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How do the level and composition of income change after retirement? Evidence from the LAD

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HOW DO THE LEVEL AND COMPOSITION OF INCOME CHANGE AFTER RETIREMENT?

EVIDENCE FROM THE LAD

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Executive Summary

This paper provides a detailed and fairly comprehensive look at incomes in retirement.

The analysis is based on Statistics Canada's Longitudinal Administrative Databank (the *LAD*), a tax-based annual databank on individuals covering the period 1982-2008. The *LAD* file has a number of unique strengths that allow us to address the questions of interest here. First, the data are longitudinal, which means that we can track individuals for up to 27 years; we focus on comparisons of the years before and after retirement. Second, the income information is detailed and accurate; that allows us to identify retirement using an earnings-based measure, and then follow with assurance the income measures of interest. Third, the period covered is long enough to allow us to track incomes in for a number of different cohorts. Finally, since the sample sizes are extremely large, deriving from a sample frame which includes 20 percent of the tax-filing population, and closely representative of the total population, we are able to address issues that could not otherwise be considered.

The starting point for the analysis is an assessment of who has retired. All those who had significant employment income in their early 50s are deemed to be candidates, and retirement is judged to have occurred when the decline in individual earnings from employment is sufficiently large (at least 90 percent) and sustained (for at least two years). This assessment is made for every tax filer who reached age 50 in 1982, 1987, 1992, and 1997.

Based on our measure of retirement, we have learned that men and women have remarkably similar age patterns of retirement; that, in part, reflects the longitudinal employment-income indicator of retirement including the restriction of the concept of retirement to those who were at risk of retiring, in that they showed evidence of substantial labour force attachment when they were in their early 50s. While the age patterns have changed somewhat over time, from one cohort to another, and have done so in unison for men and women. As one example, the proportion of young (under 60) retirees was notably higher in the 1987 and 1992 cohorts than in the 1982 cohort, but that increase was largely reversed by the 1997 cohort. Even so, as a result of a twist in the age pattern, the proportion retired by age 66 has decreased over time. For males it was about 10 percentage points lower for the 1997 cohort than for the 1982 cohort, and for females about 8 points lower.

For those who retired we compare income before and after retirement, and calculate various measures of income replacement, most of which are novel because they take advantage of the lengthy data period that is available in the *LAD*. We find that while incomes drop sharply at the time of retirement, the longer term rates of income replacement are relatively stable over the retirement period, on average, are somewhat higher for men than for women, and differ little from one cohort to the next. Since there is variation across cohorts in income levels and retirement patterns, the relative constancy of the income replacement rates may suggest that individuals plan their retirement so as to achieve target income replacement ratios, taking into account their own prior savings behaviour and the income available from publicly provided income sources, including OAS, C/QPP, and GIS.

Nine sources of income are analysed before and after retirement, using both descriptive and regression-based approaches. Our descriptive analysis shows how incomes in retirement are dominated by three specific sources: OAS, C/QPP, and private pensions, with private investments running a distant fourth. Other sources, including income from RRSPs, GIS, and other public support programs, are of relatively minor importance overall.

We derive age-income profiles for individuals with representative characteristics that show how income from each source varies over the retirement period. That is done for selected ages of retirement, for each of four cohorts, and separately for males and females. The profiles would shift up or down for individuals whose mid-career income, savings behaviour, location, or language differed from the reference case. By way of example, having higher employment income when 50-51 is positively related to investment and pension income in retirement, negatively to GIS and other forms of public support, and not related to OAS, the universal benefit, except for relatively minor clawback effects.

Taken together, this analysis provides a unique view of retirement incomes in Canada over the last quarter century.