

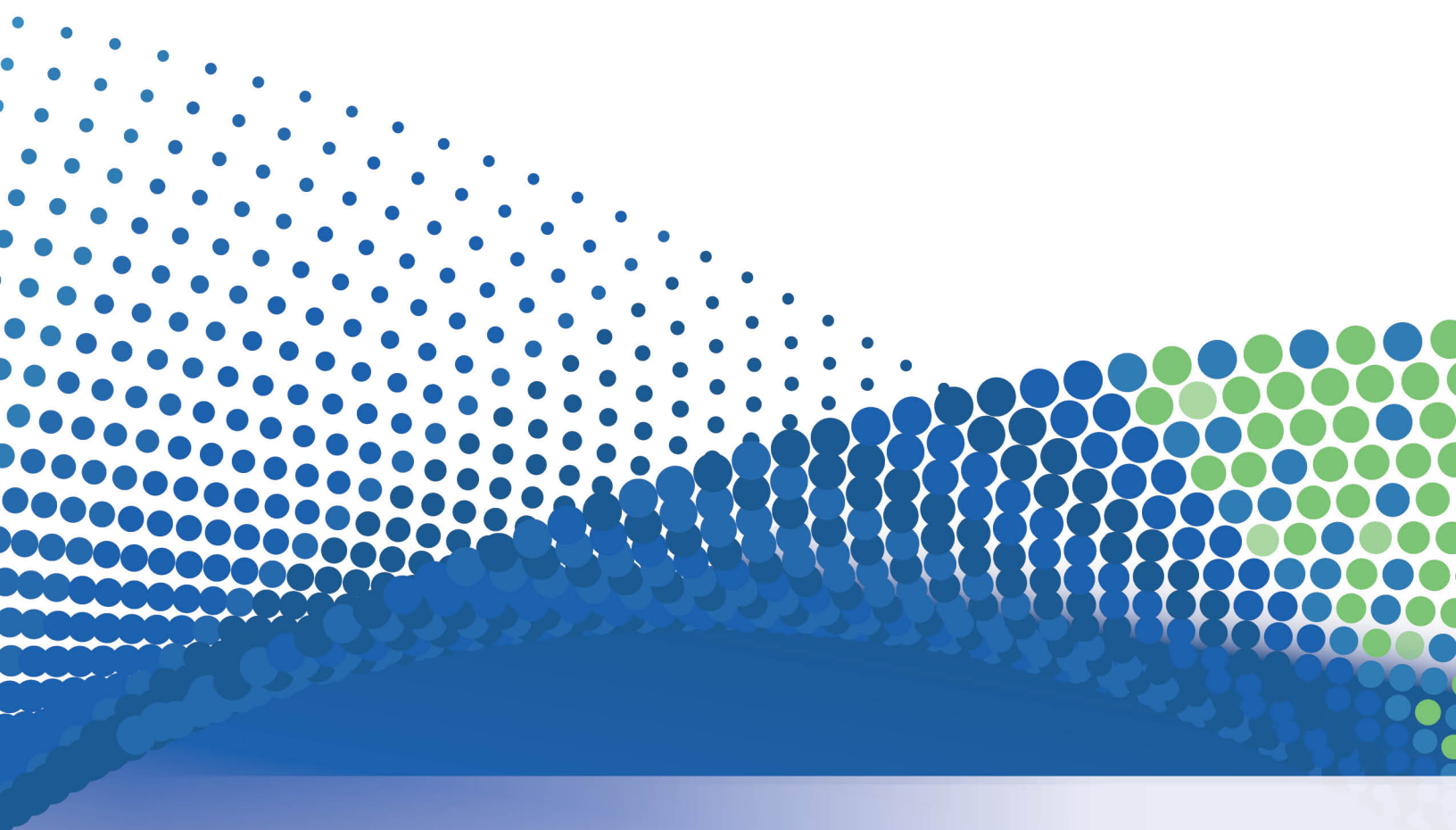


Financial Consumer
Agency of Canada

Agence de la consommation
en matière financière du Canada

FINANCIAL WELL-BEING IN CANADA

SURVEY RESULTS



Information contained in this publication or product may be reproduced, in part or in whole, and by any means, for personal or public non-commercial purposes without charge or further permission, unless otherwise specified. Commercial reproduction and distribution are prohibited except with written permission from the Financial Consumer Agency of Canada.

For more information, contact

Financial Consumer Agency of Canada 427 Laurier Ave. West, Ottawa ON K1R 1B9

www.canada.ca/en/financial-consumer-agency

Cat. No.: FC5-42/1-2019E-PDF (Electronic PDF, English)

ISBN: 978-0-660-33029-7

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Finance Canada, November 2019.

Aussi disponible en français sous le titre : **Le bien-être financier au Canada : Résultats de l'enquête**

Financial Well-Being in Canada: Survey Results

Financial well-being is the extent to which you can comfortably meet all of your current financial commitments and needs while also having the financial resilience to continue doing so in the future.¹ But it is not only about income. It is also about having control over your finances, being able to absorb a financial setback, being on track to meet your financial goals, and—perhaps most of all—having the financial freedom to make choices that allow you to enjoy life.

Generally, people who have high levels of financial well-being are not stressed about money and are able to cope with unexpected expenses. In contrast, people with low levels of financial well-being have difficulty meeting their financial commitments and do not have much money in reserve for emergencies. Better financial well-being is associated with less stress and greater mental and physical health.²

The Financial Consumer Agency of Canada (FCAC) participated in a multi-country initiative that sought to measure financial well-being. FCAC conducted this survey to understand and describe the realities of Canadians across the financial well-being spectrum and help policy-makers, practitioners and Canadians themselves achieve better financial well-being. This is in keeping with the Agency's ongoing work to monitor trends and emerging issues that affect Canadians and their finances.

Previous research³ has found that certain behaviours and economic factors are the key drivers of financial well-being. These, in turn, are driven by psychological influences (such as impulsivity, self-control, locus of control, time orientation, action orientation,⁴ and attitudes toward spending, saving and borrowing). The analyses in this report are based on the Kempson *et al.* model, illustrated in Figure 1.

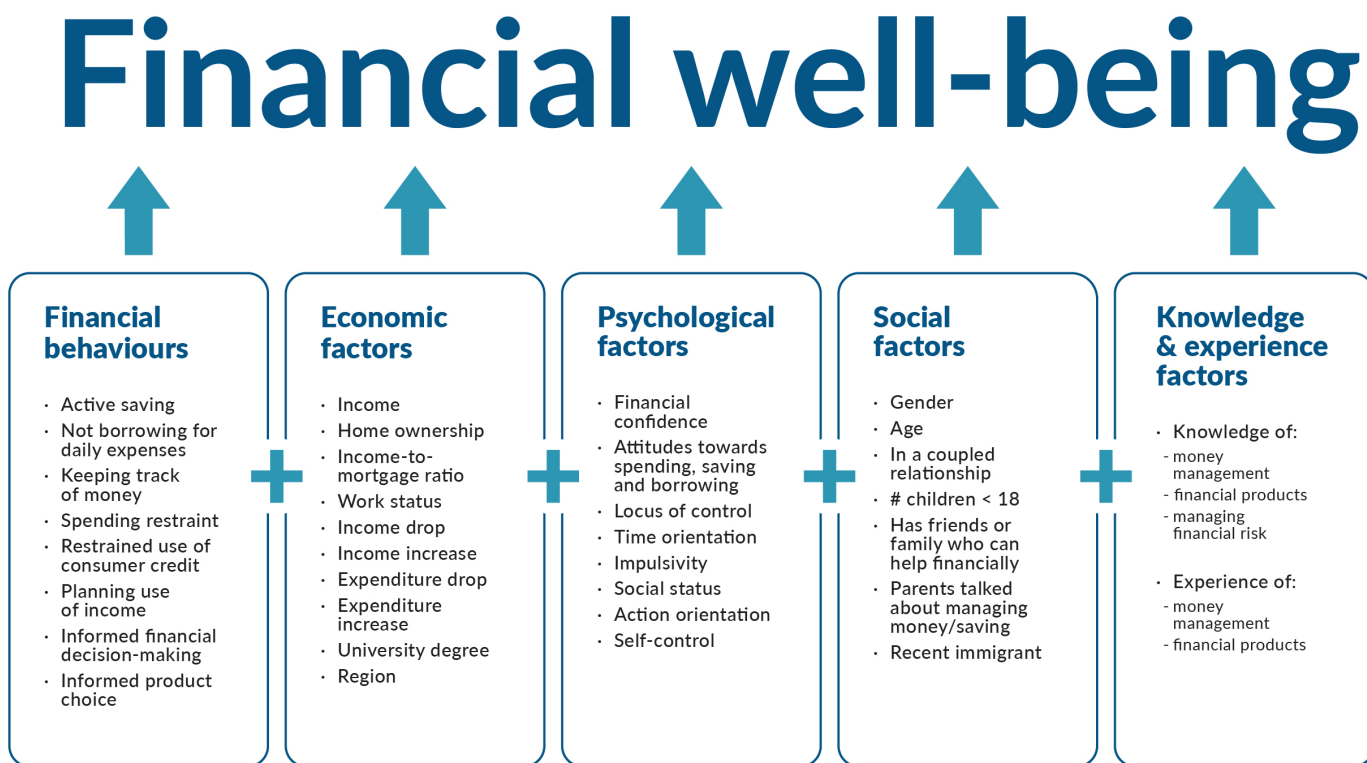
¹ Kempson, E., Finney, A., & Poppe, C. (2017). *Financial well-being: A conceptual model and preliminary analysis* (Project note no. 3-2017). Retrieved from https://www.researchgate.net/publication/318852257_Financial_Well-Being_A_Conceptual_Model_and_Preliminary_Analysis.

² Hess, D. (2016). Finding the Links Between Retirement, Stress, and Health. Lockton. Retrieved from: https://www.lockton.com/whitepapers/Finding_the_Links_Between_Retirement_Stress_and_Health.pdf.

³ Kempson et al. (2017).

⁴ In personality psychology, locus of control is the degree to which people believe they have control over the outcome of events in their lives, as opposed to believing that outcomes are driven by external forces beyond their control. Time orientation reflects a preference toward past, present or future thinking. Action orientation is about a person's tendency to take action to address problems or achieve goals.

Figure 1 – Categories of factors relating to financial well-being



In this model, financial well-being is determined by 5 categories of factors:

- financial behaviours (e.g., saving and borrowing)
- social factors (e.g., age, employment status)
- psychological factors (e.g., confidence, attitudes toward money)
- economic factors (e.g., income)
- financial knowledge and experience (e.g., experience with financial products)¹

The survey used a number of questions to measure each of these categories of factors. The responses were then combined into related variables. Figure 1 lists the variables included in each category.

In November 2018, FCAC released a [Backgrounder report](#) containing preliminary results of the survey and a comparison of Canada's overall results versus those of Australia, New Zealand and Norway. This report expands on those results by:

- describing financial well-being in Canada
- identifying the key behaviours, attitudes, knowledge and experiences that are associated with financial well-being
- describing the realities of Canadians across the financial well-being spectrum
- making recommendations for Canadians, including policy-makers and practitioners (such as credit counsellors, financial advisors and educators)

Key messages

- Many Canadians are doing reasonably well financially
- Income is important, but so are behaviours
- Financial well-being has a stronger relation to behaviours than to economic factors
- Canadians who actively save have higher levels of financial well-being than those with similar incomes who don't
- Canadians who avoid borrowing to meet daily expenses have higher levels of financial well-being than those who borrow regularly, regardless of income
- Financial confidence and attitudes toward spending, saving and borrowing are important
- For people with less financial well-being, financial confidence and feeling in control of the future are strongly related to financial well-being
- Generally, older Canadians who make positive financial choices and have the benefit of experience have the highest levels of financial well-being

Survey methodology

In February 2018, FCAC conducted an online survey with a sample of Canadians aged 18 years and older. A very similar survey had previously been completed in Norway, Ireland, Australia and New Zealand. Slight changes were made to some of the questions to adapt them to each country's context, but the results are largely comparable.

We selected respondents randomly from a broad pool of Canadians who volunteer to participate in online surveys. Online surveys have become commonplace in Canada, and findings have been shown to generalize well.⁵ The survey was completed by a sample of 1,935⁶ Canadian residents representative of the distribution of gender, region and age in Canada.⁷ The survey took approximately 15 minutes to complete. Further details about the methodology can be obtained from [Library and Archives Canada](#).⁸

Results

This section describes the survey results. Specifically, it describes Canadians' overall levels of financial well-being as well as components of the financial well-being model that are most strongly related to financial well-being.

⁵ See Braunsberger, K., Wybenga, H., & Gates, R. (2007). "A comparison of reliability between telephone and web-based surveys." *Journal of Business Research*, 60(7), 758–764.

⁶ An additional 99 surveys were rejected due to an insufficient number of valid responses. Valid responses included all answers except "don't know" or "prefer not to answer".

⁷ As an incentive for their participation, Ipsos (the research firm that contacted participants) offered respondents points they could redeem for products from online retailers, such as gift cards and prizes. The seniors (65 years and over) in our sample had higher incomes than the Canadian average for the same age range reported by Statistics Canada, but were similar in terms of education, marital status and employment status, and had slightly lower levels of home ownership without a mortgage.

⁸ http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/financial_consumer_agency/2018/086-17-e/summary/Exec_Summary_Appendices_excluding_tabs_HTML5_Eng.html.

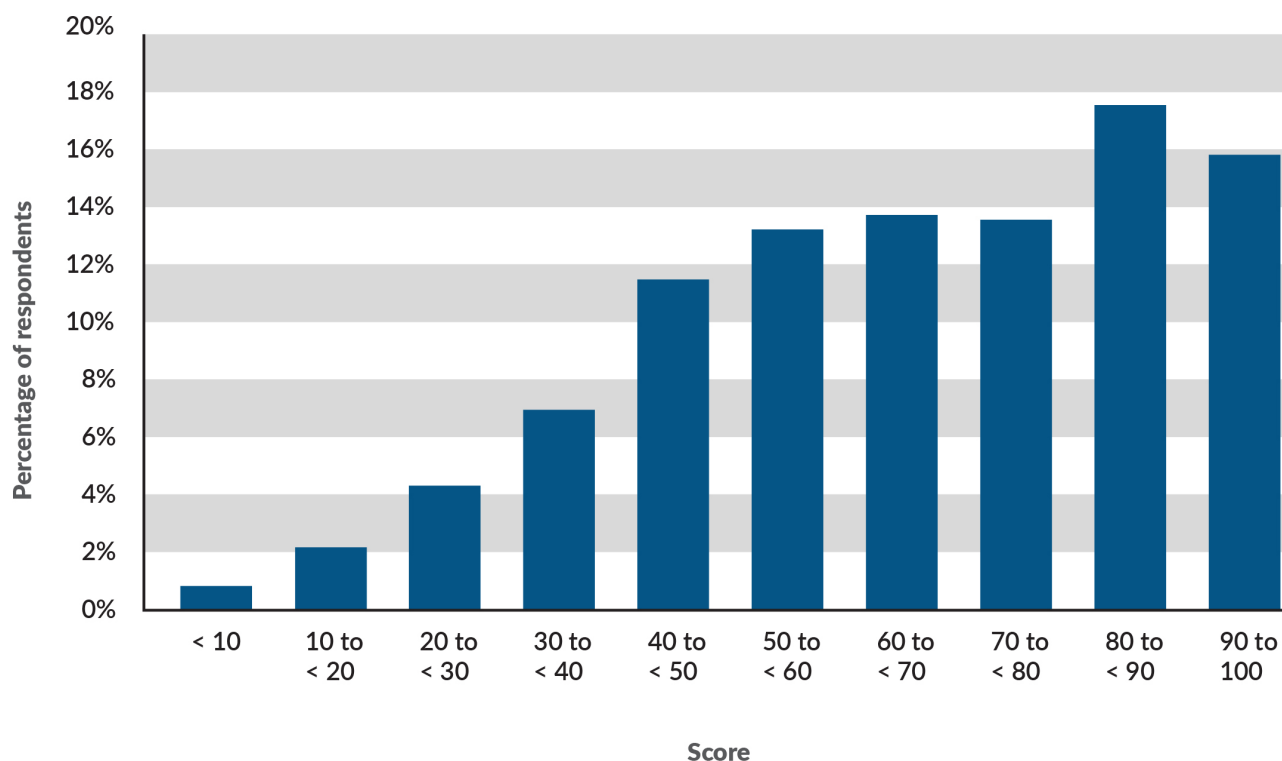
Most Canadians are doing reasonably well financially.

To assess Canadians' overall financial well-being, we calculated a Financial Well-Being Score out of 100 for each survey respondent. The average score was 66.

Looking at the distribution of scores (Figure 2), we can see that three quarters (74%) of Canadians had a score of greater than 50. As we explain below, Canadians who scored above 50 are considered either Financially Secure (if they scored over 80) or Somewhat financially secure (if they scored 51 to 80).

We can also see that about one quarter of Canadians (26%) had Financial Well-Being Scores of less than 50. These Canadians are considered to be Struggling somewhat (if they scored 31 to 50) or Struggling a lot (if they scored 30 or less) with their finances.

Figure 2 – Overall financial well-being



The overall Financial Well-Being Score can be divided into 3 components:

- meeting commitments (for example, being able to pay bills on time)
- feeling financially comfortable (for example, the extent to which finances allow someone to do the things they want and enjoy life)
- resilience for the future (for example, the ability to deal with unforeseen expenses)

We calculated mean scores for these 3 components. Canadians obtained mean scores of:

- 81 for meeting commitments
- 61 for feeling financially comfortable
- 60 for resilience for the future

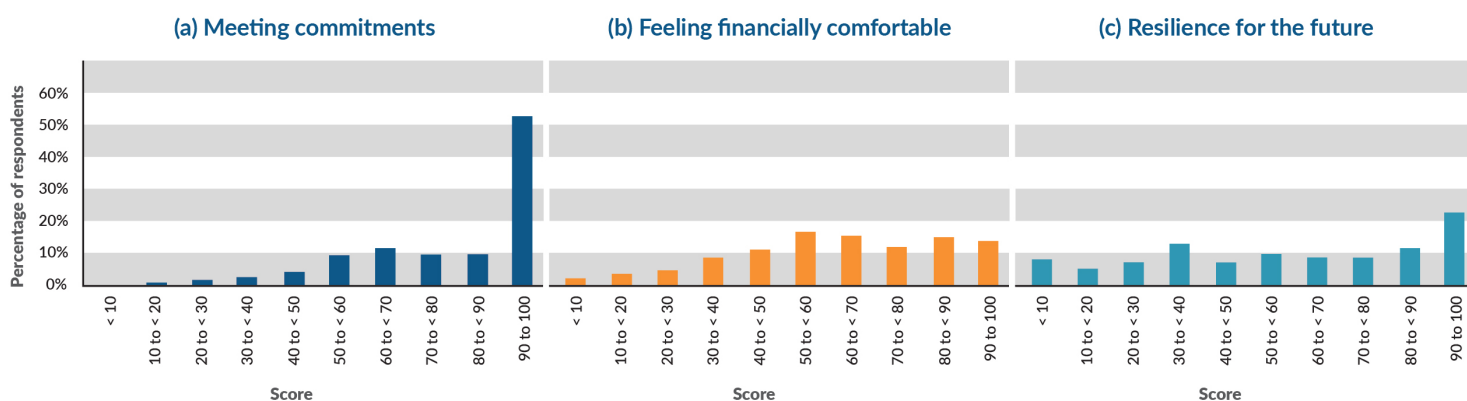
Figure 3 shows the distribution of scores for Canadians for each component.

While most Canadians were very strong at meeting all of their commitments (Figure 3a), the extent to which they felt comfortable financially ranged greatly (Figure 3b). Clearly, many Canadians are meeting their commitments, but do not feel their financial situation allows them to do the things they want.

Some Canadians are in a good position to be resilient for the future—for example, approximately 30% had a score of 80 or greater for this component—but many others have lower levels of resilience (Figure 3c).

These results tell us that Canadians stand to benefit from strategies that would allow them to build more buffers into their spending plans and be better prepared for financial setbacks, such as unexpected expenditures or a drop in income.

Figure 3 (a, b, c) – Canadians’ scores on 3 key components of financial well-being



We considered 5 categories of factors—financial, economic, psychological, social, and knowledge and experience factors—and conducted analyses to determine which of them⁹ were most strongly related to Canadians’ financial well-being. Each set of factors contained a number of related variables. For example, variables in the economic factors category included income, work status and home ownership. Knowing how these factors and their underlying variables relate to Canadians’ financial well-being is important for policy-makers and practitioners—such as credit counsellors, financial advisors and educators—who are looking for advice on which behaviours, experiences, attitudes, types of knowledge, and social or economic differences are most closely related to financial well-being.

⁹ Previous work on the financial well-being model (e.g., Kempson et al., 2017), found that these factors were related to financial well-being.

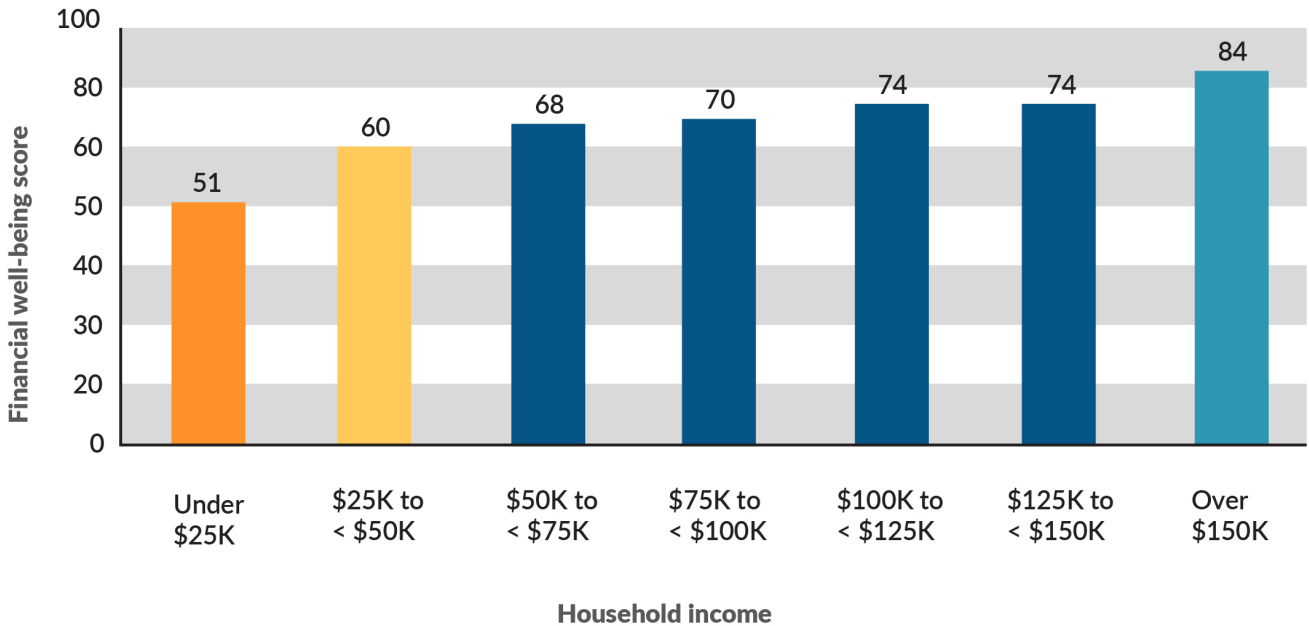
The cross-sectional data yielded by the survey don't tell us definitively that improving a person's score in 1 area will improve their overall financial well-being. However, knowing how each of these factors relates to financial well-being—and understanding the relative strength of the relationships between them—is the first step toward targeting areas for improvement.

Income is important, but so are behaviours.

As shown in Figure 4, financial well-being increases significantly as household income rises above \$50,000. However, the average Financial Well-Being Score does not differ between households with income between \$50,000 and \$150,000 (dark blue bars). Financial well-being only rises again for the highest income group (more than \$150,000).

In other words, the relationship between income and financial well-being is strongest for Canadian households with very low or very high incomes. The fact that there is little change in financial well-being across most income groups is consistent with the finding that other factors, such as behaviour, have a greater impact on financial well-being. This finding is striking because it is counter-intuitive and contrary to many people's beliefs that higher income alone always leads to greater financial well-being.¹⁰

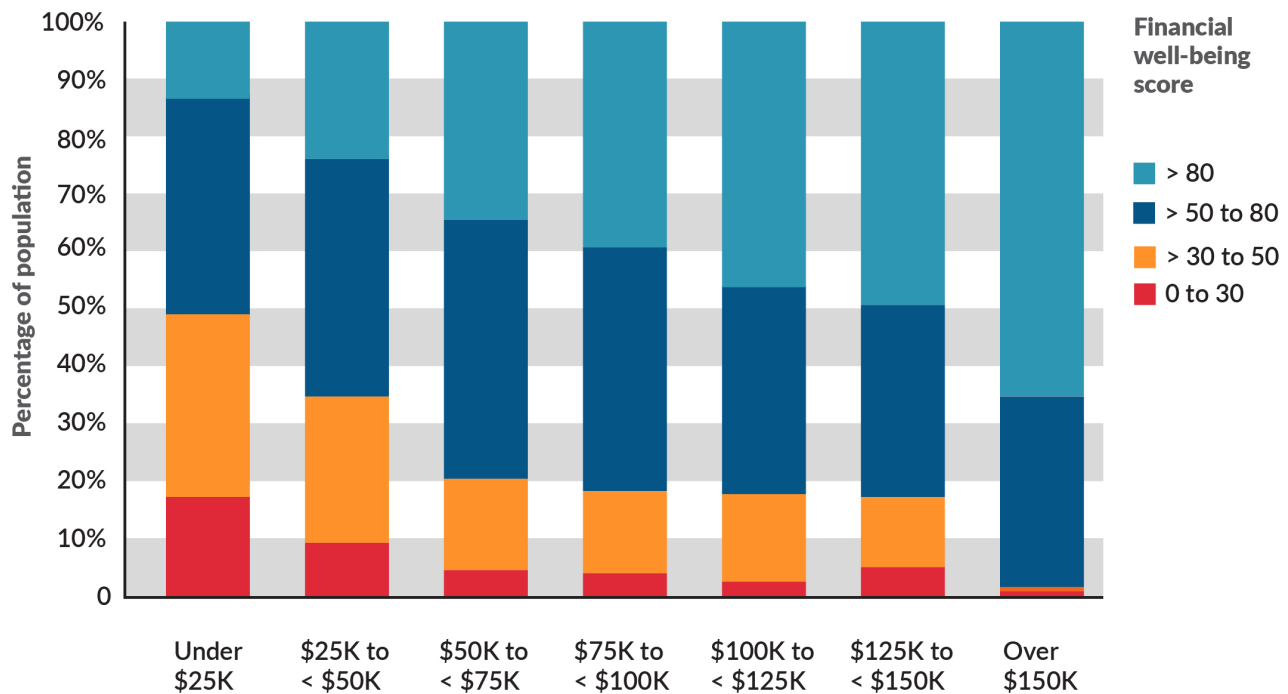
Figure 4 – Financial Well-Being Scores by household income



¹⁰ In the Canadian Payroll Association's 2018 survey, when asked "What would be the single most effective step you could take to improve your financial situation?" the most popular response was "earn more". This result was consistent with results of the association's 2015–17 surveys.

Financial Well-Being Scores vary greatly within each income bracket (Figure 5). Notably, there are some Canadians in high income brackets (that is, with annual household incomes over \$100,000) who report relatively low financial well-being (Financial Well-Being Score below 50: orange and red bars), while some in the lowest income brackets (household income under \$25,000) report relatively high financial well-being (Financial Well-Being Score 50 to 100: dark blue and teal bars).

Figure 5 – Level of financial well-being by household income bracket



Financial well-being is more strongly related to behaviours than to economic factors.

While economic factors (including household income) clearly play an important role in a person's financial well-being,¹¹ our model shows they are not the factors with the strongest relationship to financial well-being. We found that for Canadians' Financial Well-Being Scores:

- 23% of their score was related to financial behaviours
- 19% was related to economic factors
- 12% was related to psychological factors
- 12% was related to social factors
- 4% was related to knowledge and experience

This tells us that how a person manages their money (for example, how often they save and how often they borrow) has the strongest relationship to their Financial Well-Being Score, followed by economic

¹¹ Vlaev, I., & Elliot, A. (2013). Financial well-being components. *Social Indices Research*, 118, 1103–1123.

factors, such as income, owning versus renting a home, and employment (working full-time versus working part-time or being unemployed). These results imply that to improve their financial well-being, Canadians have options other than changing their income or work status. They may be able to get good results simply by altering certain financial behaviours.

Canadians who actively save have higher levels of financial well-being than those with the same income who don't.

Next, we examined how each individual variable (considering all 5 categories of factors) related to financial well-being. The variable with the strongest relationship was active saving, which related to 10% of the variability in Financial Well-Being Scores.

We assessed active saving through questions about how often someone:

- saved money for unexpected, major expenses or a drop in income
- tried to save funds to fall back on during hard times
- tried to save regularly, even if only a small amount

On the surface, it may seem obvious that people who earn enough money to be able to save would have higher financial well-being. However, that is not the whole story. The analysis controlled for economic and demographic differences between individuals, such as income, age, number of dependent children, work status and more. This finding demonstrates that intentionally setting money aside is the variable most strongly related to financial well-being, regardless of income level or other demographic influences.

Because active saving accounted for such a large portion of the Financial Well-Being Score, we wanted to better understand this behaviour so we could guide Canadians and help practitioners encourage it.¹² Broadly, we found that psychological factors are the ones that have the greatest relationship to whether or not a Canadian regularly saves money.¹³ More specifically, the way Canadians think and feel about money affects whether or not they save.¹⁴ Perhaps not surprisingly, those who have positive attitudes toward saving and negative attitudes toward borrowing are more likely to save. As well, those who take a long-term view are more likely to save compared with those more inclined to live for the moment.

The same principle applies to Canadians who feel confident about managing their money day to day, planning for their financial futures, and making decisions about financial products and services: they are more likely to save and have higher levels of financial well-being than those who feel less confident about money management.

¹² We conducted a regression analysis using active saving as the dependent variable and variables from the psychological, economic, social, and knowledge and experience categories as the independent variables. We did not include the 7 remaining variables from the financial behaviours category because they are inter-related.

¹³ Psychological factors accounted for the highest percentage of variability in active saving scores (21%), followed by economic factors (17%). Social as well as knowledge and experience factors accounted for smaller portions of the variability (5% and 4%, respectively).

¹⁴ The attitudes toward spending, saving and borrowing variable accounted for 6% of the variability in active saving scores, followed by time orientation (4%) and financial confidence (4%).

Helping someone to develop a new mindset toward spending, saving and borrowing or changing their perspective on how much control they have over their life may be challenging. However, unlike social/demographic factors (such as age, gender or number of dependents), psychological factors like these can potentially be modified.¹⁵ Given the finding that psychological factors are strongly associated with financial well-being, this potential malleability is encouraging because it may lead to innovative interventions to help Canadians improve their financial well-being.

Canadians who avoid borrowing to meet daily expenses have higher levels of financial well-being than those who borrow regularly, regardless of income.

The variable with the next strongest relationship to financial well-being was a financial behaviour: not borrowing for daily expenses. It related to 5% of the variability in Financial Well-Being Scores. We assessed this variable through questions about how often a person borrowed money to pay off debts, was overdrawn on their bank account, or used credit for food and daily expenses because they had run short of money. As described above, this result takes into account elements such as income and demographics. It indicates that when all other elements are constant, not borrowing for daily expenses is the variable most strongly related to financial well-being. It appears that individuals who find ways to avoid borrowing for daily expenses—for example, by reducing their spending—have higher financial well-being regardless of income level, savings behaviours, family status, home ownership, education or work status.

Generally, we found that whether a Canadian borrowed for daily expenses was most strongly related to both psychological and economic factors.¹⁶ Similar to what we learned about active saving, those who had positive attitudes toward saving and negative attitudes toward borrowing were less likely to borrow (as were those with higher financial confidence). We also found that those who were good at resisting temptation and breaking bad habits, and who felt in control of themselves, were less likely to borrow for daily expenses.¹⁷

These insights into the variables related to not borrowing for daily expenses may help practitioners pinpoint areas to focus on with Canadians who want to improve their financial well-being. For example, with Canadians who tend to borrow money for daily expenses, practitioners might look for ways to help them build their financial confidence, increase their self-control, and change their attitudes toward spending, saving and borrowing.

Overall, financial well-being was most strongly related to 2 financial behaviour variables: active saving and not borrowing for daily expenses. Differences in these behaviours were, in turn, most strongly associated with psychological and economic factors. For both of these financial behaviours, financial

¹⁵ For example, Magidson, J. F., Roberts, B. W., Collado-Rodriguez, A., & Lejuez, C. W. (2014). Theory-driven intervention for changing personality: Expectancy value theory, behavioral activation, and conscientiousness. *Developmental Psychology*, 50(5), 1442–1450.

¹⁶ Psychological and economic factors each accounted for approximately 13% of the variability in the “not borrowing for daily expenses” scores. Social factors as well as knowledge and experience factors accounted for smaller portions (5% and 3%, respectively).

¹⁷ Attitude toward spending, saving and borrowing accounted for 6% of the variability in the “not borrowing for daily expenses” scores, followed by financial confidence (3%) and self-control (2%).

confidence and attitudes toward spending, saving and borrowing were behind most of the variability in Financial Well-Being Scores.

Financial well-being groups

To gain insight into the proportion of Canadians experiencing different levels of financial well-being and understand more about what the levels mean in practical terms, the study placed Canadian respondents into 1 of 4 groups based on their Financial Well-Being Scores. These groups represent how well their members are doing financially. The 4 groups are:

- Financially Secure
- Somewhat Secure
- Struggling Somewhat
- Struggling a Lot¹⁸

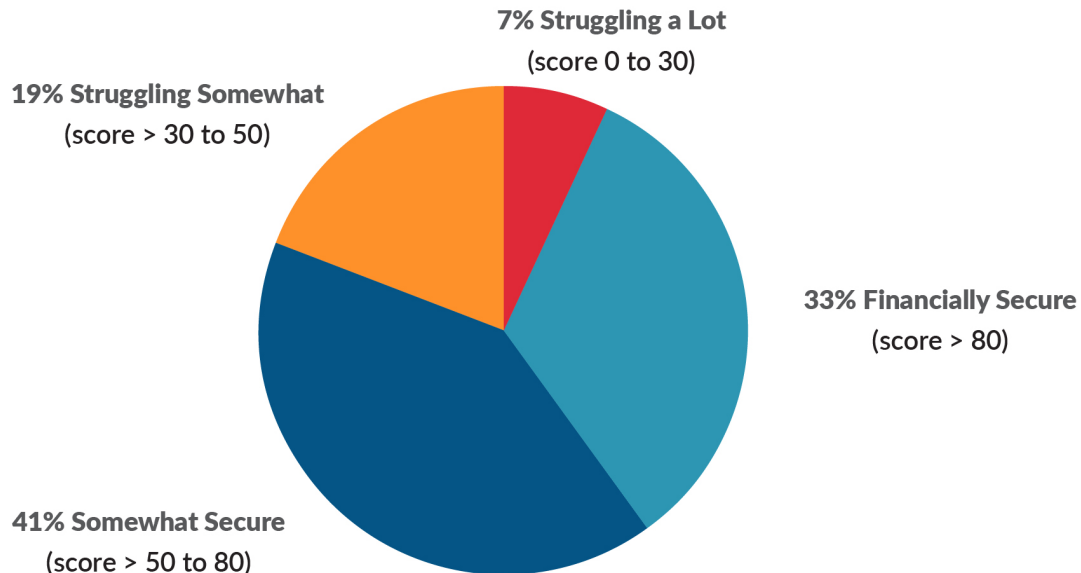
In this section, we present the proportion of Canadians in each group and discuss:

- how each group tends to describe its financial situation
- demographic information about the group
- the variables related to financial well-being within the group
- how the groups differ from each other

Figure 6 shows the range of Financial Well-Being Scores that were used to create the groups and the percentages of Canadians in each. As mentioned earlier, Canadians on the whole seem to be doing reasonably well: more than 74% fell into the top 2 groups, Financially Secure and Somewhat Secure.

¹⁸ The groups were constructed according to guidelines set by D. Hayes, J. Evans and A. Finney. For more information, see: [http://www.bristol.ac.uk/media-library/sites/geography/pfrc/Momentum%20Index%20PFCRC%20March%202016%20FINAL%20Report%20-%20after%20minor%20revisions%20\(15_08_2016\)%20%20.pdf](http://www.bristol.ac.uk/media-library/sites/geography/pfrc/Momentum%20Index%20PFCRC%20March%202016%20FINAL%20Report%20-%20after%20minor%20revisions%20(15_08_2016)%20%20.pdf).

Figure 6 – Percentage of Canadian respondents in each financial well-being category



To offer a better understanding of what the financial situation is like for Canadians in these groups, including their demographic compositions, we describe the groups in the next section.

Note that the main elements that are related to a person's financial well-being would likely be different for each group. For example, Canadians in the Struggling a Lot group might find that their financial well-being is related to different influences than those in the Financially Secure group. To explore this possibility, we also looked at each group individually and examined which variables were related to financial well-being within the group.¹⁹

¹⁹ We conducted regression analyses within each group to determine the factors most strongly related to financial well-being within that group.

The Financially Secure group

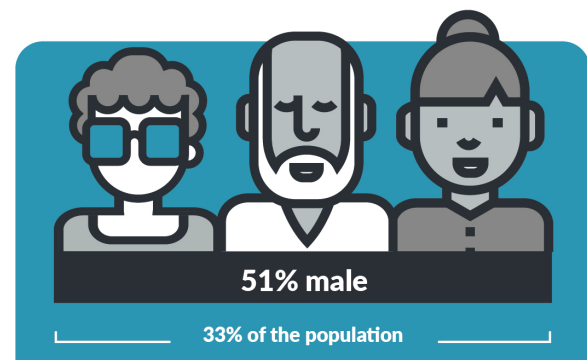
Financial situation: “Quite good” or “Very good”

Members of this group:

- make up about 33% of the population
- are confident about their financial situation over the next 12 months
- can do the things they want and enjoy life
- would be able to cover an unexpected expense equivalent to a month's income using cash or money in an account
- have at least 6 months' income in savings (80%)

Who's in the Financially Secure group?

- 51% are male
- 50% are aged 60 to 91
- 65% are in a coupled relationship
- 51% own their home outright, while 31% have a mortgage and 16% rent
- The average household income is \$89,000



Meeting commitments



Feeling financially comfortable



Resilience for the future

Among members of the Financially Secure group, income was the variable most strongly related to financial well-being. This is consistent with the finding (described earlier) that income does make a difference at the high end of the income spectrum: all members of the Financially Secure group have a fairly high level of financial well-being, but within this group, those with the highest incomes tended to have the highest Financial Well-Being Scores.

At very high levels of income, people can enjoy a very high level of financial well-being without being cautious about how each dollar is spent. They can make small mistakes and recover from them without long-term impacts. They can easily cover their necessary expenses, afford some “wants” or luxuries, and still put some money aside for the future. This is not to say it is impossible for someone with very high income to have difficulty covering their expenses, but clearly the challenges and opportunities are different than at lower levels. Individuals with higher income also tend to have more disposable income and opportunities to gain experience with a range of financial products and services. For example, to purchase investment products and access professional financial advice, you need money, both to invest and to pay for the advice.

Knowledge of money management (i.e., knowing how to plan spending against income, choose the right savings products, and choose the right consumer loans and credit cards) was also strongly related to Financial Well-Being Scores in this group. This finding demonstrates that financial well-being is not just about how much money someone has; everyone in the Financially Secure group has a high level of financial well-being. What distinguishes those who are doing well from those who are doing very well are skills related to how they manage the money they have. This is an important consideration for Canadians and practitioners, since these knowledge areas and skills can be learned and developed over time.

Meet Joe



Financially Secure group

Age: 65

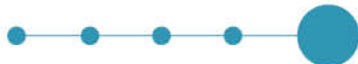
Meeting commitments



Feeling financially comfortable



Resilience for the future



Marital status:

Married

Family makeup:

Married to Carla for 40 years. They have 2 children who are living on their own and are no longer financially dependent.

Home tenure:

Own their house outright

Occupation:

Retired and has an employer pension. Spouse is partially retired and supplements Joe's pension income with contract positions she enjoys.

Annual income:

Combined income of \$85,000

Knowledge and experience:

Has a lot of experience with different financial products, such as mortgages, life insurance and various types of investments.

Psychological factors:

Prioritizes saving over spending, thinks about the future, and is not very impulsive. He feels he is in control of his financial future.

Financial situation:

Over the years, Joe and Carla put away money regularly and now have substantial investments which they plan on drawing from later in retirement when Carla stops working. He is confident that they have sufficient savings to live comfortably throughout their retirement years.

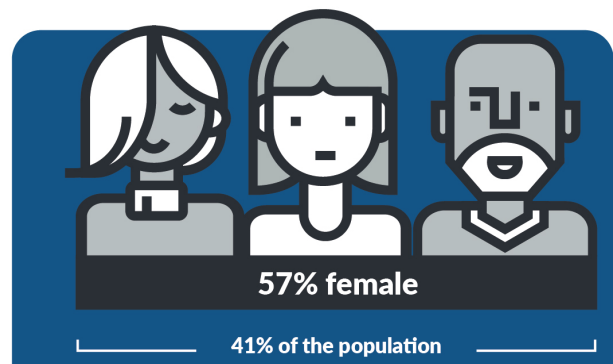
What can Joe do: To sustain his high level of financial well-being, Joe and Carla might benefit from making the most of savings vehicles, such as tax-free savings accounts (TFSAs), and avoiding new debts. Joe should make sure he is informed about the best products and services available to him before making financial decisions.

The Somewhat Secure group

Financial situation: “Neither good nor bad” or “Quite good”

Members of this group:

- make up 41% of the population
- are either quite confident in (50%) or neutral about (40%) their financial situation over the next 12 months
- can do the things they want and enjoy life (30%) or are neutral on the topic (30%)
- tend to have some money left over after paying for food and household bills, at least sometimes
- may struggle to meet commitments from time to time (40%)
- may have more than 3 months' income in savings (50%)



Who's in the Somewhat Secure group?

- 57% are female
- There is fairly even representation from all age groups
- 64% are in a coupled relationship
- 44% have a mortgage, while 30% rent their home and 21% own it outright
- The average household income is \$66,000



Meeting commitments



Feeling financially comfortable



Resilience for the future

Among the Somewhat Secure group, the number of dependent children living at home was strongly related to financial well-being. Those who had fewer (or no) dependent children at home tended to have higher financial well-being than those with more. This likely has to do with the number of people being supported by the household's income today and into the future. The anticipation of future costs to support dependents (such as the need to pay for their education) may add considerable stress to these Canadians. The number of children living at home is often highly correlated with an individual's age, peaking in the mid-adult years. As people get older and approach retirement, their children often become independent and leave home.

Those who owned their home (as opposed to renting) tended to have higher financial well-being, especially those who were mortgage-free. This is likely because of the effect that housing costs have on disposable income. Being mortgage-free is frequently associated with life stage: young adults often do not own a home, but as they become established in a career and perhaps start a family, they purchase one with a mortgage, and pay the mortgage off over time.

It is important to note that paying a mortgage off over time (as opposed to continuing to carry it) is advantageous. Historically, this was the only option for most people, but in recent years, home-equity lines of credit (HELOCs) have been gaining in popularity in Canada. The problem is that with a HELOC, 27% of Canadians make interest-only payments most months or every month,²⁰ resulting in debt persistence. For people who are Somewhat Secure, a HELOC can provide useful flexibility when it comes to funding renovations or other major home expenses. But for home owners who will struggle to pay them off reasonably quickly, HELOCs can lead to unintended consequences and wealth erosion. Practitioners should keep this in mind when advising home buyers on their options for funding home purchases and ongoing home expenses. They should highlight the importance of paying down mortgages and avoiding consumer debt to reach long-term financial goals.

²⁰ Financial Consumer Agency of Canada, [Home equity lines of credit: Consumer knowledge and behaviour](#) (Ottawa, ON: Financial Consumer Agency of Canada, 2019).

Meet Susan



Somewhat
Secure group

Age: 42

Meeting
commitments



Feeling financially
comfortable



Resilience for
the future



**Marital
status:**

Married

**Family
makeup:**

Married to John. They have 2 children at home and many expenses.

**Home
tenure:**

Own their house with a mortgage, but they are making progress toward paying it off.

Occupation:

Daycare provider. Spouse is an equipment operator.

**Annual
income:**

Combined income of \$98,000

**Knowledge
and
experience:**

Has some experience with products like mortgages, but doesn't have much knowledge of investment options.

**Psychological
factors:**

Thinks about the future sometimes, but has a lot of current obligations taking up her mental energy. She feels she has some control over her finances because she can choose to work less or more.

**Financial
situation:**

Susan has a small amount of money saved for emergencies, and has started to think about saving for retirement, but she and John don't have a lot of money left over each month after paying for their regular expenses.

**Financial
behaviours:**

They never borrow for daily expenses and always try to make informed choices about financial products.

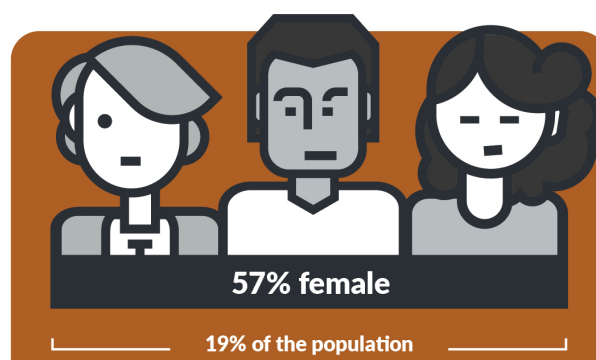
What can Susan do: To increase her level of financial well-being, Susan might benefit from setting up automatic, regular savings to build up her financial resilience and cover a potential financial setback. This would help her to continue avoiding consumer debt. She might also benefit from accessing financial education resources to help her set and achieve financial goals such as paying down her mortgage and preparing for retirement.

The Struggling Somewhat group

Financial situation: “Neither good nor bad”

Members of this group:

- make up 19% of the population
- describe their financial situation as neither bad nor good, or somewhat bad
- are either neutral about or not confident in their financial situation over the next 12 months
- do not feel their finances allow them to do the things they want and enjoy life (2 out of 3 respondents)
- sometimes (50%) or often or always (11%) run short of money for food or other regular expenses
- tend to struggle from time to time to meet commitments such as bills, rent or mortgage and credit card payments (68%)
- would not be able to cover the whole amount if tomorrow they had an unexpected expense equivalent to a month's income (5%; although 52% said they would be able to cover some of the unexpected expense using cash or money in an account)



Meeting commitments



Feeling financially comfortable



Resilience for the future

Who's in the Struggling Somewhat group?

- 57% are female
- 29% are 30 to 44 years old and 30% are 45 to 59 years old
- 51% are in a coupled relationship
- 50% rent their home, while 37% have a mortgage and 10% own their home
- The average household income is \$48,000

Our analyses of the Struggling Somewhat group revealed that not borrowing for daily expenses was the variable most strongly associated with higher financial well-being. As with all Canadians surveyed, Canadians in this group who did not borrow to cover their daily expenses tended to have higher levels of financial well-being. This result takes into account elements such as income and number of children at home, and indicates that when all other elements are constant, not borrowing for daily expenses is the variable most strongly related to financial well-being in this group.

This indicates that having low income, or low amounts of disposable income, is not the only reason for borrowing for daily expenses; within this group, individuals are making different choices about how to manage their cash flow, with some borrowing to cover daily expenses and others not. Those who are finding ways to avoid borrowing for daily expenses—perhaps by cutting back or putting off regular expenses when an unexpected expense comes up—have higher levels of financial well-being.

Our analyses showed that having post-secondary education was strongly related to financial well-being for Canadians in this group. In general, post-secondary education was associated with higher earning potential²¹ and higher financial literacy.²² This indicates that lower-income Canadians have the potential to benefit from increased earnings through education even more than do Canadians in higher-income groups. Canadians in the Struggling Somewhat group may wish to consider whether additional training could improve the opportunities available to them and, in turn, their financial well-being.

²¹ Statistics Canada. Does education pay? A comparison of earnings by level of education in Canada and its provinces and territories. Retrieved from: <https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016024/98-200-x2016024-eng.cfm>.

²² Financial Consumer Agency of Canada. (2015). [Managing money and planning for the future: Key findings from the 2014 Canadian Financial Capability Survey \[PDF\]](#).

Meet Sam



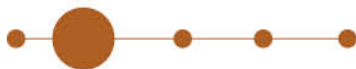
Struggling Somewhat group

Age: 26

Meeting
commitments



Feeling financially
comfortable



Resilience for
the future



Marital status:	Single
Family makeup:	No children
Home tenure:	Rents a 2-bedroom apartment
Occupation:	Full-time, entry-level position at a grocery store
Annual income:	\$32,000
Knowledge and experience:	He has a credit card, but doesn't have many other financial products, like insurance or a mortgage.
Psychological factors:	He lives in the moment and hasn't really started thinking about retirement.
Financial situation:	He feels neutral about his current financial situation, and is not very confident about his financial future. He is usually able to make his rent and other regular bill payments, but struggles from time to time.

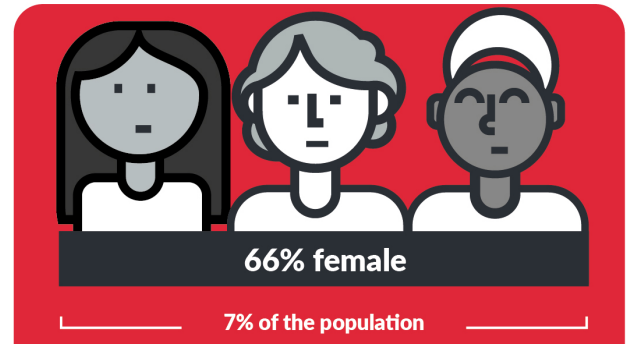
What can Sam do: In order to increase his level of financial well-being, Sam might benefit from adopting practices that would help him manage his money from day to day, plan for his financial future, and make decisions about financial products and services. For instance, he could start with a budget to help plan his day-to-day spending and be systematic about saving, even if he is only saving small amounts in the beginning. He might also benefit from accessing financial education resources to help him set and work toward financial goals that will help him acquire the financial assets that are important to him. Through all of this, he should be careful to avoid accumulating consumer debt.

The Struggling a Lot group

Financial situation: “Quite bad” or “Very bad”

Members of this group:

- make up 7% of the population
- are not confident in their household's financial situation over the next 12 months
- do not feel their finances allow them to do the things they want and enjoy life
- often or always run short of money for food or other regular expenses (2 out of 3 respondents)
- often or always plan how their household will use their regular income
- have less than one month's income in savings (or don't know how much they have)



Who's in the Struggling a Lot group?

- 66% are female
- 32% are 30 to 44 years old and 38% are 45 to 59 years old
- 54% are in a coupled relationship
- 44% rent their home, while 42% have a mortgage and just 8% own their home outright
- The average household income is \$40,000



Meeting commitments



Feeling financially comfortable



Resilience for the future

Within the Struggling a Lot group, Canadians who had a higher score for locus of control tended to have higher financial well-being. Locus of control refers to the extent to which people believe they have control over the outcomes of events in their lives, as opposed to external forces beyond their control having more influence. A respondent's score in this area was based on their level of agreement with the 3 following statements:

- “I can pretty much determine what happens in my life”
- “My financial situation is largely out of my control” (reverse coded)
- “When I make financial plans, I do everything I can to succeed”

Sometimes when a person feels everything is out of control, an advisable approach is to find one achievable goal and focus on that.²³ Practitioners can support people in this situation by helping them identify an appropriate goal and related resources. For example, those who struggle with filing their taxes might benefit from visiting a Community Volunteer Income Tax Program, where a volunteer could help them. This act alone could be extremely beneficial by making some individuals aware of benefits they may qualify for and are not currently receiving. Other Canadians might have information or other resources available to them at work, such as through their human resources department or an employee assistance program. The Government of Canada has a wealth of resources available at www.Canada.ca/money to help Canadians manage their money.

²³ Robitaille, N. (2018). Managing your debt repayment goals. Retrieved from <http://www.rotman.utoronto.ca/-/media/Files/Programs-and-Areas/BEAR/FINLIT2018/19-Day-1-1615-Robitaille.pdf?la=en&hash=715D82E7A22030D69C75ECFAF41DBE4C68BFB608>

Meet Anna



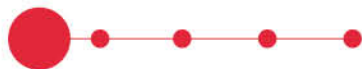
Struggling a Lot group

Age: 52

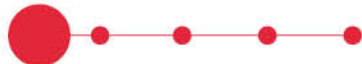
Meeting commitments



Feeling financially comfortable



Resilience for the future



Marital status: Single

Family makeup: Lives with a partner. Anna has a 26-year-old daughter who has a part-time job, but still sometimes looks to Anna for financial support.

Home tenure: Rents home

Occupation: Medical receptionist at a hospital

Annual income: About \$42,000 a year, but her hours and the amount she earns can fluctuate greatly from month to month.

Knowledge and experience: Has chequing and savings accounts and a credit card, but has never invested money.

Psychological factors: Does not feel she has control over what happens in her life. When she has a difficult decision to make, she tends to put it off to another day.

Financial situation: She would describe her current financial situation as quite bad. Despite her best attempts to plan how she will use her income, she often runs short of money for food and bill payments, and has very little in savings. She constantly feels strapped for cash and does not feel like she can afford to do the things she would like, such as go out for dinner with her partner or take a flight to visit her sister. She is concerned about her financial future and doesn't see how she could possibly ever afford to retire.

What can Anna do: To improve her financial well-being, Anna would likely benefit from more consistent income. She might consider speaking with her employer about whether there are opportunities to work more hours on a regular basis. Anna would also likely benefit from learning more about the Canada Pension Plan, Old Age Security and Guaranteed Income Supplement to develop a clearer understanding of the eligibility criteria and the amounts she can expect to receive from these programs in retirement. Anna might also benefit from setting small, achievable savings goals to help her weather the fluctuations in her income and build her financial confidence.

How do these groups differ from each other?

Next, we explored how the 4 groups differed²⁴ in their financial behaviours, psychological characteristics, knowledge and experience, and demographics.²⁵

At the lower end of financial well-being, locus of control and financial confidence played larger roles.

The Struggling Somewhat and Struggling a Lot groups shared similar demographics, including annual household income, education, home ownership and number of children under 18 at home. Where the 2 groups differed was in key financial behaviour variables (active saving, not borrowing for daily expenses,²⁶ and spending restraint) and 2 psychological variables (locus of control and financial confidence).

These key behavioural and psychological differences may be contributing to the differences in financial well-being between these groups. Therefore, when practitioners work with clients who have relatively low financial well-being, they may find success in helping them identify ways to save actively, limit borrowing for daily expenses, and restrain their spending. Practitioners could also help clients gain financial confidence by suggesting steps they could take to experience success in money management and ways to help them feel more in control of their future. Where tight financial restraints limit a person's financial well-being, changes to these behaviours and psychological factors have the potential to increase their financial well-being such that they may be able to transition from Struggling a Lot to Struggling Somewhat.

At the upper end of financial well-being, life stage played a larger role.

Members of the Financially Secure group appeared to be in a league of their own, scoring significantly higher than members in all other groups on the financial behaviour, psychological, and knowledge and experience measures. This group also stood out in terms of several demographic factors: on average, they were significantly older; the percentage holding at least a bachelor's degree was significantly higher than in all the other groups; they had significantly fewer children under the age of 18 at home; and they were more likely to own their homes.

The Somewhat Secure group lay in the middle. Its members reported more financially beneficial behaviours, psychological attributes, and knowledge and experience than those in the Struggling Somewhat and Struggling a Lot groups, but still significantly fewer than those in the Financially Secure group. Demographically, the Somewhat Secure group had higher household incomes and a higher percentage of members with a bachelor's degree compared with the Struggling Somewhat and Struggling a Lot groups, but lower household income and less education on average than those in the Financially Secure group. Those in the Somewhat Secure group were more likely to have a mortgage and more children under age 18 at home than those in the Financially Secure group.

²⁴ Based on Bonferroni multiple comparisons of the mean scores for each group for the variable being discussed.

²⁵ Recall that the behaviour, psychological, and knowledge and experience scales were coded such that higher scores were associated with better financial well-being.

²⁶ Recall that this variable specified that borrowing was because the individual ran short of money.

Based on these patterns, we explored whether it is possible that life stage is a key difference between the Somewhat Secure and Financially Secure groups. Specifically, we wondered if many Canadians in the Somewhat Secure group are simply younger versions of those in the Financially Secure group who may well move into that group over time if they practise good financial habits, such as paying off their mortgages, avoiding debt and saving regularly.

As the previous descriptions showed, Canadians in the Somewhat Secure group are generally doing well, but face financial demands (such as raising children and paying off mortgages) that are less likely to be an issue for older Canadians, like those in the Financially Secure group. For example, Canadians in the Financially Secure group are more likely to be 60 years of age or older compared with respondents in the Somewhat Secure group.²⁷ They are also more likely to be retired²⁸ and to have paid off their mortgages.²⁹ Canadians in the Somewhat Secure group are almost twice as likely to have children under the age of 18 living at home versus those in the Financially Secure group.³⁰

Given that as a person ages, they are less likely to have children at home—and that if they have been diligently paying off a mortgage, they are more likely to own their home outright eventually—these 2 key demographic differences between the Somewhat Secure and Financially Secure groups appear to be mainly related to age and life stage. Knowledge and experience of financial products could also increase with age as a person's circumstances change and they become more aware of products that suit a variety of needs. If they have adequate resources and have maintained good financial habits throughout adulthood, they are more likely to have other assets, such as savings and investments. The Financially Secure group also had higher scores on all of the variables in the psychological factors category except for social status.³¹ While it is possible that the higher scores in the psychological factors category are also age-related,³² another possibility is that members of this group have always had relatively high capabilities in these areas. It is possible that the current group of seniors has a higher proportion of people with psychological perspectives that benefit their financial well-being. There is no guarantee that younger Canadians will move into the Financially Secure group through aging alone.

²⁷ The proportion of respondents aged 60 or older in the Struggling a Lot, Struggling Somewhat and Somewhat Secure groups ranged from 18% to 24%. However, the proportion was 50% in the Financially Secure group, and statistical analyses revealed that this group was different from the others.

²⁸ The proportion of retirees in the Struggling a Lot, Struggling Somewhat and Somewhat Secure groups ranged from 19% to 23%. However, the proportion was 47% in the Financially Secure group, and statistical analyses revealed that this group was different from the others.

²⁹ The proportion of homeowners without mortgages ranged from 9% to 23% in the Struggling a Lot, Struggling Somewhat and Somewhat Secure groups. However, the proportion was 52% in the Financially Secure group, and statistical analyses revealed that this group was different from the others.

³⁰ The proportion of respondents with children under 18 years of age living at home was 22% in the Somewhat Secure group and 12% in the Financially Secure group. Statistical analyses revealed that these proportions were different.

³¹ The social status variable measured the extent to which a person cared about how other people saw them or their status, including their desire for people to respect them.

³² There is evidence that people become more conscientious as they grow older (Allemand, Zimprich & Hendriks, 2008; Donnellan & Lucas, 2008; Lucas & Donnellan, 2011; McCrae et al., 1999) and that conscientiousness is related to all of the variables in the psychological factors category (de Bruijn, de Groot, van den Putte & Rhodes, 2009; Donnelly, Iyer & Howell, 2012; Dunkel & Weber, 2010; Jensen-Campbell, Knack, Waldrup & Campbell, 2007; Judge, Erez, Bono & Thoresen, 2002; Jostmann & Koole, 2010; Kuhl & Fuhrmann, 1998; Olson, 2005; Penley & Tomaka, 2002; Verplanken & Herabadi, 2001; Whiteside & Lynam, 2001; Zimbardo & Boyd, 2015).

Given the demographic differences between the Somewhat Secure and Financially Secure groups, and the plausible explanations for the Financially Secure group having higher scores on variables within the psychological and knowledge and experience categories, we suggest that life stage plays a large role at the upper end of the financial well-being scale.

This does not mean that no younger people are in the Financially Secure group or that aging alone is enough to bump someone into the Financially Secure group. But it does appear that some younger and middle-aged adults who have higher levels of financial well-being and have developed healthy financial habits will likely move into the Financially Secure group at a later life stage. These habits include making an effort to actively save money, carefully considering how money is spent, managing debt appropriately, and making informed financial decisions and product choices.

Conclusion

Overall, three quarters of Canadians have a Financial Well-Being Score of 50 or more, which places them in either the Somewhat Secure group or the Financially Secure group. This means that about a quarter of Canadians are struggling with their finances to some extent.

An area of strength for Canadians is paying bills on time. However, unfortunately, many Canadians do not have a lot of buffer in their budgets. This is a concern given that Canadians currently have record-high debt levels, accumulated during the recent period of historically low interest rates.³³ When rates rise, or if other macro- or micro-economic factors change, some Canadians—particularly those in the bottom 3 financial well-being groups—will find it more challenging to make all of their bill payments on time. Therefore, it is critically important that we continue to take steps to help Canadians improve their financial planning, saving, attitudes toward money, and knowledge of money management. This will help them prepare to face rising interest rates, economic downturns and other financial challenges that may lie ahead.

Economic elements, such as employment status and income, will always be important components in financial well-being. Our analysis showed that Canadians living in households with incomes below \$50,000 had significantly lower levels of financial well-being than those in higher-income households. But the results presented in this report show that income is not the only element that determines financial well-being, and is not even the element with the strongest connection to financial well-being, for Canadians as a whole. Financial behaviours, such as saving and borrowing, were more strongly related to financial well-being than elements such as income, employment status and home ownership. The results of our analyses show that these behaviours have positive effects even when demographic elements (such as number of dependent children) and economic elements (such as income) are taken into account. This is encouraging news for Canadians who wish to improve their financial well-being, because for some, it may be more possible to change these behaviours than to increase their income significantly or change their employment status.

The survey results indicate that psychological factors are also strongly related to financial well-being. In particular, Canadians who were financially confident and preferred saving to spending and borrowing tended to have higher financial well-being. A number of researchers have also found a link between financial confidence and financial outcomes.³⁴ Understanding more about how to help someone improve their confidence—as well as their knowledge of day-to-day money management and their ability to plan for their financial future and make decisions about financial products and services—will be an important research question going forward.

³³ Poloz, Stephen S. Bank of Canada. Canada's Economy and Household Debt: How Big Is the problem? May 1, 2018. [https://www.bankofcanada.ca/2018/05/canada-economy-household-debt-how-big-the-problem/#targetText=At%20the%20end%20of%20last,three%2Dquarters%20of%20this%20debt%20\(May%202018\).](https://www.bankofcanada.ca/2018/05/canada-economy-household-debt-how-big-the-problem/#targetText=At%20the%20end%20of%20last,three%2Dquarters%20of%20this%20debt%20(May%202018).)

³⁴ Palmeta, Nguyen, Shek-wai Hui, & Gyarmati, 2016. The link between financial confidence and financial outcomes among working-aged Canadians. <https://www.canada.ca/content/dam/canada/financial-consumer-agency/migration/eng/resources/researchsurveys/documents/link-confidence-outcomes.pdf>. Scerbina, et al. (2017). Measuring up: Canadian Results of the OECD PISA 2015 Study. https://www.cmec.ca/Publications/Lists/Publications/Attachments/371/PISA2015_FL_EN.pdf.

Despite the fact that many Canadians had reasonably high levels of financial well-being—74% of Canadian respondents had a score of 50 or more—there was a great deal of variability. The trends we observed provide some insights into how best to help Canadians at different levels of financial well-being. Canadians in the Struggling a Lot and Struggling Somewhat groups differed in certain key behaviours, including making regular efforts to actively save and finding ways to avoid borrowing for daily expenses. Although it has yet to be tested, this finding suggests that helping Canadians in the Struggling a Lot group find ways to avoid borrowing for daily expenses (which may include bolstering spending restraint) and increase their efforts to save could help improve their level of financial well-being.

These 2 groups also differed in 2 psychological variables: locus of control and financial confidence. Helping Canadians with very low financial well-being feel more control over their financial futures and more confident about their money management and financial decision-making skills may also significantly improve their financial well-being.

In contrast, knowledge of financial management was a strong predictor of the financial well-being of Canadians in the Financially Secure group. This suggests that efforts to improve the financial well-being of individuals who are already doing quite well might be best focused on increasing their knowledge of how to plan spending against income as well as their knowledge of savings products, consumer loans and credit cards.

In this report, we have identified strengths and weaknesses in Canadians' financial well-being as well as how specific behaviours, knowledge, experience and psychological factors relate to financial well-being for different groups. This is an important step toward identifying ways to improve Canadians' financial well-being.

Next steps

These findings provide valuable insights that may benefit practitioners and other financial literacy stakeholders when it comes to designing and delivering financial literacy interventions going forward. Our findings lead to two general recommendations for practitioners.

- **In general, encourage active saving.** Practitioners can do this by focusing on interventions that seek to alter psychological factors, such as encouraging a long-term view, developing positive attitudes toward saving and negative attitudes toward borrowing, and helping individuals feel confident in their financial situations. This includes confidence in managing their money from day to day, planning for their financial futures, and making financial decisions about financial products and services. Setting up automatic savings mechanisms (such as an automatic transfer to a savings account every month) and setting financial goals would also be useful.
- **In general, discourage borrowing for daily expenses.** Practitioners can do this by focusing on interventions that aim to increase financial confidence and develop positive attitudes toward saving and negative attitudes toward borrowing. Other practical tips include asking an employer for a salary advance, or asking creditors for more time to pay bills.

Our findings also lead to specific recommendations that practitioners might want to consider for Canadians in the identified groups.

- **To help Canadians in the Struggling Somewhat and Struggling a Lot groups:** Practitioners can consider how to help individuals identify ways to increase savings and avoid borrowing for daily expenses. It would be useful to help people in this group feel more control over their financial situations. One strategy could be to help identify an appropriate goal and related resources. Practitioners may also consider finding ways to help individuals gain experiences that can increase financial confidence through money management, planning for the financial future and making decisions about financial products and services. Canadians in the Struggling a Lot group would also benefit from accessing financial education on these topics, for example through work or community organizations.
- **To help Canadians in the Struggling Somewhat group:** Focus on not borrowing for daily expenses (see general recommendations above).
- **To help Canadians in the Somewhat Secure and Financially Secure groups:** Ensure these Canadians know enough about savings products, consumer loans and credit cards to choose the right ones for their circumstances. It is also advisable to ensure that Canadians are paying off their mortgages and avoiding other forms of consumer debt through products such as credit cards and HELOCs. In general, Canadians in these groups should focus on building assets through vehicles such as TFSAs and registered retirement savings plans (RRSPs), and investing in registered education savings plans (RESPs) if they have children who will likely be interested in post-secondary education.

We encourage practitioners and consumers alike to use some of the following strategies and tools to prioritize spending, develop savings habits and avoid running short of money:

- [make a budget](#)
- [set up a fund for financial setbacks](#)
- [set savings and investment goals](#)
- [make a plan to avoid using credit when short of money](#)
- choose appropriate mortgage terms, [bank accounts](#) and [credit cards](#)
- [make a plan to pay down debt](#), including options to help [pay down a mortgage more quickly](#)

Acknowledgements

The Financial Consumer Agency of Canada (FCAC) would like to acknowledge the excellent work of the Agency staff who worked on arranging the Financial Well-Being Survey in Canada, analyzing the data and reporting the results. In particular, we would like to thank the following members of the Research and Policy Team: Dr. Rebecca Kong, Dr. Mathieu Saindon, Steve Trites, Michael Olson and Bruno Lévesque.

FCAC would also like to acknowledge the important contributions of Dr. Jerry Buckland of Menno Simons College, Dr. Jodi Letkiewicz of York University, Dr. Brenda Spotton Visano of York University, Tamara Kelly and John Eisner of Credit Counselling Services of Atlantic Canada, Inc., Laurie Campbell and Adriana Molina of Credit Canada, and Michelle Pommells of Credit Counselling Canada for providing comments on sections of the report.

Finally, we would like to thank Prof. Elaine Kempson and Dr. Christian Poppe, who developed the questionnaire and model of financial well-being and prepared the data file for our analyses.

References

- Allemand, M., Zimprich, D., & Hendriks, A. A. (2008). Age differences in five personality domains across the life span. *Developmental Psychology, 44*, 758–770.
- De Bruijn, G. J., de Groot, R., van den Putte, B., & Rhodes, R. (2009). Conscientiousness, extroversion, and action control: comparing moderate and vigorous physical activity. *Journal of Sport and Exercise Psychology, 31*, 724–742. doi: 10.1123/jsep.31.6.724
- Donnellan, M. B., & Lucas, R. E. (2008). Age differences in the big five across the life span: evidence from two national samples. *Psychology and Aging, 23*, 558–566. doi: 10.1037/a0012897
- Donnelly, G., Iyer, R., & Howell, R. T. (2012). The Big Five personality traits, material values, and financial well-being of self-described money managers. *Journal of Economic Psychology, 33*, 1129–1142. doi: 10.1016/j.joep.2012.08.001
- Dunkel, C. S., & Weber, J. L. (2010). Using three levels of personality to predict time perspective. *Current Psychology, 29*, 95–103. doi: 10.1007/s12144-010-9074-x
- Jensen-Campbell, L. A., Knack, J. M., Waldrip, A. M., & Campbell, S. D. (2007). Do Big Five personality traits associated with self-control influence the regulation of anger and aggression? *Journal of Research in Personality, 41*, 403–424. doi: 10.1016/j.jrp.2006.05.001
- Jostmann, N. B., & Koole, S. L. (2010). Dealing with high demands: The role of action versus state orientation. In R. H. Hoyle (Ed.), *Handbook of personality and self-regulation* (pp. 332–352). West Sussex, UK: Blackwell Publishing Ltd. doi: 10.1002/9781444318111.ch15

- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology*, 83, 693–710. doi: 10.1037/0022-3514.83.3.693
- Kuhl, J., & Fuhrmann, A. (1998). Decomposing self-regulation and self-control: the Volitional Components Inventory. In J. Heckhausen & C. S. Dweck (Eds.), *Motivation and self-regulation across the life span* (pp. 15-49). New York, NY, US: Cambridge University Press. doi:10.1017/cbo9780511527869.003
- Lucas, R. E., & Donnellan, M. B. (2011). Personality development across the life span: Longitudinal analyses with a national sample from Germany. *Journal of Personality and Social Psychology*, 101, 847–861. doi: 10.1037/a0024298
- McCrae, R. R., Costa, P. T., de Lima, M. P., Simões, A., Ostendorf, F., Angleitner, A., ... & Chae, J. H. (1999). Age differences in personality across the adult life span: parallels in five cultures. *Developmental Psychology*, 35, 466–477. doi: 10.1037/0012-1649.35.2.466
- McCrae, R. R., & John, O. P. (1992). An introduction to the Five-Factor Model and its applications. *Journal of Personality*, 60, 175–215. doi: 10.1111/j.1467-6494.1992.tb00970.x
- Olson, K. R. (2005). Engagement and self-control: Superordinate dimensions of Big Five traits. *Personality and Individual Differences*, 38, 1689–1700. doi: 10.1016/j.paid.2004.11.003
- Penley, J. A., & Tomaka, J. (2002). Associations among the Big Five, emotional responses, and coping with acute stress. *Personality and Individual Differences*, 32, 1215–1228. doi: 10.1016/s0191-8869(01)00087-3
- Verplanken, B., & Herabadi, A. (2001). Individual differences in impulse buying tendency: Feeling and no thinking. *European Journal of Personality*, 15, S71–S83. doi: 10.1002/per.423
- Whiteside, S. P., & Lynam, D. R. (2001). The five factor model and impulsivity: using a structural model of personality to understand impulsivity. *Personality and Individual Differences*, 30, 669–689. doi: 10.1016/s0191-8869(00)00064-7
- Zimbardo, P. G., & Boyd, J. N. (2015). Putting time in perspective: A valid, reliable individual-differences metric. In M. Stolarski, N. Fieulaine, & W. van Beek (Eds.) *Time perspective: theory review, research and application* (pp. 17-55). Cham, Switzerland: Springer International Publishing. doi: 10.1007/978-3-319-07368-2_2