

# Understanding the Changing Ratio of Working-Age Canadians to Seniors and Its Consequences

by Ben Eisen and Joel Emes

## SUMMARY

- This bulletin presents the most recent data and projections about population aging in Canada. It focuses particularly on the change in the ratio of working-age people to seniors over age 65.
- The rate of population growth in Canada slowed considerably in the second half of the 20<sup>th</sup> century and has remained historically low since then.
- The share of Canada's population aged 65 or older increased from 14.1 percent in 2010 to 19.0 percent in 2022. Statistics Canada data projects this number will increase to 25 percent by the middle of the century.
- The share of Canada's population that is of working age is shrinking, while the share that

is age 65 or over is growing. To help shed light on the economic and public finance challenges this trend is creating, we examine historical data and projections that look at how many people there are between the age of 15 and 64 for each person 65 or older.

- In 1966 there were 7.7 working-age individuals for every senior. This ratio has dropped quickly since then and stands at 3.4 in 2022. Statistics Canada projects this trend will continue in the decades ahead. There will be just 3.0 working-age people for each senior by 2027, after which the ratio will slowly fall further to reach 2.3 by 2068.
- The shrinking ratio of working-age Canadians to seniors will put pressure on public finances in the years ahead as there will be fewer working taxpayers to help fund cash transfers to seniors and the increasing health care costs that will result from an aging population.

## Introduction

A substantial amount of research in recent years has discussed the various policy implications of an aging population in Canada on government finances. It is already the case that a combination of additional spending for benefits for the elderly and for health care costs together with a slowdown in the growth of government revenues due to a smaller share of the population working as older people retire are putting pressure on public finances. That pressure is expected to only increase.<sup>1</sup>

This short bulletin updates past work<sup>2</sup> by presenting the most recent data and projections surrounding population aging in Canada, focusing particularly on the change in the ratio of working-age people to individuals over the age of 65. We begin by presenting data that show recent demographic changes and projections. We then briefly discuss the likely implications for labour markets, economic growth, and government finances before concluding.

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<sup>1</sup> See, for example, Globerman (2021a), Globerman (2021b), Jackson, Clemens, and Palacios (2017), Standing Senate Committee on National Finance (2017), Fields, Uppal, and LaRochelle-Cote (2017), Canada (2016), Ragan (2012), and Robson (2010).

<sup>2</sup> Specifically, with the permission of its authors, this paper updates much of the data presented in *Canada's Aging Population and Implications for Government Finances* by Taylor Jackson, Jason Clemens, and Milagros Palacios, generally using the same methodological approaches. Any errors in this paper are the sole responsibility of the authors of this update.

## Canada's demographic transformation: The changing ratio of working-age people to seniors

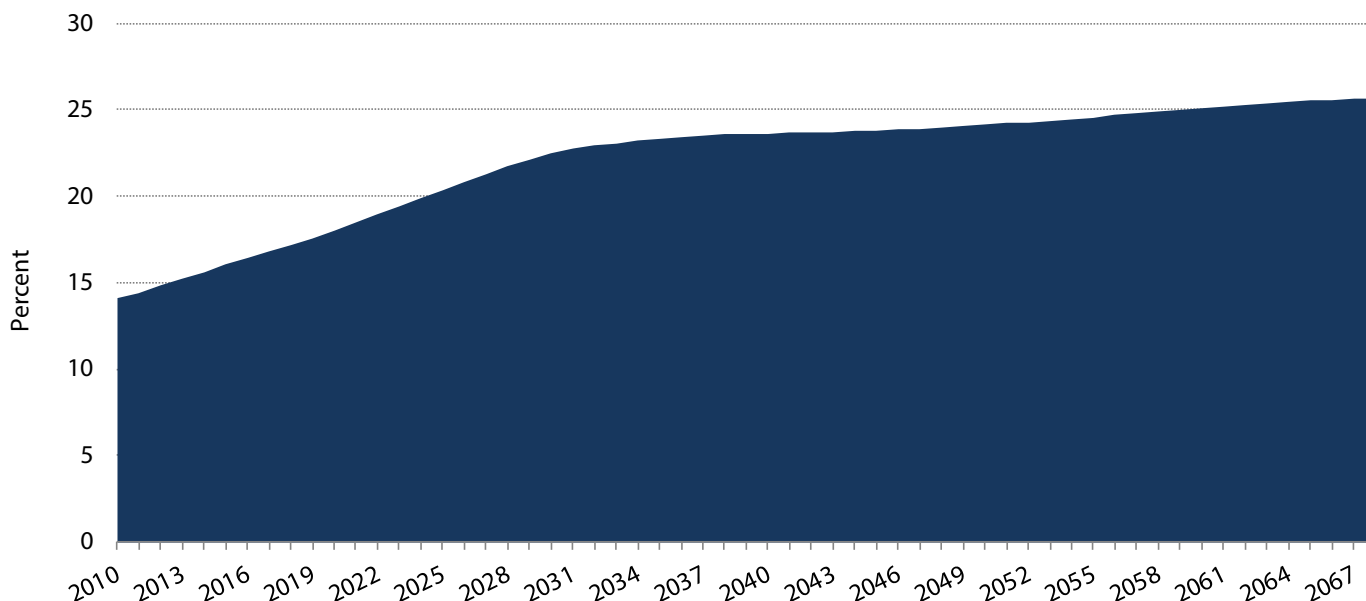
Canada's population growth rate slowed considerably in the second half of the 20<sup>th</sup> century and has remained historically low since then. Average annual population growth in the 1950s was 2.7 percent. Since the turn of the 21<sup>st</sup> century, Canada's average annual population increase has been 1.1 percent. Statistics Canada's medium-growth scenario forecasts the rate of population growth to continue to drop and to reach 0.7 percent by mid-century. This estimate is based on a projection of continued positive immigration flows, without which Canada's population growth would be expected to decline in real terms.

This low rate of population growth combined with substantial increases in life expectancy over the past half century have combined to make seniors (individuals 65 years of age and older) comprise a growing share of Canada's population. This trend is ongoing. Figure 1 shows the share of Canada's population that is 65 years of age or older since 2010 and gives projections to 2068.

Figure 1 shows that the share of Canada's population that is 65 or older has increased from 14.1 percent in 2010 to 19.0 percent in 2022. Statistics Canada forecasts this share to continue growing at a similar pace as the last decade through until 2030, at which point the projected share of the population 65 or older will reach 22.5 percent. After that, the long-term projections show this segment's share of the population will keep growing, although much less quickly, stabilizing at approximately 25 percent of the population by mid-century.

# The Changing Ratio of Working-Age Canadians to Seniors

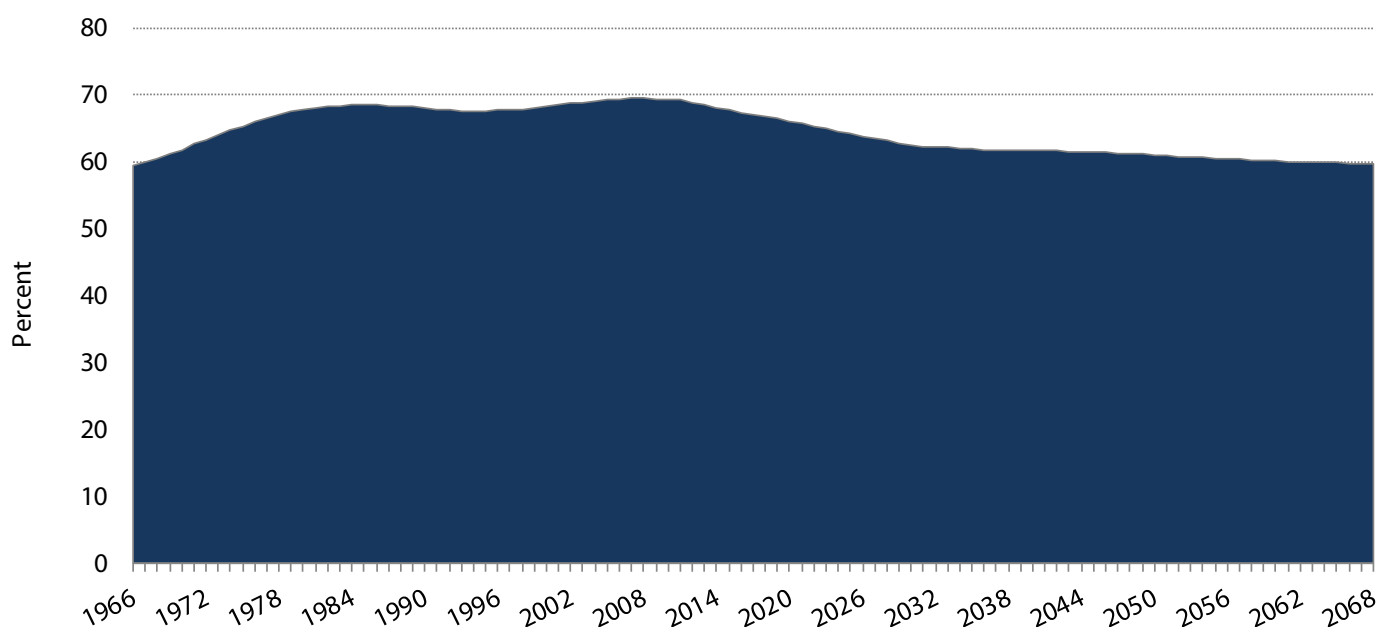
Figure 1: Share of the Population Aged 65 and Older, 2010-2068



Note: values from 2022 onwards are based on Statistics Canada's M1 population projection.

Sources: Statistics Canada, Tables 17-10-0005-01 and 17-10-0057-01.

Figure 2: Share of the Population between 15 and 64 Years Old, 1966-2068

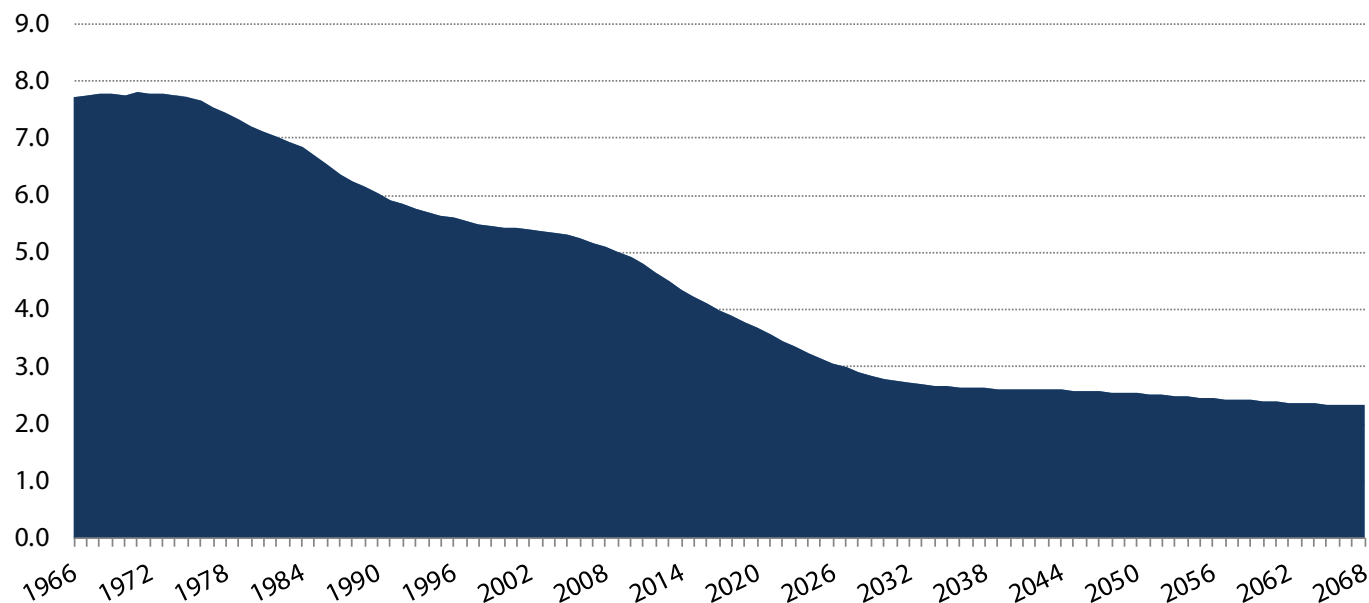


Note: values from 2022 onwards are based on Statistics Canada's M1 population projection.

Sources: Statistics Canada, Tables 17-10-0005-01 and 17-10-0057-01.

# The Changing Ratio of Working-Age Canadians to Seniors

Figure 3: Ratio of Working Age Population (Ages 15 to 64 years) to Those 65+, 1966-2068



Note: values from 2022 onwards are based on Statistics Canada's M1 population projection.  
Sources: Statistics Canada, Tables 17-10-0005-01 and 17-10-0057-01.

As the population ages, the share that is of working age (defined as those aged 15 to 64 years old) has been and will continue declining.

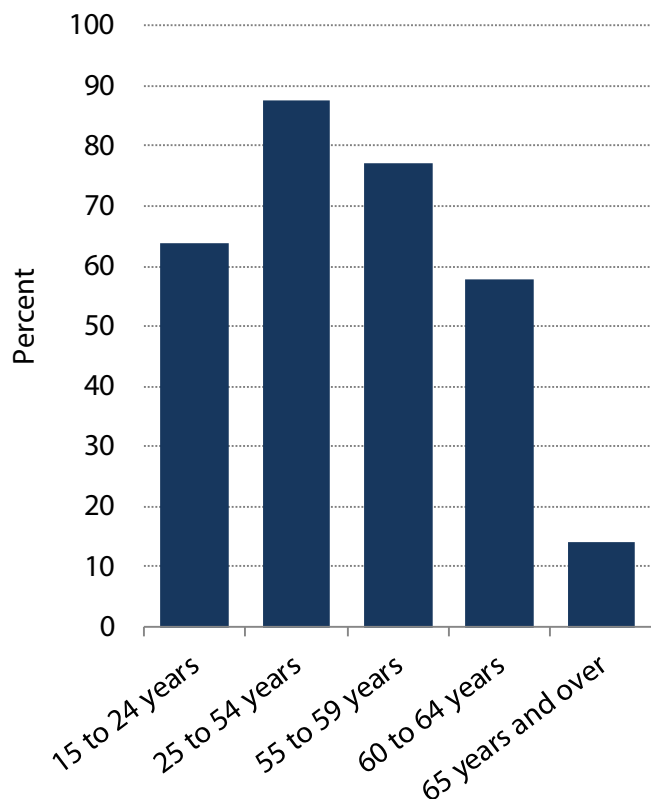
Figure 2 shows the share of the Canadian population age 15 to 64 from 1966 to the present day with projections until 2068. In recent years, the share of the population of working age has fallen relatively quickly as the Baby Boomer generation has begun to age out of this bracket. In 2010, 69.3 percent of the population was between the ages of 15–64. In 2022, that number stands at 65.4 percent. Statistics Canada forecasts continued rapid decline until the early 2030s, by which point the share of the population that is of working age is on course to reach 62.5 percent. This age group's population share is then expected to continue to shrink much

less quickly in subsequent years, dropping below 60 percent in the 2060s.

In short, the share of Canada's population that is of working age is shrinking, while the share that is 65 or older is growing, and the trend is expected to continue, though less dramatically by mid-century. To help shed light on the economic and public finance challenges created by this trend, we can examine the ratio of working-age people to senior citizens. That is to say, we can examine how many people there are between the age of 15 and 64 for each person age 65 or older.

Figure 3 presents this data from 1966 to the present day and provides projections until 2068. In 1966 there were 7.7 working-age peo-

**Figure 4: Labour Force Participation Rates By Age, 2021**



Source: Statistics Canada, Table 14-10-0327-01.

ple for every senior. This ratio has dropped quickly since then and stands at 3.4 in 2022. Statistics Canada projects this trend will continue in the decades ahead. There will be just 3.0 working age individuals for each senior by 2027, after which the ratio will fall further, but more slowly, to reach 2.3 by 2068.

## The labour market and broader economic implications

The shrinking ratio of Canadians aged 15 to 64 to seniors will have important implications for Canada's labour market because members of the former age group have a much higher labour

market participation rate<sup>3</sup> than those in the latter age group. Figure 4 illustrates this point. The labour force participation rate in 2021 for Canadians 65 and older was 14.0 percent. By comparison, the labour participation rate for people of prime working age (25 to 54) was 87.7 percent. Figure 4 also shows the labour force participation rates for other, smaller age groups near the beginning and end of the broader "working age" population range of 15 to 64.

These differences between the labour force participation rates of the various age groups and the demographic transition described above have contributed to and are expected to continue to contribute to a decline in Canada's overall labour force participation rate in the coming years. Figure 5 illustrates this point, showing Canada's labour force participation rate from 2000 until the present day, as well as projections to 2063.<sup>4</sup> We see that labour market participation peaked at 67.6 percent in 2003 and has declined since then, reaching 64.7 percent this year. This trend is expected to continue steadily as the working-age share of Canada's population continues to drop in the years and decades ahead.

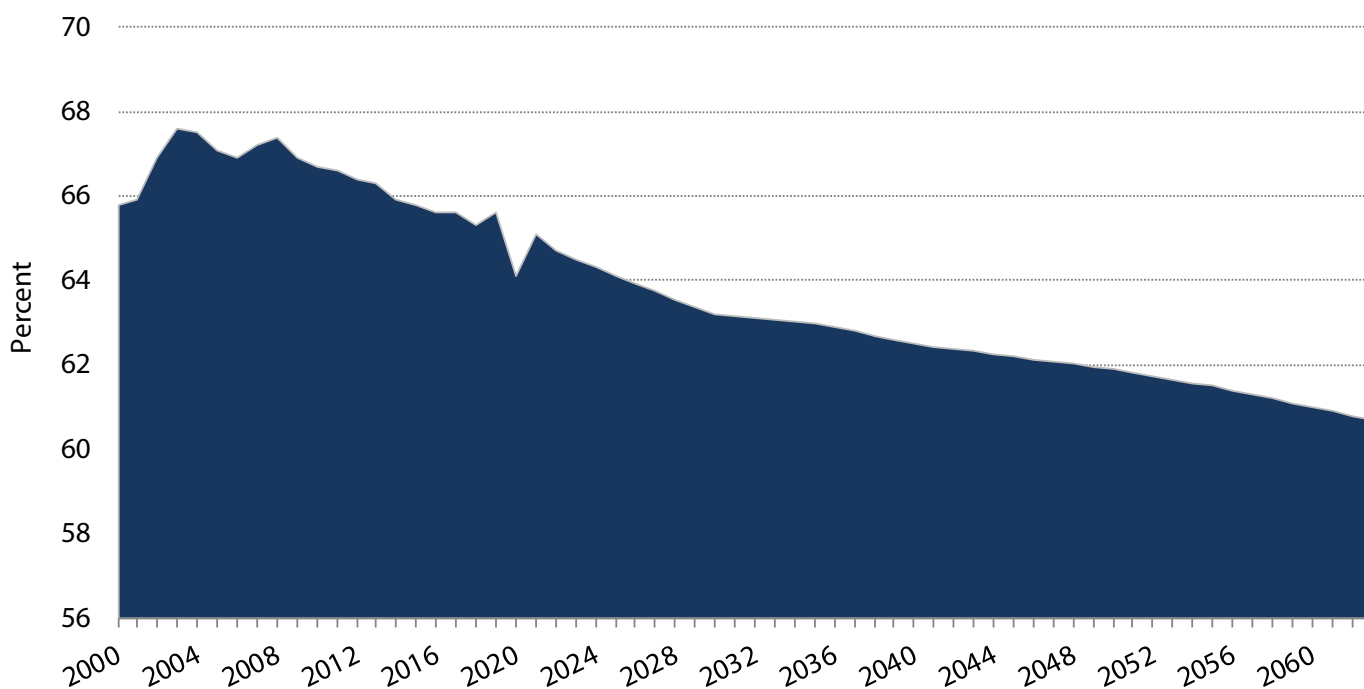
Several trends, some working in opposition to each other, produce the aggregate outcome described above. Specifically, an increasing share of seniors over the age of 64 are remaining in the workforce (Statistics Canada, 2021). This is having a small upward effect on the participa-

<sup>3</sup> Canada's labour force participation rate is defined as the percentage of persons who are either employed or unemployed but looking for a job.

<sup>4</sup> There are significant possible variations to the projections over a long period of time which can be influenced by many factors, which in this instance include changes in the labour force participation rate of members of specific age groups.

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Figure 5: Labour Force Participation Rate, Ages 15 and over, 2000-2063



Sources: Statistics Canada, Table 14-10-0327-01; OSFI (2021); OSFI (2018).

tion rate. However, as figure 5 shows, this is outweighed by other factors, the most important of which is population aging, which produces an overall decrease in the participation rate over time.

The decline in the size of the labour force relative to the overall population will have a material effect on the rate of economic growth in Canada if it does in fact continue. Specifically, a decline in the labour force relative to the overall population will slow the per-capita income growth rate unless it is offset by a significant increase to productivity growth.

During the late decades of the 20<sup>th</sup> century, a significant increase in women's participation in the labour market led to a rapid rise in Canada's labour force participation rate. This large increase has meant that, despite the decline over

the past 20 years described above, changes to the participation rate have, in the aggregate, been a net contributor to economic growth in Canada over the past 40 years. Between 1981 and 2020, increases in the labour force participation rate increased real per-person economic growth by an average of 0.2 percent annually. Due to the population aging trends outlined above, current projections suggest this directional effect will reverse in the future and that the change in this ratio will reduce economic growth by an average of 0.2 percent annually from 2021 to 2050.<sup>5</sup>

<sup>5</sup> Authors' calculations based on Statistics Canada tables 36-10-0222-01, 17-10-0005-01, and 14-10-0327-01.



## Implications for government finances

A decreasing ratio of working age people to seniors will affect government finances both directly and indirectly. The effect on expected future government revenue follows straightforwardly from what has been written above. A declining labour force participation rate, other things held constant, means fewer taxpaying workers and slower economic growth, which imply that the tax base will grow more slowly and, hence, that government tax revenue will grow more slowly, too.

An aging population will also put increasing pressure, to varying degrees, on a major area of expenditure for each senior level of government in Canada. For the federal government, this area is income support for seniors. The other major spending area is health care, an expense borne primarily by the provinces although notionally<sup>6</sup> shared by the federal government via the Canada Health Transfer's per-capita block grant and through small amounts of direct federal spending on health care services for small, specific populations. A larger senior population means a greater number of people receiving cash transfers for seniors, the largest of which is Old Age Security (OAS) and the Guaranteed Income Supplement (GIS). The OAS is a monthly payment to seniors that is clawed back gradually as a senior's income rises. The GIS is a means-tested supple-

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<sup>6</sup> Because money is fungible (i.e., it can be easily exchanged or traded), it is more accurate to say that per-capita transfers to provincial general revenues support all provincial programming rather than health care specifically as is suggested by the transfer's name. The specific relationship to health care is simply that payment of the funds is contingent on the federal government's determination that provinces are complying with the provisions of the Canada Health Act.

ment to the OAS for lower income seniors. For this brief analysis, spending on these two programs is grouped together with much smaller accompanying allowances paid to small groups of qualifying individuals.

The increasing share of the population that is over age 64 has been gradually pushing up the cost of cash transfers to seniors. In 2010, spending on seniors' allowances was 2.0 percent of GDP. By 2019, this had increased to 2.5 percent of GDP. A recent actuarial report on Canada's income support system for seniors projects that these expenditures will reach 3.1 percent of GDP in the 2030s. Subsequently, expenditures relative to GDP are expected to decline gradually, back to approximately current levels by mid-century.<sup>7</sup>

A 1.1 percentage point increase in GDP between 2010 and the 2030s represents a substantial increase in federal spending on seniors' allowances. This fiscal effect is already being felt, as combined OAS and GIS spending today relative to GDP is approximately halfway between its 2010 value and its projected high of 3.1 percent in the 2030s.

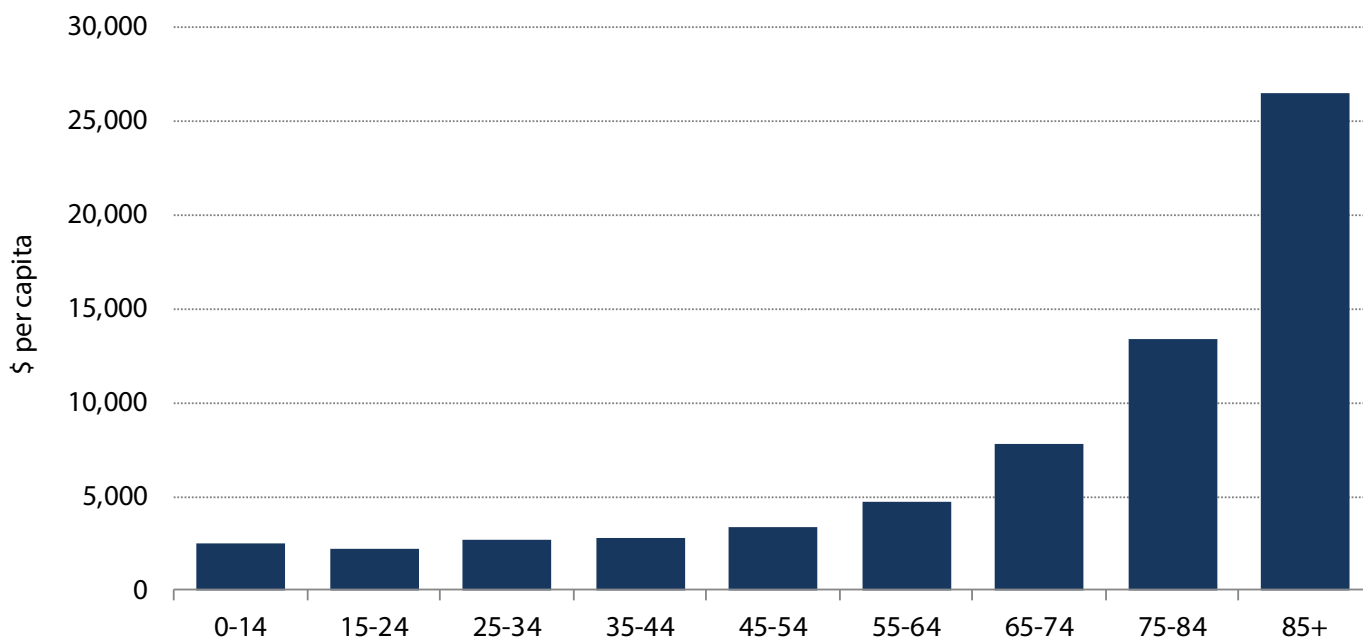
At the provincial level, population aging is also expected to put considerable pressure on government spending. Average per-capita spending on health care costs for Canadians between 35 to 44, for instance, is \$2,811. Average health care spending for people aged 65 to 74 is \$7,751.

Figure 6 shows that per person health care costs continue to rise quickly as seniors age, with the average per person cost for individuals aged 75 to 84 nearly twice as high as the average per-person costs for those aged 65 to 74. As a result, the pressures on health care costs

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<sup>7</sup> See Globberman (2021 B) for a more complete discussion of these data and related issues.

Figure 6: Health Care Expenditure per Capita by Age Group, Canada, 2019



Sources: Canadian Institute for Health Information, 2021; Statistics Canada, Table 17-10-0005-01.

from the aging population will continue to rise in the future. OECD projections show that health care costs from aging will cause health care expenditures to increase by 0.8 percentage points of GDP between 2017 and 2045. The OECD notes that population aging is just one factor likely to drive up health care costs in coming decades; other factors include greater demands for health services from non-seniors as well as additional government expenditures on new medical technologies and medicines.

All else equal and in the absence of policy action, the effect of population aging and paying public pensions are expected to increase the combined cost of federal and provincial spending by approximately two percentage points of GDP over the next two decades. For context, an increase today in government spending of two percentage points of GDP would equate to an

additional \$55 billion in spending, or approximately \$2,700 for every member of the current labour force. Of course, Canadian governments will have time to adjust to these cost pressures, but these data illustrate just how substantial the upward cost pressures from population aging will be.

Cost pressures in other areas of public management such as education may be somewhat relieved by an aging population. However, the costs associated with aging described above are currently projected to significantly outweigh the potential spending declines elsewhere. This is illustrated by the fact that the Parliamentary Budget Office explicitly identifies rising expenditures as a key reason that combined federal and provincial finances are currently unsustainable, which means that in the absence of any countering policy action the overall debt-



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to-GDP ratio is expected to grow over time. The extent of unsustainability is much greater at the provincial level due to expected increases in health care costs (PBO 2021).

## Conclusion

Canada's population is aging, which is increasing the pressure on government spending earmarked for health care and cash transfers to older Canadians. At the same time, the working age population as a share of the overall population is decreasing. The number of working-age people per senior has already fallen from 7.7 in 1966 to 3.4 in 2022. Statistics Canada data projects this ratio will fall further to 2.3 by 2068. Governments across Canada, particularly at the provincial level, already face long-term fiscal challenges, and the trends described in this bulletin will be a significant challenge to policymakers as they try to improve the sustainability of government finances in Canada.

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