so the groups will not add to total. Likewise, industries in the self-employed category exclude unpaid family workers.*

** *Includes accommodation, food and beverage services, personal and household services and other services.*

Family income after separation

Diane Galarneau and Jim Sturrock

The economic situation of ex-spouses presents an often striking discrepancy between men and women. A number of studies have demonstrated a clear deterioration in the economic status of women in the year following separation, and an immediate improvement in that of men (Duncan and Hoffman, 1985; Weitzman, 1985; Steward and Steel, 1990; Finnie, 1993; Peterson, 1996).

This article is an extract of a recent longitudinal study that looked at the income of separated persons in Canada (Statistics Canada, 1997a). That analysis was based on a new version of Statistics Canada's Longitudinal Administrative Databank (LAD), which covers virtually the whole Canadian population (see *Data source*). It has recently become possible to subtract support payments from the income of payers, who have been required to report these separately since 1986, so the study should enrich the discussion about the setting of child support payments. New rules relating to this issue came into effect May 1, 1997, aiming to "[ensure] that Canadian children whose parents separate or divorce receive the financial support they deserve" (Department of Finance, 1996).

The study focused on married[1] persons who became separated[2] between 1987 and 1993 and who had children before the breakup. It tracked changes in family composition and after-tax income. Attention was also paid to the relative situation of payers and recipients of support payments. Finally, income sources of separated persons were compared before and after separation. This article presents key findings and several tables published in the study.

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Data source

This article is based on the Small Area and Administrative Data Division's (SAADD) Longitudinal Administrative Databank (LAD). (For more information see Statistics Canada, 1997c.) At the time of writing, this covered a 12-year period from 1982 to 1993. It is derived from SAADD's T1 file of families created from Revenue Canada income tax returns. The LAD represents a random sample of 10% of all taxfilers and their dependants who have social insurance numbers (SIN). This is a new version of the LAD, which formerly covered only 1% of taxfilers and persons with SINs. The database is "longitudinal," meaning once individuals are selected for inclusion they remain in the file year after year. Some selected individuals may be missed in certain years because they did not file a tax return, or did so after the deadline. In 1993, the non-weighted LAD contained information on 2,083,590 individuals; when weighted, it covered over 96% of the Canadian population (according to post-censal estimates).

While the LAD includes only a few demographic and labour-related variables, it does contain valuable information on income.

Matching of couples in the LAD

Even though the T1 family file and the LAD contain information on families, they remain files of individual records. The family files are built up through a series of operations; spouses and children are identified using such variables as name, SIN, age, sex, mailing address, marital status and certain tax credits. Different variables are used to match couples, depending on whether they are married or living common law.

Married couples are matched primarily by their SINs, since these individuals are required to report the SIN of their partner on the tax form. Some people living common law may have been counted as married if they reported their partner's SIN. Before 1992, however, there were few ways to match couples living common law, since they were not recognized as couples by Revenue Canada. They were matched by their mailing address and such variables as age of *de facto* spouse and family name, to avoid matching a son with his mother or a brother with a sister.

All separated persons

Change in family composition

Family composition was examined the year before separation (T_{-1}) and in subsequent years (T_{+1}, T_{+2}, ... T_{+5}). The actual year of separation (T_0) was not really considered because of the many family adjustments taking place at the time.[3] Separated persons were divided into three family types depending on whether they had become part of another couple, were the heads of single-parent families, or were single.[4] By definition, everyone in the sample had been married in the year prior to separation (T_{-1}) and all had dependent children (Table 1).

The year after separation (T_{+1}), the majority of men were single (52%), while most women headed single-parent families (68%). The great majority of women found themselves with children under 18 years (89% in T_{-1}), a less common experience for men (36%).[5] The proportion of women with children later dropped to 76% in T_{+5} whereas that of men in the same situation grew to 42%.

Table 1
Change in family composition, all separated persons, 1987-1993

	T_{-1}	T_0	T_{+1}	T_{+2}	T_{+3}	T_{+4}	T_{+5}
				'000			
Men							
Sample size	381	381	306	251	198	148	99
				%			
Family composition							
All separated men	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Couples	100*	10	30	39	45	50	54
Single parents	...*	29	18	16	14	13	11
Single persons	...*	61	52	46	41	37	35
Proportion of men who declared dependent children under 18	100	32	36	39	40	42	42
				'000			
Women							
Sample size	448	448	374	310	244	184	123
				%			
Family composition							
All separated women	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Couples	100*	10	26	33	38	42	45
Single parents	...*	83	68	61	55	50	46
Single persons	...*	8	5	6	7	8	9
Proportion of women who declared dependent children under 18	100	89	89	86	82	79	76

Source: Longitudinal Administrative Databank, 1986-1993
* *By definition, in the year preceding separation (T_{-1}) everyone in the sample is married.*

A significant proportion of both men and women became part of a couple in the years following separation. Though men did so earlier, the gap between the sexes was small; one year after separation 30% of men and 26% of women had formed new unions. The gap widens with time, however; five years after separation 54% of men had a new partner, but only 45% of women did.

Five years after separation, some 35% of men were single, while a large percentage of women (46%) headed single-parent families.

Family income after separation

Post-separation income is expressed as after-tax income[6] in 1993 dollars. This has been adjusted for the number of family members in order to make family income comparable regardless of family type (see "Adjusted family income" in Appendix I – Methodology). Support payments have been deducted from the total income of those paying, since they no longer have use of this money; no adjustment is made for recipients, as the amount is already included in their total income.[7] Changes in adjusted family income (AFI) are measured up to five years after separation (T_{+5}). Comparisons are always with the situation prior to separation (in T_{-1}), to show whether separated persons eventually resume their former income level and, if not, how much it changes. Results given are medians.

In the year of separation (T_0), women experienced a median loss of around 38% ($7,100) of AFI. This number must be interpreted with caution, though, because of the many changes in conjugal living arrangements taking place that year.[8] For this reason the analysis focuses on results for succeeding years.

After separation, women lost around 23% of AFI (close to $3,900)[9] between T_{-1} and T_{+1} (Table 2). They recovered a major portion of their losses in succeeding years, but by T_{+5} they were still 5% ($1,000) below their pre-separation AFI. These losses are attributable to two factors: first, women generally have a lower personal income than men; thus, many lose a major source of financial support on separation. Second, most women have custody of their children upon separation; this is taken into account when family income is adjusted for the number of family members.

In general, women who formed new relationships seemed to be less affected financially than those heading single-parent families or remaining single. Not only did the latter two lose a significant portion of their income after separation, but they made up a smaller proportion of it over time and did so more slowly. Consequently, five years after separation single mothers still had 21% ($3,700) less than their pre-separation income, and single women still had 19% ($3,600) to make up. Five years after separation these two groups still accounted for over 55% of separated women. Of the remaining women, those in couples experienced post-separation gains of 8% in T_{-1} and 14% in T_{+5}.

Men's AFI, in contrast, immediately went up about 10% ($2,000) after separation (T_{-1}).[10] The gain eventually (T_{+5}) rose to 15% ($2,800). The size of the gain varied according to family composition. Single men had the highest increases and single fathers the lowest. With time, men living in a new relationship did somewhat better than single men. These AFI gains arose because men whose incomes were higher than women's contributed more to family income before separation (T_{-1}), and because fewer men than women lived with their children after separation.

A recent study based on an earlier version of the LAD and covering the period 1982 to 1986, found an increase in men's adjusted family income of 11%, 14% and 8%,[11] respectively, one, two and three years after separation (Finnie, 1993). Respective figures for women were decreases of 33%, 29% and 30%.

If splitting of family assets is taken into account (homes, furniture, automobiles, pension plans and so on), different results are possible, given the considerable amounts that may be exchanged between spouses but do not show up in the LAD. In the case of a pension plan, for example, the accrued value at the time of separation must be divided between the spouses. If not, the pension paid on retirement

Table 2
Median changes * in adjusted family income (AFI), all separated persons, 1987-1993

	T_{0}	T_{+1}	T_{+2}	T_{+3}	T_{+4}	T_{+5}
			%			
Men						
All separated men	**11**	**10**	**10**	**12**	**12**	**15**
Couples	24	11	12	14	15	18
Single parents	--	1	1	3	3	5
Single persons	16	14	14	13	13	16
Women						
All separated women	**-38**	**-23**	**-18**	**-13**	**-10**	**-5**
Couples	4	8	9	11	13	14
Single parents	-41	-31	-29	-26	-24	-21
Single persons	-33	-32	-29	-25	-22	-19
			1993 $			
Men						
All separated men	**2,000**	**2,000**	**2,000**	**2,200**	**2,400**	**2,800**
Couples	4,500	2,100	2,300	2,700	2,900	3,200
Single parents	--	100	100	500	500	800
Single persons	3,000	2,800	2,600	2,500	2,600	2,900
Women						
All separated women	**-7,100**	**-3,900**	**-3,000**	**-2,300**	**-1,600**	**-1,000**
Couples	700	1,300	1,500	1,900	2,300	2,600
Single parents	-7,700	-5,700	-5,400	-4,800	-4,300	-3,700
Single persons	-7,300	-6,800	-6,100	-5,100	-4,700	-3,600

Source: Longitudinal Administrative Databank, 1986-1993

* *The median percentage changes do not necessarily correspond to the median income changes because medians were calculated separately.*

will be reduced proportionately unless other arrangements are made. For most couples, pension plans are among the most important holdings. In couples where only the man had such a plan, the sharing of retirement funds can be a major issue. This is why some people opt for alternative arrangements, such as signing over a larger portion of the house or other family assets to the ex-partner in order to maintain full pension on retirement. At present, there are no data on such arrangements or on the total worth of family assets;[12] therefore, it is difficult to determine how these variables might affect the results noted here.

Shared custody is also not accounted for by tax data. Some divorce statistics show that shared custody takes place in 15% to 20% of divorces, though these figures can vary over time (Statistics Canada, 1997b). Not known are the costs involved in shared custody, or which partner claims the deduction for dependent children.

The following subsection shows income levels for men and women before and after adjustment for the number of family members, whose effect seems most important for women.

Adjusting family income

Family income of separated persons has been adjusted for several factors, including the number of persons dependent on that income, to take into account the economies of scale achieved when several people live together (Table 3). This adjustment used an equivalence scale based on low income measures. To make it comparable to the income of a single individual, family income for a person in a couple was divided by 1.4, and that for a couple with a child by 1.7, and so on (see "Adjusted family income" in Appendix I – Methodology).

This calculation affects women's post-separation income more than men's, since women usually have custody of the children. Thus, in T_{+1}, family income for women overall slipped from $23,300[13] to $13,700 when adjusted, and that for men dropped from $28,500 to $21,900.

Payers and recipients of support payments

In the year following separation, 35% of separated women in this sample were receiving support payments,[14] while 44% of separated men were payers. These ratios may seem low, given that everyone in the sample had children at the time of separation, but

Table 3
Median family income, unadjusted and adjusted, all separated persons, selected years

	T_{-1}	T_0	T_{+1}	T_{+5}
		Unadjusted income (1993 $)		
Men				
All separated men	**38,500**	**26,700**	**28,500**	**33,200**
Couples	38,500	43,900	41,600	43,200
Single parents	...	29,800	30,400	29,500
Single persons	...	23,100	22,800	22,400
Women				
All separated women	**36,400**	**18,000**	**23,300**	**28,100**
Couples	36,400	35,900	38,300	40,700
Single parents	...	17,100	20,600	22,100
Single persons	...	14,300	13,900	15,300
		Adjusted income (1993 $)		
Men				
All separated men	**19,300**	**21,900**	**21,900**	**22,600**
Couples	19,300	24,600	22,100	23,700
Single parents	...	19,400	19,700	19,100
Single persons	...	23,300	22,800	22,400
Women				
All separated women	**18,200** *	**10,900**	**13,700** *	**16,500**
Couples	18,200	18,300	19,100	20,800
Single parents	...	10,000	12,100	13,000
Single persons	...	14,600	14,000	15,300

Source: Longitudinal Administrative Databank, 1986-1993

* *The difference between median incomes in this table may not coincide with median changes shown in other tables since medians are calculated separately.*

some of the men not paying support had custody; in fact, 28% of all separated men (in T_{+1}) reported dependent children and were grouped with the non-payers. For some of this group, however, the children would belong to their new partners. Other arrangements, as with shared custody, do not show up in income tax files. To be recognized as such by Revenue Canada, support payments have to be a fixed amount paid regularly. Couples who had opted for lump-sum or irregular payments would thus not appear in the LAD. Whatever the case, it is difficult to estimate the proportion of men who should pay but do not, because of a lack of national data on the subject.

The proportion of recipients later dropped to 29% (in T_{+5}), while that for payers slipped to 39%. These drops reflect the fact that, with time, financial ties between children and non-custodial parents diminish because of reduced need or changes in the family situation of one or both ex-spouses (Furstenberg and Cherlin, 1991).

Both payers and recipients of support payments tend to behave similarly with respect to new unions. Women receiving payments are much less likely than non-recipients to form new relationships. Likewise, men paying support take longer than non-payers to do so. As a consequence, a greater proportion of payers than separated men in general find themselves single (46% versus 35% in T_{+5}). Likewise, recipients are more likely to be single mothers than other separated women (62% versus 46% in T_{+5}) (Tables 1 and 4).

Family income after separation

When the analysis is restricted to payers and recipients of support payments, the gap in AFI between men and women widens. One year after separation, recipients have heavier losses (-29% or -$6,100) than separated women generally (-23% or -$3,900). Payers experience gains in AFI (20%, or $4,200) twice those of separated men in general (10%, or $2,000) (Tables 2 and 5). In subsequent years, compared with all separated women, recipients recover a lower portion of their losses and do so more slowly. On the other hand, compared with separated men overall, payers see larger increases in AFI.

Recipients thus fare relatively less well than separated women in general, in spite of receiving support payments. This group consists largely of single parents (82%, as opposed to 61% of non-recipients in T_{+1}), who remain so longer (by T_{+5}, 62% of recipients were still in this category, versus 40% of non-recipients). Most of them have children under 18 to care for (in T_{+1}, 96%, compared with 85% of non-recipients), a situation that persists for at least five years (in T_{+5}, 92% of

Table 4
Change in family composition, payers and recipients, * 1987-1993

	T_{-1}	T_0	T_{+1}	T_{+2}	T_{+3}	T_{+4}	T_{+5}
Payers (men)							
Sample size	12,300 **	120,500	134,800	109,100	82,700	59,600	38,300
				%			
All payers	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Couples	100	12	22	31	39	44	49
Single parents	-	17	10	9	8	7	5
Single persons	-	71	68	60	54	48	46
Recipients (women)							
Sample size	13,000 **	119,400	130,300	106,200	79,700	56,600	35,600
				%			
All recipients	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Couples	100	8	16	22	27	32	35
Single parents	-	88	82	76	71	66	62
Single persons	-	4	2	2	2	3	3

Source : Longitudinal Administrative Databank, 1986-1993

* *Male recipients of support payments and female payers have been excluded because of their small number (less than 2% each). Broken down into small segments, the figures are not significant.*

** *In T_{-1}, some people were paying or receiving benefits covering previous relationships.*

Table 5
Median changes * in AFI and AFI levels, payers and recipients, ** 1987-1993

	T_0	T_{+1}	T_{+2}	T_{+3}	T_{+4}	T_{+5}
			%			
Payers (men)						
All payers	**21**	**20**	**20**	**22**	**24**	**30**
Couples	32	25	26	27	30	35
Single parents	6	7	7	8	9	9
Single persons	25	22	21	21	23	26
Recipients (women)						
All recipients	**-41**	**-29**	**-26**	**-22**	**-19**	**-14**
Couples	1	9	10	10	11	14
Single parents	-43	-33	-32	-29	-28	-24
Single persons	-27	-40	-41	-32	-29	-21
			1993 $			
Payers (men)						
All payers	**4,500**	**4,200**	**4,300**	**4,500**	**5,000**	**5,900**
Couples	6,500	5,200	5,500	5,700	6,200	7,100
Single parents	1,200	1,400	1,300	1,700	1,800	1,700
Single persons	5,200	4,400	4,300	4,200	4,600	5,300
Recipients (women)						
All recipients	**-8,700**	**-6,100**	**-5,400**	**-4,500**	**-3,900**	**-3,000**
Couples	100	1,900	2,200	2,100	2,100	2,900
Single parents	-9,300	-7,000	-6,700	-6,100	-5,900	-5,100
Single persons	-6,800	-9,500	-9,500	-8,000	-6,100	-5,900

	T_{-1}	T_0	T_{+1}	T_{+2}	T_{+3}	T_{+4}	T_{+5}
				Median AFI (1993 $)			
Payers (men)							
All payers	**21,700**	**26,300**	**25,500**	**25,800**	**26,100**	**26,400**	**26,900**
Couples	21,700	28,500	27,100	27,800	28,200	28,700	28,400
Single parents	...	22,400	22,900	22,400	22,100	22,200	21,800
Single persons	...	27,100	25,600	25,600	25,500	25,300	26,000
Recipients (women)							
All recipients	**20,100**	**12,000**	**14,700**	**15,800**	**16,600**	**17,000**	**17,800**
Couples	20,100	20,600	22,700	23,200	22,900	23,000	22,800
Single parents	...	11,300	13,600	14,200	14,700	15,100	15,600
Single persons	...	17,000	15,100	15,800	18,300	18,900	21,500

Source: Longitudinal Administrative Databank, 1986-1993

* *The median of percentage changes does not necessarily correspond to the median income changes, because medians were calculated separately.*

** *Male recipients of support payments and female payers have been excluded because of their small number (less than 2% each). Broken down into small segments, the figures are not significant.*

recipients and 70% of non-recipients still had children under 18 in their care).

In general, payers of support experienced a greater growth in income than separated men in general. In fact, they had a higher median family income (not adjusted for family size) than non-payers, even after allowing for support payments (in T_{+1}, payers had $29,300 and non-payers $27,700). Moreover, they maintained a slight edge throughout the observation period ($34,800 versus $32,200 in T_{+5}). This may indicate that having a higher income increases the likelihood of their making support payments. As time passed, if they kept their advantage, it was largely because more of them remained without children (in T_{+1}, 81% of payers had no children living with them, as opposed to 50% of non-payers; by T_{+5}, the proportions were 72% and 50%, respectively). Also, a relatively large proportion of non-payers headed single-parent families (23% in T_{+1}

Table 6
Median changes * in AFI according to various scenarios, payers, ** 1987-1993

	T_0	T_{+1}	T_{+2}	T_{+3}	T_{+4}	T_{+5}
				%		
Payers (men)						
If both support and tax are subtracted	21	20	20	22	24	30
If only tax is subtracted	37	43	41	42	43	47
Couples						
If both support and tax are subtracted	32	25	26	27	30	35
If only tax is subtracted	42	41	41	42	44	48
Single parents						
If both support and tax are subtracted	6	7	7	8	9	9
If only tax is subtracted	16	22	22	22	23	25
Single persons						
If both support and tax are subtracted	25	22	21	21	23	26
If only tax is subtracted	43	47	46	45	46	50
				1993 $		
Payers (men)						
If both support and tax are subtracted	4,500	4,200	4,300	4,500	5,000	5,900
If only tax is subtracted	7,600	8,500	8,500	8,600	8,800	9,600
Couples						
If both support and tax are subtracted	6,500	5,200	5,500	5,700	6,200	7,100
If only tax is subtracted	8,900	8,600	8,600	8,900	9,200	9,900
Single parents						
If both support and tax are subtracted	1,200	1,400	1,300	1,700	1,800	1,700
If only tax is subtracted	3,400	4,500	4,300	4,700	4,600	4,500
Single persons						
If both support and tax are subtracted	5,200	4,400	4,300	4,200	4,600	5,300
If only tax is subtracted	8,900	9,300	9,300	9,100	9,200	10,100

Source: Longitudinal Administrative Databank, 1986-1993

* *The median percentage changes do not necessarily correspond to the median income changes, because medians were calculated separately.*

** *In this article, male recipients of support payments and female payers have been excluded because of their small number (less than 2% each). Broken down into small segments, the figures are not significant.*

and 14% in T_{+5}, compared with 10% and 5%, respectively, for payers).

Among those receiving support payments, income differed significantly by family type. In fact, only those women who formed new relationships avoided major declines in AFI; they registered gains throughout the period, which reached 14% by T_{+5}. Women heading single-parent families and single women, in contrast, suffered sizeable losses; even after five years, they still had over 20% to make up. The situation for payers was less variable; men who were heads of single-parent families were the only ones to register smaller gains in AFI.

The importance of the definition of income

Support payments have been declared separately to Revenue Canada since 1986, hence, they could be subtracted from the payer's income. This section examines the extent to which changes in the AFI of those making support payments would have differed if support payments had not been subtracted. (For a measure of the importance of support payments to recipients, see Galarneau, 1992.)

The subtraction of support payments generally has a considerable effect on the AFI of payers. Had it not been subtracted, the AFI of payers would have risen by 43% in T_{+1} rather than 20% (Table 6). The extent of the difference depends on family composition, with the greatest difference occurring for single men.

Conclusion

After separation, men become part of a couple again more quickly than women, though the difference is not significant (30% are part of a couple after a year, compared with 26% of women). Some 52% of men are single, while 68% of women are single parents. This difference between the

sexes still exists five years after separation, although it is less pronounced because a high proportion of individuals have again become part of a couple.

One year after separation, women most often have custody of the children – 89% lived with children under 18 years of age, compared with 36% of men. Five years after separation, this proportion falls to 76% for women and rises to 42% for men.

Women experience a considerable decrease in adjusted family income (taking into account the number of family members) after separation (-23%, or -$3,900 one year later); men show an increase of 10% ($2,000). Five years after separation, women have recovered a large part of their loss, but still have an adjusted family income 5% ($1,000) lower than before separation. Men maintain their initial advantage, even increasing their gains to 15% ($2,800) by five years post-separation. Unlike most men, women experience a decline in adjusted family income following separation, both because their personal income is usually lower and because they most often have custody of the children.

These calculations do not take into account all factors that come into play during a separation, such as moving costs, division of family property and shared custody. It is difficult to evaluate the extent of their influence on results, since no data on them currently exist.

These changes in family income vary with family type. Women on their own and those who are heads of single-parent families experience the greatest loss. A year after separation, their adjusted family income has fallen by 32% ($6,800) and 31% ($5,700), respectively. Women who are part of a couple experience an increase of around 8% ($1,300). Men who are single have the highest increases and those who are single parents, the lowest.

Some 35% of women receive support payments the year following separation, while 44% of men make payments. Recipients experience greater losses in adjusted family income than separated women overall (-29% or -$6,100 one year after the breakup), while payers post gains twice those of separated men in general (20% or $4,200).

Support payments significantly reduce payers' gains in adjusted family income. If these payments had not been subtracted, payers would have experienced increases of 43% ($8,500) instead of 20% ($4,200). Five years after separation, gains would have reached 47% ($9,600), but instead were reduced to 30% ($5,900). These figures show the importance of the definition of income.

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□

Notes

1 The term "married" is used here for simplicity. In fact, some people living common law are counted as married (see "Matching of couples in the LAD" in *Data source*).

2 The LAD makes no distinction between divorces and separations. Thus, the term "separation" includes both separations and divorces, and the term "separated individuals" also includes persons who are divorced.

3 Some people leave home and others may join the family. In some cases, this can distort the analysis. For example, during the year of separation the proportion of men as heads of single-parent families may be overestimated because it is possible for them to declare dependent children even if they did not live with them for the full year. Thus, some fathers will have been counted as heads of single-parent families in the year of separation, when, in fact, they were living alone. The drop in the proportion of men as heads of single-parent families, from 29% to 18% from T_0 to T_{+1}, supports this. As will be seen later, income changes may also be overestimated in T_0.

4 Single individuals do not necessarily live alone. They are defined as such because they live neither with a partner nor with their children.

5 These percentages do not represent the number of women and men who had *custody* of children born before the separation. Tax returns do not make a distinction between "having custody of a child" and "having a dependent child." In certain cases, dependent children could be those of the new spouse.

6 After-tax income corresponds to *total income* (on the Revenue Canada tax return) from which tax paid has been subtracted; no deductions have been considered. Quebec tax was estimated by the Small Area and Administrative Data Division because Quebec tax does not appear on Revenue Canada tax returns.

7 On the one hand, support payments made by payers were overestimated because payers could claim tax deductions for them. On the other hand, payers' after-tax incomes adjusted for support payments were underestimated because gross rather than net support amounts were deducted. These were, nonetheless, the best estimates possible.

8 For example, the LAD does not note the exact time of year when separation takes place. This may affect the results. In the case of someone separating early in the year, individual income reported as of December 31 that year will reflect the actual income on which that person lived for most of the year. But in the case of someone separating in December, for example, the reported income may not reflect the income he or she had access to for most of the year. If, for example, that individual had lived with a spouse who was earning income, he or she would probably have enjoyed a better lifestyle for most of the year because of that spouse's income. Therefore, changes in T_0 may be distorted.

9 All changes in income refer to median changes. However, the median changes in percentage may not correspond to those in dollars since all medians were calculated separately.

The median is the amount that splits the distribution of changes into halves. In other words, 50% of women in the sample had a loss higher than the median and 50% had a smaller loss or even a gain.

10 Similarly, the 10% change for men constitutes the median; thus, half the separated men in the sample realized gains greater than 10% and half registered smaller gains or even a loss. In fact, 39% of men experienced losses in AFI after separation. It is important to note, however, that when men did post losses, these were smaller than women's, while any gains registered by women were smaller than men's.

11 Finnie (1993) used low income cutoffs (LICO) to adjust family income, rather than the low income measures (LIM) used here. In fact, the study on which this article is based used both measures: when the LICOs were used, changes in AFI one, two or three years after separation were -22%, -17% and -13% for women, and 7%, 8% and 9% for men. (Changes are usually lower when the adjustment is made with LICOs.) The study's use of LICOs thus yielded results mostly lower than Finnie's. His study is not truly comparable, however, since it covers a different group (all separated persons, with or without children before the separation) and period, and uses different methodology.

12 In 1984, Statistics Canada completed a survey on the assets and debts of Canadians. It is now working on a new survey that should answer further questions on the subject.

13 Family incomes for women were lower than those for men even before separation took place. The gaps arose because some non-filers of both sexes could not be considered for this study.

14 In the study, because there were so few of them, female payers of support and male recipients were excluded. Thus, recipients here are exclusively women and payers, exclusively men. Furthermore, the data for small groups are no longer significant when broken down into their smallest components (Galarneau, 1992). Tax files contain more payers than recipients for a number of reasons. Some recipients will not have filed returns because their incomes were too low. Also, payers had an incentive to declare support payments because they could deduct them from their income. On the contrary, recipients had less incentive to declare support payments.

15 Statistics Canada uses two concepts of "family." **Census families** consist of a husband and wife living in the same dwelling with or without never-married children, or a single parent with never-married children, or persons living alone. **Economic families** consist of two persons living in the same dwelling who are related by blood, marriage or adoption; thus, an economic family might be a man and a woman, their two children and an uncle and his child. The concept of economic family is much broader than that of census family, which is limited to the nuclear family.

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Appendix I – Methodology

This paper concentrates on previously legally married people, for several reasons. For example, a brief examination of separated individuals from married and common-law couples demonstrates that these are two distinct groups; common-law couples are significantly younger (49% were under 30 years in the year of separation, compared with 23% of married persons) and less likely to have children under 18 years (38% of individuals in common-law unions had children, compared with 61% of married persons).

The profile of separated individuals from legal marriages is closer to the usual idea of separation: an event that follows a long-term union. Among separated individuals who had children prior to the breakup, the proportion paying or receiving support payments increased substantially after separation for married persons, but remained stable for common-law individuals, as if it had not been a first separation. In addition, common-law relationships are often of shorter duration than marriages, and some of them lack stability.

Finally, only common-law couples in which both partners filed tax returns could be identified in the LAD. For married couples (matched by their SINs), it was possible to locate single taxfilers (and thus couples with only one income). On the other hand, common-law couples in the file were made up largely of two taxfilers (and most often represented two-income couples). Thus, their family income might seem higher than was actually the case, since few couples with only one taxfiler (and thus single-income couples) were included in the LAD before 1992.

Identification of separated persons

Two algorithms were used to identify separated individuals. The first identified those who had no partner after separation, and the second, those who became part of a new couple the year after separation. Once the families were defined, a "family structure" code was assigned to each person. This made it possible to observe changes in family composition. Thus, changes observed from one year to the next can identify individuals who no longer had a partner, or more precisely, who moved from "married" family status to "single parent" or "single person." As well, individuals who became part of a new couple in the year following separation are identified by the change in their partner's SIN. Deceased or widowed individuals were not included for obvious reasons. Likewise, male recipients of support payments and female payers have been excluded.[14]

Persons could be selected only once; if someone separated again during the study period, only his or her family composition was affected by the change.

From 1987 to 1993, the total estimated number of separated persons was 2.72 million. Half of these were from married couples (1.36 million) and the rest from common-law unions. Of the 1.36 million previously married persons, 829,200 had children under 18 years prior to separation (in all, 963,000 children, or 1.2 per separated person); this group of separated persons is the subject of the article.

Adjusted family income

Several adjustments to the income variable were necessary to measure post-separation changes. First, the line "tax payable" on the Revenue Canada tax form was subtracted from the "total income" line for each family member, and support payments were subtracted from the payer's income. Family income, that is, *total income after tax* (and after support payments) for all family members, was converted to 1993 dollars. Then, an equivalence scale was used to take into account the number of people dependent on the family's total income and thus reduce the incomes of all separated individuals in a consistent fashion. This allows comparison of family income regardless of family size. This adjusted family income was calculated for the year prior to separation, the year of separation, and each subsequent year for which information was available.

The number of family members was accounted for with an equivalence scale based on low income measures (LIMs). According to the LIM scale, the income required to support a two-person family (consisting of two adults or one adult and one child) is 1.4 times greater than that for a person living alone. The equivalence factor increases by 0.3 for each additional child and by 0.4 for each extra adult. The LIM scale is better suited to the census family concept,[15] which corresponds to the Small Area and Administrative Data Division's concept of family in the LAD. For that reason, income changes adjusted to this scale are used in most of this paper.

Appendix II – Legal considerations

In Canada, divorces are heard by federal courts while separations, legal or *de facto*, come under provincial jurisdiction. The country's first divorce law was enacted in 1968. In 1985, this law was amended, mainly to eliminate the adversarial nature of divorce proceedings and to reduce the waiting period for hearings. Over the next three years, the provinces followed suit and made similar amendments to their regulations on separation.

A word about support payments

There is a distinction between support payments for children and those for former spouses. Recently passed amendments to the *Divorce Act* will change the method by which child support is determined. These changes are to take effect May 1, 1997. They will give the rights of the child absolute priority and should reduce the often harmful economic effects of separation on children. The child support guidelines must meet the following objectives: serve as a guide to judges and parents and thus ensure that support orders are consistent and fair; ensure that simple, unbiased calculations are used; ensure that support payments are made, and make the judicial process more efficient.

The method for determining child support payments will be changed from a "case by case" system to a mathematical formula based on the income of the paying parent, on the average costs of raising a child, and on the type of expenses involved (child care, medical expenses, schooling, special fixed costs for extracurricular activities, and so on). These rules will take into account the fact that expenses fluctuate with level of income and will make sure that the child benefits from the financial resources of both parents. More precisely, the amount of support will be a fixed fraction of the paying parent's income and will depend on the number of children, as well as the province or territory of residence of the support payer. This method of calculating child support payments is also used in New Zealand and in some American states.

The tax treatment of child support payments will also change; these will no longer be deductible from the payer's income, nor taxable for the recipient. However, existing support orders for children and spouses will not be affected by this measure; payments will continue to be deductible from the payer's income, and will remain taxable for the recipient. The courts will need to make the distinction between alimony and child support. In the past, one amount often covered both types of order.

The new rules for determining support payments will not apply to separations, legal or *de facto*, which are a provincial responsibility. However, the federal government does encourage the provinces to adopt similar guidelines in their jurisdictions. The Quebec government has drawn up its own rules for determining support payments to meet similar objectives; both provincial and federal legislation are expected to take effect at the same time (Department of Finance, 1996).

Computers in the workplace

Graham S. Lowe

Debates about the effects of information technology on work present many conflicting images. Critics envision an information age marked by mass unemployment and dehumanized work for those remaining in the workforce. Advocates counter that such technology offers the potential to create a post-industrial economy of skilled workers. These debates replay themes first articulated over two decades ago.[1] Two issues remain largely unresolved: the actual pace of change and the manner in which the move toward a service-based, increasingly technological economy has affected job content and security.

Discussions of new information technology (IT) – what most people associate with personal computers – typically assume that its rate of adoption and diffusion is rapid and accelerating, resulting in significant implications for workers, firms and the economy as a whole. Indeed, the technology seems to have changed Canadian industry considerably.[2]

Using two cycles of the General Social Survey (GSS), this article examines changes in workers' computer literacy between 1989 and 1994, as well as growth in computer use in the workplace. It also looks at the effects of technology on job content and security.

Statistics Canada's 1989 GSS provided a detailed review of workplace computerization since 1984, documenting mainly positive responses to questions about job content and job security (Lowe, 1991 and 1992). Its benchmark measures were repeated in the 1994 GSS, for which comparisons were made with 1989 (see *Data source*).

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Data source

The 1994 General Social Survey (Cycle 9) used a random sample of 11,500 individuals. The sample size of the 1989 GSS (Cycle 4) was 9,338. The data were weighted to the non-institutionalized population aged 15 and over in the 10 provinces. Both surveys were conducted by telephone and had high response rates: 80% in 1989 and 83% in 1994. GSS samples are sufficiently large and representative of adults living in the 10 provinces that estimates for the total adult population are possible. For reasons of sampling variability, questionnaire design, methodology, and so on, estimates from the two sources will differ. However, these differences are not large enough to alter the conclusions drawn.

The GSS asked respondents three questions regarding their ability to use a computer. Respondents were first asked, "Have you ever taken any courses on how to use computers?" Given that taking a computer course is neither a prerequisite for being able to use a computer nor an indicator of computer skills, a second question was posed in 1994: "Can you do anything on a computer (excluding video games [like] Nintendo), for example, word processing, or data entry?" In 1989, the question on ability to use computers included computer games: "Can you do anything on a computer, for example, play games, word processing or data entry?" Respondents who could use a computer were asked which of the following they had done in the 12 months prior to the survey: played games, engaged in word processing, data entry, record keeping, data analysis or programming, used an online data service (asked in 1994 only), or anything else. Not asked was the location – home, workplace, educational institution, or some combination – for each activity.

The GSS measured workplace computer use with the following question, asked of respondents who were working at a job or business at the time of the survey: "Do you use computers such as mainframes, personal computers or word processors in your job?" This question captured data on information processing technology, particularly office automation, which has accounted for most workplace technological change since the 1980s (McMullen, Leckie and Caron, 1993). However, the GSS does not examine the use of new industrial technologies such as robots, computer-controlled machines, computer-assisted manufacturing, automated materials handling systems, point-of-sale terminals, and mobile special-use computers used by a range of workers such as utility meter checkers, couriers, travelling sales representatives, and so on.

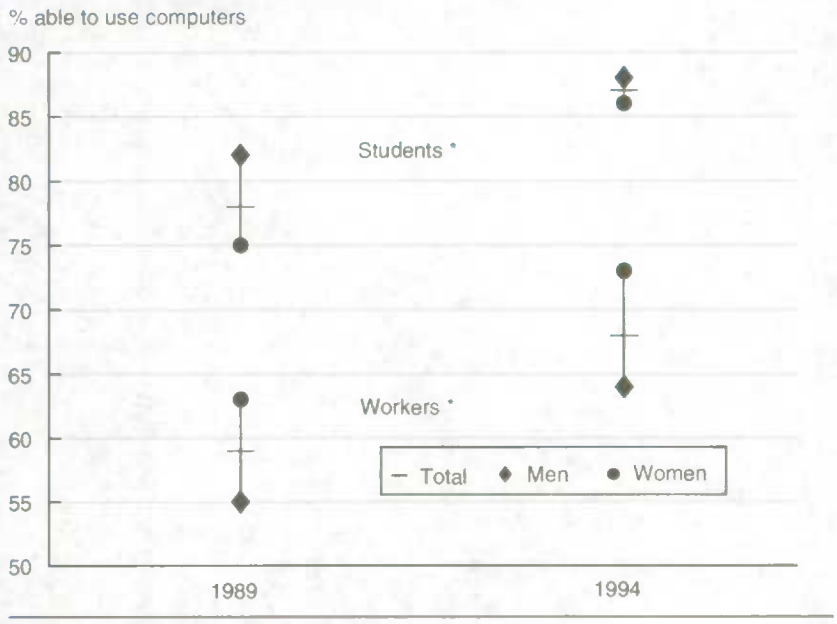
The survey adopted a broader focus when assessing the effect of technological change in the preceding five years. Employed respondents were asked, "In the last five years, how much has your work been affected by the introduction of computers or automated technology? Would you say...greatly? somewhat? hardly? not at all?" Those who answered "greatly" or "somewhat" were then asked a series of questions designed to determine the perceived effect of computers or automated technology on job skills, job security, and intrinsic interest in the last five years.

Computer literacy of workers and students

According to survey respondents, computer literacy among the employed[3] increased from 59% to 68% between 1989 and 1994 (Chart A). Comparable figures for students are 78% and 87%.[4] This increase is evident for both sexes.

Most types of computer use have been increasing among workers. Specifically, the use of word processing, data entry, record keeping, and data analysis rose during the period, while

Chart A
Computer literacy has increased among workers and students.



Source: General Social Survey
* *Respondents were classified according to their main activity in the 12 months prior to the survey.*

among 15 to19 year-old workers and most among those over age 45.

Workplace computerization shows considerable provincial variation. Alberta, British Columbia and Ontario had levels above the national average and experienced the largest gains in such activity between 1989 and 1994. Two provinces with low levels of computer literacy, Newfoundland and New Brunswick, also had low levels of computer use on the job.

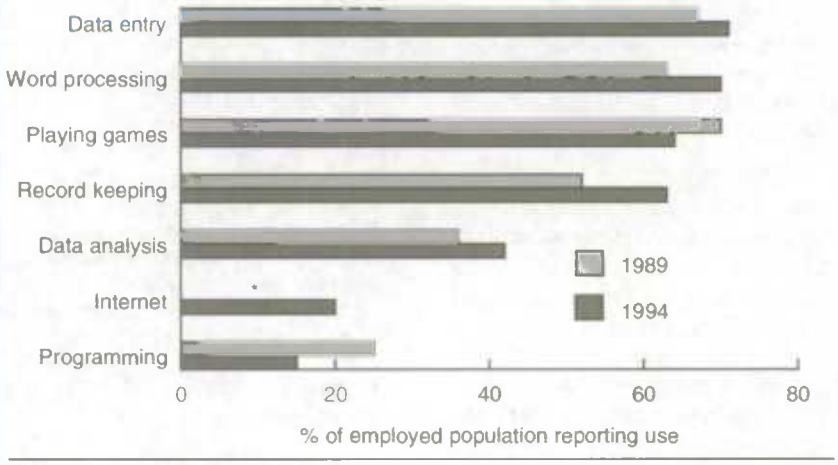
The IT revolution seems to have penetrated further into workplaces than into homes or elementary and secondary schools. Between 1986 and 1996, home computer ownership increased three-fold, from 10% to 32% of all households (Statistics Canada, 1997). Yet the ratio of students per computer remains poor at the elementary and secondary levels, despite the relatively high computer literacy of 15 to 19 year-olds (Oderkirk, 1996). Similar data for postsecondary institutions are unavailable, although it

programming and playing computer games have both declined (Chart B). One in five workers reported having used the Internet in 1994 (not documented in the 1989 GSS).

Computer use on the job

In 1994, 48% of employed persons (6.2 million) used a computer (personal computer, mainframe or word processor) at work, a marked increase from 35% in 1989 (Table 1). Women were more likely than men to use computers on the job in both years. Despite their high levels of computer literacy, young workers (15 to19 year-olds) were the least likely of any age group to do so (16%), perhaps because many of those who were employed worked in lower-level service jobs. On-the-job computer use was highest in the 25-to-34 and 35-to-44 age groups, especially among women (60% in both age groups). Workplace computer use over the five years increased in all age groups – least

Chart B
Programming and playing games have lost ground to word processing and data entry.



Source: General Social Survey
Note: Chart refers to those whose main activity in the 12 months prior to the survey was "employed."
* *Use of Internet and other online data services was not asked in the 1989 GSS.*

Table 1
Computer use on the job, by sex, age and province

	Use of computers on the job			
	1989		1994	
	Number of users	% of employed	Number of users	% of employed
	'000	%	'000	%
Both sexes				
All age groups	4,212	35	6,202	48
15-19	101	13	109	16
20-24	407	30	528	41
25-34	1,465	41	1,857	53
35-44	1,318	42	1,975	55
45-54	652	32	1,256	48
55-64	261	23	420	38
65 +	--	--	57	24
Men				
All age groups	2,152	32	3,188	44
15-19	52	13	58	16
20-24	167	24	259	39
25-34	734	37	933	48
35-44	699	41	963	50
45-54	345	30	684	46
55-64	152	22	253	39
65 +	--	--	38	24
Women				
All age groups	2,060	38	3,014	52
15-19	49	13	51	16
20-24	240	36	269	44
25-34	731	46	924	59
35-44	618	44	1,013	60
45-54	306	35	572	50
55-64	110	25	167	38
65 +	--	--	--	--
Canada	**4,212**	**35**	**6,202**	**48**
Newfoundland	48	29	82	41
Prince Edward Island	--	--	--	--
Nova Scotia	132	34	175	45
New Brunswick	85	28	111	37
Quebec	940	32	1,294	42
Ontario	1,785	37	2,658	52
Manitoba	163	33	209	41
Saskatchewan	107	25	176	42
Alberta	426	37	664	50
British Columbia	515	37	815	51

Source: General Social Survey, 1989 and 1994
Note: Table includes respondents employed at the time of the survey.

appears that universities have been closer to the leading edge of IT (Lowe and Krahn, 1989).

Considering the possibilities for decentralized, flexible work arrangements such as "teleworking," Canada has made slow progress. For example, in 1995 about one million employees (9% of the total) worked some or all of their regularly scheduled hours at home. Only 22% in this group were provided with a computer by their employer and 14% were supplied a modem (Akyeampong, 1997). And the fact that in 1996 only 7% of households used the Internet (Statistics Canada, 1997) tempers some of the bold claims being made about the information super-highway.

Computer literacy gap

The gap between computer literacy and actual use of computers on the job persists. In 1989, 59% of workers could use a computer, yet only 35% did so in their job. By 1994, while 70% of the employed were able to use a computer, only 48% did so at work (Chart C). This gap was smallest for those with a university education (a difference of 12 and 14 percentage points for holders of graduate and undergraduate degrees, respectively) and greatest for workers whose highest level of education was a high school diploma (27 percentage points).

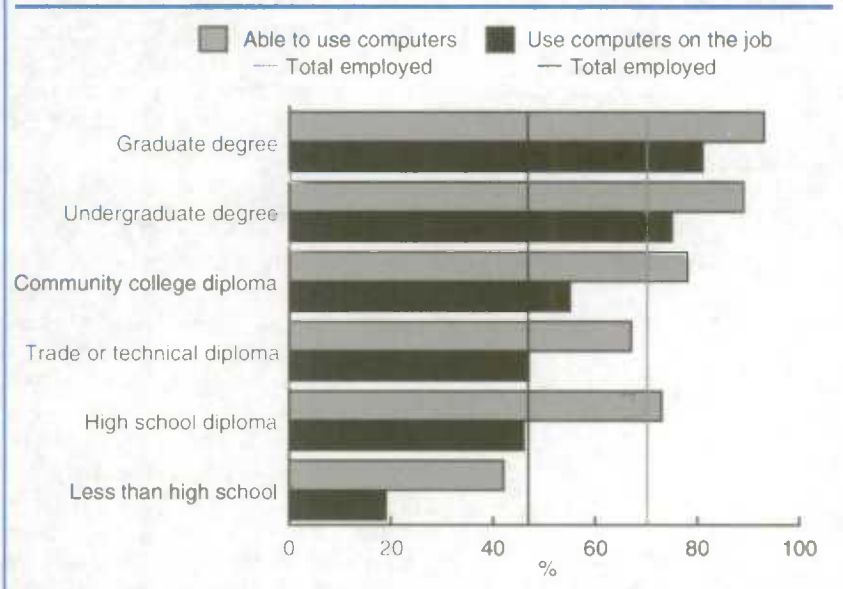
Occupation and industry patterns

Four occupational groups recorded well-above-average computer use (Table 2). Almost all workers in natural sciences, engineering and mathematics occupations reported using computers in 1994. Some 76% of managerial and administrative employees did so, up from 52% in 1989. Use was also high in clerical and teaching occupations. Services, primary occupations, and construction and transportation all recorded low use of computers.

As in 1989, business services and public administration had high levels of computer use in 1994. About half of the employees in distributive services and in community services used computers in their jobs. Construction and personal services recorded relatively low levels of use.

Changes in the occupational and industrial distribution of employment affect patterns of use. For example,

Chart C
Workplace computer use increases with education.



Source: General Social Survey, 1994
Note: Chart refers to respondents employed at the time of the survey.

although natural sciences, engineering and mathematics jobs had the highest level (93%), the number of users increased by only 4,000 between 1989 and 1994 – a negligible 1% growth rate. By contrast, manufacturing and processing occupations gained around 260,000 new computer users, even though the 1994 percentage was only 30%. This occupation registered an impressive 132% jump in computer users over five years, compared with 47% for all occupations. Similarly, computer use among sales workers, which rose from about one-third to one-half, resulted in an additional quarter of a million users. The distribution of computer users by occupation and industry also changed slightly between 1989 and 1994.

Time spent at the screen

Average weekly hours of computer use on the job increased from 16 in 1989 to 18 in 1994 (Table 3). As in 1989, natural sciences, engineering and mathematics occupations, clerical occupations and artistic, literary and recreational occupations recorded relatively long hours in 1994 (25, 23 and 21, respectively). In contrast, primary and teaching occupations reported only 5 and 7 hours.

Weekly hours of computer use vary less by industry than by occupation. In 1994, employees in business services, finance, and distributive services each reported just over 20 hours weekly of computer use. Community services had the lowest average (12 hours).

The diffusion of automated technology

In 1994, 34% of the employed reported that their work had been greatly affected by the introduction of computers or automated technology in the previous five years, up from 29% in 1989 (Table 4). Results for the workforce as a whole differ little by sex.

In managerial and professional occupations, technological change had greatly affected 46% of employees during the 1989-to-1994 period, an increase from 38% during the 1984-to-1989 period. Comparable figures for clerical, sales and service occupations are 34% and 29%. Just 20% of workers in manual occupations had been greatly affected during the second period, up from 16%. One group reported high percentages in both five-year periods: by 1994, 53% of men in managerial and professional occupations had been greatly affected by such change (compared with 45% earlier).

The effect of IT on job content and security

Of those workers who believed their job had been greatly or somewhat affected by the introduction of computers or automated technology in the five years prior to the GSS, 68% said their required job skills had increased by 1989; this rose slightly to 71% in 1994. In 1989, 70% reported no effect on job security, though this figure declined somewhat to 67% in 1994. In both years, just over 60% said that work had become more interesting as a result of the introduction of computers or automated technology.

In 1989 and 1994, only 2% of workers affected by technological change claimed that this had reduced the skill requirements of their job. Similarly, just 4% in both years stated that technological change had made their job less interesting. However, 19% of workers affected by technological change believed in 1994 that their job security had decreased as a result, up from 11% in 1989.[5] This is a very important change in the general pattern over the decade considered. This perception was likely influenced by the context of technological change in the 1990s: public sector layoffs, corporate downsizing, high unemployment, and growing awareness of economic globalization.

Table 2
Computer use on the job by occupation and industry

	Use of computers on the job						Change in computer users on the job	
	1989			1994				
	Number of users	% of employed	Distribution	Number of users	% of employed	Distribution	Absolute increase, 1989-1994	% increase, 1989-1994
	'000	%	%	'000	%	%	'000	%
Occupation								
All occupations	4,212	35	100	6,202	48	100	1,990	47
Managerial/administrative	995	52	24	1,585	76	26	590	59
Natural sciences/engineering/ mathematics	478	79	11	482	93	8	4	1
Social sciences	129	38	3	205	63	3	76	59
Teaching	308	45	7	488	70	8	179	58
Medicine/health	141	22	3	245	32	4	104	74
Artistic/literary/recreational	98	37	2	160	54	3	62	63
Clerical	1,088	55	26	1,275	70	21	187	17
Sales	354	34	8	609	51	10	255	72
Service	138	10	3	230	15	4	92	67
Primary	45	11	1	93	18	2	48	106
Manufacturing/processing	197	14	5	459	30	7	261	132
Construction/transportation	113	12	3	216	18	3	102	91
Other occupations	88	20	2	127	29	2	38	43
Not stated	--	--	--	--	--	--	--	--
Industry								
All industries	4,212	35	100	6,202	48	100	1,990	47
Primary	102	21	2	202	31	3	100	99
Manufacturing	653	31	16	801	41	13	148	23
Construction	61	11	1	138	20	2	78	128
Distributive services *	605	42	14	818	53	13	214	35
Retail trade	399	24	9	640	39	10	242	61
Personal services	80	9	2	381	24	6	302	378
Business services/finance	953	60	23	1,351	82	22	398	42
Community services **	748	34	18	1,191	51	19	443	59
Public administration	549	50	13	649	71	10	100	18
Not stated	63	40	2	--	--	--	--	--

Source: General Social Survey, 1989 and 1994
Note: Table includes respondents employed at the time of the survey.
* *Includes transportation and wholesale trade.*
** *Includes education, health and social services.*

Discussion

According to the General Social Survey, computer literacy in the workforce increased between 1989 and 1994, and on-the-job computer use grew to about half of all workers. Paradoxically, despite being the most computer literate, young workers reported lower levels of workplace computer use than did other age groups. Generally, the reported level of computer skills in the workforce has exceeded the recorded use.

The pace of computerization and automation increased from 1984 to 1989 and from 1989 to 1994. But workers in both study periods who experienced technological change in their jobs tended to view it in positive terms: higher skill requirements, more interesting work, and less apparent threat to job security than might be expected.

These latter findings are corroborated by various case studies (Long, 1993, for instance). While aggregate Canadian trends mirror those in

Table 3
Average weekly hours of computer use on the job by occupation and industry

	Average weekly hours of use	
	1989	1994
Occupation		
All occupations	16	18
Managerial/administrative	15	19
Natural sciences/engineering/ mathematics	23	25
Social sciences	8	14
Teaching	8	7
Medicine/health	13	10
Artistic/literary/recreational	18	21
Clerical	21	23
Sales	14	17
Service	12	13
Primary	8	5
Manufacturing/processing	13	14
Construction/transportation	12	15
Other occupations	16	16
Industry		
All industries	16	18
Primary	11	13
Manufacturing	17	18
Construction	14	13
Distributive services *	18	21
Retail trade	14	17
Personal services	14	17
Business services/finance	19	22
Community services **	14	12
Public administration	15	18

Source: General Social Survey, 1989 and 1994
Note: Table includes respondents employed at the time of the survey. Employed persons who did not report hours of computer use are excluded.
* *Includes transportation and wholesale trade.*
** *Includes education, health and social services.*

Britain, the absence of comparable American data makes it difficult to draw parallels with that country (Gallie and White, 1993). However, one U.S. observation that automation has contributed to skill reductions among clerical workers raises the possibility that different methods for measuring skill may influence findings (Cappelli, 1993).[6]

The diffusion of information technology in Canadian workplaces is contributing to the increasing labour market polarization documented since the early 1980s (Economic Council of Canada, 1991). The heaviest users of information technology are professionals, such as scientists, engineers and managers – the so-called "knowledge workers" – as well as clerical workers.

So far, few Canadians attribute past or expected job loss to technological change. This perception may tap only direct effects of technological change, but even assuming some unmeasured, indirect effects, predictions of massive job losses by some critics may be somewhat overstated.

Acknowledgements

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□

Notes

1 See, for example, Braverman (1974), Bell (1973), Rifkin (1995), Noble (1995) or Zuboff (1988). Drucker's knowledge workers (1993) or Reich's (1991) symbolic analysts are portrayed as the new elite of the information age.

2 Technology's effect on the overall quality of work life depends on how fully it is integrated: work reorganization around new technologies is less common, and more difficult to implement, than technological change *per se*. See, for example, Betcherman et al (1994); McMullen, Leckie and Caron (1993), and Baldwin and Diverty (1995). See also Long's 1993 study of 114 large Canadian private sector firms in all major industrial sectors, 1990 to 1991. For a summary of this, see Kling and Dunlop (1993).

3 In this section of the article, respondents are classified according to their main activity in the 12 months prior to the survey. Elsewhere, their status at the time of the survey applies.

4 In general, persons under age 25 are far more likely to be able to use computers. Furthermore, the GSS asked for self-assessment of skills. Young people are generally more comfortable using technology, whether or not their skills are appreciably greater than others'.

5 Any respondent who reported losing a job in the 1984-to-1989 (Cycle 4) or 1989-to-1994 (Cycle 9) period was asked why this had happened. So few cited the introduction of automation or new technology that reliable estimates cannot be provided. It is possible, however, that

Table 4
Effect of introduction of computers or automated technology on work in the last 5 years, by occupation and sex

	Total employed population		Work affected by introduction of computers in last 5 years				
			Greatly	Somewhat	Hardly	Not at all	Not stated *
	'000	%	%	%	%	%	%
All occupations (1989)							
Both sexes	12,155	100	29	15	14	41	1
Men	6,726	100	29	17	15	39	--
Women	5,428	100	29	13	14	44	1
All occupations (1994)							
Both sexes	13,035	100	34	17	11	36	2
Men	7,193	100	34	17	11	36	2
Women	5,841	100	35	17	10	36	2
Managerial/professional (1989)							
Both sexes	4,442	100	38	18	15	29	--
Men	2,450	100	45	19	13	23	--
Women	1,992	100	29	16	17	37	--
Managerial/professional (1994)							
Both sexes	4,674	100	46	20	10	22	1
Men	2,315	100	53	20	8	18	--
Women	2,359	100	39	21	12	26	2
Clerical/sales/service (1989)							
Both sexes	4,401	100	29	13	13	44	1
Men	1,526	100	26	16	16	42	--
Women	2,876	100	31	11	12	45	--
Clerical/sales/service (1994)							
Both sexes	4,591	100	34	14	10	39	2
Men	1,710	100	32	15	12	38	3
Women	2,881	100	36	14	9	40	2
Manual (1989)							
Both sexes	3,217	100	16	15	15	53	--
Men	2,691	100	16	16	16	51	--
Women	526	100	16	9	10	64	--
Manual (1994)							
Both sexes	3,677	100	20	16	12	49	2
Men	3,104	100	21	17	13	48	2
Women	573	100	17	13	9	59	--

Source: General Social Survey, 1989 and 1994
Note: Table includes respondents employed at the time of the survey.
* *This category includes "don't know" and "not stated" in 1994.*

other commonly cited reasons for job loss (for example, a shortage of work, staff reductions) were indirectly influenced by technological change, and respondents may not have been aware of this. (See Lowe [1992] for a discussion about these Cycle 4 findings.)

6 Unlike both the GSS and the British survey, the Cappelli study used evaluation scores based on surveys by Hay Associates, rather than workers' self-assessments of their skill requirements.

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After high school...

Jeffrey Frank

Changing labour market conditions have affected workers of all ages and education levels, but particularly young people. The job market in Canada has become increasingly competitive. Finding and retaining satisfactory work requires not just a basic education, but also the right combination of training, skills, initiative and good work habits. High school graduation by itself no longer guarantees a job; further education or training beyond high school offers definite advantages and is usually required today for most better jobs.

This article, which previews the findings of the 1995 School Leavers Follow-up Survey, provides information about the education, training and labour market experiences of young people during the first few years after leaving or graduating from high school. A comprehensive report on young people's school-work transitions based on both the initial and the follow-up survey (see *About the surveys*) is expected later this year.

High school leaver rates lower in 1995

According to the 1991 School Leavers Survey, 18% of 20 year-olds had left high school before graduation. (A substantial proportion of 18 and 19 year-olds were still in high school.) Data from the 1995 School Leavers Follow-up Survey indicate that by the time these same people were 24, their high school leaver rate had fallen to 15% (Table 1). Finishing high school is a longer process for some than for others.

Adapted from After High School, The First Years: The First Report of the School Leavers Follow-up Survey, 1995. *Jeffrey Frank is with the Centre for Education Statistics. He can be reached at (613) 951-1504, or franjef@statcan.ca.*

About the surveys

The primary objectives of the 1991 School Leavers Survey (SLS) were to establish high school leaving rates and to compare secondary school students who had successfully completed high school (**graduates**) with those who were still attending (**continuers**) and those who had left school before graduating (**leavers**). The SLS was conducted between April and June 1991. The 1995 School Leavers Follow-up Survey (SLF), conducted between September and December 1995, gathered information on school-work transitions of these young adults by focusing on education and work activities beyond high school. Human Resources Development Canada commissioned Statistics Canada to conduct both surveys.

The SLS target population consisted of youths aged 18 to 20 (as of April 1, 1991) from the 10 provinces. They were contacted four years later for the SLF, by which time they would likely have had one or more jobs. In addition, most continuers in 1991 would be graduates or leavers by 1995, allowing a more in-depth labour market analysis.

The SLS sampling frame was formed from five years (1986 to 1990) of Family Allowance (FA) files. The FA files were believed to provide the most complete listing of young persons under 15 in Canada available at the time of the survey. These files provided indicators used to create a derived variable, "payment status," that could identify potential leavers – youths for whom FA payments had stopped because they had left the household or had become employed and would thus be at higher risk of leaving school. The frame was stratified using province of residence, age and payment status (the latter to help ensure an adequate number of leavers for analysis).

The SLS sample consisted of 18,000 individuals from the 10 provinces who were selected using the stratified design described above. The sample was selected to provide national and provincial leaver rates for 20 year-olds with a maximum coefficient of variation (CV) no greater than 16.5%, and to allow estimation of some characteristics for continuers, leavers and graduates, each considered separately, with a CV no greater than 16.5%. (This level of relative precision was also obtained for other estimates. For some estimates, however, CVs fall into the 16.6% to 33.3% range. Such estimates are reliable enough for some purposes, but should be used with caution. Those with CVs above 33.3% are not published.) The SLF sample consisted of individuals who had responded to the SLS (with very few exceptions, noted below).

Both surveys were conducted by telephone using a computer-assisted telephone interviewing system. SLS respondents were asked to provide contact information for a follow-up. Interviewers confirmed certain respondent information from the SLS before beginning the SLF interview.

Of the 18,000 individuals in the SLS sample, 9,460 provided completed interviews. Of these, 11 preferred not to participate in further surveys, and 18 participated in a pre-test for the SLF. These individuals were excluded from the SLF, leaving a sample of 9,431. Of these, 6,284 responded (including agreement for data sharing). In both surveys, an adjustment for non-response was included in the weighting procedures.

In 1991, 63% of youths aged 18 to 20 were high school graduates, 16% were school leavers, and 21% were high school continuers. By 1995, 85% of these same young people had graduated and 14% were school leavers. In absolute numbers, over 160,000 youths aged 22 to 24 in 1995 had left high school without completing their diploma. Less than 1% of

those aged 22 to 24 were attending high school in 1995.[1]

Among high school leavers in 1991, 25% had returned to high school and obtained their diploma by 1995. In addition, 88% of those who were continuers in 1991 had graduated by 1995 (Chart).

Young women more likely to finish school

Among women aged 22 to 24, 89% had completed high school by 1995, while 10% were high school leavers. In comparison, 81% of young men had graduated by 1995 and 18% were leavers. Men accounted for nearly two-thirds of those who had left high school by then. This pattern – where smaller proportions of men than women were high school graduates – was evident in every province (Table 2).

Graduates pursue further education

Four out of five youths who were high school graduates in 1995 went on to postsecondary education or training toward a certificate, diploma or degree (Table 3). In contrast, just one in four high school leavers had done so. Some leavers may have decided not to enrol for a variety of reasons (for instance, lack of money, family responsibilities, time constraints), while many others may have been unable to because they lacked required credentials.

Among high school graduates, a larger proportion of women than men had continued their education (83% versus 77%). Among leavers, however, men were somewhat more likely than women to have taken further education or training.

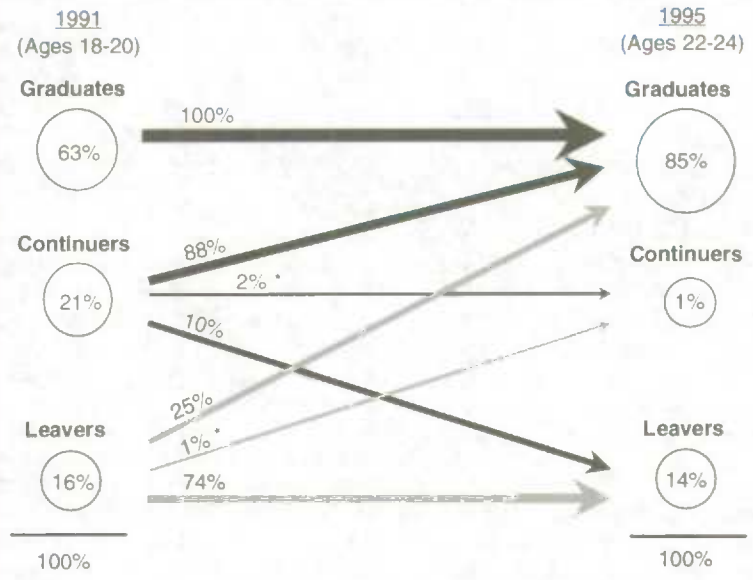
Some 42% of high school graduates reported university as their highest level of further education toward a certificate, diploma or degree. Women were somewhat more likely than men to have done so (Table 4).

Three in ten high school graduates reported education or training at a college or CEGEP as their highest level of additional schooling. Proportions for men and women were similar.

Just 7% of graduates enrolled in a trade or vocational school, or a registered apprenticeship program for their highest level of further training. Male graduates were slightly more likely than their female counterparts to have made this choice.

Finally, as their highest level of postsecondary education to date, some 2% of high school graduates had worked toward certification in a program offered by a private business

Chart
Most 1991 continuers went on to graduate from high school, as did one-quarter of the leavers.



Sources: School Leavers Survey, 1991 and School Leavers Follow-up Survey, 1995
* *Because of high sampling variability, data should be interpreted with caution.*

Table 1
High school leaver rates for those aged 20 in 1991 and 24 in 1995

	1991 (Aged 20)	1995 (Aged 24)
	%	
Canada	**18**	**15**
Newfoundland	24	19
Prince Edward Island	25	21
Nova Scotia	22	17
New Brunswick	20	16
Quebec	22	19
Ontario	17	14
Manitoba	19	14
Saskatchewan	16	11
Alberta	14	11
British Columbia	16	13

Sources: School Leavers Survey, 1991; School Leavers Follow-up Survey, 1995

Table 2
High school status of youths aged 22 to 24, by sex and province

	High school graduates			High school leavers		
	Both sexes	Men	Women	Both sexes	Men	Women
	%					
Canada	**85**	**81**	**89**	**14**	**18**	**10**
Newfoundland	79	76	82	20	22	17
Prince Edward Island	80	75	85	19	23	15
Nova Scotia	85	81	88	15	19	12 *
New Brunswick	86	80	91	12	17	8 *
Quebec	81	76	86	18	21	14
Ontario	88	84	92	12	16	7
Manitoba	84	78	91	16	22	9 *
Saskatchewan	87	84	91	12	16	9 *
Alberta	86	81	91	14	19	8
British Columbia	86	85	88	14	15	12

Source: School Leavers Follow-up Survey, 1995
* *Because of high sampling variability, data should be interpreted with caution.*

or commercial school, for example, or by a professional association (such as accounting, banking or insurance).

Some leavers take further training

Among high school leavers in 1995, 12% reported, as their highest level of formal education or training, attendance at a trade or vocational school, or registration in an apprenticeship program. Further education of this type was most common among young men who had left high school. In addition, under 10% of high school leavers reported further education or training at a college or CEGEP as their highest schooling since leaving.

Women's participation lower than men's...

Among high school graduates who had taken further education or training, labour force participation was about the same for men and women (84%). For graduates without further education or training, however, participation was much higher among men (92%) than among women (77%) (Table 5). Family responsibilities may have kept some of these young women out of the labour force.

The gap was greater among high school leavers: 91% of men versus 63% of women were labour force participants. Family responsibilities were likely an even greater factor for women's participation rate in this case (Gilbert and Orok, 1993).

but high school diploma helps

High school graduates with some further education or training had the lowest unemployment rates: 11% for men and 10% for women. Unemployment rates for graduates without further education or training were somewhat higher.

Among school leavers, unemployment rates were higher and differences between the sexes more marked. Fully 30% of young women were unemployed, compared with 17% of men. Leaving high school before graduation appears to have especially serious consequences for young women.

Full-time work common

In the week before the survey, high school graduates with no further education or training were most likely to have been working full time (64%). In comparison, 57% of high school leavers and 53% of high school graduates with further education or training were working full time (Table 5).

Table 3
Proportion of youths aged 22 to 24 with further education or training, by high school status, sex and province

	High school graduates			High school leavers		
	Both sexes	Men	Women	Both sexes	Men	Women
	%					
Canada	**80**	**77**	**83**	**24**	**26**	**20 ***
Newfoundland	77	76	78	38 *	43 *	32 *
Prince Edward Island	77	69	83	28 *	30 *	‡
Nova Scotia	78	76	82	23 *	24 *	‡
New Brunswick	67	65	69	14 *	16 *	‡
Quebec	83	75	90	17 *	‡	‡
Ontario	83	82	84	27 *	31 *	‡
Manitoba	71	67	73	15 *	20 *	3 *
Saskatchewan	81	78	84	‡	‡	‡
Alberta	75	75	75	28 *	33 *	‡
British Columbia	75	71	78	35 *	42 *	‡

Source: School Leavers Follow-up Survey, 1995
Note: Table refers to further education or training toward a certificate, diploma or degree beyond high school.
* *Because of high sampling variability, data should be interpreted with caution.*
‡ *Data not reliable enough to publish.*

Table 4
Highest level of further education or training for youths aged 22 to 24, by high school status and sex

	High school graduates			High school leavers		
	Both sexes	Men	Women	Both sexes	Men	Women
	%					
Total	**100**	**100**	**100**	**100**	**100**	**100**
University	42	39	45	‡	‡	‡
College/CEGEP **	29	28	30	8 *	8 *	‡
Trade/vocational or registered apprenticeship **	7	8	5	12	15 *	‡
Other education or training †	2	2 *	3 *	‡	‡	‡
Total with further education or training	80	77	83	24	26	20 *
No further education or training	20	23	17	76	74	80

Source: School Leavers Follow-up Survey, 1995
Notes: Table refers to further education or training toward a certificate, diploma or degree beyond high school. People are classified according to their highest level of education.
Because of rounding, totals may not add to 100%.
* *Because of high sampling variability, data should be interpreted with caution.*
** *College/CEGEP and trade/vocational or registered apprenticeship sometimes overlap. Respondents may have mentioned either category for certain programs.*
† *Includes further education or training toward private business school or commercial school diplomas or certificates; and diplomas, certificates or licences from professional associations (for example, accounting, banking and insurance).*
‡ *Data not reliable enough to publish.*

The lower rate of full-time work among graduates with further education or training is not surprising, as many of these graduates were involved in education or training activities at the time of the survey. In fact, 15% of this group reported only education or training activities in the week before the survey, and another 24% were combining various forms of school and work.

As was the case in the rest of the labour force, part-time work was more common among women than men. Among graduates with further education or training, 24% of women reported having part-time jobs as did 20% of men. Again, this was not unexpected, as they were most likely to be involved with their studies in the week before the survey.

Among high school graduates with no further education or training, 13% of women and 7% of men were working part time. Similarly, 11% of female and 5% of male high school leavers had part-time jobs.

Education and training important to many youths

Young people are keenly aware of the importance of education and training in the current labour market. In 1995, about 8 out of 10 youths intended to take further education, training or instruction[2] over the next five years. High school graduates who had already worked toward a certificate, diploma or degree were most likely to consider further schooling (88%) (Table 6). This was not surprising, since this group included those already enrolled in such programs.

In comparison, 76% of graduates with no further education or training and 72% of high school leavers planned to continue their studies sometime over the next five years. Further schooling did not figure into the futures of 10% of high school graduates who had already taken some further education or training, 19% of those who had not done so, or 23% of those without a high school diploma.

What will they be doing in 2000?

The young people surveyed were also asked what they expected their main activities to be in five years. (Multiple responses were allowed.) The vast majority (92% of high school graduates with further education or training, 84% of those without, and 84% of high school leavers) expected to be working at a job or business. Among graduates as well as leavers, larger proportions of men than women expected to be working five years later (Table 6).

Proportionately more high school leavers (17%) and graduates without further education or training (16%) reported going to school as one of their main future activities, compared with 12% of graduates with further education or training. Young women who had left high school were more likely than their male counterparts to foresee a return to school in five years. Generally, few leavers or graduates, with or without further education or training, saw themselves both working and going to school.

Another commonly reported future activity was handling family or household responsibilities. Not surprisingly, women were much more likely than men to see this as a main activity in five years' time. Young women who had left high school without graduating (39%) and those who had graduated but not gone further (37%) were especially likely to mention this activity, compared with

Table 5
Labour force indicators (in the week before the survey) for youths aged 22 to 24, by high school status and sex

	High school graduates (with further education or training)			High school graduates (no further education or training)			High school leavers		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
					%				
Labour force participation rate	84.1	84.4	83.9	85.4	92.0	77.0	80.7	90.6	62.9
Unemployment rate	10.8	11.3	10.4	12.9	14.1 *	11.2 *	20.9	17.3	30.2
Full-time work	52.8	54.8	51.2	64.4	71.9	54.9	56.6	69.8	32.7
Part-time work	22.0	20.1	23.7	9.6	7.1	12.8	7.2	5.1	11.1

Source: School Leavers Follow-up Survey, 1995
Note: Table refers to further education or training toward a certificate, diploma or degree beyond high school.
* *Because of high sampling variability, data should be interpreted with caution.*

Table 6
Plans and expectations of youths aged 22 to 24, by high school status and sex

	High school graduates (with further education or training)			High school graduates (no further education or training)			High school leavers		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
					%				
Future education (over next five years)									
Planning to take further education, training or other instruction **	88	88	87	76	75	79	72	73	70
No plans for further education or training	10	10	10	19	20	18	23	23	22
Don't know	2 *	2*	3 *	4 *	5 *	3 *	5 *	4 *	7 *
Total	100	100	100	100	100	100	100	100	100
Expected main activities † (in five years)									
Working	92	95	90	84	90	77	84	88	75
Going to school	12	10	12	16	14	19	17	14 *	22
Working and going to school	7	7	8	9	7 *	12 *	10 *	9	11 *
Family responsibilities	18	11	24	26	17	37	28	21	39
Doing something else	1 *	2 *	1 *	2 *	‡	‡	‡	‡	‡

Source: School Leavers Follow-up Survey, 1995
Notes: Table refers to further education or training toward a certificate, diploma or degree beyond high school.
Because of rounding, totals may not add to 100%.
* *Because of high sampling variability, data should be interpreted with caution.*
** *The question about future education plans asked, "Do you plan to take any further education or training such as courses, workshops, seminars and tutorials?"*
† *Multiple responses were allowed.*
‡ *Data not reliable enough to publish.*

24% of women who had graduated from high school and taken further education or training. In contrast, only 21% of male leavers, 17% of male graduates without further education or training, and 11% of male graduates with such training expected family responsibilities to be one of their main future activities.

Further analysis

The combination of findings from the 1991 School Leavers Survey and the 1995 School Leavers Follow-up Survey should provide a rich database for further research on the school-work transitions of young people. A public use microdata file is now available. In addition, a volume of comprehensive analyses based on the two surveys will be released later this year. □

Notes

1 These high school continuers are not included in the remainder of this analysis. Because of the small numbers involved, estimates of the characteristics and activities of high school continuers have unacceptably high sampling variability.

2 The question about plans for the next five years covered a fairly broad range of activities outside postsecondary education or training toward a certificate, diploma or degree; these include programs, courses, workshops and tutorials.

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What's new?

JUST RELEASED

Survey of Consumer Finances releases two income studies

Income After Tax, Distributions by Size in Canada, 1995

How do transfer payments and income taxes affect the income of lower, middle and upper income families? Over time, have income taxes and transfer payments narrowed or widened the gap between lower and upper income families? *Income After Tax, Distributions by Size in Canada, 1995* (Catalogue no. 13-210-XPB) presents information that can address these questions.

This report includes detailed tables presenting income after tax (averages, medians and distributions), transfer payments, and income tax paid for families and unattached individuals, by various demographic and labour characteristics. Historical data are also included, illustrating the net effect of cash transfers and income tax on family incomes over time. These tables present averages for incomes before transfers, transfer payments, total income, income tax, and income after tax for various family types (elderly families, married couples, two-parent families, lone-parent families). Other historical tables show the percentage of income received in transfers and paid as income tax. Finally, historical inequality measures such as quintile statistics and Gini coefficients are presented, allowing analysts to determine whether income inequality has been decreasing or growing.

Data analysis, definitions, and data quality measures are included. (Income after tax is defined as total money income less income tax paid.)

Characteristics of Dual-Earner Families, 1995

Is the growth in the number of dual-earner families coming to an end? How do families in which both spouses have earnings compare with families in which only one spouse has earnings, in terms of total earnings, transfer payments, total income and income tax paid? Is there a trend toward families in which wives earn more than husbands? In what ways do the demographic traits of single- and dual-earner families differ? *Characteristics of Dual-Earner Families, 1995* (Catalogue no. 13-215-XPB) helps answer these questions.

This report highlights husband-wife families, with emphasis on dual-earner families. It explores the various demographic and economic characteristics of these families and compares them with other husband-wife families, presenting average incomes, median incomes and income distributions. Data analysis, definitions, and data quality measures are included.

For further information concerning these two publications, contact Réjean Lasnier at (613) 951-5266; Internet: income@statcan.ca. □

Labour Division studies retirement savings

Retirement Savings through RPPs and RRSPs, 1991 to 1995

According to this recent publication by Labour Division, between 1991 and 1995 close to two-thirds of taxfilers aged 25 to 64 saved for retirement through either a registered retirement savings plan (RRSP) or a registered pension plan (RPP). More than half of these savers (55%) did so each year.

The central and western provinces and the territories had the largest proportion (67%) of taxfilers who saved at least once in the five-year period. The rate was much lower (54%) in the Atlantic provinces, because of below average income and high unemployment.

In 1995 alone, taxfilers aged 25 to 64 saved $36 billion, or 11.2% of their total income, through RRSPs and RPPs. This proportion increased from 9.7% in 1991 and 10.6% in 1993.

Of those who did not save through either RRSPs or RPPs between 1991 and 1995, four out of five (81%) had incomes under $20,000 and many (59%) were women. Individuals with no savings will be heavily reliant on government-sponsored programs, such as the Old Age Security/Guaranteed Income Supplement program and the Canada and Quebec Pension Plan, as their primary source of income at retirement.

Age plays a small role in determining whether an individual saves for retirement. Some 73% of taxfilers aged 45 to 54 saved at least once from 1991 to 1995. In contrast, among those aged 25 to 34, only 59% did so.

In 1995, Canadians aged 25 to 64 contributed only 13% of the total $150 billion that could have been contributed to RRSPs – the so-called RRSP room. At least 6 out of 10 individuals did not use any of that room; this is not surprising, given that 39% of those who could have contributed had incomes under $20,000.

Only 11% of those with RRSP room used most or all of it in 1995. Those with higher incomes were most likely to do so. Even so, only half of those in the highest income group ($80,000 or more) used most of it.

For further information on *Retirement Savings through RPPs and RRSPs, 1991 to 1995* (Catalogue no. 74F0002XPB, $43), contact Thomas Dufour at (613) 951-2088 or Johanne Pineau at (613) 951-4034, Pensions Section, Labour Division; fax (613) 951-4087. □

New analytical publication on labour force

Each quarter, the new *Labour Force Update* (Catalogue no. 71-005-XPB) will feature the latest information and trends on a labour market issue. Informative commentary, charts and analytical tables will provide a concise and up-to-date reference on the topic, as well as a useful starting point for further research. Each issue will also contain a dictionary of terms and a guide to other relevant data sources.

The first issue covers "Youths in the labour market." (Subsequent issues in 1997 will look at hours, wages and non-standard forms of work.) Highlights are listed below:

- The labour market has become a more precarious place for young people. The gap between the youth and overall unemployment rates has grown over the nineties. At the same time, the employment rate for 15 to 24 year-olds fell 11 percentage points between December 1989, the year before the recession began, and December 1996, to 51.1%. Labour market participation for this group has also fallen dramatically. Between the January 1989 peak and December 1996, it dropped over 10 percentage points to 61.2%.
- Almost half of 15 to 24 year-olds who do find jobs are working part time, compared with 39% seven years ago. At the same time, however, school attendance has improved, especially among 20 to 24 year-olds, who have fuelled greater enrolment in postsecondary institutions. While only 52% of youths were going to school in 1989, 60% were doing so by 1996.
- Compared with 1989, students are less likely to be juggling work and full-time school. Still, of those who were full-time students, 32% were also working, primarily in the business and personal services or retail trade industries. In 1996, the average work week for full-time students who had jobs was 14 hours.
- In July 1989, 69.1% of youths had summer jobs, compared with 52.1% in the same month in 1996. Over the same period, the summer unemployment rate for students jumped from 10.1% to 18.4%, despite a large drop in labour market participation. Most youths were working part time during the summer of 1996.
- Finally, once students leave school, they have greater difficulty making the transition into the workforce. Although increased education has probably helped, non-student youths have a very high unemployment rate and the proportion with jobs has fallen slightly in the 1990s. As a result, the school-to-work transition period has grown longer in recent years. In 1996, it began around age 16 as youths combined school and work, and ended around age 23. Once employed, non-student youths are more likely to work fewer hours than their counterparts in the 1980s.

For another look at the data from *Labour Force Update* see "Key labour and income facts" in this issue. For additional information contact Geoff Bowlby at (613) 951-3325; Internet: bowlgeo@statcan.ca or Jean-Marc Lévesque at (613) 951-2301; Internet: levejea@statcan.ca; fax (613) 951-2869. □

1996 Census: Population and dwelling counts

Several new census publications reveal changes in Canada's population distribution between 1991 and 1996. Highlights follow:

- The Census counted 28,846,761 people in Canada, up more than 1.5 million (5.7%) since 1991. This growth is the result of international migration and natural increase (births minus deaths), to an almost equal extent.
- The population has doubled in 45 years from just over 14 million in 1951. Overall, the rate of growth between 1991 and 1996 was slower than that of the previous five-year period.
- In spite of a slowing growth rate, Canada's population increased at an annual average rate of 1.1%, the highest of all G-7 industrialized nations. Average annual increases for the others (between 1990 and 1995) varied from 0.1% for Italy to 1.0% for the United States.

Census reports with details on Canadians' marital status, languages spoken, ethnic origin, income, education and jobs are scheduled between now and June 1998 to round out this statistical portrait.

For further information on the new releases contact your nearest Regional Reference Centre, or the Internet: infostats@statcan.ca. □

WHAT'S NEW WITH SLID?

The determinants of multiple jobholding

Moonlighting workers represent a significant portion of the Canadian labour force, and the rates for both men and women have been increasing steadily over the last few decades. Moonlighting, or multiple jobholding, may reflect workers' need for more flexibility, especially for

women trying to combine both work and family obligations. For others, the motive may be to acquire additional skills or to enjoy a new challenge. For many, however, holding down a second job is a necessity – the result of economic hardship that threatens the financial stability of families.

The purpose of this research is to gain insight into the determinants of moonlighting. Descriptive empirical analyses will include an examination of moonlighting by gender, age, education, marital status, and occupation. Additionally, it will assess the extent and type of multiple jobholding by parents of preschool age children. Moonlighting behaviour will also be related to income levels to gauge the link between the two factors. In addition, the SLID data will allow for the estimation of an econometric model that examines hypotheses for moonlighting.

The release of subsequent waves of the SLID will allow this research to be extended to examine issues related to the duration of moonlighting spells. The research is being conducted by Dr. Lisa Powell at the School of Policy Studies, Queen's University. For more information on this project, contact Lisa Powell at (613) 545-6692; Internet: lmpl@qsliver.queensu.ca. □

■ *Labour adjustment and SLID*

It is almost unanimously agreed that a period of profound structural change is under way. Part of this has been documented: the shift from manufacturing to services, from routine to "knowledge" jobs, from full-year full-time employment to part-year part-time and short-term contract jobs, and, in many cases, to self-employment. To date, however, this documentation has relied on cross-sectional "snapshots" like the monthly Labour Force Survey, and the recent General Social Survey and Survey of Work Arrangements.

The SLID, however, tracks these changes longitudinally for given workers. It offers answers to many questions: Are workers being "downsized" in greater numbers than before? Are they being downsized more often than before? Do "new economy" jobs require high skill and/or flexible work arrangements? What labour force groups are becoming marginalized? And, perhaps most importantly, what has happened to such traditional rewards as stable income and pension coverage?

Analysts at Human Resources Development Canada (HRDC) are particularly interested in the social and labour market policy implications of these adjustments in a new, knowledge-based economy. The Applied Research Branch at HRDC is currently using the SLID to look at the following issues:

Displaced workers: What kinds of jobs do workers (particularly older and younger ones) lose? How long do they take to find new jobs? How is this period of job search financed? If they exit the labour force, is it for early retirement, or skills upgrading, or simply out of discouragement? If they find new jobs, how do these compare with lost jobs? And how different are all these patterns for workers with different characteristics?

Old jobs versus new jobs: A high volume of turnover has been documented in the labour market. How much of this is part of a fundamental change in the nature of work, from long-term, full-time employment to "contingent" jobs with non-standard hours and/or compensation?

Other current areas of interest: Low income dynamics (that is, the movement of individuals into and out of low income) and school-to-work transitions will be examined as more waves of data become available.

For further information, contact Darren Lauzon at (819) 994-1640; fax (819) 953-8584; Internet: Darren.Lauzon@spg.org. □

■ UPCOMING CONFERENCE

■ *Economic Growth and Employment*
September 29-30, 1997, Ottawa

Statistics Canada will sponsor its ninth Economic Conference in September, at the Château Laurier hotel in Ottawa. This conference will deal with economic growth and employment issues. Guest speakers will address changes in investment patterns, technical change and training, and future developments and challenges.

For further information, contact Michael Trant or François Maranda, Agriculture Division, Statistics Canada, at (613) 951-2859; fax (613) 951-3868. Internet: tranmik@statcan.ca; website: http://www.statcan.ca. □

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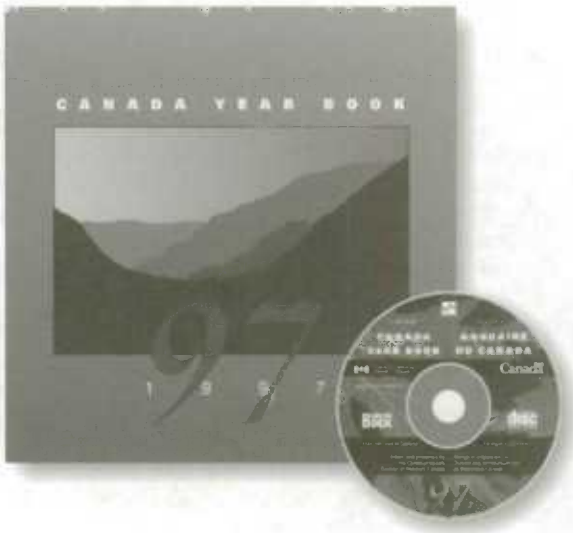

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Key labour and income facts

The following is a guide to data sources for labour market, business, income and earnings, pension, education and other household topics. Each quarter, this section will present charts and analysis featuring one or more of these sources. For general inquiries, please contact Joanne Bourdeau at (613) 951-4722; Internet: bourjoa@statcan.ca or Jeannine Usalcas at (613) 951-4628; Internet: usaljea@statcan.ca.

Administrative data

Small area and administrative data
Frequency: Annual
Customer Services:
(613)951-9720

Business surveys

Annual Survey of Manufactures
Frequency: Annual
Contact: Jacqueline LeBlanc
(613)951-3524

Business Conditions Survey of Manufacturing Industries
Frequency: Quarterly
Contact: Claude Robillard
(613)951-3507

Census

Census labour force characteristics
Frequency: Quinquennial
Contact: Michel Côté
(613)951-6896

Census income statistics
Frequency: Quinquennial
Contact: Abdul Rashid
(613)951-6897

Employment and income surveys

Labour Force Survey
Frequency: Monthly
Contact: Nathalie Caron
(613)951-4168

Survey of Labour and Income Dynamics
Frequency: Annual
Contact: Philip Giles
(613)951-2891

Survey of Consumer Finances
Frequency: Annual
Contact: Réjean Lasnier
(613)951-5266

Survey of Employment, Payrolls and Hours
Frequency: Monthly
Contact: Sylvie Picard
(613)951-4090

Help-wanted Index
Frequency: Monthly
Contact: Sylvie Picard
(613)951-4090

Employment Insurance Statistics Program
Frequency: Monthly
Contact: Sylvie Picard
(613)951-4090

Major wage settlements
Bureau of Labour Information
(Human Resources Development Canada)
Frequency: Quarterly
Contact: (819) 997-3117

Labour income
Frequency: Quarterly
Contact: Anna MacDonald
(613)951-3784

Household Facilities and Equipment Survey
Frequency: Annual
Contact: Réjean Lasnier
(613)951-5266

General Social Survey

Education, work and retirement
Frequency: Occasional
Contact: Ghislaine Villeneuve
(613)951-4995

Social and community support
Frequency: Occasional
Contact: Ed Praught
(613)951-9180

Time use
Frequency: Occasional
Contact: Ghislaine Villeneuve
(613)951-4995

Pension surveys

Pension Plans in Canada Survey
Frequency: Annual
Contact: Thomas Dufour
(613)951-2088

Quarterly Survey of Trusteed Pension Funds
Frequency: Quarterly
Contact: Thomas Dufour
(613)951-2088

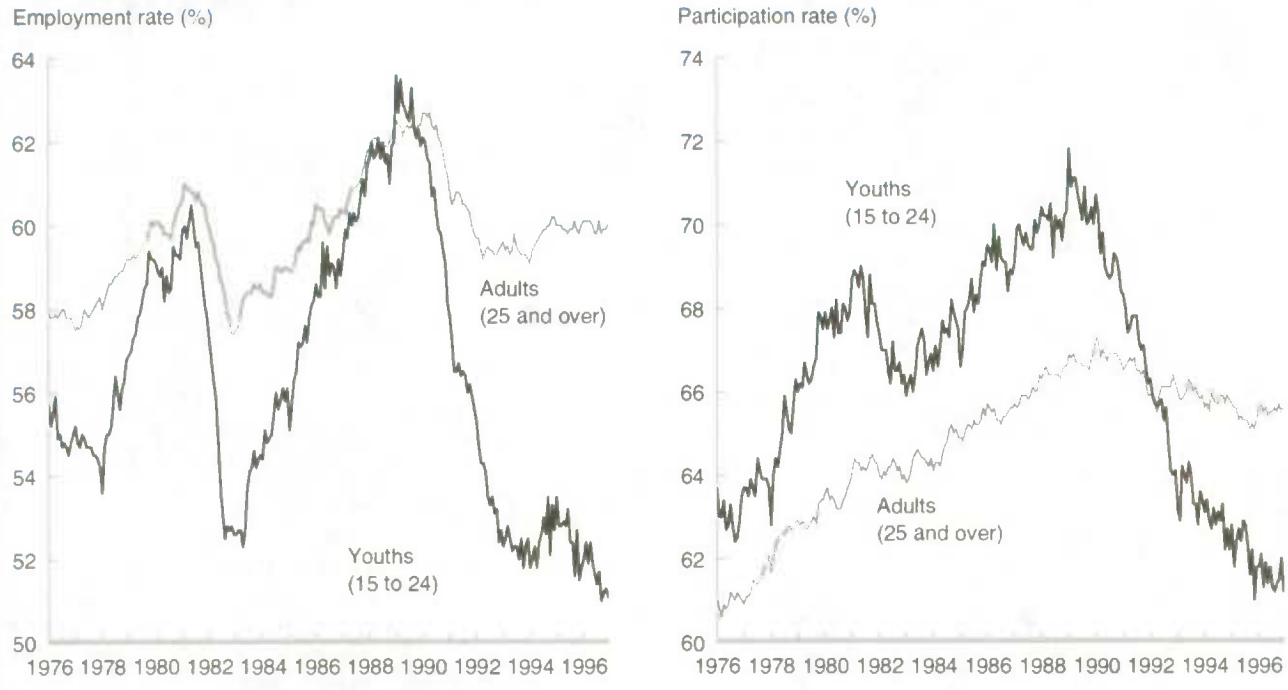
Special surveys

Survey of Work Arrangements
Frequency: Occasional
Contact: Ernest Akyeampong
(613)951-4624

Adult Education and Training Survey
Frequency: Occasional
Contact: Steve Arrowsmith
(613)951-0566

Graduate Surveys
(Postsecondary)
Frequency: Occasional
Contact: Bill Magnus
(613)951-4577

The youth labour market

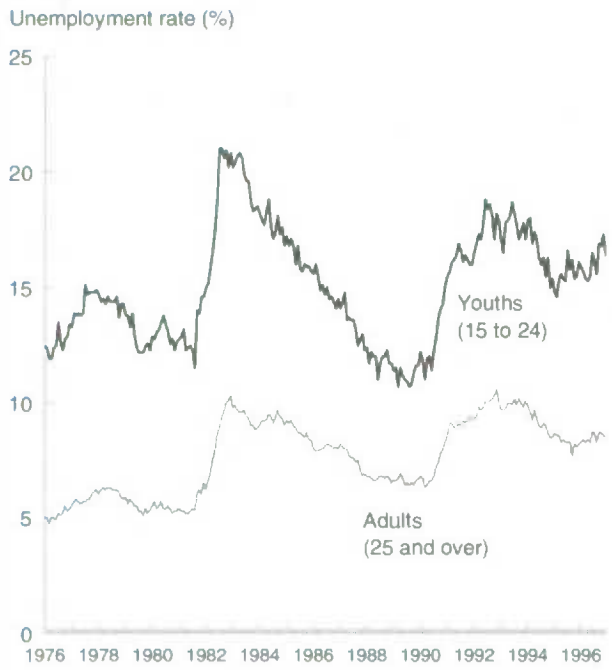


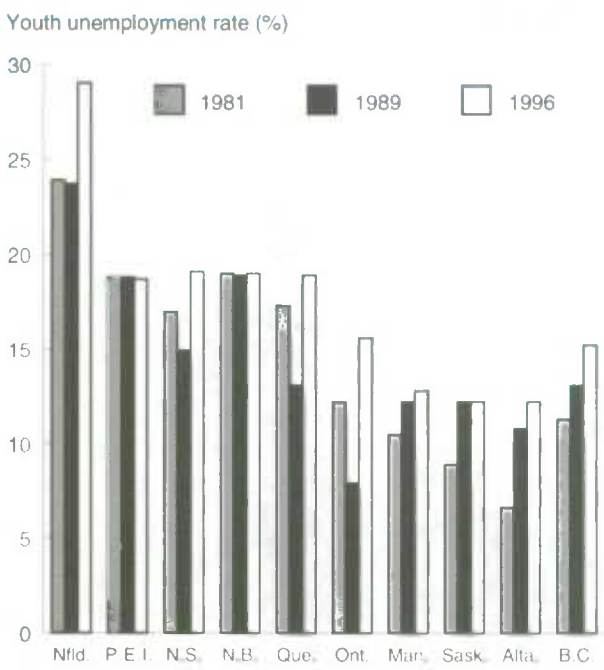
Source: Labour Force Survey
Note: Monthly seasonally adjusted data

Youth labour market at 20-year low

- Labour market conditions were promising for youths in the eighties but began to deteriorate by mid-1989, just prior to the recession.
- Between August 1989 and December 1993, youth employment plunged by 460,000 (-18%). Weak employment growth in late 1994 and early 1995 failed to hold, and by December 1996 the employment rate for youths slid to 51.1% – 11 percentage points below the December 1989 rate.
- Since 1989, youth participation in the labour market has dropped dramatically. While a contraction in labour force activity is typical during economic downturns, the ensuing expansion failed to attract young people back to the labour market. By the end of 1996, the participation rate was 61.2% – more than 10 percentage points below the January 1989 peak.
- The proportion of youths participating in the labour market has declined so sharply in recent years that the adult rate, also declining, actually overtook the youth rate in 1993. Since then, the gap has continued to grow; the December 1996 participation rate was 65.6% for adults and 61.2% for youths. Part of this decline can be explained by growth in school enrolment.
- Labour force participation and employment rates have dropped for youths of both sexes, with declines somewhat larger for young men.

The youth labour market





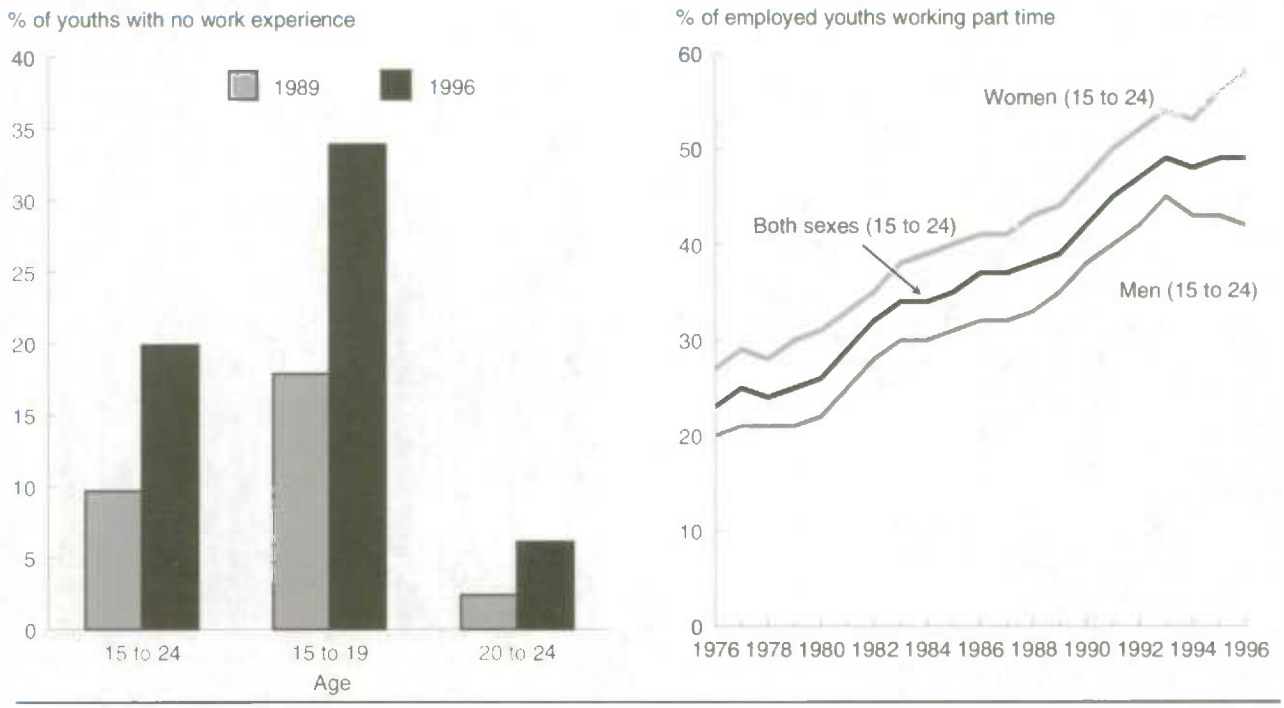
Source: Labour Force Survey

Note: Monthly seasonally adjusted data are used for the first chart, and annual averages for the second.

Unemployment rate for youths remains high

- The overall unemployment rate has trended upward over the last few decades, with the rate for youths consistently higher than that for adults.
- This higher rate can be explained in part by students' varying lengths of job search: some take short-term work while others continue to look for career-oriented employment. It also underlines the importance of previous work experience, something many young job seekers lack.
- Nationally, youth unemployment rates were comparatively low in 1981 (13.1%) and 1989 (11.2%); by 1996, the annual average rate was 16.1%. Youths in Ontario and Quebec experienced the largest drop from 1981 to 1989 and the greatest increase from 1989 to 1996. In 1989, the height of the business cycle, Ontario youths had the lowest unemployment rate of youths in all provinces (7.9%); by 1996, that rate had almost doubled (15.6%).
- In 1996, young people in the eastern provinces and Quebec experienced above average unemployment rates (ranging from 18.7% in Prince Edward Island to 29.0% in Newfoundland). The western provinces and Ontario were below average (from 12.2% in Saskatchewan and Alberta to 15.6% in Ontario).

The youth labour market

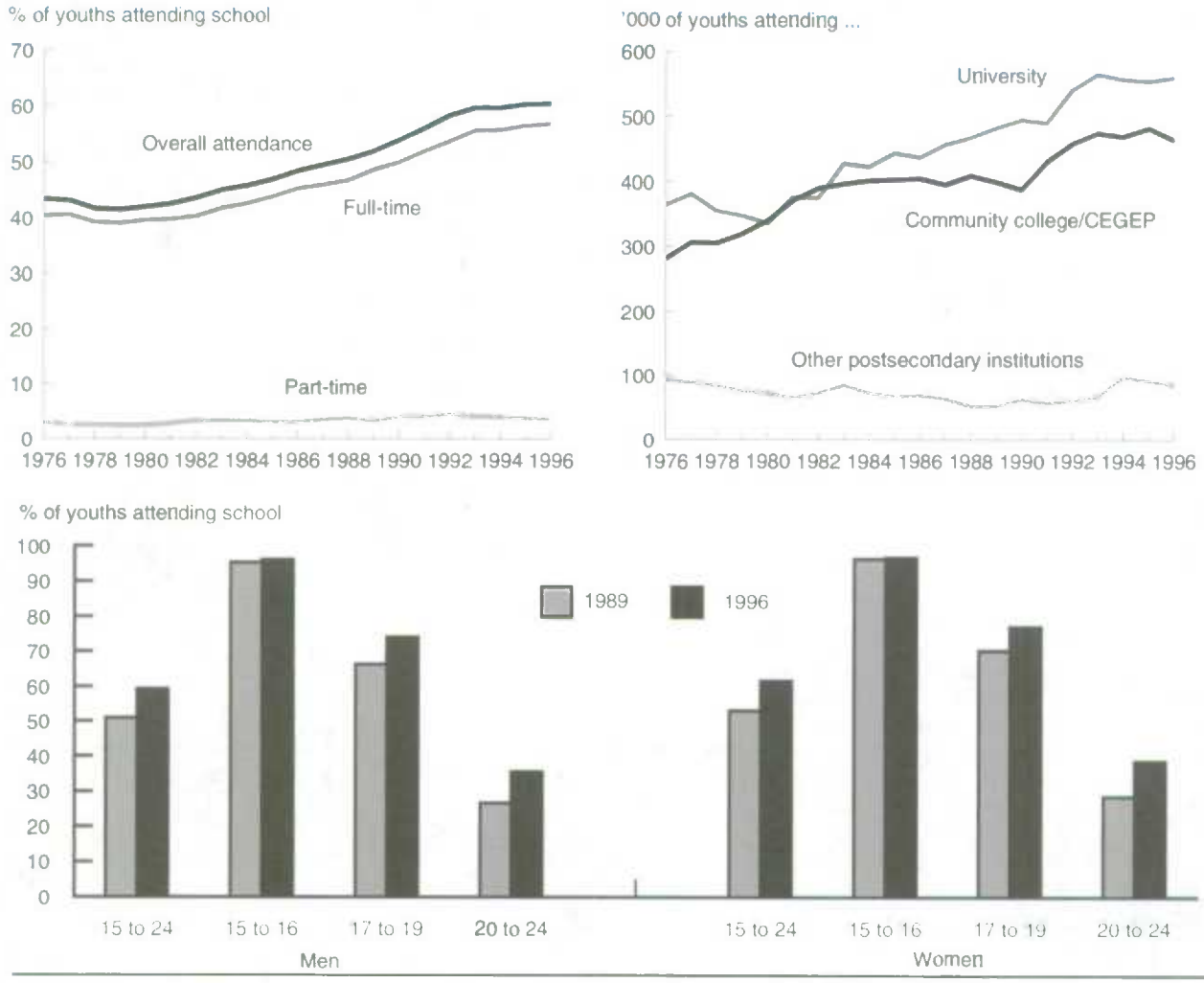


Source: Labour Force Survey
Note: Annual average data for the first chart; October to December averages for the second.

Work experience harder to acquire

- As it is increasingly difficult to find entry-level employment, young people, especially teenagers, are less and less likely to have work experience. They may find themselves caught in a "no job, no experience, no experience, no job" cycle.
- In 1989, just under one in 10 youths had never held a job. By 1996, that proportion had more than doubled (20%). For teens alone, the rate rose from 18% to 34% over the period, while for 20 to 24 year-olds it rose from 2% to 6%.
- For youths with jobs, the incidence of part-time employment more than doubled between 1976 and 1996, from 23% to 49%. This trend reflects in part the growing popularity of school, since 90% of both male and female students with jobs work part time.
- However, part-time work is not necessarily left behind with the school books. Non-student youths are also increasingly likely to work part time.

School attendance

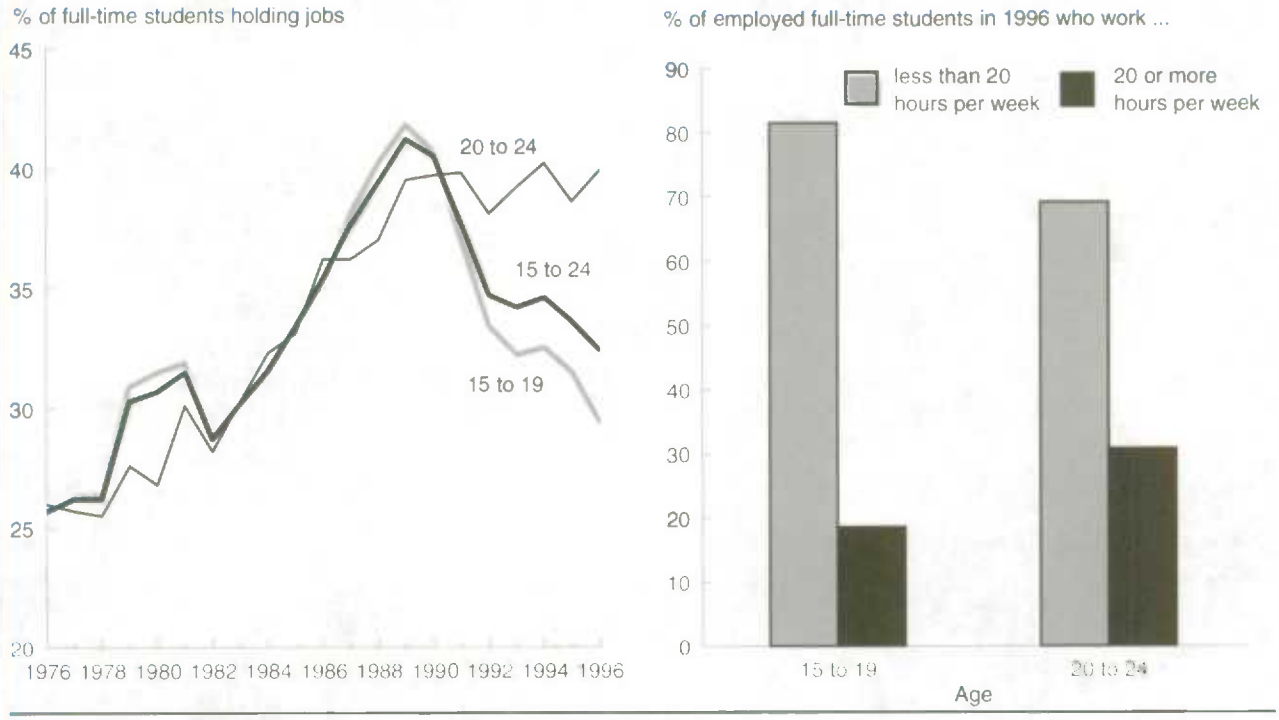


Source: Labour Force Survey
Note: October to December averages.

School: A growing necessity

- Today, more than ever before, labour market success is tied to both educational attainment and skills developed through work experience and ongoing training. So it is not surprising that school attendance rates have grown rapidly in the last 20 years, from 43% in 1976 to 60% in 1996.
- Since 1989, the proportion of youths attending school has risen by almost 9 percentage points, from 52% to 60% in 1996, with most of the increase occurring by 1993.
- Men and women contributed equally to this trend. Most of the gain has been in full-time attendance; part-time attendance hovered around 3% or 4% from 1976 to 1996.
- The proportion of 17 to 19 year-olds in school grew markedly between 1989 and 1993, from 68% to 77%, but has since edged back to 76%. School attendance among youths aged 20 to 24 increased by over 9 percentage points to 37% between 1989 and 1996.

Juggling work and school

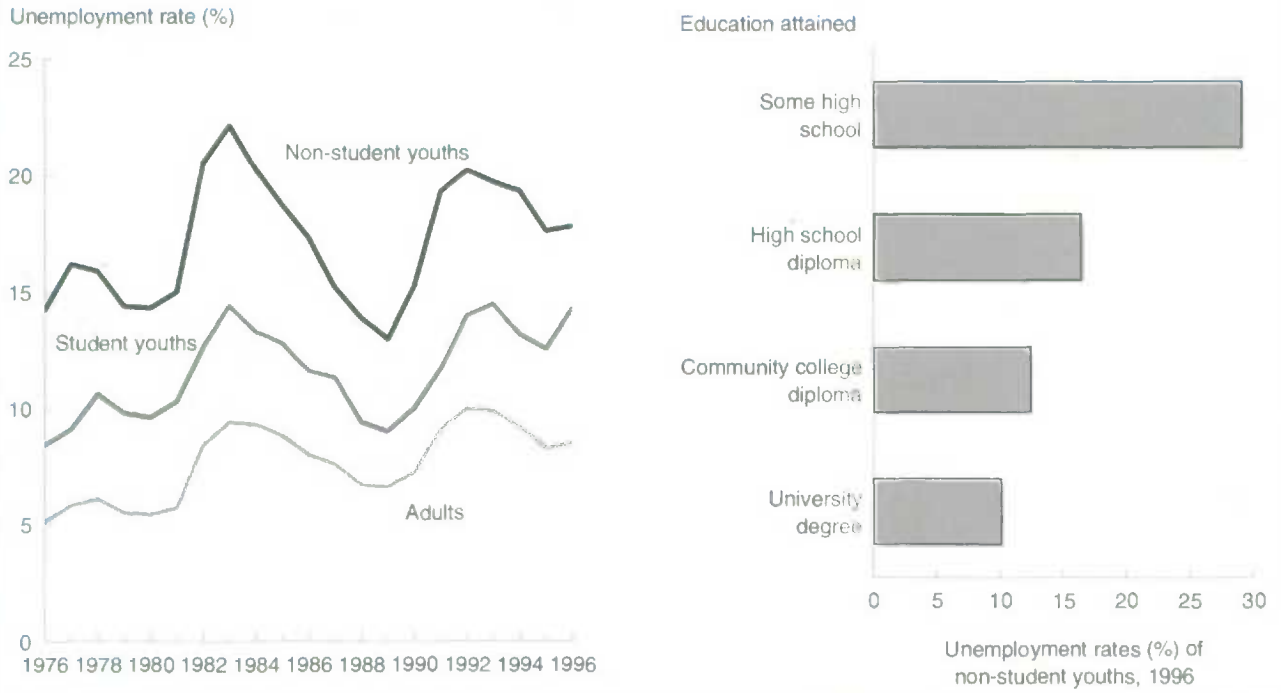


Source: Labour Force Survey
Note: October to December averages.

Work during the school year

- Over the 1980s, the proportion of youths who juggled work and full-time school increased dramatically, from 31% in 1980 to 41% in 1989. Growth in employment rates occurred among teenagers as well as older youths.
- In the early 1990s, the trend reversed, as job opportunities became more scarce for teenage students. Losses continued into the recovery, but at a slower pace. By 1996, the employment rate of 15 to 19 year-old students was 12 points below the peak in 1989.
- The effect of the recession was less severe for older students. Their employment rate stalled in 1990 and was little changed by 1996.
- Juggling work with full-time school can have both positive and negative consequences. Research suggests that jobs that make minor demands on students' time may benefit academic performance, while weekly hours of 20 or more tend to hinder success.
- In 1996, the average work week for full-time students was 14 hours, only slightly above the average of 13 hours a decade earlier.
- Over three-quarters (77%) of full-time students with jobs put in work weeks of less than 20 hours. Longer work weeks were more common for older than younger students. Almost 31% of 20 to 24 year-olds worked 20 or more hours per week at their job, compared with 19% for 15 to 19 year-olds.

The school-to-work transition



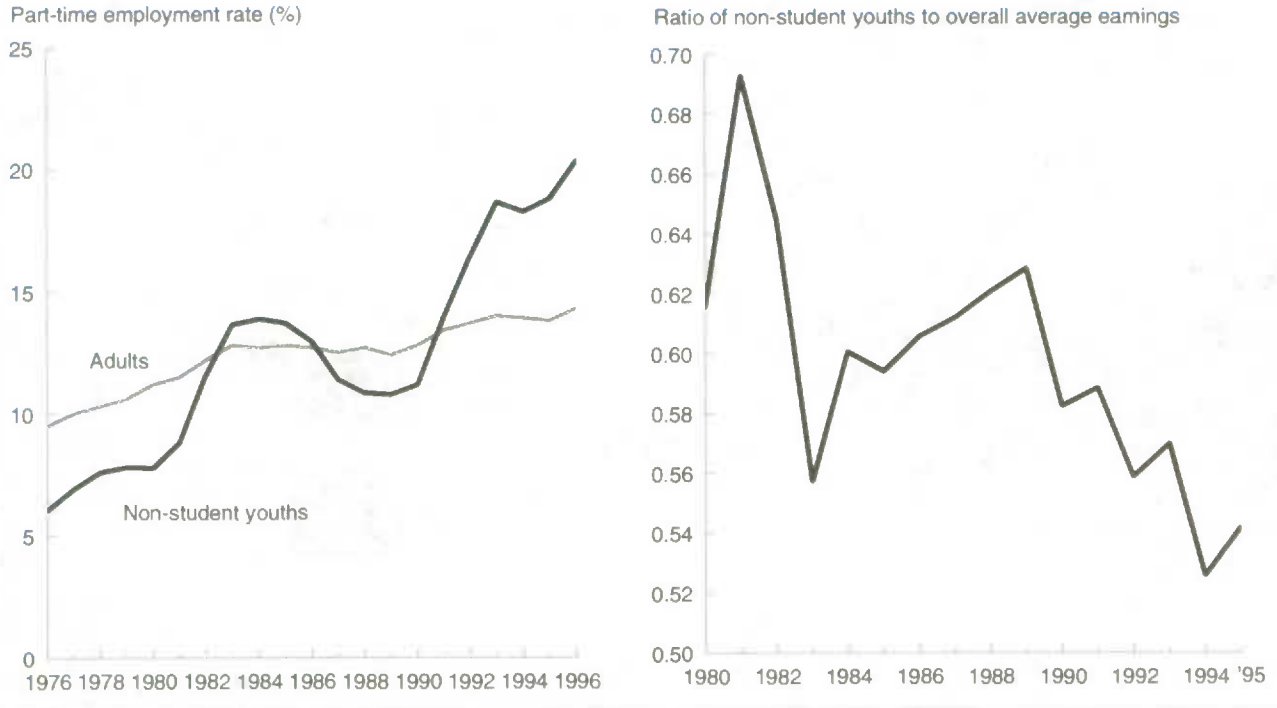
Source: Labour Force Survey

Note: May through August are excluded from the annual average for non-student and student youths.

It pays to stay in school

- The school-to-work transition seems to have become more difficult in recent years. Non-student youths started the decade with an unemployment rate of 15.2%. This peaked at 20.2% in 1992, then fell to 17.8% by 1996. Meanwhile, the employment rate fell from 73.2% in 1990 to 69.2% in 1996.
- The more education non-student youths had, the greater their success in the labour market. While the unemployment rate of those who had some high school was 29.1% in 1996, the rate of non-student university graduates was 10.1%.

The school-to-work transition



Sources: Labour Force Survey and Survey of Consumer Finances
Note: May through August are excluded from the annual averages for non-student youths given in the first chart.

Are youths who have left school finding good jobs?

- Over the last 20 years, an increasing number of youths who have finished school have had to turn to part-time employment. In the late 1970s and early 1980s, the number of part-time jobs for non-student youths more than doubled. Then, from 1985 to 1990 it dropped, only to rise again in the 1990s.
- By 1996, 20% of non-student youth employment was part-time, the highest it had ever been. In 1976, the part-time employment rate of non-student youths was only 6%, 39% below that of adults. Twenty years later, it was 37% higher.
- Predictably, the average earnings of non-student youths have fallen in recent years. According to data from the Survey of Consumer Finances, youths who left school made an average of $11,000 per year in 1990 (1986 dollars). This fell steadily to $9,400 by 1995.
- Young school leavers have always earned less than adults, likely the result of less work experience. However, from 1980 to 1995, non-student youths lost ground to the general population. In 1989, non-student youths made $63 for every $100 earned by all those of working age. By 1995, that had fallen to $54.
- Both fewer hours and (especially) lower wage rates have contributed to this growing inequality of annual earnings.

Charts and text for this issue of "Key labour and income facts" were adapted from the *Labour Force Update*, Spring 1997 issue (Statistics Canada, Catalogue no. 71-005-XPB). For more information, contact Geoff Bowlby at (613) 951-3325; Internet: bowlgeo@statcan.ca.

In the works

Here are some of the topics to be featured in upcoming issues

The labour market: Mid-year review

An examination of trends and developments in the labour market during the first half of 1997.

Non-permanent jobs and workers

This article compares permanent and non-permanent jobs. It looks at wages, hours, benefits and schedules, among other aspects. The definition of non-permanent work arrangements and the diversity of non-permanent jobs and workers are also considered.

Recent trends in adult education

Is adult education a means for reducing economic inequality? Is there a relationship between participation in adult education and unemployment? This article looks at trends in adult education from 1976 to 1996, and examines who goes back to school, according to age, sex, education already attained and family situation.

Intergenerational equity

A report on a conference held at Statistics Canada February 20 and 21, 1997. Using summaries from selected conference sessions as illustrations, this report presents a brief overview of the concepts and issues associated with "equity" between generations. It also looks at how equity is measured.

Permanent layoffs

Many Canadians are increasingly concerned about permanent layoffs, believing that job instability and job loss have increased in the 1990s. Using a new longitudinal data source, this article explores the role of the business cycle, changes in industrial demand, and firm size in the growth in permanent layoffs. An overview of the work displacement process in Canada is also included.

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