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■ YOUNG PENSIONERS

■ DEFINING RETIREMENT



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

Highlights

In this issue

■ Young pensioners

- Although public retirement pensions cannot be collected until one's seventh decade (age 60 for the Canada and Quebec Pension Plans, and 65 for Old Age Security), many private pension plans allow long-serving employees in their 50s to draw benefits. Tax data indicate that about one-fifth of workers begin collecting benefits from such plans before their 60th birthday.
- The pension take-up rate is very low (less than 1%) from ages 50 to 54. It spikes at age 55 (5% for men and 4% for women) as many plans commence unreduced benefits at this milestone, given sufficient tenure. This peak is not surpassed until workers exit their 50s.
- About half of young pensioners worked for pay the year after they began receiving their pension. However, much of that work was either part-time or intermittent since only 30% earned at least \$5,000. Men were more likely than women to surpass the \$5,000 benchmark (34% versus 26%).
- The probability of non-trivial re-employment falls as the age at retirement increases. Those who retired at 50 were almost twice as likely as those retiring at 59 to earn at least \$5,000 in the following year.
- Very few young pensioners turn to self-employment as a significant source of income. Less than 1 in 10 earned some self-employment income, and 1 in 20 or less earned at least \$5,000.
- Early pensioners generally retired from high-paying jobs. Their average earnings in the year before retirement were about 50% greater than those who did not retire. Among women, the post-retirement income of young pensioners exceeded the income of those who remained in the workforce.
- Young pensioners typically bring in about two-thirds of their pre-retirement income the year after they begin collecting their pension—very close to the 70% replacement rate recommended by many financial analysts. Pension income accounts for a greater proportion of the total income of women in this group (66% in 2004 compared with 61% for men).

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Young pensioners

Ted Wannell

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

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

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

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

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

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

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

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

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

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Data source and definitions

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

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

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

The LAD variable 'pension and superannuation income' combines RPP income with registered retirement income fund (RRIF) income, but the latter should be inconsequential before the age of 70.¹ The variable is used to define early pensioners under the following conditions:

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

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

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

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

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

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

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

Early pension uptake peaked in the mid-1990s

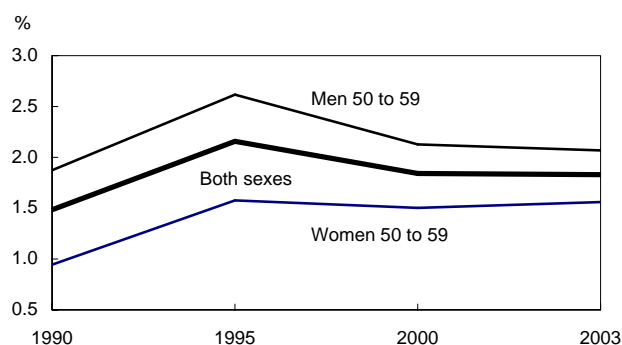
Early pension uptake depends on two factors: having RPP assets (the pension plan coverage rate) and the decision to convert those assets into a stream of pen-

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

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

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

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



Source: Statistics Canada, Longitudinal Administrative Database

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

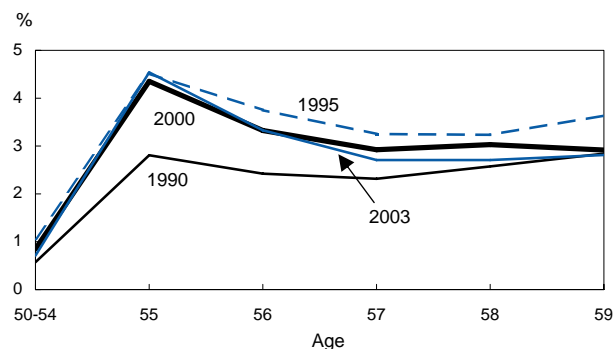
Early pension uptake peaks at age 55

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

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

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

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



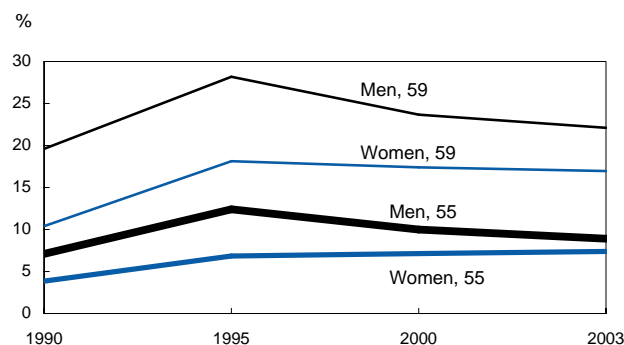
Source: Statistics Canada, Longitudinal Administrative Database

Cumulative rates highlight differing trends for men and women

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

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

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



Source: Statistics Canada, Longitudinal Administrative Database

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

Young pensioners' employment affected by public-sector cuts

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

An alternative measure of pension coverage

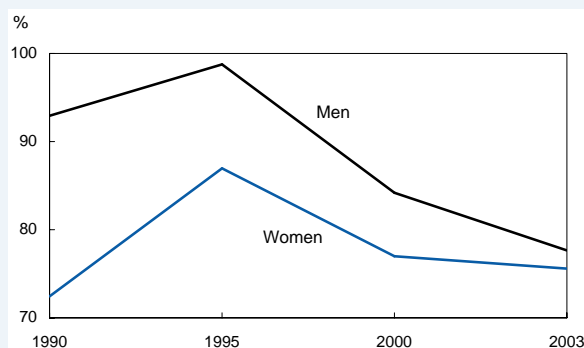
Estimates of pension plan coverage are available from several surveys. Employee surveys may suffer from employees' poor knowledge of their pension plans (Morissette and Drolet 2001). Information from employers may be more accurate in terms of current coverage, but not all employees currently covered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

Tax data enable calculation of an alternative measure of pension coverage that is akin to the estimation of life expectancy. Life expectancy is based on 'life tables', which show probability of surviving from birth to age 1, age 1 to 2, and so on for any period or cohort. These survival rates can then be transformed into a single estimate of life expectancy. Similarly, the survival rate without a pension can be calculated for each pair of ages from 50 to 69.⁴ When chained together, these rates give the probability of reaching age 69 without any pension income. The pension coverage rate is 1 minus this probability.

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

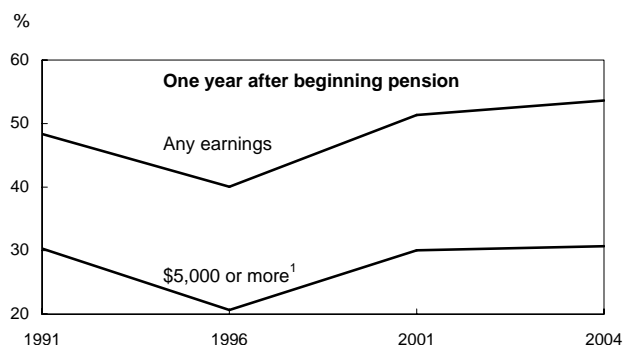
These calculations indicate that pension coverage peaked in the mid-1990s; almost all men and 87% of the women retiring at that time could expect at least some private pension income. Since then, the cumulative probability of receiving pension income has dropped precipitously for men and more moderately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

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



Source: Statistics Canada, Longitudinal Administrative Database

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

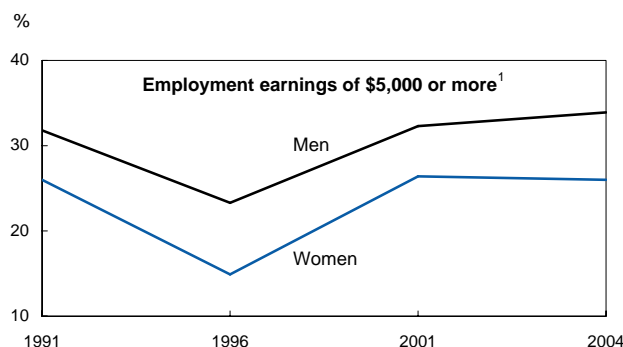


¹ In 2004 dollars.
Source: Statistics Canada, Longitudinal Administrative Database

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

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

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



¹ In 2004 dollars.
Source: Statistics Canada, Longitudinal Administrative Database

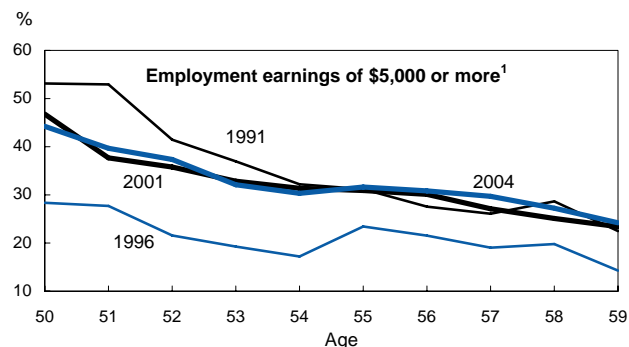
Recent studies have shown that women still contribute more time to housework (Marshall 2006) and are more intensively engaged in elder care (Pyper 2006). These factors undoubtedly contribute to the lower re-employment rate of women (Chart E). Using at least \$5,000 of employment earnings as the participation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

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

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

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

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



¹ In 2004 dollars.
Source: Statistics Canada, Longitudinal Administrative Database

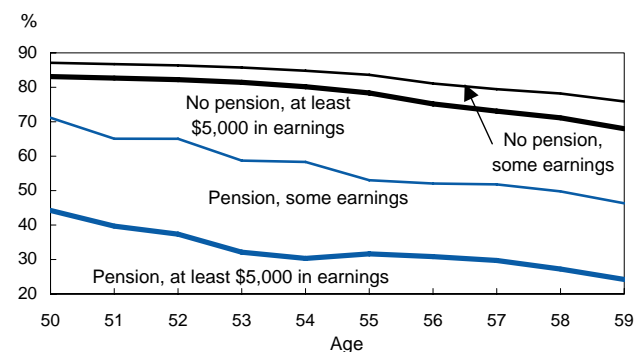
Non-pensioners are much more likely than pensioners to remain employed

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

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

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

Chart G Labour force attachment of pensioners is much lower



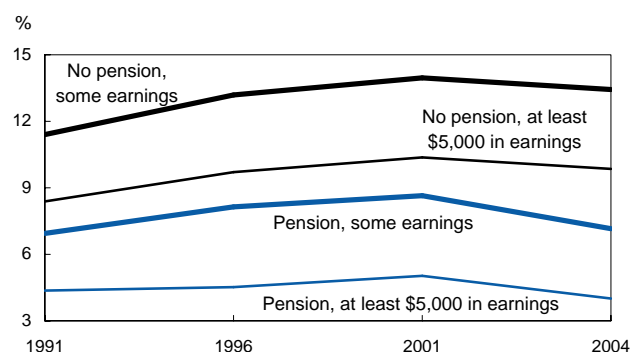
Source: Statistics Canada, Longitudinal Administrative Database, 2004

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

Self-employment rates are lower among pensioners

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

Chart H Self-employment among pensioners lags behind

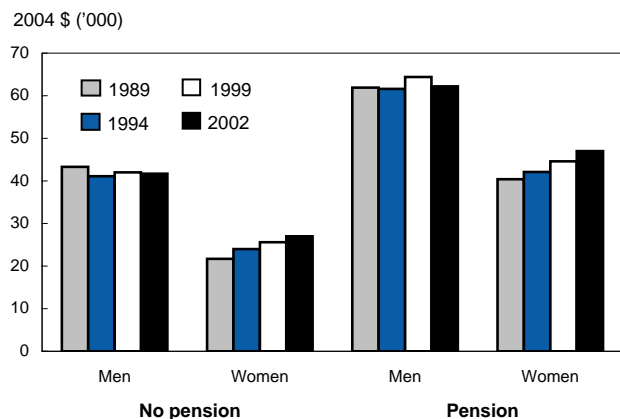


Note: Earnings are from self-employment and in 2004 dollars. Source: Statistics Canada, Longitudinal Administrative Database

Young pensioners retired from high-paying jobs

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

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



Source: Statistics Canada, Longitudinal Administrative Database

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



Source: Statistics Canada, Longitudinal Administrative Database

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

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

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

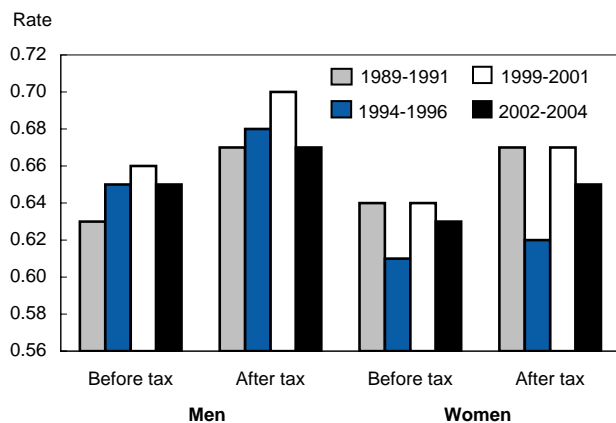
Among men in their 50s, pensioners had a lower median income than continuing workers. The gap doubled from 7% in 1991 to 14% in 2004 as the real income of pensioners stagnated while increasing by 6% for those who continued working.

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

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

Progressive income tax increases replacement rate

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

Chart K Men had higher income replacement rates


Source: Statistics Canada, Longitudinal Administrative Database

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

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

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

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

Table Components of early pensioner income

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

Source: Statistics Canada, Longitudinal Administrative Databank

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

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

Conclusion

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

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

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

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

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

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

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

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

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

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

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

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■ Notes

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

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

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

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

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

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Defining retirement

Geoff Bowlby

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

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

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

How will the retirement boom affect labour markets?

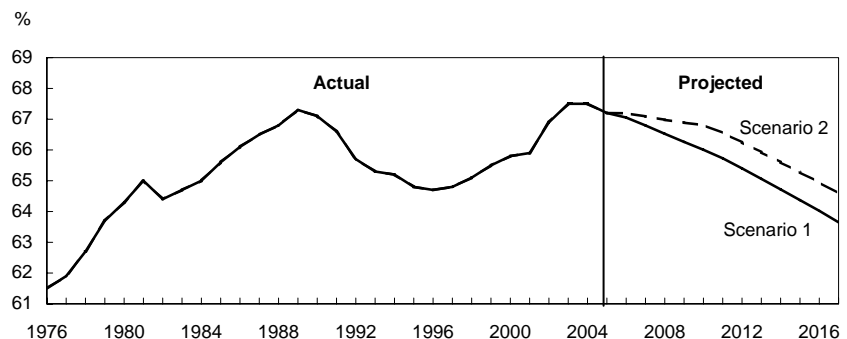
Although far from a sophisticated approach to labour force forecasting, the following discussion serves to illustrate the impact of the baby boomers' exit from the labour force.

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

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

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

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



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

Sources: Statistics Canada, Labour Force Survey, Population Projections

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

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

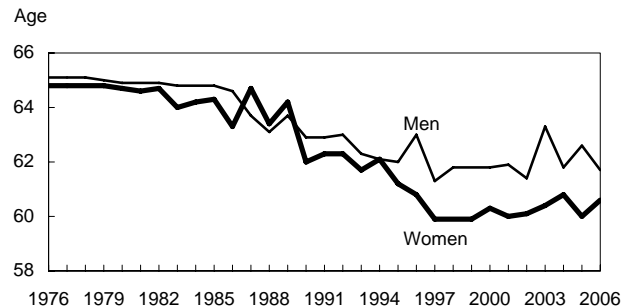
Measuring retirement

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

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

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

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



Source: Statistics Canada, Labour Force Survey

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

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

Conceptual difficulties

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

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

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

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

Table Definitions of retirement

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

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

Statistics Canada measures

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

The standard definition

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

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

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

Survey of Labour and Income Dynamics

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

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

General Social Survey

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

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

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

Labour Force Survey

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

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

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

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

Conclusion

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

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

■ Note

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

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