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RETIREMENT IN CANADA

PAST, PRESENT & FUTURE

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Introduction

How is retirement turning out for Canadians? What challenges face current retirees? How much do retirees spend and what are their main sources of income and expenditure? How does their income change with age and with wealth? How does retirement consumption compare with consumption when working? We find some answers from recent data from Statistics Canada and other surveys.

Before we dive in

Retirement data can be gathered in two ways: we can follow a group of individuals over time or take a snapshot of the population at a particular time. The cohort (or longitudinal) study reveals how a group changes their habits over time. These studies can suggest cause and effect, such as the relationship between employment income and retirement income. A cross-sectional study looks at an entire population and is a snapshot in time. For example, we show the distribution of retirement income amongst the retired population in 2020. Cohort studies can be more informative about trends than cross sectional studies but are more costly to compile.

When we present financial data, we rely on the median rather than the average. When considering income, for example, the median income is the middle value from ranking all income data from high to low. The average is the sum of individual incomes divided by the number of individuals and can be skewed by a few individuals with very large incomes.

Better than expected, thanks for asking

In 2014 a group of Canadians 55 and older who were not yet retired were asked what their expectations were for retirement[1]. For those with a postsecondary education, 77% expected their retirement income to be adequate or more than adequate. The same group of Canadians, now retired, were revisited in 2020, and 86% indicated that they had sufficient retirement income to cover living expenses. Over 80% of retirement income came from government programs, workplace pensions and personal retirement savings.

A U.S. study[2], starting in 2001, followed retirees over the first 18-20 years of retirement. A key finding was that retirees depleted assets very slowly. Those that started with $500,000 or more retirement assets typically had withdrawn only 11% of their investments after 20 years. One third ended the period with *more* retirement assets in real dollars.

Whether this is comforting news is debatable. Do retirees save more than they need or are they overly restrictive in their spending? The Canadian study indicates retirees were generally content with how their retirement finances had turned out, suggesting financial security. Yet, over the past twenty years there have been significant demographic changes, shifts in how workplace pensions are structured and their availability. The U.S. survey might suggest that retirees had no need to deplete their retirement assets because they had other sources of income (company pension, government benefits) or that they limited their expenditure because of a fear of running out of money (perhaps due to high health and care costs in later years) and a reluctance to change a habit of saving to spending.

Looking ahead: your pension, your problem

As noted by the World Economic Forum, “For the first time in history, people aged 65 and over outnumber children aged five or younger”[3]. The picture from 2021 census[4] data is that older Canadians are a growing group and staying healthier for longer:

- The working age population has never been older. More than 1 in 5 of the working population is aged 55-64 and close to retirement, an all-time high.

- 19% of Canadians are age 65 or older, up from 16.9% in 2016.
- The number of people aged 85 and older has doubled since 2001.

Adequate pension provision for a growing cohort of pensioners who are living longer is a global challenge. According to a recent survey of global pensions the quality of Canada's pension system ranks 12 out of 47 countries surveyed, sharing the same evaluation grade as the UK, Germany, Norway and Switzerland[5]. Canada's public and private pension assets ($2,880bn US dollars) is the third largest in the world, with the assets split 43% to defined contribution plans and 57% to defined benefit plans, with most new money flowing into defined contribution (DC) plans.

Workplace pension plans can be classified as defined benefit (DB) or defined contribution (DC) schemes. A DB plan specifies the retirement income based on salary and length of service and is guaranteed for life. Most of the risk of providing this income falls upon the pension provider, usually a corporation or the government. By contrast, a DC plan only specifies the amount contributed and individual plan members must take responsibility for converting pre-retirement savings into retirement income. The DB plan reduces risk for all participants by aggregating the distribution of mortalities making it less risky to predict future payments. This is called risk pooling whereby the capital from pool members who die early is retained and paid out to survivors, boosting their returns. A 2018 study by Healthcare of Ontario Pension Plan (HOOPP) estimated that securing a 70% income replacement rate with a DC plan cost $890,000 more over a lifetime than participating in a DB plan, with the largest savings ($397,000) coming from risk pooling.[6]

In Canada, 90% of public sector employees but only 40% of private sector employees who are in registered pension plans are in DB plans. Many existing DB plans have been closed to new entrants as companies no longer want to take the risk of managing employees' retirement assets after they have left the firm. Current retirees that previously might have benefited from pooling longevity risk in a DB plan are exposed to the risk of outliving their money.

The shift to DC plans shifts the responsibility to manage their own retirement assets and plan decumulation to retirees. A problem described by the Nobel-Prize winning economist, Bill Sharpe, as the "nastiest, hardest problem in finance"[7]. We don't seem well prepared for the challenge. From two recent pension surveys[8].

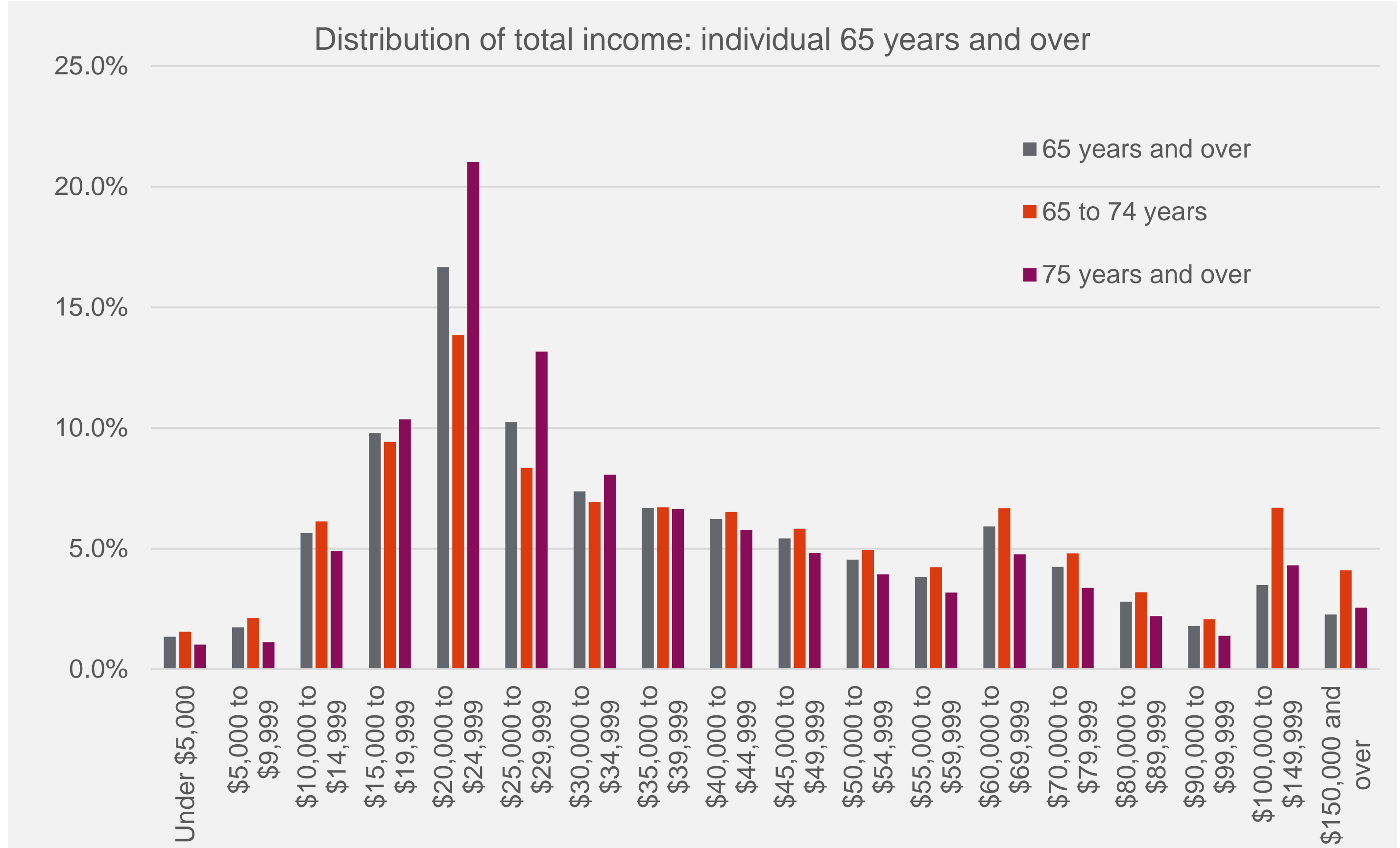
- 44% of working Canadians haven't set aside money for retirement in the past year.
- More than 75% of those aged 55-64 who have not already retired have $100,00 or less in savings and almost half have less than $5,000.
- At 52% of the working age population, Canada has one of the lowest pension participation rates of OECD countries.
- The overall adequacy of government pension benefits is 39% of the gross replacement rate with an additional 24% from workplace and private pensions such as RRSP/ or RRIFs.

As access to DB plans has declined, retirement planning has increasingly become an individual responsibility. Realistic retirement plans require an understanding of the sources of retirement income and how that income is spent.

Income distribution of retirees

The median total income for an individual age 65 or older in Canada is $33,200[9]. For comparison, the *maximum* CPP and OAS is $22,932 (2020 data) but not everyone has sufficient work history to qualify for the maximum CPP, so it more helpful to consider the average CPP benefit[10]. The median CPP plus the maximum OAS is $16,184 or 49% of the median total income. Chart 1 shows the distribution of income for all individuals aged 65 or over, for age 65 to 74 and for 75 years and older. There is a higher percentage of older retirees in the lower income brackets when compared with their younger colleagues. The younger retirees have a median income of $36,400 which falls to $29,000 for older retirees. Table 1 shows the percentage of retirees exceeding a specified income for retirees with income above $60,000. For instance, a retiree with a total pre-tax income of $80,000 or more is in the top 10% of those age 65 or older by income distribution. To be in the top 10% of the age group 65-74 years they would require an income of $100,000 or more.

Chart 1. Distribution of Total Income



Source: Statistics Canada

Table 1. Cumulative Income Distribution

Total Income	65 years and over	65 to 74 years	75 years and over
$60,000 or more	20.5%	27.5%	18.6%
$70,000 or more	14.6%	20.9%	13.8%
$80,000 or more	10.4%	16.1%	10.4%
$90,000 or more	7.6%	12.9%	8.2%
$100,000 or more	5.8%	10.8%	6.9%
$150,000 or more	2.3%	4.1%	2.6%

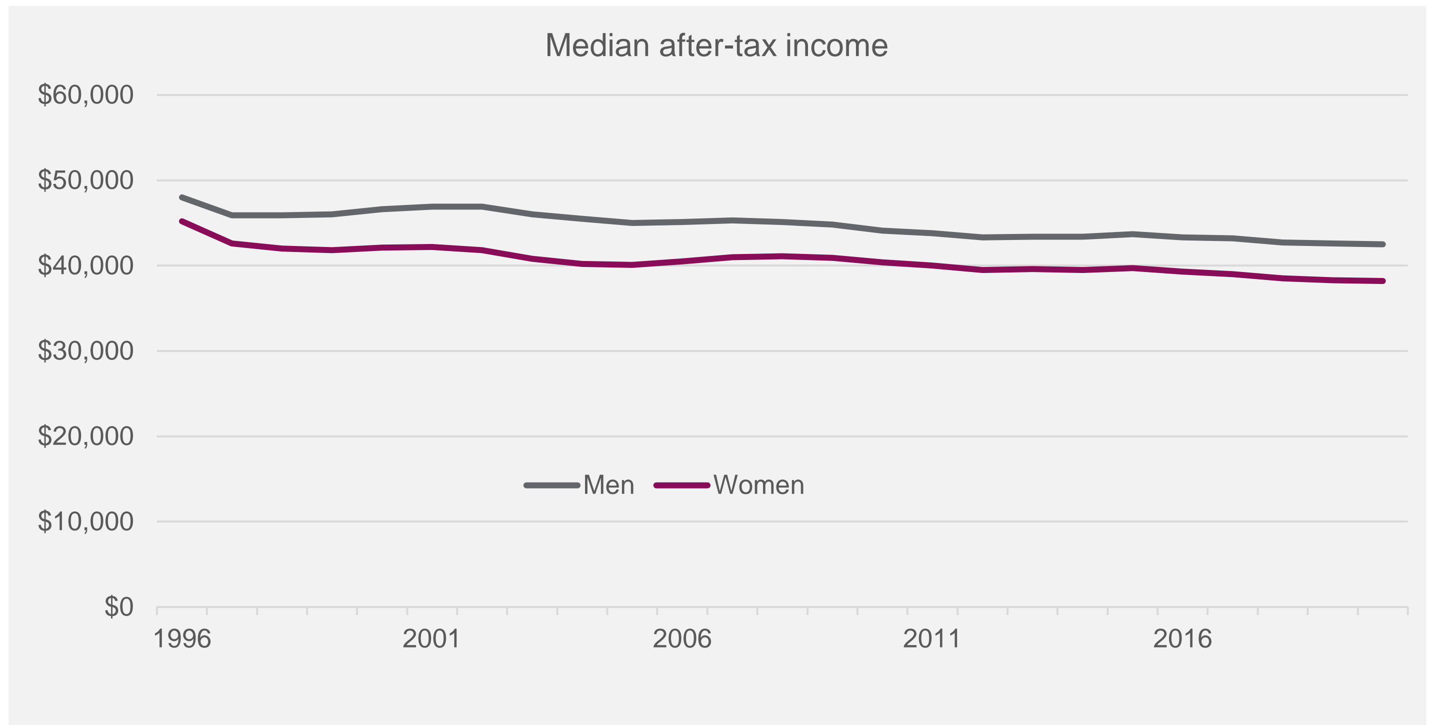
Source: Statistics Canada

For a retired couple, we use the Statistics Canada definition of a senior couple without children where at least one person is over 65. The median total income is $76,510 and the median after-tax income is $67,080 implying an average tax rate of 12.33%.

To understand how income changes over time we use results from a cohort study of Canadians aged 54-56 and follow how their income changed as they went through retirement[11]. We present data for a cohort that began in 1996 and ended in 2020 when they were age 78-80 (Chart 2). Income declines with age, both before and after retirement

(assumed to be around age 65). The after-tax income at all periods is converted to 2020 dollars. This allows the comparison of the real purchasing power of income at different periods. Real income declines at about 0.46% per year (for both men and women). This decline in real income with age is also observed in other countries. The data does not tell us whether this is lifestyle choice (e.g. less travel) or through economic necessity (e.g. depleted savings) or both. Women have a 2% lower income than men which hardly changes with age. The difference between men and women has not changed for the cohort and median spend declines about 10% over the 25-year period.

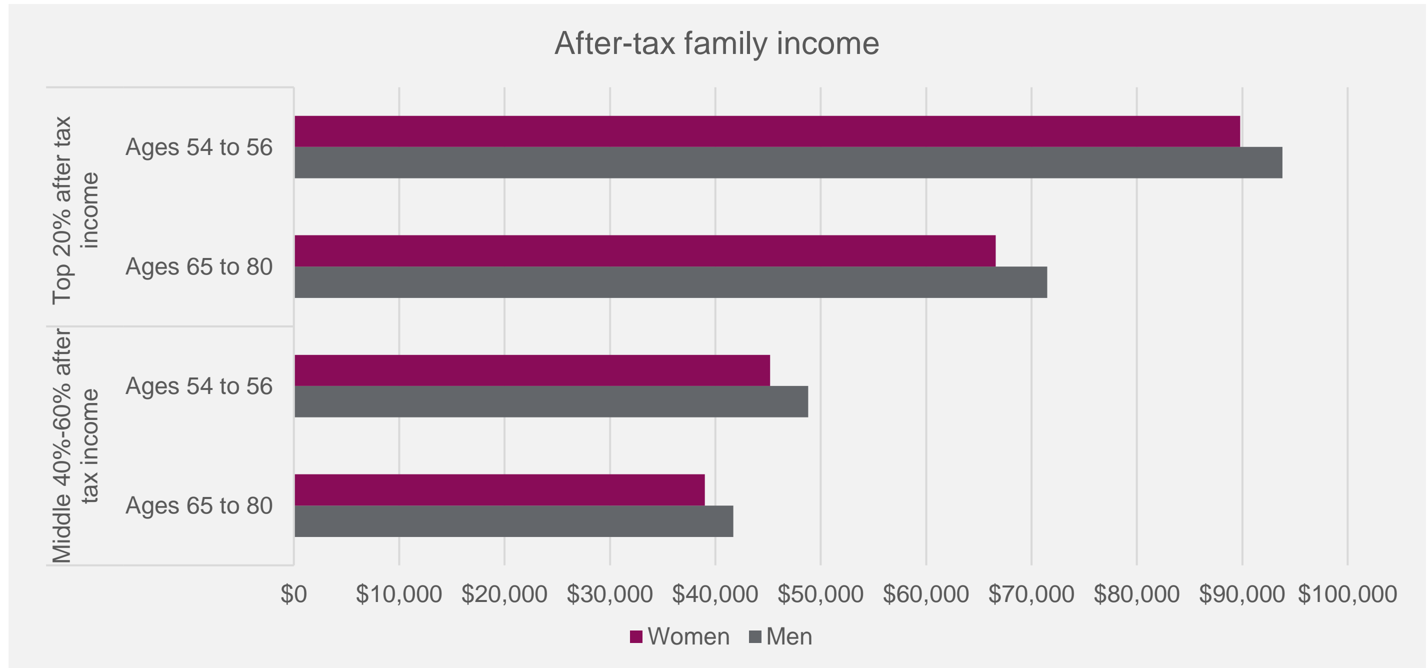
Chart 2. Median After-Tax Income



Source: Statistics Canada

To examine sources of income in more detail we focus on Canadians who are in the top 20% (or top quintile) by income. This group is compared with individuals who fall in the middle group of 40%-60% by income in Chart 3.

Chart 3. After-tax Family Income



Source: Statistics Canada

For instance, a man in the middle-income group of the age 54-56 cohort (pre-retirement) has a median after-tax income of $48,000 which falls to an average of $41,700 in retirement. A man in the top 20% by income has a pre-retirement income $93,800 which falls to an average of $71,500 in retirement. Women have about 5% less income than men but otherwise exhibit a similar ratio of pre-retirement and retirement income.

For both men and women in the top 20% by income, after-tax retirement income is about 75% of pre-retirement after-tax income. This does not imply a decrease in lifestyle spending as some pre-retirement expenses that typically dwindle as retirement approaches include:

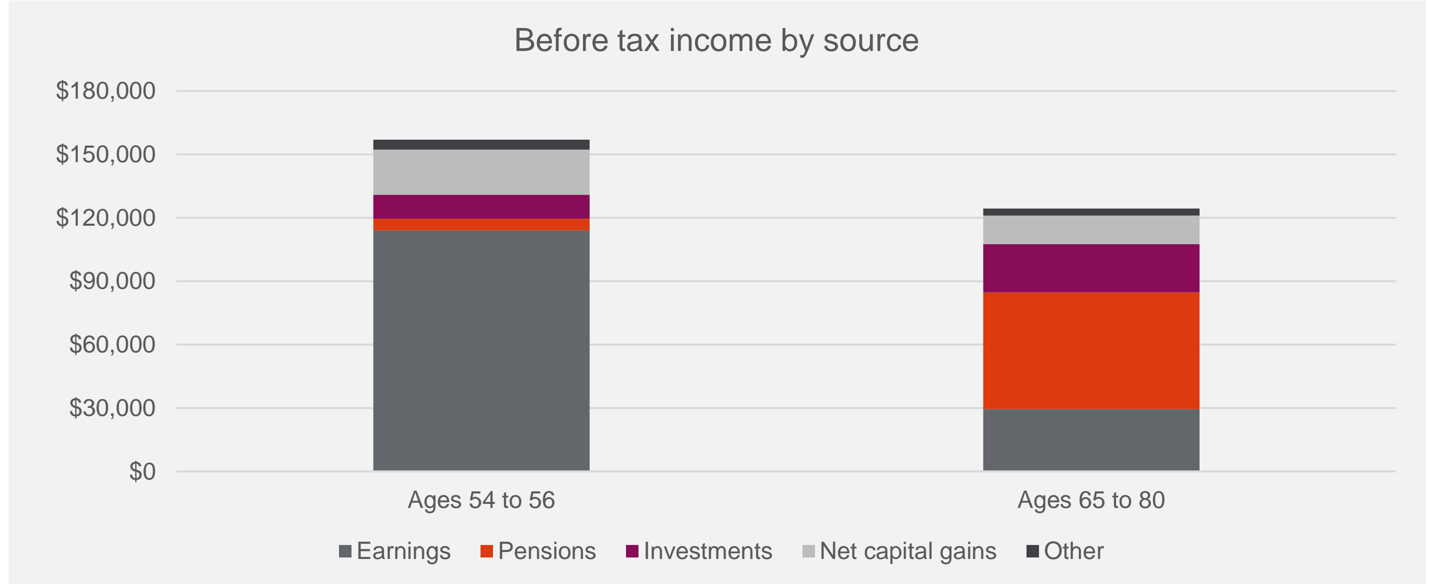
- mortgage costs
- child raising expenses
- work related expenses
- saving for retirement.

We explore this in more detail below.

Sources of income in retirement for the wealthiest Canadians

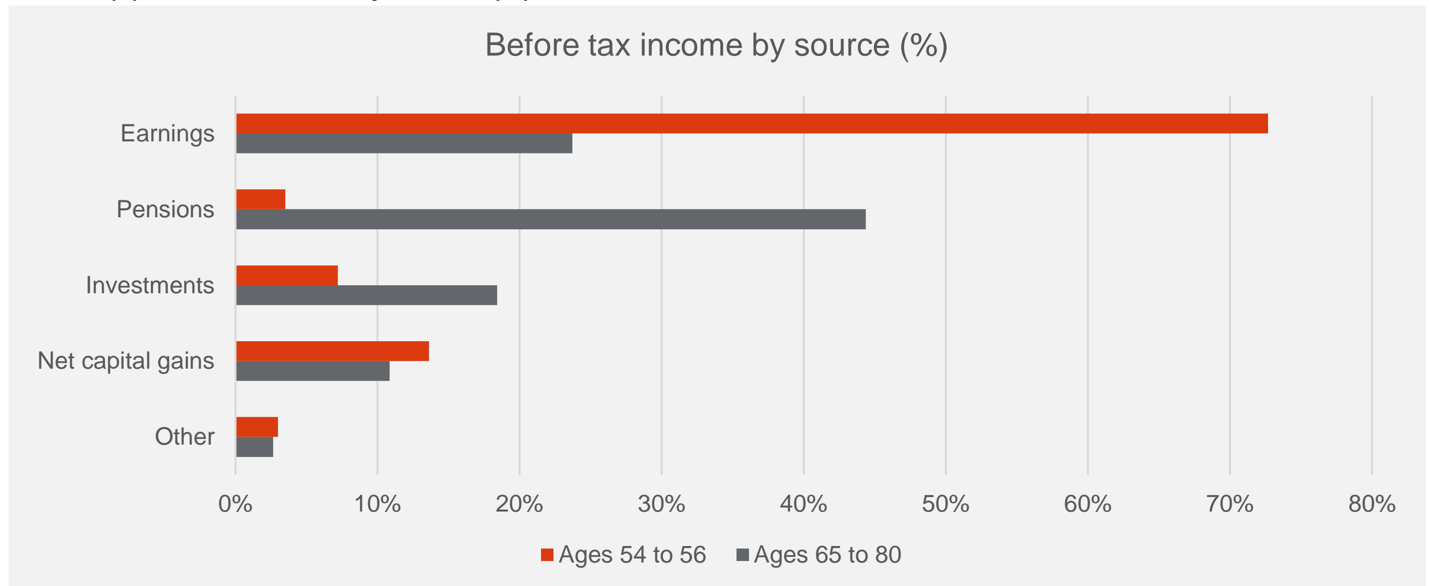
Chart 4 (a,b) breaks out the major income categories pre- and post-retirement for men in the top 20% in dollars. It is worth emphasizing that taxable income is not necessarily consumed but may be reinvested. Total income falls by 21% between the pre-retirement and retirement age groups. Not surprisingly, the percentage of income from employment falls from 73% of pre-retirement income to 24% in retirement, partly replaced by pension and investment income. Pension income includes government benefits, company and individual registered savings. Non-registered savings generate investment income and capital gains or losses. Net capital gains is the sum of realized capital gains less any realized losses and are considered taxable income. The income allocation for women (not shown) is similar except pension income in retirement is slightly higher, and earnings slightly lower, as a percentage in retirement.

Chart 4 (a). Pre-tax Income by Source ($)



Source: Statistics Canada

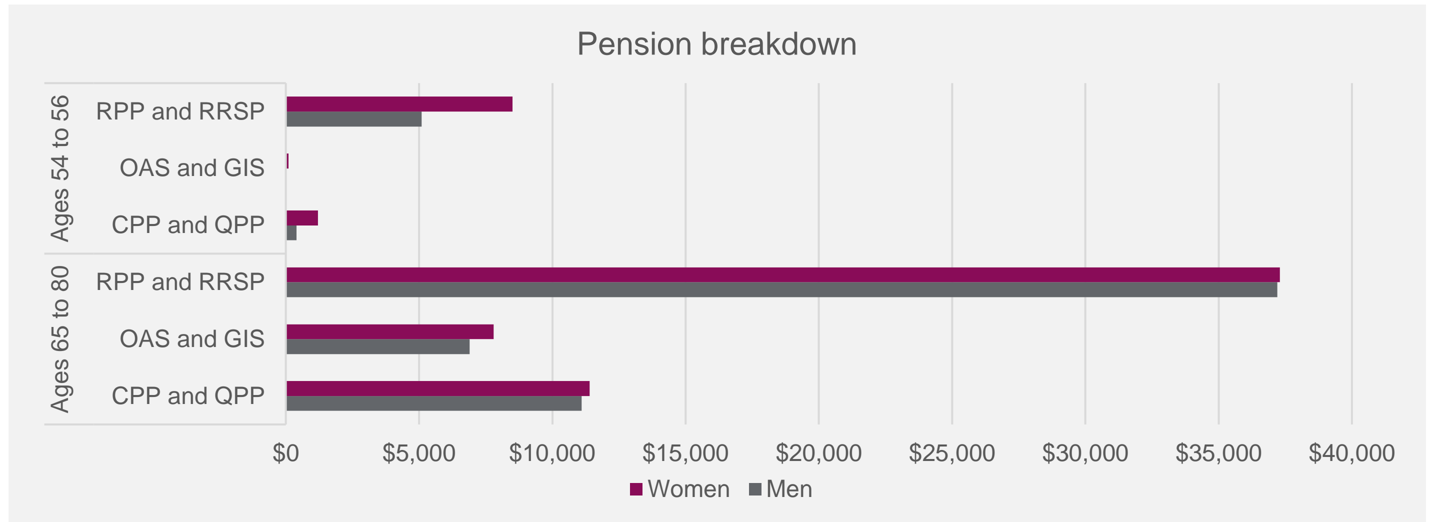
Chart 4 (b). Pre-tax Income by Source (%)



Source: Statistics Canada

The pension portion can be further broken down into CPP/QPP, OAS, and RPP/RRSPs[12] (Chart 5).

Chart 5. Pension Income Breakdown



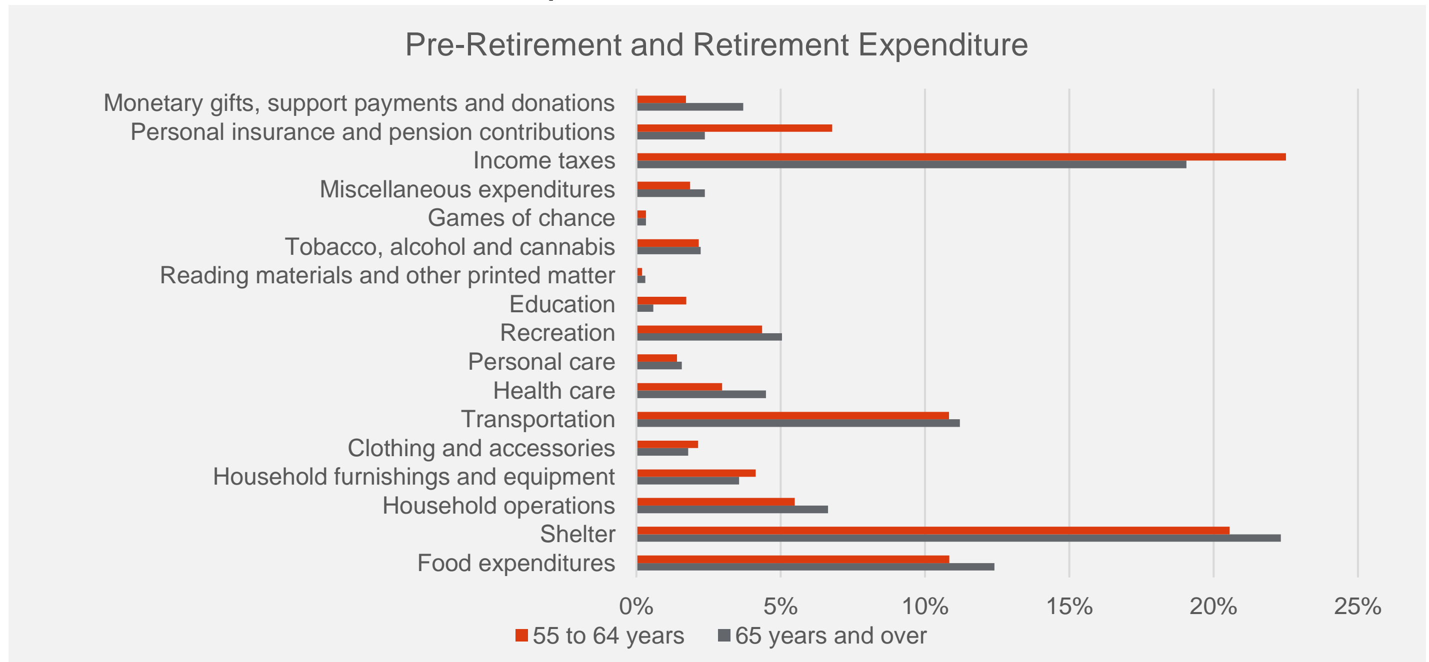
Source: Statistics Canada

Government benefits account for 33% of pension income for men in the top 20% of income with the balance coming from registered savings and company pensions.

Where does the money go?

A snapshot (Chart 6) of average household expenditure compares pre-retirement spending (age 55 to 64 years) with retirement spending (age 65 years and over). The 2021 data is average household expenditure where the individual mainly responsible for paying the bills is in the specified age group.

Chart 6. Pre-Retirement and Retirement Expenditure



Source: Statistics Canada

There are no dramatic changes in consumption choices before and during retirement. The average pre-retirement tax rate is 23%, falling to 19% post-retirement. As a percentage of total expenses, the retiree spends more on food, shelter and gifts. That retirement shelter costs are slightly higher may seem odd, but this reflects that the values are a percentage of total expenditure. In dollars terms, retirement shelter costs are $13,814 compared with costs of $20,473 for pre-retirees. When comparing pre- and post-retirement lifestyles the focus is often on consumption. Consumption is every expenditure listed in Chart 6 except for taxes, shelter costs, insurance payments and pension contributions and gifts. Household consumption is 48% of expenditure pre-retirement and 53% of expenditure in retirement. Average consumption is 33% lower in retirement.

Caution is required when interpreting this data. We know from Chart 2 that income declines with age in retirement and we would expect expenditure to do the same. The expenditure immediately after retirement is higher than the average expenditure in retirement (which could span a period of 20-25 years). Some authors, such as Vettese[13], have argued that retirees, especially those wealthier than average, can maintain their consumption with only 50-60% of pre-retirement pre-tax income. Much depends on personal circumstances: whether households own property, have children, and the retirees' expectations in retirement.

The impact of divorce or death of a spouse

We retain our focus on the top 20% of individuals by income. From the same longitudinal study, women who were married in the age cohort 54 to 56 and who were still married at age 80 had an average after-tax income of $68,200 during the period age 70 to age 80. If they were widowed by age 68 their income fell by 12% to $60,000. If they divorced or separated by age 65 their income fell by 38% to $42,000.

For men the decline in income was 5% (compared to 12% for women) from being widowed by age 68 and 27% (compared to 38% for women) if divorced or separated by age 65.

Overall, the study concluded "divorce reduced living standards during retirement to a greater extent than spousal death".

Retiring soon?

Those preparing for retirement can draw lessons from data gathered from current retirees. We can gain an understanding of how much retirement income is required, how it is sourced, how it is spent and how spending changes with time. We also observe the changing pension landscape has resulted in extensive research on retirement planning that is beginning to deliver new products and services for retirees:

Risk pooling is not dead

As defined benefit plans have waned, interest has risen in hybrid investments that group investors together to pool risk but are not guaranteed a specified return. They combine elements of annuities, defined benefit plans and traditional accumulation portfolios[14].

Some observers see the potential for a new form of defined benefit plans as companies compete for employees[15].

Decumulation should be at the core of retirement planning

Decumulation is the planned decrease of retirement assets and contrasts with maintaining capital in either real or nominal terms. Decumulation is the efficient conversion of assets into income, allowing for higher withdrawal rates. The trade-off is accepting that while planning for a long and full retirement is prudent, it does not last forever.

Everything everywhere all at once

The elements of a well-managed retirement strategy are:

- Being realistic about long term returns. Half of retirees will experience below average returns so an appropriate risk measure for comparing different strategies should focus on the downside risk.
- Having a realistic spending rule. In the absence of a guaranteed income for life, retirees should periodically update how much they can sustainably spend based on their age, current investments and other factors.
- Matching investment assets to spending liabilities. Bonds play a critical role in reducing income volatility. In contrast, relying on the stock market to deliver reliable income risks disappointment.

Tying this together requires a coherent retirement plan which uses different investment accounts tax efficiently while providing the necessary liquidity for regular pension payments. An upside of this complexity is the potential for above average performance and a potential legacy if the resulting capital is not consumed.

Conclusions

While individual experience will vary, the data suggest Canadians have been adequately served by the Canadian pension system over the past two decades and retirement expectations have been met, at least on average. Canada's pension system is well regarded internationally.

Current trends have made life more complicated for recent retirees and those contemplating retirement. Compared to a defined benefit plan, a robust pension for life has become more expensive (or riskier) and more reliant on personal circumstances. For most retirees, retirement planning requires assembling a combination of government benefits, company pensions and personal investments into a coherent plan that can sustain a reliable source of income. We will outline how to build such a modern retirement plan in a future article.

If you have any questions or would like to chat with us, please contact us at daley@richardsonwealth.com.

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After graduation, Graham took a role as a physicist in the Antarctic researching the ozone hole on behalf of the British Antarctic Survey. He progressed to the role of CEO at a UK-owned engineering and software company, eventually arriving in Waterloo. In 2004, he joined a major financial institution as an investment advisor, following that with a role as a portfolio manager at a boutique wealth management firm. He joined Richardson Wealth as a portfolio manager in 2022.

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