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## by Sharanjit Uppal

## Overview of the study

Using data from the Survey of Financial Security (SFS), this article looks at changes in debt, assets and net worth among senior Canadian families over the period from 1999 to 2016. It also examines changes in the debt-toincome ratio and the debt-to-asset ratio of senior families with debt.

- In 2016, the proportion of senior families with debt was $42 \%$, up from $27 \%$ in 1999. The proportion with mortgage debt almost doubled from $8 \%$ to $14 \%$, and the share of those with consumer debt increased from $24 \%$ to $37 \%$.
- Among senior families with debt, the median amount of debt was $\$ 25,000$ in 2016 , up from $\$ 9,000$ in 1999 (expressed in 2016 constant dollars). The median level of assets held by these families also rose, from \$327,000 to \$607,400 (in 2016 constant dollars).
- Around two-thirds of the total increase in the debt of seniors was attributable to an increase in mortgage debt. With regard to assets, real estate assets contributed to more than one-half of the overall increase in the value of seniors' assets.
- The net worth of a family corresponds to the total amount of assets, minus the total amount of debt held by family members. In 2016, the median net worth of senior families with debt was $\$ 537,400$, up from $\$ 298,900$ in 1999.
- Between 1999 and 2016, the median debt-to-income ratio for senior families with debt more than doubled from 0.24 to 0.52 . However, the debt-to-asset ratio changed little, from 0.05 in 1999 to 0.06 in 2016.


## Introduction

The proportion of the Canadian population aged 65 and over has been on the rise over the past few decades, especially during the 2000s. In 1971, individuals aged 65 and over comprised $8 \%$ of the Canadian population.' In 1999, this proportion was $12 \%$, and by 2017 it was nearly $17 \%$. It is projected to increase further, to $24 \%$, by $2036 .{ }^{2}$ As a result of population aging, there is a growing body of research related to Canadian seniors. Recent studies have looked at their labour market activity, ${ }^{3}$ income replacement rates, ${ }^{4}$ time use, ${ }^{5}$ and life satisfaction. ${ }^{6}$ This study adds to the body of research by examining the economic well-being of seniors as measured by indebtedness.

Household indebtedness, for the population as a whole, has risen over time. This is possibly due to factors such as easier access to credit, rising house prices and consumerism. The ratio of household debt to personal disposable income doubled from 86 in the first quarter of 1990 to 176 in the last quarter of $2018 .{ }^{7}$ This implies that, on average, households owed $\$ 1.76$ for every dollar of income at the end of 2018. Policymakers have been concerned by this high ratio, particularly in relation to rising house prices and anticipated increases in interest rates.

Given that household debt has been rising over time, it is likely that a greater proportion of individuals are entering their retirement years carrying debt. Debt can be particularly problematic for seniors as repayment can be more difficult on a reduced income. Existing Canadian studies related to household debt have mostly focused on the adult population as a whole. ${ }^{8}$ One study focusing on older individuals (retired and aged 55 and over) used 2009 data. ${ }^{9}$ Since then, the economy has been characterized by recordlow interest rates and rising house prices, two factors that can greatly affect a household's balance sheet.

Debt values, however, must be understood in relation to assets. For instance, mortgage debt is backed by an asset-the value of the house. If the value of assets is fairly large in relation to the debt a household carries, a high debt-to-income ratio is not necessarily synonymous with financial stress. Hence, the purpose of this article is to look at both debt and assets, and to provide a profile of the net worth held by Canadian seniors.

This paper focuses on all families with debt whose major income earner was 65 or over. ${ }^{10}$ Using data from the Survey of Financial Security (SFS), this study examines debt and asset indicators over the period from 1999 to 2016 across demographic characteristics such as age, education, family structure, home ownership and family income (see the section Data sources, methods and definitions). In addition, it looks at two key indicators of indebtedness: the debt-to-income ratio and the debt-to-asset ratio (for a discussion on income, see the section Sources of family income among senior families). All numbers
in this article are expressed in 2016 dollars using the Consumer Price Index (All Items) as a deflator.

## More than 4 in 10 senior families had debt in 2016

In 2016, the proportion of senior families with debt was 42\%, up from $27 \%$ in 1999 (Table I). ${ }^{\prime \prime}$ The share with mortgage debt almost doubled, going from $8 \%$ to $14 \%$, while that with consumer debt increased from $24 \%$ to $37 \%$. These proportions and changes over time, however, varied across family characteristics.

Senior families in younger age groups were more likely to be in debt. For example, in 2016, families whose major income earner was between the ages of 65 and 69 were nearly three times more likely to have debt than families whose major income earner was at least 80 . Among the first group, about 6 in $10(58 \%)$ had debt, while among older seniors aged 80 and over, I in 5 (20\%) had debt.

Working seniors were also more likely to have debt than non-working seniors, which suggests that working seniors, due to higher incomes, have a higher capacity to borrow. However, it is also possible that older workers who still have debt are staying in the labour market longer in order to pay it off. The likelihood of having debt also increased with the level of income. Close to one-half of seniors in the top income quintile had debt compared with slightly more than one-third of those in the bottom quintile. Other studies have also found a positive relationship between debt and income, as higher income families have a higher capacity to borrow. ${ }^{12}$

Other types of families who were more likely to have debt included families whose major income earners were males, families with higher levels of education, Canadianborn families, and "other" family types (that did not consist of a couple or an unattached person). ${ }^{13}$ At least half of senior families residing in Atlantic Provinces had some debt (5I\%), compared with $30 \%$ of senior families in Saskatchewan.

Between 1999 and 2016, the percentage of seniors with debt increased for all categories of senior families. However, the increase was faster in some cases. As a result, even though the associations between various personal characteristics and the likelihood of holding debt were similar in 1999 and 2016, there were quantitative changes. For example, in 1999, the proportions of families with debt among those aged 65 to 69 and 80 and over were $42 \%$ and $12 \%$, respectively, a gap of 30 percentage points. By 2016, this gap widened to 38 percentage points. Similarly, the gap between the top and bottom income quintiles increased from 8 percentage points in 1999 to 13 percentage points in 2016.

## Both debt and assets recorded significant gains between 1999 and 2016

The focus of the paper now shifts to senior families with debt. In 2016, the median amount of debt held by senior families with debt was \$25,000 (Table 2), up from \$9,000 in 1999 (expressed in 2016 constant dollars). The median level of assets held by these families also rose, from \$327,000 to \$607,400 (in 2016 constant dollars).

Table 1
Percentage of senior families with debt, 1999 and 2016

|  | 1999 |  |  | 2016 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Any debt | Mortgage debt | Consumer debt | Any debt | Mortgage debt | Consumer debt |
|  | percent |  |  |  |  |  |
| Senior families with debt | 27.4 | 7.7 | 24.3 | 42.0* | 13.9* | 37.4* |
| Sex of major income earner |  |  |  |  |  |  |
| Male | 31.1 | 9.4 | 27.4 | 45.4* | 15.9* | 40.1* |
| Female | 22.7 | 5.5 | 20.3 | 37.8* | 11.4* | 34.0* |
| Age of major income earner |  |  |  |  |  |  |
| 65 to 69 | 41.5 | 13.5 | 37.9 | 58.2* | 22.7* | 51.5* |
| 70 to 74 | 28.2 | 8.0 | 24.9 | 47.8* | 15.2* | 42.3* |
| 75 to 79 | 22.2 | $4.8{ }^{\text {E }}$ | 18.9 | 38.2* | 10.8* | 35.3* |
| 80 and over | 11.6 | $2.1{ }^{\text {E }}$ | 9.7 | 20.1* | 4.5 *E | 17.6* |
| Highest level of education of major income earner |  |  |  |  |  |  |
| Less than high school | 25.3 | 5.0 | 23.3 | 33.8* | 10.0* | 30.1* |
| High school diploma | 27.5 | 11.6 | 23.2 | 41.6* | 13.0 | 37.2* |
| Non-university postsecondary certificate or diploma | 29.2 | $8.6{ }^{\text {E }}$ | 24.7 | 47.8* | 15.1* | 43.5* |
| University degree or certificate | 35.0 | 13.6 | 30.0 | 48.0* | 19.4 | 41.3* |
| Family structure ${ }^{1}$ |  |  |  |  |  |  |
| Unattached individual | 20.0 | $3.9{ }^{\text {E }}$ | 17.6 | 33.2* | 9.1* | 29.6* |
| Male | 21.1 | $4.8{ }^{\text {E }}$ | 18.7 | 35.4* | 9.2 | 30.5* |
| Female | 19.5 | $3.6{ }^{\text {E }}$ | 17.2 | 32.1* | 9.1* | 29.1* |
| Couple, no children | 30.5 | 9.4 | 26.5 | 46.3* | 16.5* | 40.8* |
| Other family types | 45.5 | $15.5{ }^{\text {E }}$ | 42.2 | 66.6 * | 26.1 | 60.6* |
| Immigrant status of major income earner |  |  |  |  |  |  |
| Immigrant | 25.3 | 10.4 | 21.4 | 37.6* | 15.5* | 32.8* |
| Canadian-born | 28.0 | 6.9 | 25.1 | 43.5* | 13.3 | 38.9* |
| Home ownership status ${ }^{2}$ |  |  |  |  |  |  |
| Owners with a mortgage | 100 | 100 | 57.5 | 100 | 100 | 67.5 |
| Owners without a mortgage | 21.6 | $1.4{ }^{\text {E }}$ | 21.3 | 35.7* | 3.2* | 34.4* |
| Non-owners | 23.5 | F | 23.2 | 31.5* | $0.4{ }^{\text {E }}$ | 31.4* |
| Labour force status of major income earner |  |  |  |  |  |  |
| Employee | 60.6 | $27.3{ }^{\text {E }}$ | 54.9 | 66.9* | 30.9 | 61.8 |
| Self-employed | 37.1 | $21.7{ }^{\text {E }}$ | $29.4{ }^{\text {E }}$ | 62.6* | 30.1 | 53.8* |
| Not in the labour force | 26.1 | 6.5 | 23.2 | 37.9* | 11.0* | 33.6* |
| Family income quintile |  |  |  |  |  |  |
| Bottom quintile | 21.9 | $3.8{ }^{\text {E }}$ | 20.6 | 35.9* | 8.7*E | 31.9* |
| Second quintile | 23.1 | $4.4{ }^{\text {E }}$ | 20.5 | 33.0* | 8.4* | 29.3* |
| Middle quintile | 29.2 | $7.2{ }^{\text {E }}$ | 25.6 | 44.9* | 13.1* | 40.3* |
| Fourth quintile | 32.6 | 11.9 | 28.2 | 47.7* | 18.1* | 43.3* |
| Top quintile | 30.2 | 11.3 | 26.5 | 48.5* | 21.1* | 42.0* |
| Province or region of residence |  |  |  |  |  |  |
| Atlantic | 45.0 | 8.3 | 41.0 | 50.8 | 13.2 | 47.9 |
| Quebec | 27.5 | $6.5{ }^{\text {E }}$ | 26.6 | 40.1* | 11.4* | 36.0* |
| Ontario | 25.2 | 7.9 | 22.3 | 41.0* | 13.4* | 36.9* |
| Manitoba | 18.9 | $4.5{ }^{\text {E }}$ | 16.2 | 38.8* | 12.9*E | 34.5* |
| Saskatchewan | 21.2 | F | 20.0 | 29.6 | $10.5{ }^{\text {E }}$ | 25.9 |
| Alberta | 24.3 | $8.8{ }^{\text {E }}$ | 20.0 | 46.4* | 19.9* | 40.0* |
| British Columbia | 28.7 | 10.4 | 21.6 | 44.4* | 18.0* | 37.1* |

${ }^{E}$ use with caution
$F$ too unreliable to be published

* 2016 value is significantly different from the 1999 value ( $\mathrm{p}<0.05$ )

1. There were no couples with children or lone parents among senior families.
2. Mortgage debt among owners without a mortgage and non-owners relates to mortgage debt on properties other than the principal residence.

Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.

Table 2
Median debt and assets, senior families with debt, 1999 and 2016

|  | Median debt |  |  | Median assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1999 | 2016 | Change | 1999 | 2016 | Change |
|  | 2016 constant dollars |  |  |  |  |  |
| Senior families with debt | 9,000 | 25,000 | 16,000* | 327,000 | 607,400 | 280,400* |
| Sex of major income earner |  |  |  |  |  |  |
| Male | 13,800 | 30,000 | 16,200* | 408,700 | 682,400 | 273,700* |
| Female | 4,700 ${ }^{\text {E }}$ | 20,000 | 15,300*E | 198,200 | 489,400 | 291,200* |
| Age of major income earner |  |  |  |  |  |  |
| 65 to 69 | $13,300^{\mathrm{E}}$ | 35,500 | 22,200*E | 403,400 | 668,300 | 264,900* |
| 70 to 74 | 10,400 | 21,000 | 10,600* | 278,600 | 657,000 | 378,400* |
| 75 to 79 | 5,500 ${ }^{\text {E }}$ | 25,000 | 19,500*E | 253,900 | 576,200 | 322,300* |
| 80 and over | F | F | F | 256,000 | 449,200 | 193,200* |
| Highest level of education of major income earner |  |  |  |  |  |  |
| Less than high school | 4,800 ${ }^{\text {E }}$ | 20,000 | 15,200* | 237,300 | 310,900 | 73,600 |
| High school diploma | F | 19,000 ${ }^{\text {E }}$ | F | 357,200 | 472,600 | 115,400 |
| Non-university postsecondary certificate or diploma | $10,100^{\text {E }}$ | 23,000 | 12,900*E | 360,700 | 609,900 | 249,200 |
| University degree or certificate | 26,300 ${ }^{\text {E }}$ | 46,100 ${ }^{\text {E }}$ | $19,800^{\text {E }}$ | 766,700 | 1,164,700 | 398,000* |
| Family structure ${ }^{1}$ |  |  |  |  |  |  |
| Unattached individual | 3,500 ${ }^{\text {E }}$ | $13,000^{\text {E }}$ | 9,500*E | 179,700 | 301,000 | 121,300* |
| Male | F | $12,200^{\text {E }}$ | F | 259,800 | 315,200 | 55,400 |
| Female | F | 13,800 ${ }^{\text {E }}$ | F | 163,700 | 279,000 | 115,300 |
| Couple, no children | 13,800 | 35,000 | 21,200* | 425,000 | 802,900 | 377,900* |
| Other family types | F | F | F | 357,200 | 882,400 | 525,200* |
| Immigrant status of major income earner |  |  |  |  |  |  |
| Immigrant | 15,800 ${ }^{\text {E }}$ | 40,100 ${ }^{\text {E }}$ | 24,300 ${ }^{\text {E }}$ | 363,500 | 794,700 | 431,200* |
| Canadian-born | 8,300 | 21,000 | 12,700* | 321,400 | 557,700 | 236,300* |
| Home ownership status ${ }^{2}$ |  |  |  |  |  |  |
| Owners with a mortgage | 66,300 | 120,000 | 53,700* | 407,600 | 728,300 | 320,700* |
| Owners without a mortgage | 6,900 | 18,000 | 11,100* | 421,600 | 849,000 | 427,400* |
| Non-owners | 2,100 ${ }^{\text {E }}$ | 5,000 | 2,900*E | $54,200^{\text {E }}$ | 70,300 ${ }^{\text {E }}$ | $16,100^{\mathrm{E}}$ |
| Labour force status of major income earner |  |  |  |  |  |  |
| Employee | F | 77,000 ${ }^{\text {E }}$ | F | 500,100 ${ }^{\text {E }}$ | 716,700 | 216,600 ${ }^{\text {E }}$ |
| Self-employed | 69,100 ${ }^{\text {E }}$ | 95,300 ${ }^{\text {E }}$ | 26,200 ${ }^{\text {E }}$ | 665,000E | 1,116,400 | 451,400 ${ }^{\text {E }}$ |
| Not in the labour force | 7,200 | 19,000 | 11,800* | 304,300 | 548,800 | 244,500* |
| Family income quintile |  |  |  |  |  |  |
| Bottom quintile | 3,500 ${ }^{\text {E }}$ | 8,000 ${ }^{\text {E }}$ | 4,500 ${ }^{\text {E }}$ | 69,900 ${ }^{\text {E }}$ | 93,500 ${ }^{\text {E }}$ | 23,600 ${ }^{\text {E }}$ |
| Second quintile | $5,500^{\text {E }}$ | 13,600 ${ }^{\text {E }}$ | $8,100^{\text {E }}$ | 149,300 | 339,500 | 190,200* |
| Middle quintile | 9,700 ${ }^{\text {E }}$ | 21,000 ${ }^{\text {E }}$ | $11,300^{\mathrm{E}}$ | 328,600 | 630,500 | 301,900* |
| Fourth quintile | 13,900 ${ }^{\text {E }}$ | 45,000 | 31,100*E | 501,600 | 957,200 | 455,600* |
| Top quintile | F | 74,000 | $\mathrm{F}^{*}$ | 750,000 | 1,538,800 | 788,800* |
| Province or region of residence |  |  |  |  |  |  |
| Atlantic | 6,900 | 18,000 | 11,100* | 185,500 | 408,100 | 222,600* |
| Quebec | $8,300^{\text {E }}$ | 16,500 | 8,200 ${ }^{\text {E }}$ | 275,200 | 406,000 | 130,800 |
| Ontario | 8,600 ${ }^{\text {E }}$ | 32,000 | 23,400*E | 420,400 | 775,100 | 354,700* |
| Manitoba | F | 25,000 ${ }^{\text {E }}$ | F | 274,900 ${ }^{\text {E }}$ | 595,000 | 320,100*E |
| Saskatchewan | F | F | F | 342,100 ${ }^{\text {E }}$ | 745,200 | 403,100 ${ }^{\text {E }}$ |
| Alberta | 15,200 ${ }^{\text {E }}$ | $53,400^{\text {E }}$ | 38,200*E | 349,800 | 695,000 | 345,200* |
| British Columbia | 13,800E | 31,000E | 17,200E | 367,700 | 850,100 | 482,400* |

${ }^{\mathrm{E}}$ use with caution
F too unreliable to be published

* 2016 value is significantly different from the 1999 value ( $p<0.05$ )

1. There were no couples with children or lone parents among senior families.
2. Mortgage debt among owners without a mortgage and non-owners relates to mortgage debt on properties other than the principal residence.

Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.

Debt and asset levels varied across family characteristics. Age is an important factor, as both debt and assets decrease with age. This is expected because seniors use assets to finance consumption, as income becomes lower in retirement relative to consumption levels. ${ }^{14}$

Higher levels of education are associated with higher levels of debt and assets: families in which the major income earner held a university degree had more than twice the level of debt and almost four times the level of assets as those whose major income earner did not finish high school.

Debt and asset levels also varied across the income distribution. The level of debt among families in the top income quintile was nine times higher than the level for families in the bottom income quintile. The difference was even more pronounced for assets. Those in the top income quintile had assets that were 16 times higher than the level for those in the bottom quintile ( $\$ 1,538,800$ versus $\$ 93,500$ ).

Senior immigrant families had twice as much debt and one and a half times as many assets as the Canadian-born. The self-employed had debt levels comparable to those of employees, but had more assets. Unattached seniors had lower debt and asset levels than couples and other family types.

At the regional/provincial level in 2016, senior families in Quebec and Atlantic Provinces had the lowest levels of both debt and assets. On the other hand, seniors in Alberta had the highest level of debt, while those in British Columbia had the highest level of assets. ${ }^{15}$

Just like asset and debt levels varied across family characteristics, changes over the period also varied across characteristics. Between 1999 and 2016, median debt rose among all age groups under the age of 80 , but most significantly among families in the 65-to-69 and 75-to-79 age groups. Families whose major income earner had less than a high school diploma and those with a non-university postsecondary diploma faced a significant increase in median debt levels.

Debt increased faster among families with higher incomes. For example, between 1999 and 2016, debt increased seven times more for seniors in the fourth income quintile than for those in the bottom quintile. Other family categories with notable increases in median debt included homeowners with a mortgage and those not in the labour force.

For the most part, increases in debt were accompanied by increases in assets. The value of assets increased significantly for all age groups, particularly for those in their seventies. In 1999, people in their seventies had low asset levels relative to those aged 65 to 69, but this gap narrowed significantly in 2016. These results suggest that more recent cohorts of seniors earned more income and accumulated more wealth over their life cycles than earlier generations of seniors, in part because they were better educated and because women participated more in the labour market.

Higher levels of education were associated with greater increases in the level of assets. The level for seniors with a university degree increased by $\$ 398,000$, compared with $\$ 73,600$ for those with less than a high school diploma.

The disparity in the level of assets among those in the top and bottom of the income distribution increased over time. The level for those in the top income quintile more than doubled, from $\$ 750,000$ in 1999 to $\$ 1,538,800$ in 2016. In comparison, for those in the bottom quintile, asset levels did not increase significantly during the same period.

Other family categories that saw significant increases in their level of assets, including gains of over $\$ 400,000$ (in real terms), were homeowners without a mortgage, immigrants, and seniors living in British Columbia. The next section discusses the sources of the increase in the debt and assets of senior Canadians.

## Changes in debt and assets were mostly related to housing

In recent years, housing prices increased considerably in Canada. According to the monthly Housing Price Index published by the Canadian Real Estate Association (CREA), housing prices rose by 109.8\% (in nominal terms) between January 2005 and December 2016. ${ }^{16}$ Changes in the Canadian real estate market likely affected the balance sheet of Canadian families.

This section examines the extent to which increases in assets and debt are related to housing (i.e., mortgage debt and real estate assets). The decompositions are based on changes in average values for each family category.

Between 1999 and 2016, average debt increased by $\$ 50,000$ and average assets rose by $\$ 500,900$ (Table 3). Changes in average debt or asset values are typically larger

Table 3
Decomposition of changes in average debt and assets across family characteristics, senior families with debt, 1999 to 2016

|  | Change in average debt |  |  | Change in average assets |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Change, 1999 to 2016 | Due to mortgage debt | Due to consumer debt | Change, 1999 to 2016 | Due to real estate assets | Due to pension assets | Due to other assets |
|  | constant 2016 dollars | percent |  | constant 2016 dollars | percent |  |  |
| Senior families with debt | 50,000 | 67.2 | 32.8 | 500,900 | 51.7 | 12.3 | 36.0 |
| Sex of major income earner |  |  |  |  |  |  |  |
| Male | 62,700 | 69.5 | 30.5 | 567,000 | 53.0 | 8.1 | 39.0 |
| Female | 32,400 | 60.2 | 39.8 | 426,500 | 47.9 | 22.0 | 30.2 |
| Age of major income earner |  |  |  |  |  |  |  |
| 65 to 69 | 45,700 | 63.7 | 36.3 | 526,200 | 49.4 | 10.8 | 39.8 |
| 70 to 74 | 64,700 ${ }^{\text {E }}$ | $68.1^{\text {E }}$ | $31.9{ }^{\text {E }}$ | 590,600 | 47.7 | 15.3 | 37.0 |
| 75 to 79 | $52,300^{\text {E }}$ | $72.2^{\text {E }}$ | $27.8{ }^{\text {E }}$ | 394,800 | 57.6 | 18.2 | 24.2 |
| 80 and over | $33,100^{\text {E }}$ | $68.2^{\text {E }}$ | $31.8{ }^{\text {E }}$ | 404,500 | 64.3 | 7.6 | 28.2 |
| Highest level of education of major income earner |  |  |  |  |  |  |  |
| Less than high school | 40,900 | 72.4 | 27.6 | 265,400 | 65.9 | 0.6 | 33.5 |
| High school diploma | 31,400 ${ }^{\text {E }}$ | $55.0{ }^{\text {E }}$ | $45.0{ }^{\text {E }}$ | 294,000 | 56.0 | -14.4 | 58.4 |
| Non-university postsecondary certificate or diploma | 39,100 | 59.3 | 40.7 | 396,700 | 54.3 | 20.3 | 25.4 |
| University degree or certificate | 66,200 ${ }^{\text {E }}$ | $67.2^{\text {E }}$ | $32.8{ }^{\text {E }}$ | 771,700 | 52.6 | 13.8 | 33.6 |
| Family structure ${ }^{1}$ |  |  |  |  |  |  |  |
| Unattached individual | 25,500 ${ }^{\text {E }}$ | $63.4{ }^{\text {E }}$ | $36.6{ }^{\text {E }}$ | 270,700 | 47.2 | 22.7 | 30.1 |
| Male | 20,000 ${ }^{\text {E }}$ | $69.2{ }^{\text {E }}$ | $30.8{ }^{\text {E }}$ | 274,300 | 48.7 | 19.6 | 31.7 |
| Female | 27,100 ${ }^{\text {E }}$ | $62.3{ }^{\text {E }}$ | $37.7{ }^{\text {E }}$ | 257,800 | 47.3 | 24.2 | 28.5 |
| Couple, no children | 56,500 | 62.8 | 37.2 | 581,600 | 55.2 | 11.6 | 33.2 |
| Other family types | 102,800 ${ }^{\text {E }}$ | $76.5^{\text {E }}$ | $23.5{ }^{\text {E }}$ | 849,800 | 48.2 | 6.7 | 45.1 |
| Immigrant status of major income earner |  |  |  |  |  |  |  |
| Immigrant | $55,700^{\text {E }}$ | $65.9{ }^{\text {E }}$ | $34.1{ }^{\text {E }}$ | 585,600 | 64.4 | 5.6 | 29.9 |
| Canadian-born | 47,500 | 67.3 | 32.7 | 472,300 | 46.8 | 15.0 | 38.2 |
| Home ownership status ${ }^{2}$ |  |  |  |  |  |  |  |
| Owners with a mortgage | 86,100 | 82.0 | 18.0 | 447,800 | 65.2 | 6.6 | 28.2 |
| Owners without a mortgage | 46,700 ${ }^{\text {E }}$ | $51.8{ }^{\text {E }}$ | $48.2{ }^{\text {E }}$ | 748,800 | 48.5 | 11.6 | 39.9 |
| Non-owners | F | F | F | $41,200^{\text {E }}$ | $-12.6{ }^{\text {E }}$ | $80.8{ }^{\text {E }}$ | $31.7{ }^{\text {E }}$ |
| Labour force status of major income earner |  |  |  |  |  |  |  |
| Employee | 90,500 | 69.7 | 30.3 | 592,200 | 48.7 | 14.9 | 36.4 |
| Self-employed | 118,000 ${ }^{\text {E }}$ | $80.7{ }^{\text {E }}$ | $19.3{ }^{\text {E }}$ | 985,200 | 47.8 | 5.1 | 47.1 |
| Not in the labour force | 29,400 | 57.5 | 42.5 | 376,700 | 55.2 | 16.3 | 28.5 |
| Family income quintile |  |  |  |  |  |  |  |
| Bottom quintile | 20,700 ${ }^{\text {E }}$ | $63.9{ }^{\text {E }}$ | $36.1^{\mathrm{E}}$ | 75,900 ${ }^{\text {E }}$ | $103.8{ }^{\text {E }}$ | $6.0^{\text {E }}$ | $-9.8{ }^{\text {E }}$ |
| Second quintile | 29,800 ${ }^{\text {E }}$ | $71.1{ }^{\text {E }}$ | $28.9{ }^{\text {E }}$ | 244,800 | 69.7 | 11.7 | 18.5 |
| Middle quintile | 31,100 | 56.2 | 43.8 | 388,400 | 42.0 | 23.3 | 34.7 |
| Fourth quintile | $42,400^{\text {E }}$ | $50.7{ }^{\text {E }}$ | $49.3{ }^{\text {E }}$ | 554,100 | 52.6 | 11.4 | 36.0 |
| Top quintile | 126,500 | 75.2 | 24.8 | 1,247,200 | 47.6 | 9.8 | 42.6 |
| Province or region of residence |  |  |  |  |  |  |  |
| Atlantic | 29,200 | 55.8 | 44.2 | 293,100 | 35.2 | 31.6 | 33.2 |
| Quebec | 26,100 | 67.1 | 32.9 | 252,000 | 49.8 | 14.7 | 35.5 |
| Ontario | 39,500 ${ }^{\text {E }}$ | $56.8{ }^{\text {E }}$ | $43.2{ }^{\text {E }}$ | 578,100 | 50.0 | 7.9 | 42.1 |
| Manitoba | 48,700 ${ }^{\text {E }}$ | $78.8{ }^{\text {E }}$ | $21.2^{\text {E }}$ | 503,500 | 43.8 | 21.7 | 34.5 |
| Saskatchewan | $47,400^{\text {E }}$ | $85.5^{\text {E }}$ | $14.5{ }^{\text {E }}$ | 597,800 | 44.0 | 23.0 | 33.0 |
| Alberta | 152,500 ${ }^{\text {E }}$ | $77.4{ }^{\text {E }}$ | $22.6{ }^{\text {E }}$ | 935,500 | 52.1 | 10.7 | 37.3 |
| British Columbia | 64,400 | 66.2 | 33.8 | 555,500 | 66.0 | 12.7 | 21.3 |

use with caution
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1. There were no couples with children or lone parents among senior families.
2. Mortgage debt among owners without a mortgage and non-owners relates to mortgage debt on properties other than the principal residence.

Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.
than changes in median values given that averages are likely to be influenced by extreme values at the top of the distribution; however, it is necessary to use average values in order to disentangle the sources of the changes in debt or assets.

Around two-thirds of the total increase in average debt was attributable to the increase in mortgage debt, while the remainder was due to an increase in consumer debt. The contribution of mortgage debt to the increase in total debt was somewhat larger among the leasteducated and the most-educated families. For example, mortgage debt was responsible for $72 \%$ of the growth in total debt among families whose major income earner did not finish high school and $67 \%$ for those with a university degree. In comparison, the contribution was $55 \%$ and $59 \%$, respectively, for those with a high school diploma and those with a non-university postsecondary diploma. The results obtained across levels of education mirrored the results obtained across income quintiles; the contribution of mortgage debt to total debt was larger among the bottom two quintiles and the top quintile than among the third and fourth quintiles.
At the regional/provincial level, mortgage debt contributed to a larger portion of the debt increase in the Prairies, namely Saskatchewan (86\%), Manitoba (79\%) and Alberta (77\%). For seniors residing in Ontario and Atlantic Provinces, over one-half of the total increase in debt was due to mortgage debt.

With regard to assets, real estate contributed to more than onehalf of the overall increase in the average value. The value of employer pension plans contributed an additional $12 \%$. The remainder
(36\%) was attributable to all other assets (financial investments such as RRSPs and other non-housing items). Real estate contributed to all of the increase in the value of assets for seniors in the bottom income quintile. In comparison, it contributed to less than one-half of the increase for seniors in the fifth income quintile.

Among immigrants, $64 \%$ of the increase in the value of assets was driven by real estate and 6\% by the value of pensions. The comparable contributions among the Canadianborn were $47 \%$ and I5\%.

Lastly, there were regional differences in the contribution of real estate to the increase in the value of assets. In British Columbia, for instance, two thirds of the increase in total assets was due to real estate, as higher housing prices contributed to increase the value of real estate assets in this province. Conversely, in Atlantic Provinces, each category of assets (real estate, pensions and other assets) contributed almost equally to the increase in the assets of senior families.

## Net worth increased faster for senior families at the top of the income distribution

Given increases in both debt and assets, it is worthwhile to examine how wealth, or net worth, changed over the period. Net worth is defined as the overall value of assets held by the family, minus the overall debt held by that family.

In 2016, the median net worth of senior families with debt was $\$ 537,400$, up from $\$ 298,900$ in 1999 (Table 4). Most categories of families saw significant increases in their net worth but, as was the case with debt and assets, changes
in median net worth varied across family characteristics. The largest increases took place among those in the fourth and fifth income quintiles (increases of \$446,000 and \$66I,700, respectively); immigrants $(+\$ 422,200)$; other family types (+\$410,600); homeowners without a mortgage $(+\$ 403,800)$; and families whose major income earner had a university degree $(+\$ 34 \mathrm{I}, 800)$.

On the other hand, net worth did not increase significantly among those in the bottom income quintile, non-owners and families in the two lowest educational attainment categories. For these groups, net worth did not increase because neither median debt nor median assets increased significantly over the period.

As was the case for asset and debt levels, there were differences in net worth variations at the regional/ provincial level. In British Columbia, median net worth increased by almost \$400,000 over the period, the largest increase of all provinces/ regions. Net worth increased in other parts of the country too, but not all increases were statistically significant.

## The debt-to-income ratio more than doubled between 1999 and 2016

The debt-to-income and debt-to-asset ratios provide another perspective on the financial state of Canadian families. In fact, the debt-to-income ratio is considered to be one of the most important indicators of a family's indebtedness. A relatively high debt-to-income ratio implies that a family will spend a higher proportion of its income on repaying debt, leaving less for consumption and saving.

The debt-to-income ratio, however, does not tell a complete story of the financial situation of seniors, in part because income may not represent the best approximation of the financial resources available to them. Another ratio, the debt-to-asset ratio, measures a family's resilience to financial shocks. Families with a higher debt-to-asset ratio have higher leverage and are considered to be in a weaker financial position. A debt-to-asset ratio greater than one means that a family has more debt than assets-a rare occurrence among Canadian senior families. Conversely, families with a debt-to-asset ratio closer to zero have very little debt relative to their asset levels.

In this paper, median ratios are used and are obtained by calculating the debt-to-income and debt-to-asset ratios for each family in any given category, and by identifying the median value within that category. The advantage of this method is that it is more representative of the financial situation of typical families within a category. However, such values cannot be compared with ratios calculated using aggregate values provided by the System of National Accounts (SNA). With the SNA, for any given category, the overall value of household debt is divided by the overall value of income (for the debt-to-income ratio) or assets (for the debt-to-asset ratio).

Between 1999 and 2016, the median debt-to-income ratio for senior families with debt more than doubled from 0.24 to 0.52 (Table 5). This means that, for the median family in 2016, debt amounted to $52 \%$ of after-tax family income, up from $24 \%$ in 1999.

Table 4
Median net worth of senior families with debt, 1999 and 2016


Table 5
Median debt-to-income ratio across family characteristics, senior families with debt, 1999 and 2016

|  | 1999 |  |  | 2016 |  |  | Change, 1999 to 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | 95\% confidence interval |  | Estimate | 95\% confidence interval |  |  |
|  |  | From | To |  | From | To |  |
|  |  |  |  | ratio |  |  |  |
| Senior families with debt | 0.239 | 0.185 | 0.295 | 0.522 | 0.442 | 0.598 | 0.283* |
| Sex of major income earner |  |  |  |  |  |  |  |
| Male | 0.307 | 0.247 | 0.373 | 0.589 | 0.467 | 0.713 | 0.282 |
| Female | 0.179 | 0.125 | 0.235 | 0.473 | 0.386 | 0.554 | 0.294 |
| Age of major income earner |  |  |  |  |  |  |  |
| 65 to 69 | 0.321 | 0.242 | 0.398 | 0.705 | 0.553 | 0.867 | 0.384* |
| 70 to 74 | 0.234 | 0.132 | 0.328 | 0.474 | 0.313 | 0.627 | 0.240 |
| 75 to 79 | 0.165 | 0.082 | 0.238 | 0.495 | 0.314 | 0.666 | 0.330* |
| 80 and over | F | -0.037 | 0.237 | 0.210 | 0.053 | 0.367 | F |
| Highest level of education of major income earner |  |  |  |  |  |  |  |
| Less than high school | 0.165 | 0.101 | 0.219 | 0.476 | 0.264 | 0.696 | 0.311* |
| High school diploma | 0.453 | 0.215 | 0.685 | 0.457 | 0.323 | 0.597 | 0.004 |
| Non-university postsecondary certificate or diploma | 0.272 | 0.133 | 0.407 | 0.481 | 0.362 | 0.598 | 0.209 |
| University degree or certificate | 0.443 | 0.224 | 0.656 | 0.717 | 0.426 | 1.014 | 0.274 |
| Family structure ${ }^{1}$ |  |  |  |  |  |  |  |
| Unattached individual | 0.139 | 0.081 | 0.199 | 0.416 | 0.283 | 0.557 | 0.277* |
| Male | 0.231 | 0.059 | 0.401 | 0.378 | 0.194 | 0.566 | 0.147 |
| Female | 0.116 | 0.057 | 0.183 | 0.455 | 0.289 | 0.611 | 0.339* |
| Couple, no children | 0.303 | 0.241 | 0.359 | 0.581 | 0.462 | 0.698 | 0.278* |
| Other family types | 0.318 | 0.163 | 0.477 | 0.659 | 0.444 | 0.876 | 0.341 |
| Immigrant status of major income earner |  |  |  |  |  |  |  |
| Immigrant | 0.337 | 0.164 | 0.516 | 0.845 | 0.772 | 0.928 | 0.508* |
| Canadian-born | 0.209 | 0.171 | 0.249 | 0.473 | 0.215 | 0.725 | 0.264 |
| Home ownership status |  |  |  |  |  |  |  |
| Owners with a mortgage | 1.456 | 1.186 | 1.734 | 2.170 | 1.954 | 2.386 | 0.714* |
| Owners without a mortgage | 0.175 | 0.141 | 0.219 | 0.322 | 0.261 | 0.379 | 0.147* |
| Non-owners | 0.089 | 0.051 | 0.129 | 0.172 | 0.111 | 0.229 | 0.083 |
| Labour force status of major income earner |  |  |  |  |  |  |  |
| Employee | 0.513 | 0.236 | 0.784 | 0.926 | 0.616 | 1.244 | 0.413 |
| Self-employed | 1.397 | 0.459 | 2.341 | 1.296 | 0.751 | 1.849 | -0.101 |
| Not in the labour force | 0.208 | 0.171 | 0.249 | 0.439 | 0.362 | 0.518 | 0.231* |
| Family income quintile |  |  |  |  |  |  |  |
| Bottom quintile | 0.179 | 0.082 | 0.278 | 0.434 | 0.175 | 0.685 | 0.255 |
| Second quintile | 0.169 | 0.111 | 0.229 | 0.398 | 0.263 | 0.537 | 0.229* |
| Middle quintile | 0.234 | 0.093 | 0.367 | 0.471 | 0.372 | 0.568 | 0.237* |
| Fourth quintile | 0.295 | 0.182 | 0.418 | 0.670 | 0.494 | 0.846 | 0.375* |
| Top quintile | 0.369 | 0.213 | 0.527 | 0.733 | 0.554 | 0.906 | 0.364* |
| Province or region of residence |  |  |  |  |  |  |  |
| Atlantic | 0.192 | 0.123 | 0.257 | 0.354 | 0.232 | 0.468 | 0.162 |
| Quebec | 0.179 | 0.062 | 0.298 | 0.383 | 0.282 | 0.478 | 0.204 |
| Ontario | 0.209 | 0.112 | 0.308 | 0.548 | 0.393 | 0.707 | 0.339* |
| Manitoba | 0.198 | 0.043 | 0.357 | 0.477 | 0.166 | 0.794 | 0.279 |
| Saskatchewan | 0.295 | 0.143 | 0.457 | 0.536 | 0.285 | 0.795 | 0.241 |
| Alberta | 0.407 | 0.214 | 0.606 | 0.872 | 0.478 | 1.262 | 0.465 |
| British Columbia | 0.349 | 0.193 | 0.507 | 0.797 | 0.486 | 1.114 | 0.448 |

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* 2016 value is significantly different from the 1999 value ( $\mathrm{p}<0.05$ )

1. There were no couples with children or lone parents among senior families.

Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.

While the median debt-to-income ratio increased for most categories of senior families, the increase was relatively higher for families whose major income earner was aged 65 to 69 or 75 to 79 . The increase was also larger for those who did not finish high school.

The increase in the ratio varied by family income. While the ratio doubled for families in all income quintiles, the absolute increase was larger for those in the upper income quintiles. For example, the median ratio increased by about 0.36 for families in the top two quintiles compared with an increase of around 0.23 for those in the second and third quintiles.

Other groups with significant increases in their median debt-toincome ratio included unattached individuals (especially unattached
females), couples, immigrants homeowners (especially those with an outstanding mortgage), those not in the labour force, and families residing in Ontario.

## More than one-third of families had a debt-toincome ratio over l. 0 in 2016

Given that there are important variations among senior families in terms of family finances, additional insights can be obtained by examining the distribution of the ratios. $\ln 2016$, $49 \%$ of senior families with debt had a debt-to-income ratio up to 0.5 , meaning that the value of their debt did not exceed $50 \%$ of their overall after-tax family income (Chart I). On the other hand, $36 \%$ of senior families had a debt-to-income ratio over 1.0 in 2016, and $21 \%$ of families had a debt-to-income ratio over 2.0.

In 1999, these percentages were $2 I \%$ and II\%, respectively. Such families may be at a higher risk of a financial shock as they have a high degree of exposure to debt.

Various characteristics are associated with the likelihood that families have a debt-to-income ratio of over I, or in other words, the probability of having a level of debt that is higher than their income. The probability that families whose major income earner had less than a high school education had a debt-to-income ratio over I. 0 was $43 \%$, and it was $40 \%$ among those with at least a university degree (Table 6). In comparison, those with a high school diploma or nonuniversity postsecondary diploma had probabilities of around $30 \%$. Immigrants had a higher probability to have a debt-to-income ratio

Chart 1
Distribution of families by debt-to-income ratio, senior families with debt, 1999 and 2016


Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.
over I. 0 than the Canadian-born ( $44 \%$ versus $33 \%$ ). At the regional/ provincial level, senior families in Atlantic Provinces were less likely to have debt levels greater than their income, a result reflecting the fact that seniors in Atlantic Provinces have relatively low debt levels.
In addition, 14\% of senior families had consumer debt that was higher than their after-tax family income in 2016. In comparison, the proportion of such families was $4 \%$ in 1999. Consumer debt is debt other than mortgage debt such as outstanding balances on credit cards, lines of credit, loans from banks, vehicle loans and unpaid bills. Meeting financial obligations could be a challenge for these families as a large portion of their income would go towards servicing debt that is not backed by an asset.

## Debt-to-asset ratio was relatively stable between 1999 and 2016

In 2016, the median debt-to-asset ratio was 0.06 for Canadian senior families, meaning that the value of debt of a typical senior family amounted to $6 \%$ of the value of its assets (Table 7). This was largely unchanged from 0.05 in 1999. Such results suggest that most senior families have relatively low levels of debt relative to their assets.

The distribution of the debt-to-asset ratio also remained relative stable between 1999 and 2016. In 2016, $61 \%$ of senior families had a debt-to-asset ratio equal to or lower than 0.1 , meaning that these families had debt levels that were equal to or lower that IO\% of the value of their assets (Chart 2). On the other hand, II\% of families had a debt-to-asset
ratio over 0.4. The corresponding proportions in 1999 were $67 \%$ and 10\%.

Various characteristics were associated with a relatively high debt-to-asset ratio, as shown in

Table 6. Higher income levels were associated with a lower probability of having a debt-to-asset ratio over 0.I. Specifically, the probability that a family in the highest income quintile would have a higher debt-to-asset ratio was $29 \%$, compared with $58 \%$

Table 6
Probability of having a debt-to-income ratio over 1.0 and a debt-to-asset ratio over 0.1, senior families with debt, 2016

|  | Debt-to-income ratio <br> over 1.0 | Debt-to-asset <br> ratio over 0.1 |
| :--- | :---: | :---: |
|  | predicted probability |  |

[^0]Table 7
Median debt-to-asset ratio across family characteristics, senior families with debt, 1999 and 2016

|  | 1999 |  |  | 2016 |  |  | Change, 1999 to 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\qquad$ |  | Estimate | $\begin{gathered} 95 \% \\ \text { confidence } \\ \text { interval } \\ \hline \end{gathered}$ |  |  |
|  | Estimate | From | To |  | From | To |  |
|  |  |  |  | ratio |  |  |  |
| Senior families with debt | 0.047 | 0.030 | 0.070 | 0.063 | 0.050 | 0.070 | 0.016 |
| Sex of major income earner |  |  |  |  |  |  |  |
| Male | 0.049 | 0.038 | 0.062 | 0.065 | 0.048 | 0.072 | 0.016 |
| Female | 0.040 | 0.022 | 0.058 | 0.058 | 0.044 | 0.076 | 0.018 |
| Age of major income earner |  |  |  |  |  |  |  |
| 65 to 69 | 0.053 | 0.038 | 0.062 | 0.070 | 0.054 | 0.086 | 0.017 |
| 70 to 74 | 0.056 | 0.038 | 0.082 | 0.063 | 0.042 | 0.078 | 0.007 |
| 75 to 79 | 0.030 | 0.012 | 0.048 | 0.058 | 0.038 | 0.082 | 0.028 |
| 80 and over | F | -0.007 | 0.047 | 0.034 | 0.003 | 0.057 | F |
| Highest level of education of major income earner |  |  |  |  |  |  |  |
| Less than high school | 0.041 | 0.022 | 0.058 | 0.107 | 0.077 | 0.143 | 0.066* |
| High school diploma | 0.063 | 0.025 | 0.095 | 0.065 | -0.136 | 0.256 | 0.002 |
| Non-university postsecondary certificate or diploma | 0.044 | 0.018 | 0.062 | 0.052 | 0.036 | 0.064 | 0.008 |
| University degree or certificate | 0.038 | 0.018 | 0.062 | 0.049 | 0.034 | 0.066 | 0.011 |
| Family structure ${ }^{1}$ |  |  |  |  |  |  |  |
| Unattached individual | 0.041 | 0.018 | 0.062 | 0.073 | 0.046 | 0.094 | 0.032 |
| Male | F | -0.001 | 0.121 | 0.091 | 0.045 | 0.135 | F |
| Female | 0.034 | 0.010 | 0.050 | 0.069 | 0.045 | 0.095 | 0.035 |
| Couple, no children | 0.033 | 0.018 | 0.042 | 0.051 | 0.040 | 0.060 | 0.018 |
| Other family types | 0.060 | 0.038 | 0.082 | 0.073 | 0.041 | 0.099 | 0.013 |
| Immigrant status of major income earner |  |  |  |  |  |  |  |
| Immigrant | 0.073 | 0.037 | 0.103 | 0.075 | 0.041 | 0.099 | 0.002 |
| Canadian-born | 0.039 | 0.030 | 0.050 | 0.056 | 0.050 | 0.070 | 0.017* |
| Home ownership status |  |  |  |  |  |  |  |
| Owners with a mortgage | 0.136 | 0.113 | 0.167 | 0.177 | 0.158 | 0.202 | 0.041 |
| Owners without a mortgage | 0.016 | 0.016 | 0.024 | 0.022 | 0.016 | 0.024 | 0.006 |
| Non-owners | 0.058 | 0.033 | 0.087 | 0.094 | 0.041 | 0.139 | 0.036 |
| Labour force status of major income earner |  |  |  |  |  |  |  |
| Employee | 0.084 | 0.043 | 0.117 | 0.134 | 0.093 | 0.167 | 0.050 |
| Self-employed | F | -0.032 | 0.152 | 0.069 | 0.043 | 0.097 | F |
| Not in the labour force | 0.040 | 0.028 | 0.052 | 0.053 | 0.040 | 0.060 | 0.013 |
| Family income quintile |  |  |  |  |  |  |  |
| Bottom quintile | 0.125 | 0.048 | 0.212 | 0.172 | 0.086 | 0.254 | 0.047 |
| Second quintile | 0.052 | 0.023 | 0.077 | 0.057 | 0.036 | 0.084 | 0.005 |
| Middle quintile | 0.032 | 0.012 | 0.048 | 0.038 | 0.026 | 0.054 | 0.006 |
| Fourth quintile | 0.033 | 0.010 | 0.050 | 0.048 | 0.034 | 0.066 | 0.015 |
| Top quintile | 0.038 | 0.020 | 0.060 | 0.057 | 0.044 | 0.076 | 0.019 |
| Province or region of residence |  |  |  |  |  |  |  |
| Atlantic | 0.040 | 0.026 | 0.054 | 0.059 | 0.036 | 0.084 | 0.019 |
| Quebec | 0.054 | 0.028 | 0.072 | 0.065 | 0.036 | 0.084 | 0.011 |
| Ontario | 0.034 | 0.006 | 0.054 | 0.056 | 0.044 | 0.076 | 0.022 |
| Manitoba | F | -0.003 | 0.103 | 0.036 | 0.009 | 0.071 | F |
| Saskatchewan | 0.034 | 0.005 | 0.055 | 0.056 | 0.027 | 0.093 | 0.022 |
| Alberta | 0.052 | 0.023 | 0.077 | 0.089 | 0.055 | 0.125 | 0.037 |
| British Columbia | 0.047 | 0.034 | 0.066 | 0.068 | 0.048 | 0.092 | 0.021 |

F too unreliable to be published

* 2016 value is significantly different from the 1999 value ( $p<0.05$ )

1. There were no couples with children or lone parents among senior families.

Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.
for those in the bottom quintile. Other groups who were more likely to have the ratio over 0.1 included unattached seniors, immigrants, working seniors, and seniors residing in Alberta. ${ }^{17}$

## Conclusion

Due to the aging of the population, a growing proportion of Canadians are now aged 65 or over. A growing number of studies are devoted to this segment of the population. This paper looked at the distribution of debt and assets among senior families and the changes over time. Between 1999 and 2016, the proportion of seniors with debt increased from $27 \%$ to $42 \%$. The median debt rose from $\$ 9,000$ to $\$ 25,000$. At the same time, median assets went up from $\$ 327,000$ to $\$ 607,400$. Two-thirds of the increase in debt was due to
mortgage debt and around one-half of the increase in assets was related to real estate.

The magnitude of these changes in debt and assets varied across family characteristics. As a result, certain family types saw their net worth increase notably more than others. For example, between 1999 and 2016, the median net worth for families in the top income quintile increased by $\$ 66 \mathrm{I}, 700$. By contrast, the increase for senior families in the bottom income quintile was not statistically significant.

The debt-to-income and the debt-to-asset ratios provide another perspective on family finances. There was little change in the median debt-to-asset ratio over time. However, the median debt-to-income ratio increased from 0.24 in 1999 to 0.52
in 2016. The increase in the debt-to-income ratio, however, varied across groups, and the increase in debt levels did not have the same implications for all groups of seniors.

Seniors in younger age groups (aged 65 to 69), those in higher income quintiles and those living in British Columbia saw significant increases not only in their debt-to-income ratios, but also in their net worth levels. For these seniors, a rising debt-to-income ratio likely reflects an increased capacity to borrow, for example through lines of credit financed against housing collateral.

For other groups of seniors, such as those with lower levels of education or unattached individuals, increases in the debt-to-income ratio could be more consequential as their net worth did not increase as much as

Chart 2
Distribution of families by debt-to-asset ratio, senior families with debt, 1999 and 2016


Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.
the net worth of other groups of seniors. Some of these seniors may be more at risk to have exceedingly high levels of debt relative to income, and therefore may be more
financially vulnerable. For these seniors, a higher debt level could have consequences such as delayed retirement, lower levels of mental or physical well-being, and elevated
levels of stress. Financial difficulties can also translate into fewer options for seniors if they require care.

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## Data sources, methods and definitions

## Data source

Data from the 1999 and 2016 Survey of Financial Security (SFS) were used in this study. The SFS is a voluntary survey that collects information from a sample of Canadian families on their assets, debts, employment, income and education. Information is collected on the value of all major financial and non-financial assets and on the money owing on mortgages, vehicles, credit cards, student loans and other debts.

The SFS covers the population living in the 10 provinces. Excluded from the survey coverage are persons living on reserves and in other Aboriginal settlements in the provinces; official representatives of foreign countries living in Canada and their families; members of religious and other communal colonies; members of the Canadian Forces living on military bases or in military camps; and persons living full time in institutions such as inmates of penal institutions and chronic care patients living in hospitals and nursing homes.

The analysis in this study is restricted to senior families who had debt. Individual characteristics such as age and education reflect those of the major income earner of the family.

## Definitions

Family refers to the economic family, defined as families consisting of two or more people living in the same dwelling, related by blood, marriage or adoption, or who are living common law, and single people who are living either alone or with others to whom they are unrelated.

Total debt pertains to total family debt and includes mortgage debt on the principal residence and all other real estate (Canadian and foreign), and consumer debt.

Mortgage debt refers to debt owed by families on the principal residence and all other real estate (Canadian and foreign).

Consumer debt includes debt outstanding on credit cards, personal and home equity lines of credit, and secured and unsecured loans from banks and other institutions (including vehicle loans), and other unpaid bills.

Total assets pertain to total family assets and include real estate (principal residence and all other real estate), employer pension plans (on a termination basis) and all other assets (including RRSPs, RESPs, RRIFs, stocks, bonds, mutual funds, vehicles, household possessions, bank accounts, collectibles, accumulated value of family businesses, and other financial and non-financial assets).

Income quintiles are based on the total before-tax economic family income adjusted for family size (i.e., divided by the square root of the family size).
Debt-to-income ratio is obtained by dividing total family debt by the total after-tax family income.

Debt-to-asset ratio is obtained by dividing total family debt by total family assets.

## Income among senior families

Income among senior families increased over time. In 2016, the before-tax family income was $\$ 43,300$, up from $\$ 36,200$ (2016 dollars) in 1999 (Table 8). ${ }^{18}$ Though income increased for almost all groups, there were variations. For example, families in the top income quintile saw their income rise by $\$ 29,700$ ( $+36 \%$ ) whereas those in the bottom quintile had an increase of $\$ 1,500(+8 \%)$. This difference led to a widening of the gap between these two quintiles from $\$ 64,400$ in 1999 to $\$ 92,600$ in 2016. Among educational groups, families whose major income earner had a high school diploma or less had no change in income, whereas the income of the two groups with higher levels of education increased.

At the regional/provincial level, the before-tax family income of senior families in 2016 varied from a low of around $\$ 36,700$ in Quebec to a high of about \$55,200 in Alberta. Between 1999 and 2016, families in all provinces or regions, except Quebec and Ontario, saw their incomes grow. The increase was the largest in Alberta (as it increased by $\$ 20,100$ or $57 \%$ ).

The employment rate among seniors has been on the rise since the mid-1990s. In 2015, 20\% of Canadians aged 65 and over were employed, up from $10 \%$ in $1995 .{ }^{19}$ As a result, wages and salaries were the major source of family income for 1 in 10 seniors in 2016 (Chart 3). Government transfers are still the major source of income for a majority of seniors, though the proportion reporting them as a major source dropped from $68 \%$ in 1999 to $52 \%$ in 2016. A growing proportion of seniors reported retirement pensions as their major source of income ( $32 \%$ in 2016 versus $21 \%$ in 1999).

Chart 3
Major source of income, senior families with and without debt, 1999 and 2016


[^1]
## Income among senior families

Table 8
Before-tax and after-tax income, senior families with and without debt, 1999 and 2016

|  | Before tax |  | After tax |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 | 2016 | 1999 | 2016 |
|  | 2016 constant dollars |  |  |  |
| All senior families with and without debt | 36,200 | 43,300* | 33,500 | 40,300* |
| Sex of major income earner |  |  |  |  |
| Male | 45,300 | 55,100* | 41,200 | 49,900* |
| Female | 24,900 | 35,100* | 23,200 | 33,200* |
| Age of major income earner |  |  |  |  |
| 65 to 69 | 42,500 | 54,700* | 37,700 | 47,600* |
| 70 to 74 | 39,400 | 46,100 | 35,900 | 41,900* |
| 75 to 79 | 34,000 | 43,300* | 32,400 | 40,000* |
| 80 and over | 28,400 | 35,600* | 26,700 | 34,000* |
| Highest level of education of major income earner |  |  |  |  |
| Less than high school | 31,600 | 31,600 | 30,400 | 30,700 |
| High school diploma | 39,500 | 42,200 | 36,700 | 39,600 |
| Non-university postsecondary certificate or diploma | 38,700 | 51,100* | 35,900 | 45,600* |
| University degree or certificate | 61,800 | 74,700* | 51,100 | 63,700* |
| Family structure ${ }^{1}$ |  |  |  |  |
| Unattached individual | 22,700 | 28,000* | 21,600 | 26,800* |
| Male | 26,300 | 29,200 | 23,800 | 27,800 |
| Female | 22,100 | 27,400* | 21,100 | 26,400* |
| Couple, no children | 47,100 | 62,000* | 42,700 | 56,800* |
| Other family types | 52,900 | 68,200* | 49,300 | 62,400* |
| Immigrant status of major income earner |  |  |  |  |
| Immigrant | 37,900 | 42,200 | 35,600 | 40,600 |
| Canadian-born | 35,700 | 43,700* | 33,300 | 40,300* |
| Home ownership status |  |  |  |  |
| Owners with a mortgage | 52,100 | 58,900 | 45,500 | 52,700 |
| Owners without a mortgage | 41,800 | 55,300* | 38,000 | 49,800* |
| Non-owners | 24,500 | 28,900* | 22,800 | 28,300* |
| Labour force status of major income earner |  |  |  |  |
| Employee | 68,600 | 79,900 | 59,300 | 68,300 |
| Self-employed | 63,700 | 69,200 | 50,900 | 63,100 |
| Not in the labour force | 34,900 | 40,200* | 32,600 | 37,500* |
| Family income quintile |  |  |  |  |
| Bottom quintile | 17,700 | 19,200* | 17,700 | 19,200* |
| Second quintile | 23,800 | 29,900* | 22,700 | 29,300* |
| Middle quintile | 36,700 | 43,000* | 35,600 | 41,900* |
| Fourth quintile | 50,700 | 66,200* | 45,500 | 59,400* |
| Top quintile | 82,100 | 111,800* | 65,600 | 93,300* |
| Province or region of residence |  |  |  |  |
| Atlantic | 30,900 | 41,300* | 29,800 | 39,400* |
| Quebec | 33,300 | 36,700 | 32,100 | 34,800 |
| Ontario | 41,600 | 45,900 | 38,000 | 43,300* |
| Manitoba | 33,700 | 48,700* | 31,500 | 43,900* |
| Saskatchewan | 33,500 | 43,000* | 32,100 | 39,700* |
| Alberta | 35,100 | 55,200* | 33,900 | 49,000* |
| British Columbia | 36,400 | 48,200* | 32,800 | 43,200* |

* 2016 value is significantly different from the 1999 value ( $\mathrm{p}<0.05$ )

1. There were no couples with children or lone parents among senior families.

Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.

## Supplementary information

Table A1
Distribution of senior families by various characteristics, 2016

|  | All | With debt |
| :---: | :---: | :---: |
|  |  | cent |
| Sex of major income earner |  |  |
| Male | 55.4 | 59.8 |
| Female | 44.6 | 40.2 |
| Age of major income earner |  |  |
| 65 to 69 | 30.6 | 42.5 |
| 70 to 74 | 25.5 | 29.0 |
| 75 to 79 | 17.5 | 15.9 |
| 80 and over | 26.4 | 12.6 |
| Highest level of education of major income earner |  |  |
| Less than high school | 31.2 | 25.1 |
| High school diploma | 23.9 | 23.6 |
| Non-university postsecondary certificate or diploma | 25.0 | 28.5 |
| University degree or certificate | 19.9 | 22.8 |
| Family structure ${ }^{1}$ |  |  |
| Unattached individual | 47.8 | 37.8 |
| Male | 16.6 | 14.0 |
| Female | 31.2 | 23.8 |
| Couple, no children | 42.6 | 46.9 |
| Other family types | 9.7 | 15.3 |
| Immigrant status of major income earner |  |  |
| Immigrant | 25.9 | 23.2 |
| Canadian-born | 74.1 | 76.8 |
| Home ownership status ${ }^{2}$ |  |  |
| Owners with a mortgage | 12.0 | 46.6 |
| Owners without a mortgage | 54.9 | 28.5 |
| Non-owners | 33.1 | 24.9 |
| Labour force status of major income earner |  |  |
| Employee | 8.7 | 13.9 |
| Self-employed | 6.2 | 9.2 |
| Not in the labour force | 85.0 | 76.8 |
| Province or region of residence |  |  |
| Atlantic | 7.9 | 9.5 |
| Quebec | 27.4 | 26.1 |
| Ontario | 36.3 | 35.4 |
| Manitoba | 3.2 | 3.0 |
| Saskatchewan | 3.1 | 2.2 |
| Alberta | 8.0 | 8.8 |
| British Columbia | 14.2 | 15.0 |
| 1. There were no couples with children or lone parents among senior families. |  |  |
| 2. Mortgage debt among owners without a mortgage and non-owners relates to mortgage debt on properties other than the principal residence. |  |  |
| Source: Statistics Canada, Survey of Financial Security, 1999 |  |  |

## Notes

I. Calculated using data on population estimates from Statistics Canada table 17-10-005-01.
2. See Statistics Canada (2010).
3. See Uppal (2010; 2015).
4. See LaRochelle-Côté et al. (20I0).
5. See Arriagada (2018).
6. See Uppal and Barayandema (2018).
7. See Statistics Canada table 38-I0-0235-01 for additional information.
8. See, for example, Hurst (2011); Crawford and Faruqui (2012); Chawla and Uppal (20I2); Uppal and LaRochelle-Côté (2015).
9. See Marshall (201I).
10. For additional information about how senior families are distributed across characteristics, see Table AI in the Supplementary information section.
II. The tables in this article contain indicators for statistically significant differences between 1999 and 2016. Indicators for statistically significant differences between groups are not contained in the tables, however, only statistically significant results are discussed in the article.
12. See Uppal and LaRochelle-Côté (20I5). The quintiles are based on the total before-tax economic family income adjusted for family size. Alternatively, the aftertax family income was used to construct the quintiles. The qualitative conclusions remained unchanged.
13. Examples of other family types include co-resident siblings, and nieces and nephews living with aunts and/ or uncles.
14. See Lafrance and LaRochelle-Côté (201I) for an examination of consumption trends during retirement years.
15. This finding is likely attributable to higher housing prices in British Columbia. According to MLS home price data from the Canadian Real Estate Association, the average composite home price in December of 2016 was $\$ 915,400$ in the Vancouver region, $\$ 834,500$ in the Lower Mainland, and $\$ 673,600$ in the Fraser Valley. This compared with \$692,300 in the Greater Toronto Area, and \$3I2,000 in Montreal.
16. The data is available on the website of the CREA: www. crea.ca.
17. Alberta seniors had the highest level of debt in 2016, the result of a significant increase in debt levels that was largely due to additional mortgage debt.
18. This section includes all senior families (those with and without debt).
19. See Bernard (20I7).

## References

Agarwal, Sumit, John C. Driscoll, Xavier Gabaix and David Laibson. 2009. "The age of reason: Financial decisions over the life cycle and implications for regulation." Brookings Papers on Economic Activity. Fall. No. 2. p. 5I-II7.

Arriagada, Paula. 2018. "A day in the life: How do older Canadians spend their time?" Insights on Canadian Society. March. Statistics Canada Catalogue no. 75-006-X.

Bernard, André. 2017. "Working seniors in Canada." Census in Brief. November. Statistics Canada Catalogue no. 98-200-X.

Chawla, Raj K. and Sharanjit Uppal. 2012. "Household debt in Canada." Perspectives on Labour and Income. Summer. Vol. 24, no. 2. Statistics Canada Catalogue no. 75-00I-X.

Crawford, Allan and Umar Faruqui. 20I2. "What explains trends in household debt in Canada?" Bank of Canada Review. Winter 201I-2012. February. p. 3-I5.

Hurst, Matt. 201I. "Debt and family type in Canada." Canadian Social Trends. Summer. No. 91. Statistics Canada Catalogue no. II-008-X.
Lafrance, Amélie and Sébastien LaRochelle-Côté. 201I. "Consumption Patterns Among Aging Canadians: A Synthetic Cohort Approach." Economic Analysis Research Paper Series. March. No. 67. Statistics Canada Catalogue no. IIF0027M.

LaRochelle-Côté, Sébastien, Garnett Picot and John Myles. 2010. "Income replacement during the retirement years." Perspectives on Labour and Income. August. Vol. II, no. 8. Statistics Canada Catalogue no. 75-00I-X.

Marshall, Katherine. 20I I. "Retiring with debt." Perspectives on Labour and Income. Summer. Vol. 23, no. 2. Statistics Canada Catalogue no. 75-00I-X.

Statistics Canada. 2010. Population Projections for Canada, Provinces and Territories, 2009 to 2036. Statistics Canada Catalogue no. 91-520-X. Ottawa.
Uppal, Sharanjit and Athanase Barayandema. 2018. "Life satisfaction among Canadian seniors." Insights on Canadian Society. August. Statistics Canada Catalogue no. 75-006-X.
Uppal, Sharanjit and Sébastien LaRochelle-Côté. 2015. "Changes in debt and assets of Canadian families, 1999 to 2012." Insights on Canadian Society. April. Statistics Canada Catalogue no. 75-006-X.
Uppal, Sharanjit. 2015. "Self-employment among Canadian seniors: Trends and financial well-being." Entrepreneurship, Self-Employment and Retirement. Natalie Sappleton and Fernando Lourenço (eds.). London: Palgrave Macmillan. Chapter 7. p. 160-I86.

Uppal, Sharanjit. 2010. "Labour market activity among seniors." Perspectives on Labour and Income. July. Vol. II, no. 7. Statistics Canada Catalogue no. 75-00I-X.


[^0]:    * significantly different from reference category (ref.) (p < 0.05)

    1. There were no couples with children or lone parents among senior families.

    Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.

[^1]:    ${ }^{\mathrm{E}}$ use with caution
    Source: Statistics Canada, Survey of Financial Security, 1999 and 2016.

