

The impact of personality traits: a fresh look at gender differences in financial literacy

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Dr. Peetz studies time perception, goals and financial predictions in individuals. Her research has been funded by the Social Sciences and Humanities Research Council of Canada and has been published in flagship journals of the field (e.g., *Journal of Personality and Social Psychology*, *Organizational Behavior and Human Decision Processes*) and been covered by public media (e.g. *The New York Times*, *Huffington Post*).

In the field of personal financial cognition, Dr. Peetz' research has uncovered consistent biases in predictions. People tend to predict spending substantially less money in a future time period than they actually end up spending, even when reminded of their previous (identical) spending patterns (The "Budget Fallacy," Peetz & Buehler, 2009). She identified several processes that underlie this underestimation bias, both motivational (strength of savings goals) and cognitive (unpacked vs. aggregated prediction, concrete vs. abstract construal, Peetz & Buehler, 2012). Dr. Peetz also tested interventions such as considering events instead of time periods that eliminate the underestimation bias (Peetz & Buehler, 2013; Peetz, Buehler, Koehler, & Moher, 2015). In addition, considering future expenses from a psychological distance leads people to adopt different cognitive strategies in their prediction and thus improve accuracy in personal spending predictions (Peetz & Buehler, 2014). Dr. Peetz has also studied other aspects of personal day-to-day financial decision-making, such as the frequency of spontaneous budgeting (Peetz, Simmons, Chen, & Buehler, 2016), visual perception of money (Peetz & Soliman, 2016), and consumer motivation (Soliman, Buehler & Peetz, 2017).

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Foreword by CPA Canada

Canadians have long struggled with a host of challenges with regards to financial wellness. Despite our best efforts, poverty and low income continue to affect a significant share of Canadian families. Many more will approach retirement in the coming decades with insufficient retirement savings. At a time when wealth and income inequality pressures are redefining our views on fairness and equity and household debt is at record levels, financial literacy and wellness have been at the forefront of our public policy discourse, having been rightly identified as important tools in addressing these issues.

Yet the challenge is, and has always been, that those factors driving positive financial behaviours are complex and multifaceted. Financial literacy programming and tools are only effective if they reflect the diversity and complexity of needs they are meant to address. In our capacity as financial experts and advisors, the Chartered Professional Accountants of Canada (CPA Canada) has been at the forefront of confronting this challenge. Our award-winning financial literacy programming has evolved tremendously over the years to reflect ongoing research on the broad range of needs faced by different groups of Canadians: by socio-economic status or gender, for newcomers, for entrepreneurs relative to small and medium-sized enterprises, and for young children relative to secondary students and post-secondary students, to name a few.

And we have only scratched the surface. Recognizing that there is still more work to be done in revealing new dimensions in how positive financial behaviours can be taught, we initiated this research series to investigate linkages between financial capability and an individual's behavioural traits. This area of research is, globally speaking, still in its infancy, and there are few Canadian studies that we can leverage. In the coming months, CPA Canada will be releasing several reports on this issue that will hopefully contribute to the broader discussion about how best to prepare Canadians for a financially secure future.

Executive Summary

Dozens of studies of financial literacy have concluded that men are more financially literate than women. The Organization for Economic Cooperation and Development (OECD) has even argued that closing gender gaps in financial literacy should be a priority for countries looking to improve their economic development (OECD, 2013).

However, men and women may have underlying socio-economic differences that, regardless of gender, can influence financial capability and literacy — such as education or income. Furthermore, individual differences in personality may contribute to differences in beliefs and habits. To better understand the gender gap in financial literacy and differences in financial capability, we need to take into account a wider range of variables. This study aims to do exactly that by examining, for the first time, the influence of personality traits alongside socio-demographic characteristics.

CPA Canada conceived and designed a survey that builds on work by the Financial Consumer Agency of Canada and Statistics Canada's Canadian Financial Capability Survey. In addition to assessing financial attitudes, habits and knowledge, this study also assesses psychological traits. Data was collected from an online panel of adult Canadians in 2015 by a third party under contract to CPA Canada. The questionnaire builds on Statistics Canada's Canadian Financial Capability Survey. However, this survey also included items measuring financial behaviour, financial attitudes, a 14-item objective knowledge quiz, and psychological and socio-demographic traits.

In our preliminary analysis, we see the same gender gap that is so common in the literature: that men score better than women, on average. The gap is large enough that, on average, the men in this sample would receive a letter grade of C- on this financial knowledge quiz while the women would receive a lower grade of D+. Women also have scores on financial capability that are statistically significantly lower on all areas of financial capability except for “keeping track,” again largely consistent with published international research.

But, when we take socio-demographic and, in particular, personality traits into account, then gender starts to look a lot less important.

When we take age, income, education and personality traits into account, women aren't significantly different from men when it comes to:

- Making ends meet
- Keeping track of money
- Planning ahead

When those same factors are taken into account, even though there are still small differences between men and women, individual personality plays a much bigger role when it comes to:

- Choosing financial products
- Staying informed about finances
- A test of objective financial knowledge

It's important to note that these results are from one survey and more research is needed. But based on our preliminary results, we wonder whether financial services markets, financial education and financial news are doing enough to reach and meet the needs of women, taking into account differences in gender roles on money, socio-economic differences, and especially personality differences. Those underlying individual differences may matter more when it comes to effective financial education and financial services than making assumptions based on gender alone.

1. Introduction

In 2015, the Chartered Professional Accountants of Canada (CPA Canada) conducted a survey of adult Canadians' financial habits, attitudes and knowledge. In addition to questions about personal finances, the survey also collected information on certain psychological traits of the respondents. The data collected by CPA Canada is unique in Canada in that it lets researchers look at how psychological traits — such as personality characteristics or beliefs about control — might be associated with differences in personal financial behaviours, attitudes and even knowledge. Individual differences in personality and beliefs can lead to real differences in how we think and act in many areas of our life. Personal finances are no exception.

Many previous studies of financial literacy have found that men perform better on tests of financial knowledge and are more likely to have certain financial habits, like investing rather than spending money. The OECD has argued that gender gaps in financial literacy present an obstacle to economic development, inclusion and gender equality (OECD, 2013). The organization has called for financial education and empowerment interventions to be more specifically tailored to women and girls using, among other things, gender-sensitive financial content and female role models. For professionals who provide financial advice, training, coaching and more, gender could be a key factor in providing programs and services that best meet the needs of clients. At the same time, psychologists have pointed out that individual differences among women and men can be as important as differences between the genders.

In this report, we make use of the new CPA Canada data to take a fresh look at differences in the financial capability and financial literacy between men and women. We ask: what plays a bigger role in shaping our financial habits, attitudes and knowledge — our gender, our other demographic traits (like our age, education or income), or our personality?

2. Previous research on gender and personal finances

Before discussing the current study, we briefly review the literature on gender differences in personal finances, including financial attitudes, behaviours and broader measures of financial literacy.

2.1 Research on gender differences in specific financial behaviours and attitudes

Many previous studies suggest there are gender differences when it comes to particular aspects of personal finances. Compared to men:

- Women may be more likely to shop impulsively or to report buying things they don't need (Hira & Mugenda, 2000).
- Women are more likely to say they enjoy shopping, are brand or fashion conscious, are price conscious, and feel confident about online purchases (Seock & Bailey, 2007).
- Women are less likely to report having saved in the previous year (Fisher, 2016), or to report saving regularly (Fisher, Hayhoe & Lown, 2015).
- Women have lower wealth compared to men and show less confidence in managing their investments (Sierminska, Frick & Grabka, 2010).
- Women are more conservative and averse to taking risks when it comes to financial decision-making in economic experiments (Eckel & Grossman, 2002; Laasch & Conaway, 2009).
- Women are more likely to choose lower-return over riskier but higher-yielding investment products (Sundén & Surette, 1998; Charness & Gneezy, 2012), and this is true even after accounting for other characteristics that might shape financial risk-tolerance, like age, employment and income (Fisher & Yao, 2017).
- Women are less likely to invest in stock markets, regardless of their level of financial knowledge (Almenberg & Dreber, 2011).

- Women in a heterosexual couple are less likely to be in charge of long-term financial decision-making, but they are when the household has more debts (Hui, Vincent & Woolley, 2011).

These differences aren't necessarily good or bad. Their real impact on financial well-being probably depends a lot on personal circumstances. But in general, the research seems to establish that, on specific areas of personal finances, women have different attitudes and habits compared to men.

2.2 Research on gender differences in financial knowledge and financial literacy

Other research has asked whether women might have less knowledge about financial topics. The results of studies in dozens of countries suggest that women have significantly and persistently lower financial literacy. In these studies, financial literacy is measured by correct answers to selected knowledge questions about, for example, interest rates, the effects of inflation and risk diversification in investment decisions (Bucher-Koenen et al., 2016). The knowledge tests may have as few as three items or as many as three dozen.

Evidence for a gender gap in financial literacy has been found:

- Among adult Canadian women living with a male spouse or partner who handles major financial decisions for the household (Drolet, 2016).
- Between male and female U.S. college students, even after controlling for field of study, work experience and age (Chen & Volpe, 1998). Furthermore, female college students showed less interest in learning about personal finances compared to their male colleagues.
- Among university students in Australia (Wagland & Taylor, 2009) and Italy (Boccianlini & Ronchini, 2015). A gender gap in financial knowledge was even identified among first-year microeconomics students in New Zealand (Agnew & Cameron-Agnew, 2015).
- Among U.S. residents aged 16 to 108 years old in multiple representative surveys fielded by the RAND corporation between 2006 and 2009 (Hung, Parker & Yoong, 2009; Fonseca et al., 2015).
- In several representative surveys of adult Americans in 2004 (Lusardi & Mitchell, 2008), again in 2007 (Lusardi & Tufano, 2009), and in 2009 (Fonseca et al., 2012; Bucher-Koenen et al., 2016).
- In internationally comparable surveys in the Netherlands and Germany (Bucher-Koenen et al., 2016).

- Among retired seniors in Ghana (Adam, Boadu & Frimpong, 2018).
- Among adults in rural and urban communities across China (Yuan & Jin, 2017).
- Among working-age adults in Hong Kong, even after controlling for characteristics like age, education and skill in performing mathematical calculations (Yu et al., 2015).

Furthermore, international reviews of research generally conclude that there is widespread evidence that women perform more poorly on measures of financial literacy (Russia Financial Literacy and Education Trust Fund, 2013; Lusardi & Mitchell, 2014; Bucher-Koenen et al., 2016; OECD, 2017a). This makes it noteworthy when surveys don't find a gender gap in financial literacy. For example:

- There is no difference in the financial literacy of Canadian women with a male partner when they both participate in major financial decisions or when the couple earns roughly equal incomes (Drolet, 2016).
- The latest wave of the OECD's Programme for International Student Assessment (PISA) included a test of students' abilities to read and use financial information to answer knowledge questions (OECD, 2017b). While the results suggest that financial literacy is generally low among 15-year-olds, there was no gender gap in 14 of the 15 countries taking part. Gender gaps did re-emerge when results were controlled for math and reading scores, and also among teens with the highest financial literacy scores. Researchers speculated that socio-demographic differences by gender may be leading to different opportunities to learn and apply financial knowledge.
- Similarly, a study of secondary students in New Zealand found that gender differences in financial literacy vanished after controlling for certain socio-demographic characteristics such as parental education and the age at which the student had first talked about money at home (Agnew & Cameron-Agnew, 2015).

What the above three studies suggest is that financial knowledge might depend, in part, on experience in managing money. If women and men have different opportunities to gain certain kinds of experience with money, it may be less surprising to find they also show systematically different answers on tests of financial knowledge. In fact, while research finds some associations between scores on a financial literacy quiz and some selected positive financial behaviours, we don't really know what is causing what: does knowledge change behaviour or does behaviour improve knowledge? Some research suggests that it may be more useful to focus on what people believe and how

they behave, rather than what they objectively know about money (Hilgert, Hogarth & Beverly, 2003; Kempson, Collard & Moore, 2005; Robson & Splinter, 2015; Robson & Rothwell, 2016; Lyons, Grable & Zeng, 2017; Kempson, Finney & Poppe, 2017).

Finally, men and women may have underlying socio-economic differences that, independent of gender, can influence financial capability and literacy — such as education or income. Furthermore, individual differences in personality may contribute to differences in beliefs and habits. To better understand the gender gap in financial literacy and differences in financial capability, we need to take into account a wider range of variables. This study aims to do exactly that by examining, for the first time, the influence of personality traits alongside socio-demographic characteristics.

2.3 Research on personality traits and personal financial management

Personality traits are the consistent patterns of feelings, thoughts and behaviours that a person exhibits across situations (Fleeson & Gallagher, 2009). For example, a person scoring high in agreeableness will feel, think and act more forgivingly, helpfully and politely in a variety of social situations than a person scoring low on this trait. In the Big Five model of personality, individuals' personality can be exhaustively described via the following dimensions: Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism. The Big Five model of personality has been extensively studied, with, to date, more than 10,000 scientific citations of the original studies on these five traits.

Previous research has also linked some traits to differences in personal financial management. For example, greater extraversion may be related to higher amounts of unsecured debt (Brown & Taylor, 2014), neuroticism has been linked with compulsive buying disorder (Mueller et al., 2010), and greater conscientiousness is associated with better self-reported money management (Donnelly, Iyer, & Howell, 2012).

While research on these traits does suggest some gender differences (discussed in the next section), it's important to note that these gender differences don't mean that all men and all women fall on opposite ends of these dimensions. Studies of gender and personality find statistically significant but small effects (Weisberg, DeYoung, & Hirsh, 2011). This means that there's substantial overlap between men and women and that individual differences in personality are at least as important as gender differences.

3. Data sources and methods

The goal of this study is to better understand gender differences in self-reported financial behaviour and attitudes, as well as objective knowledge, by paying attention to personality, as well as socio-demographic variables thought to influence financial capability and financial literacy.

Data was collected from an online panel of adult Canadians in 2015 by a third party under contract to CPA Canada. The questionnaire replicated many parts of the Statistics Canada Canadian Financial Capability Survey. Questions covered financial behaviour, financial attitudes, a 14-item objective knowledge quiz, as well as psychological and socio-demographic traits. Anonymized data was shared with the authors for analysis. The data set covers 3,502 respondents, of whom 1,818 are female (52%) and 1,684 are male (48%). This distribution corresponds roughly to the gender distribution of the Canadian population (Urquijo & Milan, 2017).

Age is measured as a continuous variable in years. The youngest respondent was 18 years of age and the eldest was 90 years of age. The average age of respondents was 53.5 years, which is slightly older than the Canadian population. Financial literacy seems to have an inverted U-shaped pattern by age — it rises during working age but then declines again in older age (OECD, 2013; 2017a).

Education is measured in terms of the highest level of education completed, with categories ranging from less than a high school diploma, through to a graduate or professional university degree. The most frequent level of education among respondents was some post-secondary (including college, trades, CEGEP or university) but do not hold a diploma or degree. However, 30% of the sample reported an undergraduate or advanced university degree. In general, education is associated with higher financial literacy (OECD, 2013, 2017a).

Household income is measured as self-reported income, before taxes, for all members of the household, in categories ranging from less than \$20,000 through to \$150,000 or more. The average household income for respondents was between \$50,000 and \$59,999, which is relatively close to the average income for all Canadian household types. We also use a measure of household income volatility that asks respondents about the stability, over some period of time, of both the amount and source of income. Households with both volatile amounts and sources of income are viewed as having the greatest volatility. A strong majority (69%) report having both stable income amounts and

sources. Volatility of income may negatively affect financial decision-making by limiting choices and, in some cases, exacerbating financial exclusion (Murdoch & Schneider, 2017).¹

3.1 Measuring personality

We use a well-established scale, the Big Five Inventory (BFI; John, Donahue, & Kentle, 1991), which measures the personality traits in the five-factor model of personality (Goldberg, 1990, 1992) in a 44-item scale that asks respondents how strongly they agree or disagree with various statements about themselves. These items assess the personality traits of:

- **Openness:** The factor of openness refers to the openness to new experiences, imagination, intellectual curiosity and creativity. For example, “I am someone who ... is curious about many different things.”
- **Conscientiousness:** The factor of conscientiousness encompasses self-discipline, organizational and planning tendencies, industriousness, and the ability to exert self-control over impulses. For example, “I am someone who ... does a thorough job.”
- **Extraversion:** Extraversion describes the tendency to be sociable, gregarious, assertive and outgoing. For example, “I am someone who ... is talkative.”
- **Agreeableness:** Agreeableness in the big five model of personality refers to the tendency to cooperate and help others, experience empathy and maintain social harmony. For example, “I am someone who ... is helpful and unselfish with others.”
- **Neuroticism:** In the big five model of personality, neuroticism describes the tendency to experience emotional volatility and negative emotions such as anxiety, depression and self-consciousness. For example, “I am someone who ... worries a lot.”

1 In a future report, we will take a closer look at income volatility and financial attitudes, knowledge and behaviour.

An Explanation of the Big Five Inventory

The Big Five Inventory is based on participants' insights about what they feel and do in their daily lives. Participants read statements (e.g., "I see myself as someone who is talkative") and rate how much they agree with this statement. Based on these self-reports, personality is then summarized in five (the Big Five) dimensions of personality.

A participant who reports seeing him or herself as talkative, full of energy, assertive, outgoing, as someone who generates a lot of enthusiasm and *not* sees themselves as someone who is quiet, reserved, or shy, would have high scores on the **Extraversion** dimension of personality.

A participant who reports seeing him or herself as reliable, efficient, and as someone who makes plans and follows through with them, but *not* as disorganized, careless, or lazy, would have high scores on the **Conscientiousness** dimension of personality.






A participant who reports seeing him or herself as a person who is helpful, forgiving, trusting and kind, and as someone who likes to cooperate with others but *not* as a person who is rude, cold, or aloof, would have high scores on the **Agreeableness** dimension of personality.

A participant who reports seeing him or herself as depressed, moody, tense, and as someone who gets nervous easily, but *not* as a person who is relaxed, handles stress well or someone who remains calm in tense situations, would have high scores on the **Neuroticism** dimension of personality.

A participant who reports seeing him or herself as someone who has an active imagination, is original and comes up with new ideas, and who likes to reflect and play with ideas but does not see themselves as someone who prefers routine tasks, would have high scores on the **Openness** dimension of personality.

These five dimensions of personality are thought to describe the entire personality of a person — in other words, together these dimensions exhaustively answer the question of what someone "is like" (Goldberg, 1990, 1992). The different dimensions are thought to be mostly unrelated to each other (i.e, someone might be an agreeable extravert or a disagreeable extravert), and to be relatively stable over time — even though younger people (under 30) tend to be more extraverted, more open, and less conscientious than older individuals (Specht, Egloff, & Schmukle, 2011). In other words, a person scoring high on a dimension like extraversion might always be talkative, outgoing and assertive compared to other people the same age, but as this person grows older, they tend to become more reserved and calmer along with the rest of their age cohort.

Previous research has found gender differences in some, but not all, of the Big Five traits:

Openness	Conscientiousness	Extraversion	Agreeableness	Neuroticism
No significant gender differences have been found for this factor (Costa, 2001; Weisberg, 2011).	Women score higher on some aspects of conscientiousness such as order, dutifulness and self-discipline (Costa et al., 2001), but no significant gender differences have been found on the overall factor of general conscientiousness (Costa et al., 2001; Weisberg et al., 2011).	Little to no gender differences have been documented on the overall extraversion factor (Weisberg et al., 2011), although some studies breaking down the overall factor into more specific aspects have shown men scoring higher on the facet assertiveness and women scoring higher on the facet gregariousness (Feingold, 1994; Costa et al., 2001).	One consistently reported gender difference concerns the trait of agreeableness. Agreeableness in the big five model of personality refers to the tendency to cooperate and help others, experience empathy, and maintain social harmony. Women tend to score higher on trait agreeableness than men (Costa et al., 2001; Feingold, 1994; Weisberg et al., 2011).	The most consistently documented gender difference is in reported levels of neuroticism. Women have been shown to score higher on the neuroticism factor of personality than men (Costa et al., 2001; Weisberg et al., 2011).
				

3.2 Measuring financial knowledge (financial literacy)

Financial knowledge is measured in terms of correct answers to a quiz of 14 items included in the CPA Canada data set. The questions broadly mirror those used by Statistics Canada's Canadian Financial Capability Survey (2008, 2014). The quiz covers topics such as interest rates, insurance, inflation and investments.






3.3 Measuring financial attitudes and behaviours (financial capability)

Financial capability is measured as a latent construct with five underlying domains, assessed both in terms of self-reported behaviours as well as confidence about one's own abilities:

Making ends meet	Keeping track	Planning ahead	Choosing products	Staying informed
Capability in using financial resources to cover ongoing expenses.	Capability in budgeting and monitoring personal finances.	Capability in making financial plans for known life events (retirement) and unexpected future expenses.	Capability in exercising choice in financial products and services.	Capability in ongoing learning about personal finances.

This approach has previously been used in studies in the United Kingdom, Ireland, Norway and Canada (Kempson, Collard & Moore, 2005; Atkinson et al., 2006; Statistics Canada, 2008; 2014; McKay, 2011; Russian Financial Literacy and Education Trust Fund, 2013). Results are calculated as scores on five scales using responses from 16 question items.² In the case of the CPA Canada survey, one item is missing from each of the scales for “making ends meet” and “planning ahead.” These are reported as truncated scales.

Previous research finds an uneven pattern in gender differences across these domains of personal financial capability (Russian Financial Literacy and Education Trust Fund, 2013):

Making ends meet	Keeping track	Long term planning	Choosing financial products	Staying informed
No significant gender differences.	Ambitious results, with one study suggesting women may perform better than men.	Men perform better than women.	Men generally are found to perform better than women, although this result is not universal.	Men perform better than women.
				

4. Results: Differences between men and women

First, we look at the distribution of socio-demographic characteristics and personality traits among the men and women in the survey sample. These are summarized in Table 1 below. We also test to see whether any differences by gender are statistically significant.

² Further information on the scales and scoring is available in a report by Robson and Splinter (2015), titled “A new (and better) way to measure financial capability” and in a report by Robson (2012) titled “Piloting a financial literacy quiz in Canada.” Many of the questionnaire items and scales were later replicated by the Financial Consumer Agency of Canada’s online personal financial literacy quiz posted online in 2015.

Table 1: Socio-demographic characteristics and personality traits, by gender

	Women	Men	Are women and men in the sample significantly different?
Average age	52.04	55.04	Yes. The men are older by roughly 3 years.
Median education	Some PSE	Some PSE	A little. The men are a bit more likely to have graduate or professional degrees.
Median income	Between \$50,000 and \$59,999	Between \$50,000 and \$59,999	Yes. Although they look the same at the middle, the women are more likely to be in lower or modest-income households and the men are more likely to be in upper-middle or high-income households.
Median income volatility/stability	Stable source and level of income	Stable source and level of income	A little. The men are more likely to have graduate or professional degrees.
Personality scales	<i>Average scores (out of 5)</i>		
Openness	3.355	3.385	No. The men and women in the sample are very similar on this trait.
Conscientiousness	3.777	3.692	Yes. The women are more likely to score higher on this trait.
Extraversion	2.995	3.010	No. The men and women in the sample are very similar on this trait.
Agreeableness	3.736	3.649	Yes. The women are more likely to score higher on this trait.
Neuroticism	2.885	2.682	Yes. The women are more likely to score higher on this trait.

On the socio-demographic characteristics, there are some differences between men and women in the data set. These are statistically significant and could also be important for measures of financial attitudes, behaviours and knowledge. Compared to the women, the men in this survey sample are a little older, a little more likely to have an advanced degree and a little more likely to live in a household with a pre-tax income of \$80,000 or more. That alone could, in principle, make it more likely that their scores in the financial capability and financial literacy measures could be higher compared to the women.

On the personality traits, compared to the men, the women in this sample score higher on traits of conscientiousness, agreeableness and neuroticism. This is in line with previous research (Costa et al., 2001; Weisberg et al., 2011). Drawing on prior research, the women's higher scores on neuroticism could

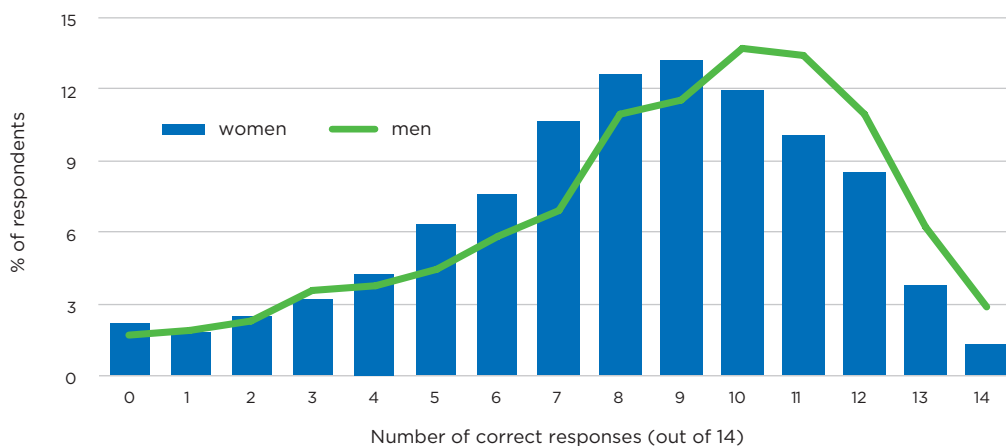
have a negative effect on their financial capability, while their higher scores on conscientiousness should have a positive effect on their self-reported money management.

Next, we look at gender differences in the financial literacy and financial capability measures to see whether, before taking socio-demographic and personality characteristics into account, we see the same gender gap that is so common in the literature: men score better than women, on average. The gap is large enough that, at the average, the men in this sample would receive a letter grade of C- on this quiz while the women would receive a lower grade of D+. When we look at the distribution of scores on this knowledge quiz (see Figure 1, below), we can also see that the scores among men tend to be higher. While very few respondents got all 14 questions correct, roughly twice as many men as women got those top scores.

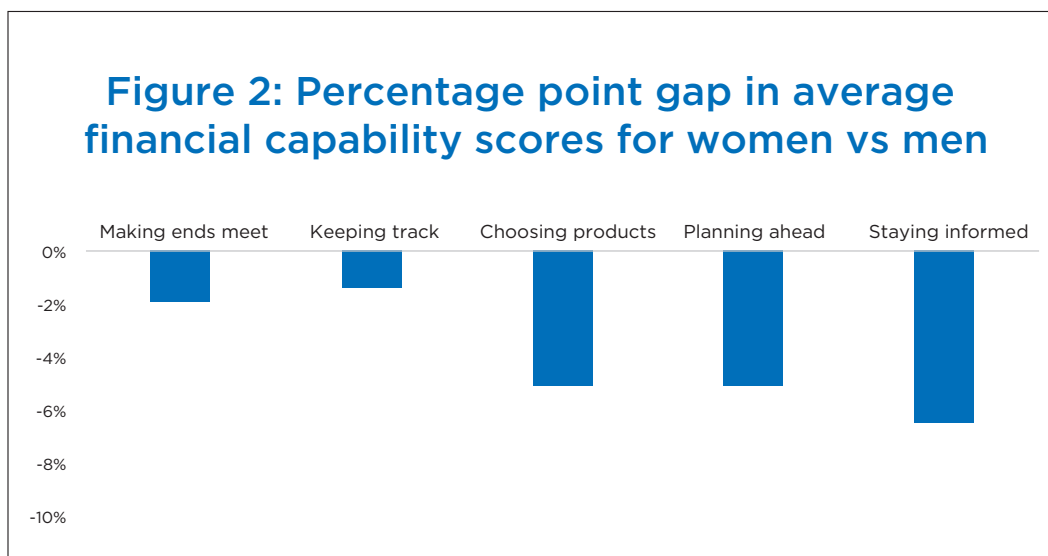
Table 2: Average financial knowledge scores, by gender

All respondents	Women	Men	Difference in scores	Is this significant?	Difference in percentage points
8.3 on 14	8.1 on 14	8.7 on 14	-0.61	Yes, very.	-4.4%

Figure 1: Financial Knowledge: Distribution of scores by gender

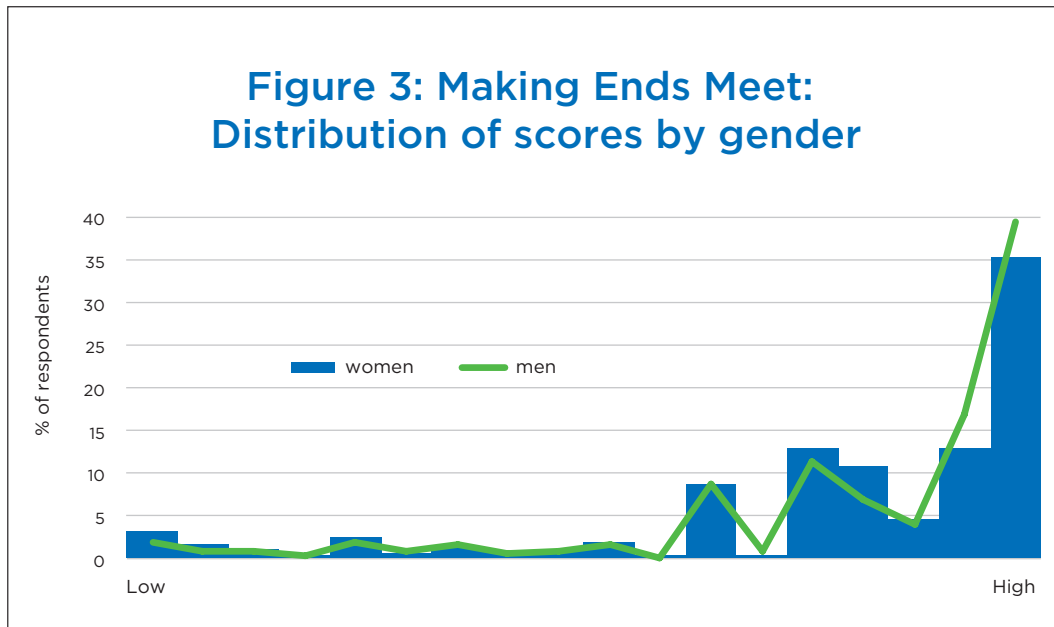


Next, we look at differences in average scores on the five financial capability scales. On all five scales, the women in the survey sample performed more poorly than the men. The gender gap in scores (in percentage points) is illustrated in Figure 2 (below). We also test for statistical significance and find that the gender gap is strongly significant for all areas of financial capability except for “keeping track.” Finding a significant gap on “choosing products,” “planning ahead” and “staying informed” is consistent with the international literature. However, it is unusual that we found a significant gap in “making ends meet.” Since more women in this survey sample are in lower and modest-income households (compared to men), difficulty on “making ends meet” could reflect some underlying financial strain.

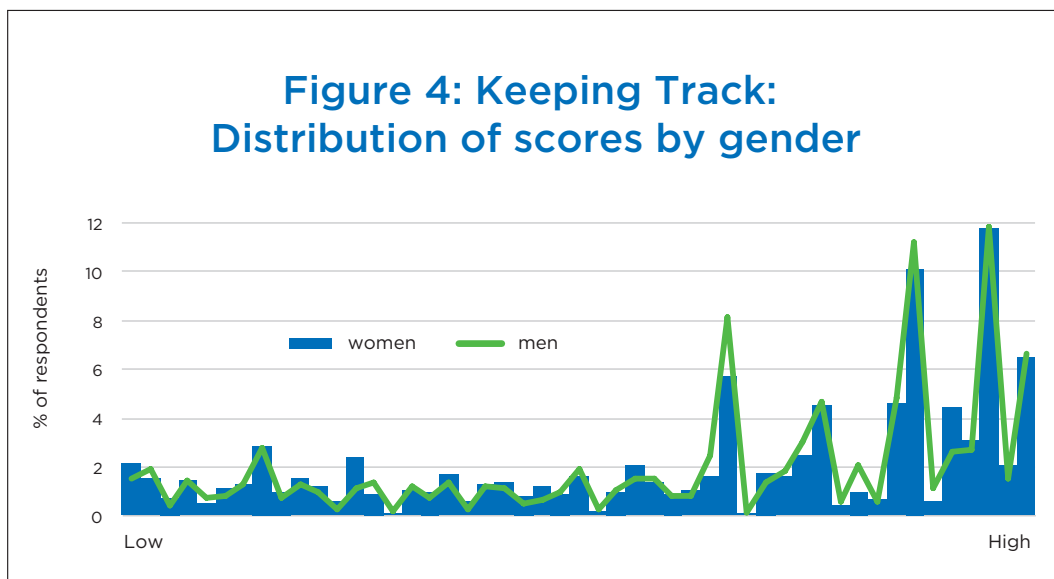


Next, we convert the raw scores on each of the financial capability scales into quantile distributions. This ranks survey respondents from the lowest to highest scores. In the figures below, we take a closer look at the distribution of scores for men and women in the survey sample.

On “making ends meet,” scores for both men and women cluster in the upper end, but men are more likely than women to have the very highest scores.



On “keeping track,” respondents again generally cluster in the upper end of scores, though less sharply so. But on this scale, there’s no real meaningful gender gap.



On “choosing products,” we again see a sharper clustering of top scores. Furthermore, the male respondents are more likely to be among the top scorers than are the female respondents.

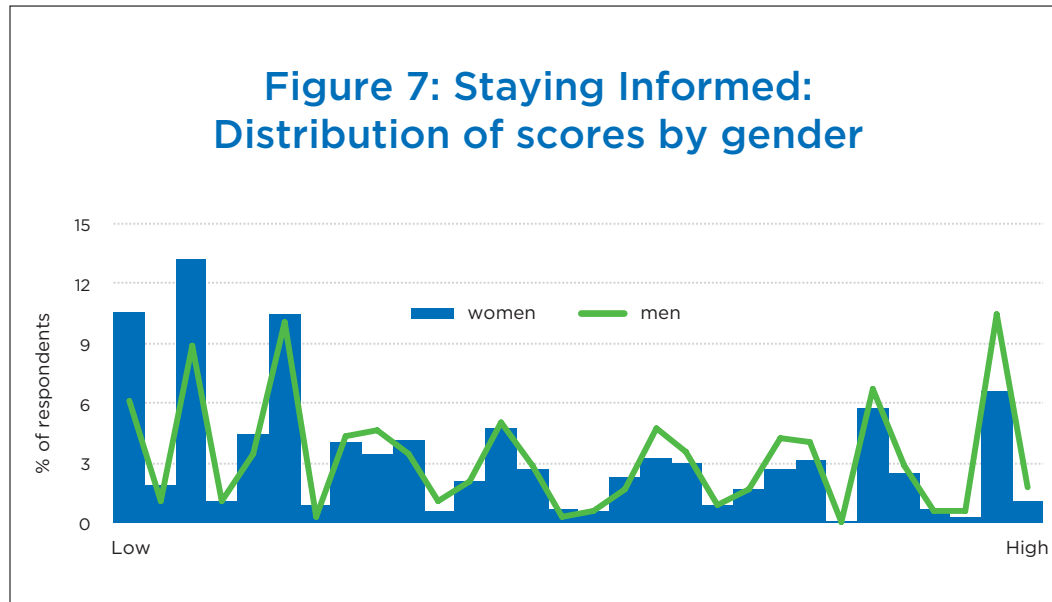


**Figure 6: Planning Ahead:
Distribution of scores by gender**

The chart displays the distribution of scores for two groups: women (represented by blue bars) and men (represented by a green line). The x-axis is labeled 'Low' on the left and 'High' on the right, indicating a scale of scores. The y-axis is labeled '% of respondents' and ranges from 0 to 35 in increments of 5. The data shows that for both genders, the majority of respondents are concentrated at the higher end of the score scale. Men show a more pronounced peak at the far right (High) end compared to women.

Score Category	Women (%)	Men (%)
Low	1.5	1.5
	2.0	1.0
	1.5	0.5
	1.5	0.5
	2.0	1.0
	3.5	1.5
	2.0	1.0
	5.5	5.5
	2.5	2.5
	2.0	1.0
	2.0	1.0
	2.5	1.0
	1.0	1.0
	4.5	4.5
	2.0	1.0
	2.5	3.0
	2.5	3.0
	1.0	1.0
	2.5	2.5
	2.5	2.5
	1.0	1.0
	1.0	1.0
	10.0	7.5
	17.0	21.0
	17.0	2.0
	1.0	1.0
	1.0	1.0
High	24.0	33.0

Finally, on “staying informed,” we see a more uneven pattern in the scores, with many of the women in the survey sample scoring at the bottom end. At the upper end, the men again outnumber the women.



The results so far have been descriptive. They tell us something about where and how big gender differences in financial knowledge and financial capability might be between men and women. But they don't tell us much about why those differences are there in the first place. In the next section, we use different forms of analysis — regression and decomposition — to try to explain those initial gender gaps in financial knowledge and financial capability.

5. Results: Explaining the gender gaps

First, we use regression analysis to test how well financial capability and financial knowledge in our sample is predicted by certain socio-economic and personality traits.³ The figures below show the share of each dimension of financial capability and the quiz results that can be explained by other factors: gender, age, education, household income, income stability and personality traits. Only factors that are statistically significant⁴ (meaning the results aren't due to random chance) are reported in each figure.

³ We use OLS regression with robust estimation of standard errors. We then decompose the R^2 by individual and grouped predictor variables.

⁴ Reported predictors in these figures were all significant at either a $p < 0.01$ or $p < 0.001$ level. In other words, the likelihood that the effect would occur by random chance is less than 1 in 100 or less than 1 in 1000.

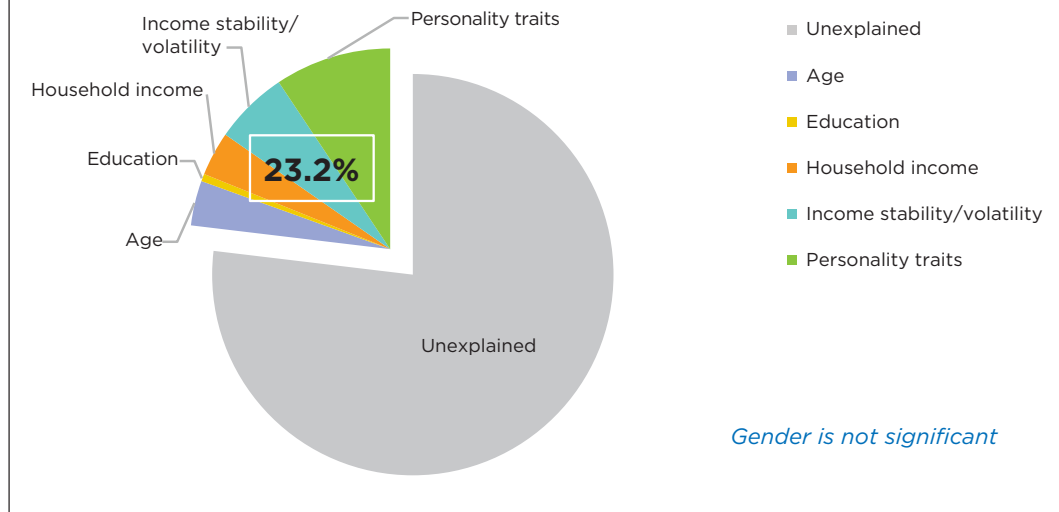
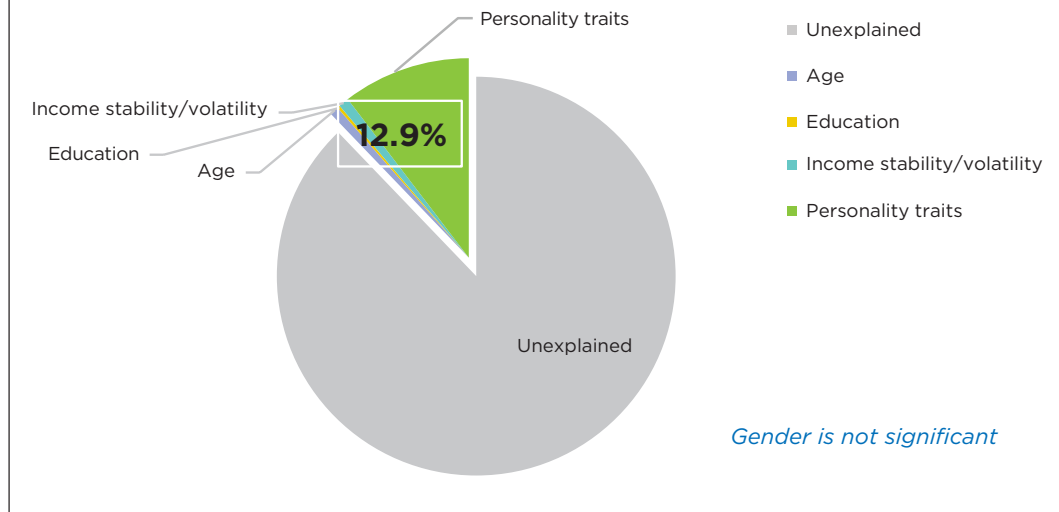
Figure 8: % explained in Making Ends Meet**Figure 9: % explained in Keeping Track**

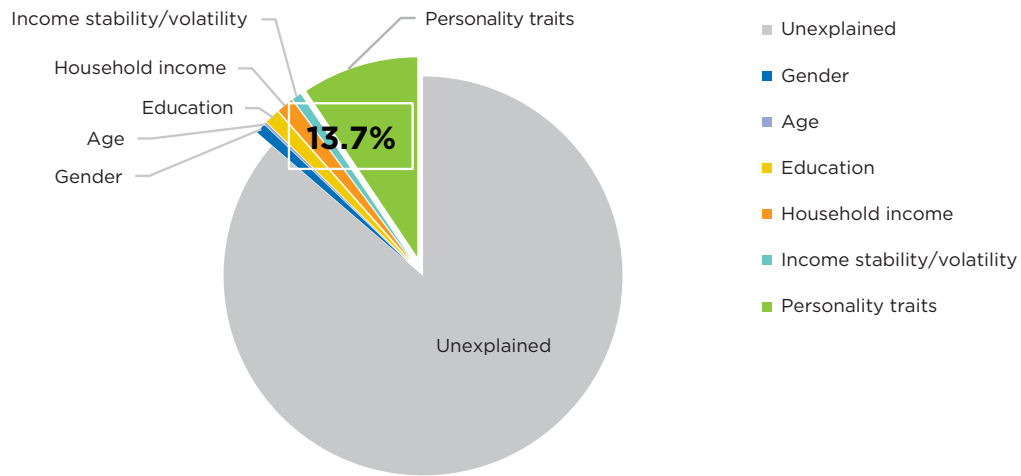
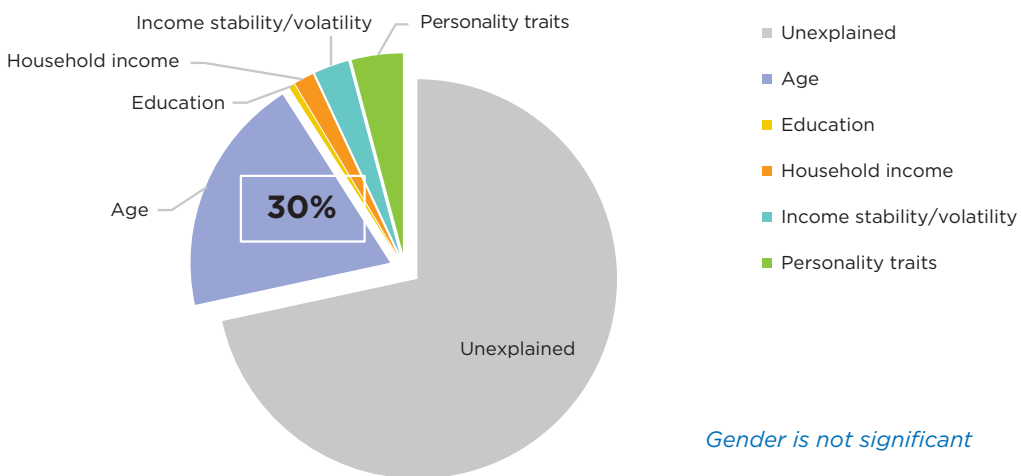
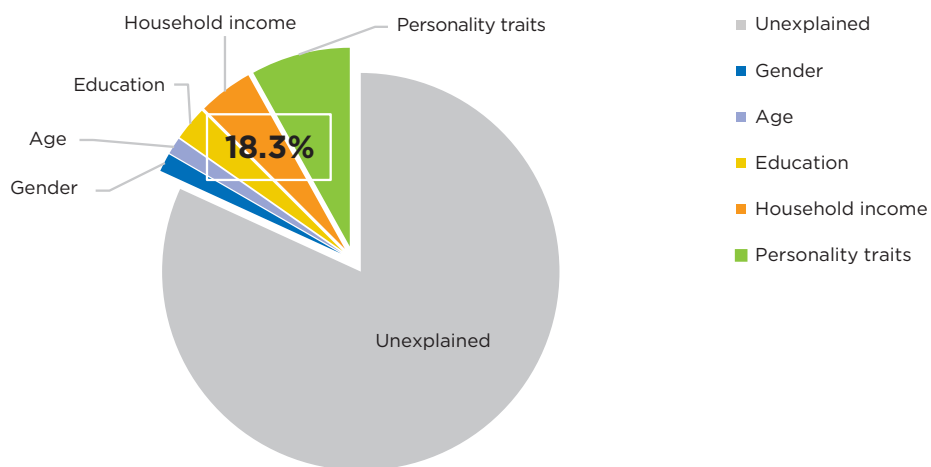
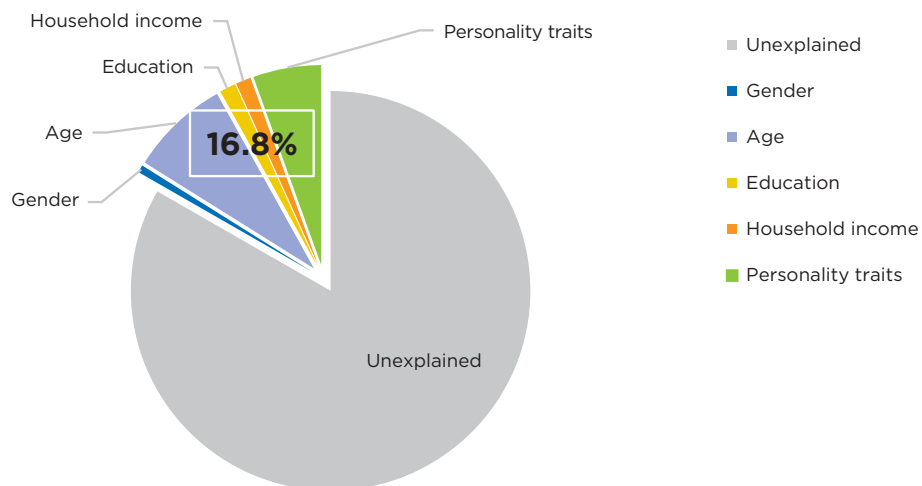
Figure 10: % explained in Choosing Products**Figure 11: % explained in Planning Ahead**

Figure 12: % explained in Staying Informed**Figure 13: % explained in Financial Knowledge**

In three of the five areas of financial capability, “making ends meet,” “keeping track” and “planning ahead,” gender is not a significant factor in predicting financial capability. Recall that “keeping track” did not have a statistically significant gender gap to begin with (see Figure 2, earlier in this report). In the models for “choosing products,” “staying informed” and “financial knowledge,” gender is statistically significant but plays a fairly small role compared to other variables. In all models, individual differences in personality are a better predictor than gender, taking into account socio-economic differences in age, education and household income.

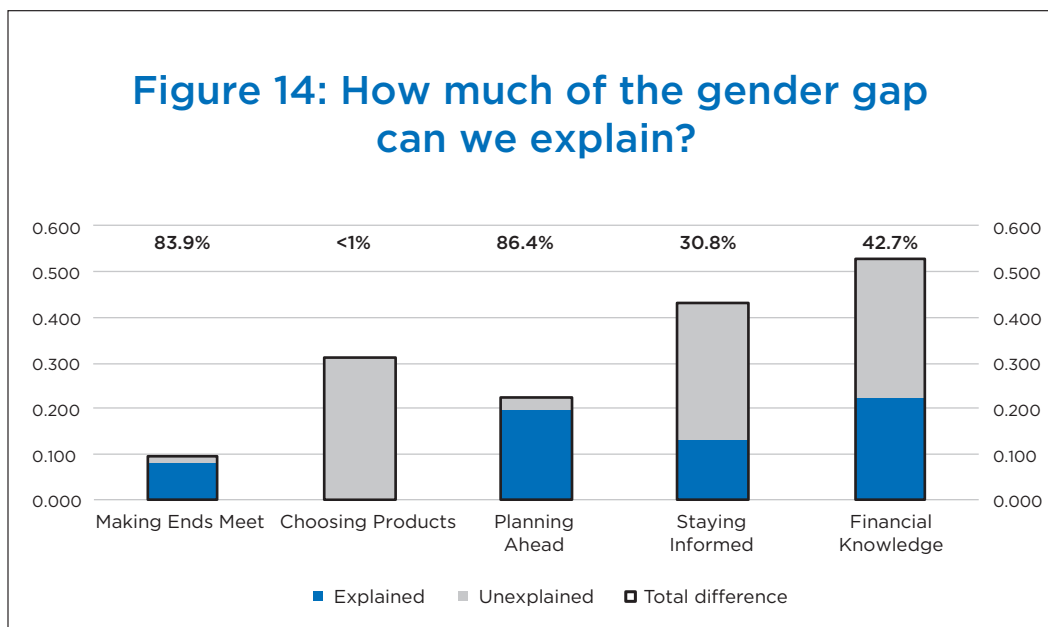
Those same socio-economic variables might interact with gender in two different ways. First, they can be part of underlying inequalities that men and women have coming into an assessment of their financial capability or financial literacy. Second, those variables might have different effects on each gender. For example, setting aside how much education someone has to begin with, it could be that more education makes a larger difference for one gender over the other. This dual effect could also be true of personality traits.

On top of different starting points (or endowments), as well as different effects (or coefficients) on each gender, there are also factors that we cannot see in this survey data. This might include, for example, differences in how men and women experience financial services, gender or cultural stereotypes, and even gender discrimination in personal finances.

Next, we return to the gender gap in financial capability and financial knowledge (see Figures 1 and 2 earlier in this report). We break down (or “decompose”) this gap into the part we can explain using this survey data and the remaining part that we can’t.⁵ Because there was no significant gender gap in scores for “keeping track,” we leave that dimension out of this part of our analysis.

Figure 14, below, shows the magnitude (as a standardized coefficient) of the gender gap on different dimensions of financial capability as well as the financial literacy quiz, and then the share of the gap that can be explained with socio-economic (age, education and income) and personality trait variables in our analysis. The magnitude of the gap is the same as reported in Figures 1 and 2 earlier in this report.

5 We use the Blinder-Oaxaca decomposition module for Stata (version 13.1). This approach to analysis of gender gaps in financial literacy has previously been used by Fonseca et al. (2012).



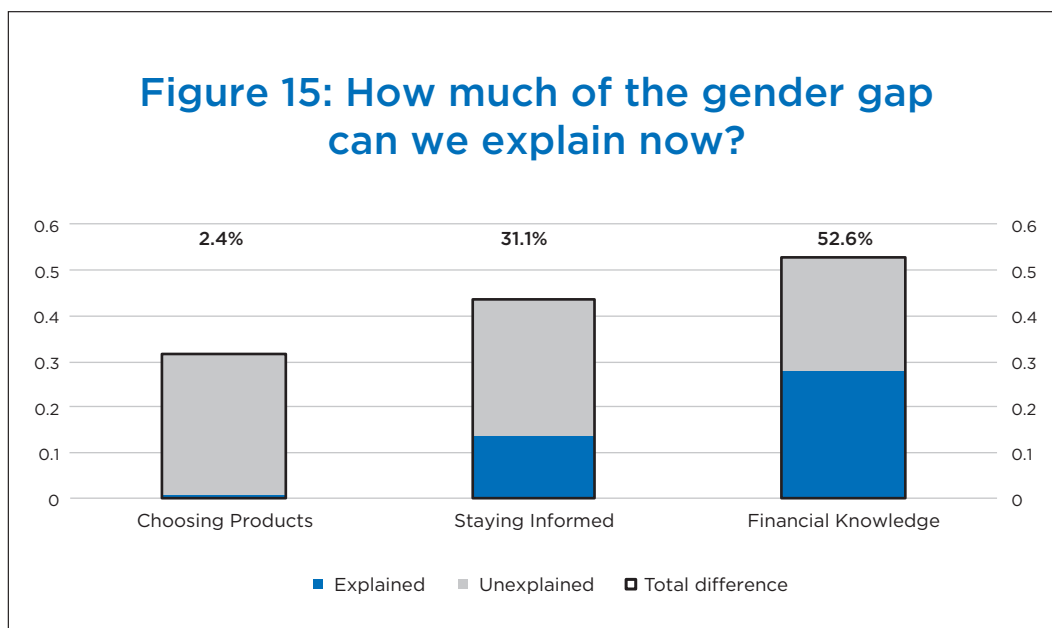
More than 80% of the gender gap in scores for both “making ends meet” and “planning ahead” can be explained by underlying differences in the socio-demographic and personality characteristics between men and women. In other words, the gender gap we can see in these financial capability scores is not so much due to being a man or a woman, but instead to differences in the age, education, income and personalities of men and women.

A substantial share (31% and 43%, respectively) of the gender gap in scores for both “staying informed” and “financial knowledge” can likewise be explained by underlying gender differences in socio-demographic and personality characteristics. This leaves a significant share that can’t be explained. In the case of “choosing products,” essentially all of the gender gap remains unexplained by age, education, income (level and stability) and personality traits.

All three of these aspects of personal financial management seem, compared to others, to relate more to formal institutions and financial markets. The financial knowledge quiz, for example, asks about knowledge of investment principles and insurance coverage. A higher score on “staying informed” requires people to consume financial news and information. Finally, “choosing products,” by definition, requires interaction with providers of financial services and products. If women do not have a key role in major financial decisions for their household (outside of everyday or ongoing money management), then that division of roles could be shaping their confidence, habits and knowledge.

As a final step in our analysis, we repeat the decomposition analysis above for only the two dimensions of financial capability as well as financial knowledge, where initial efforts to explain the gender gap lead to modest, or even tiny, results. We make use of one additional variable from the same CPA Canada survey — a question that asked respondents about their level of responsibility for major financial decisions in their household. We classify respondents as “low responsibility” if they say that someone else (inside or outside the household) takes the lead role in handling financial decisions, as “high responsibility” if they report being the lead decision-maker, and as “shared responsibility” if they report sharing the role with someone else. Overall, men are more likely (63%) than women (54%) to say they are the lead financial decision-maker in their household, and women are more likely (12%) than men (7%) to report little or no responsibility for major financial decisions.

In the figure below, we look at how much this gender specialization in financial decision-making contributes to explaining the persistent gender gap in “choosing products,” “staying informed” and “financial knowledge” quiz results. Socio-demographic and personality trait variables are still taken into account, as before.



Compared to results in Figure 14, the share of the gender gap now explained for “choosing products” rises when we include responsibility for financial decisions, but it remains very small. The share of the gender gap for scores on “staying informed” rises slightly, but this could be due to statistical chance rather than a meaningful effect from adding the new variable.

However, the share of the gender gap for financial knowledge scores that can now be explained rises from 43% to 53%, a substantial increase. In light of the vast international literature documenting a persistent gap in the financial knowledge of adult women, this is an important result. Our analysis finds that just over half the gender gap in tests of financial knowledge in this sample can be explained by factors such as age, education, income, financial decision-making power and personality traits.

We also acknowledge that a large share of the gender gap, particularly on “choosing products,” remains unexplained. That could be due to unobserved differences in how variables like income, education and personality shape the financial attitudes, behaviours and knowledge of women compared to men. Alternatively, the unexplained part could be due to factors that aren’t observable in this study.

6. Discussion: Limitations and potential implications

The results above are from one study using one set of survey data and, as such, should always be interpreted with caution. We encourage other organizations to follow CPA Canada in collecting and making available to researchers survey data on personal financial attitudes, habits and knowledge and to include socio-demographic and psychological variables that have proven important in this study. By replicating this study with other populations, researchers will be able to test the reliability of the results in this study and gain a better understanding of the complexity of gender differences in personal financial management.

However, the results in the present study are based on a larger survey sample than many highly-cited studies of gender gaps in financial literacy. This study also benefited from the inclusion of well-established measures of psychological characteristics — the Big Five personality traits,⁶ a variable that has not, to our knowledge, previously been available to researchers in this field.

Gender gaps in financial capability and financial literacy, while well-established in the international literature, may be overstated when researchers can account for both individual socio-demographic and psychological differences.

6 In a future report, we provide a more detailed analysis of the role of psychological characteristics, including but not limited to, personality traits, in observed financial capability.

When we take age, income, education and personality traits into account, women aren't significantly different from men when it comes to:

- Making ends meet
- Keeping track of money
- Planning ahead

When those same factors are taken into account, even though there are still small differences between men and women, individual personality plays a much bigger role when it comes to:

- Choosing financial products
- Staying informed about finances
- A test of objective financial knowledge

Naturally, we encourage further research to test and expand on our findings. We particularly encourage others to include measures of the Big Five personality traits, and measures of other relevant psychological characteristics, when designing and fielding studies of financial knowledge, attitudes and behaviour. Those measures of individual differences may provide more useful information alongside demographic traits like gender.

We believe that attention to individual differences merits more attention from policy-makers and practitioners looking for ways to raise financial literacy levels and promote financial wellness. We think this study should raise new questions for policy and programs that target broad demographic groups, like women and girls, for financial education or coaching. Gender-targeted interventions focused on teaching participants to track spending and set budgets are likely playing to an area where women don't necessarily face deficits compared to men.

More generally, interventions may be more successful if they take into account the age, education and income of participants, and their personality traits. For example, someone who scores very low on the trait conscientiousness might benefit more than others from being taught to develop habits that automate self-control (Gollwitzer, 1999). Additionally, some habits can be changed over time. For example, control over impulses — a facet of conscientiousness — has been shown to improve through practice (e.g., resisting small temptations over time; Muraven, Baumeister, & Tice, 1999), and can even be improved by teaching individuals to believe in the unlimited nature of willpower (Job, Dweck, & Walton, 2010). Interventions that include information on strategies to shift decision-making that might be associated with certain personality traits towards those more amenable to financial management might thus indirectly foster financial literacy and capability.

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Appendix

CPA Canada study of financial capability

Survey questionnaire

Section 1

To begin, a little bit about you...

S1 In which province do you live?

S2. Are you ...?

Male	
Female	

S3. How old are you?

S4. Are you currently...?

Single, never married	
Married/common-law	
Divorced/separated	
Widowed	
Prefer not to say	

Q. 1 Does your household have a budget?

Q. 2 How often does your household stay within budget?

Q. 3 Has your household set specific financial goals to accomplish within a certain period of time?

Q. 4 Do you currently have a will?

Q. 5 Does your household have a special cash reserve fund for unexpected financial emergencies (i.e. in addition to savings for other purposes)?

Q. 6 How long would this emergency cash reserve last if you have to use it to cover regular expenses of your household?

- 1. Less than one week
- 2. One to two weeks
- 3. Three to four weeks
- 4. 1 to 2 months
- 5. 3 to 4 months
- 6. 5 to 6 months
- 7. More than 6 months
- 8. Don't know

Q. 7 Thinking about the last 12 months, were you ever behind two or more consecutive months in paying a bill?

Q. 8 Thinking of the last 12 months, has your household been...?

- 1. Keeping up with all bills and commitments without any problems
- 2. Keeping up with all bills and commitments, but it has sometimes been a struggle
- 3. Having real financial problems and falling behind with bills or credit commitments
- 4. Don't have any bills or credit commitments
- 5. Don't know

Q. 9 To what extent does your household rely on financial support from family members, friends or others outside of your household?

- 5. A great deal
- 4. Moderately
- 3. Occasionally
- 2. Rarely
- 1. Never
- 0. Don't know
- 9. Prefer not to say

Q. 10 Do you or anyone in your household currently have any Registered Retirement Savings Plans (RRSPs)?

[PROG: IF “NO” OR “DN, RF” IN Q. 10, SKIP TO Q. 12]

Q. 11 Have you or anyone in your household ever withdrawn money from an RRSP for reasons other than providing retirement income, participating in the Home Buyers’ Plan, or participating in the Lifelong Learning Plan?

Q. 12 In the last 12 months, did your household receive any income from...?

1. Wages or salaries, including commissions, tips and bonuses
2. Self-employment income
3. Interest, dividends, capital gains or other investment income
4. Canada or Quebec Pension Plan (CPP or QPP), Old Age Security (OAS), Guaranteed Income Supplement (GIS) or Spouse’s Allowance
5. Employment insurance benefits
6. Social assistance and provincial supplements, disability pensions or payments
7. Other government sources such as Child Tax Benefit, Workers’ Compensation, Goods and Services Tax Benefit, provincial tax credits, Veterans’ pensions
8. Workplace pensions, RRSP annuities, RRIF and RRSP withdrawals
9. Other income
10. None of the above

Q. 13 Do you or does anyone in your household own any of the following tangible assets?

1. House or property
2. Vehicles (i.e. cars, trucks, watercrafts, etc.)
3. Collections, antiques, jewels, and other valuables
4. Home furnishings
5. Other tangible assets
6. None of these assets
7. Don’t know

Q. 14 Excluding any RRSPs, do you or anyone in your household own any of the following financial assets?

1. Cash savings
2. Investments
3. Registered disability savings plan
4. Tax free savings plan
5. Private pensions
6. Other financial assets
7. None of these assets
8. Don’t know

Q. 15 Do you or anyone in your household currently have any of the following types of debts or liabilities?

1. Mortgages (include principal residence and other mortgages)
2. Student loans
3. Payday loans
4. Other loans (other than student loans or pay day loans)
5. Outstanding credit card balances
6. Outstanding balances on lines of credit
7. Other debts or liabilities
8. None of these debts or liabilities
10. Don’t know

Q. 16 Which of the following best describes your household’s current situation? My household’s total debt..

1. Exceeds the value of my household’s assets
2. Is about the same as the value of my household’s assets
3. Is less than the value of my household’s assets

- Q. 17** In total, how many credit cards with different account numbers does your household own?
- Q. 18** How often does your household pay off the balance on credit card(s) on a monthly basis?
- Q. 19** How many personal and joint chequing or savings accounts does your household currently have with a bank, credit union or trust company?
- Q. 20** With how many different institutions do you have these accounts?
- Q. 21** How often do you or anyone in your household usually check your account balance(s)?
- Q. 22** How often do you or other members of your household monitor the performance of your investments (registered and non-registered)?
- Q. 23** When did you or other members of your household last calculate the value of your wealth?

- Q. 24** In the last two years, which of the following types of financial products have you chosen (personally or jointly) whether or not you still hold them...Please do not include products that were renewed automatically.

1. A pension fund
2. An investment account, such as a unit trust
3. A mortgage
4. A bank loan secured on property
5. An unsecured bank loan
6. A credit card
7. A current account
8. A savings account
9. A microfinance loan
10. Insurance
11. Stocks and shares
12. Bonds
13. Mobile phone payment account
14. Prepaid payment card
15. None of the above
88. Don't know
99. Prefer not to say

- Q. 25** Which of the following statements best describes how you last chose a [INSERT A PRODUCT AT RANDOM FROM POSITIVE RESPONSES TO Q. 24]

1. Considered several [INSERT APPROPRIATE PRODUCT NAME] from different companies before making my decision
2. Considered the various [INSERT APPROPRIATE PRODUCT NAME] from one company
3. Didn't consider any other [INSERT APPROPRIATE PRODUCT NAME] at all
4. Looked around but there were no other [INSERT APPROPRIATE PRODUCT NAME] to consider
5. Don't know

Q. 26 If you had an unexpected expense of \$500 today, what would you do to pay for this expense?

1. Use savings
2. Borrow from a friend or relative
3. Use a personal line of credit
4. Borrow from a financial institution
5. Use a credit card
6. Sell a financial asset or personal possession
7. Go to a pawnbroker or payday loan service
8. Make arrangements with creditor
9. Other
10. Would not be able to pay this expense
11. Don't know

Q. 27 If you had an unexpected expense of \$5,000 today, what would you do to pay for this expense?

1. Use savings
2. Borrow from a friend or relative
3. Use a personal line of credit
4. Borrow from a financial institution
5. Use a credit card
6. Sell a financial asset or personal possession
7. Go to a pawnbroker or payday loan service
8. Make arrangements with creditor
9. Other
10. Would not be able to pay this expense
11. Don't know

Q. 28 Are you or anyone in your household financially responsible for any children under the age of 18?

Q. 29 Is your household currently saving or have already saved to support the cost of your children's postsecondary education?

Q. 30 Excluding home purchases as a principal residence and the possible cost of your children's higher education, do you plan to make any purchases or have expenses of \$10,000 or more in the next three years?

Q. 31 Are you [and your spouse/partner IF MARRIED/COMMON-LAW] fully retired?

Q. 32 Is your household financially preparing for retirement either through your own means or through an employer pension plan?

Q. 33 Which of the following sources of revenue are included in your household's financial plan for retirement?

(Please select all that apply)

1. Government pension benefits (CPP, QPP, OAS, GIS)
2. Occupational or workplace pension plan benefits
3. Personal retirement savings plan benefits (RRSP, RSP)
4. A reverse mortgage
5. Selling of financial assets (such as: stocks, bonds or mutual funds other than RRSP or RIF)
6. Selling of non-financial assets (such as: a car, home or properties, art, jewels, antiques, etc.)
7. Use of an inheritance
8. Relying on financial support from extended family (including a spouse, partner)
9. Drawing an income from your own (or your spouse or partner's) business
10. Earnings from employment in retirement
11. Other
12. My household has not identified sources of revenue for in retirement
13. Don't know

Q. 34 Does your household have an idea of how much money you will need to save to maintain your desired standard of living when you retire?

Q. 35 Which of the following types of insurances do you or anyone in your household currently own?

1. Auto
2. Life
3. Disability
4. Loss of income (e.g. payment protection insurance)
5. Property (home)
6. Renters (content)
7. Travel
8. Other
9. None of the above
99. Don't know

Q. 36 Do you have all your insurance policies with one company?

Q. 37 Would you say your household savings are mainly ...?

1. Long-term for the future
2. Short-term for current needs
3. About equally long-term and short-term
4. Don't know

Q. 38 In the past 12 months, did your household make use of any advice, free or paid, on ...?
(Please select all that apply)

1. Retirement planning
2. Children's education planning
3. Estate planning
4. Insurance
5. Tax planning
6. General financial planning (saving and investment strategies)
7. Mortgages
8. Debt management
9. Other
10. Could not find any advice [Cannot be selected in conjunction with other codes]
11. Could not afford any advice [Cannot be selected in conjunction with other codes]
12. No, did not seek any advice [Cannot be selected in conjunction with other codes]
13. Don't know

Q. 39 Where did you get your advice?
(Please select all that apply)

1. Accountant
2. Lawyer, Notary
3. Financial advisor, planner
4. Tax advisor, planner
5. Credit, Bankruptcy advisor, planner, counsellor
6. Bank, Caisse Populaire, Desjardins
7. Insurance Company
8. Government institutions
9. Social associations (church, unions)
10. Work, employer
11. Internet
12. Media (advertisements, television, radio)
13. Books, library
14. School, seminars, workshop, trade shows
15. Friends, family
16. Other

Q. 40 People get information about financial matters from many sources. What sources do you use most often in your financial decisions?

1. Advertisements
2. Magazines
3. Newspapers
4. Radio or Television
5. Internet
6. Advice from a Financial Advisor
7. Advice from a knowledgeable friend or family
8. Other
9. None of the above
13. Don't know

Q. 41 Do you or other members of your household usually keep an eye on changes in...
(Please select all that apply)

1. The housing market
2. The stock market
3. The currency (money) market
4. Interest rates
5. Inflation
6. Taxation
7. The job market
8. Pension plans, and benefits
9. Sales of consumer goods and services
10. Other financial news
11. None of the above
12. Don't know

Q. 42 How do you tend to monitor these things?

(Please select all that apply)

1. Newspapers
2. Financial / business pages in newspapers
3. Financial magazines (Forbes, The Economist, Les Affaires)
4. Current event magazines (Maclean's, Actualité, Times, Newsweek)
5. Radio and television business and financial programming
6. Internet (email, Web, text messaging, newsfeeds, etc.)
7. Financial advisor
8. Other
9. Prefer not to say

Q. 43 When did you or anyone in your household last request a credit report from Equifax, Trans Union of Canada or Northern Credit Bureau (Experian) to verify your credit history?

Section 2

The next few questions are about your feelings and approaches to finances and to some general matters. Please answer these questions as they pertain to **you personally** rather than to your household as a whole.

Q. 44 How would you rate your level of financial knowledge?

5. Very knowledgeable
4. Somewhat knowledgeable
3. Average
2. Not very knowledgeable
1. Not knowledgeable at all
6. Don't know

Q. 45 How would you rate yourself on each of the following areas of financial management...?

**[GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

5. Excellent
4. Very good
3. Good
2. Fair
1. Poor

[List]

1. Keeping track of money
2. Making ends meet
3. Planning ahead
4. Shopping around to get the best financial product such as loans or insurance rates
5. Staying informed on financial issues

Q. 46 To what extent do you agree or disagree with the following statements?

**[GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree
9. Prefer not to say

[List]

1. I enjoy dealing with financial matters.
2. I tend to trust professional financial advisers and accept what they recommend.
3. I frequently get financial advice from my friends and family.
4. I've got a clear idea of the sorts of financial products that I need.
5. I keep a close personal watch on my financial affairs.
6. I know enough about investments to choose ones that are suitable for my circumstances.
7. I always research my choices thoroughly before making any financial decisions.
8. I always consult my family/spouse before making any important financial decisions.

Q. 47 How well off would you say your household is financially these days? Would you say you are...

1. Living comfortably
2. Doing all right
3. Just about getting by
4. Finding it somewhat difficult
5. Finding it very difficult

Q. 48 Please indicate the extent to which you agree or disagree with each of the following.

**[GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

I see myself as someone who...

1. Is talkative
2. Tends to find fault with others
3. Does a thorough job
4. Is depressed, blue
5. Is original, comes up with new ideas
6. Is reserved
7. Is helpful and unselfish with others
8. Can be somewhat careless
9. Is relaxed, handles stress well
10. Is curious about many different things
11. Is full of energy
12. Starts quarrels with others
13. Is a reliable worker
14. Can be tense
15. Is ingenious, a deep thinker
16. Generates a lot of enthusiasm
17. Has a forgiving nature
18. Tends to be disorganized
19. Worries a lot
20. Has an active imagination
21. Tends to be quiet
22. Is generally trusting
23. Tends to be lazy
24. Is emotionally stable, not easily upset
25. Is inventive
26. Has an assertive personality
27. Can be cold and aloof
28. Perseveres until the task is finished
29. Can be moody
30. Values artistic, aesthetic experiences
31. Is sometimes shy, inhibited

32. Is considerate and kind to almost everyone
33. Does things efficiently
34. Remains calm in tense situations
35. Prefers work that is routine
36. Is outgoing, sociable
37. Is sometimes rude to others
38. Makes plans and follows through with them
39. Gets nervous easily
40. Likes to reflect, play with ideas
41. Has few artistic interests
42. Likes to cooperate with others
43. Is easily distracted
44. Is sophisticated in art, music, or literature

Q. 49 For each statement below, please indicate the extent to which you agree or disagree with that statement. (Please select one answer for each item)

**[GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

1. Strongly agree
2. Moderately agree
3. Slightly agree
4. Undecided
5. Slightly disagree
6. Moderately disagree
7. Strongly disagree

[List]

1. Saving and careful investing is key to becoming rich.
2. Whether or not I become wealthy depends mostly on my ability.
3. In the long run, people who take care of their finances stay wealthy.
4. If I become poor, it is usually my own fault.
5. I am usually able to protect my personal interests.
6. When I get what I want, it is usually because I worked hard for it.
7. My life is determined by my own actions.
8. There is little one can do to prevent poverty.
9. Becoming rich has nothing to do with luck.
10. Regarding money, there isn't much you can do for yourself when you are poor.
11. It's not always wise for me to save because many things turn out to be a matter of good fortune or bad fortune.
12. It is chiefly a matter of fate whether I become rich or poor.
13. Only those who inherit or win money can possibly become rich.

Q. 50 To what extent do the following statements describe you..

**[GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

1. Never like me
2. .
3. .
4. Neutral
5. .
6. .
7. Always like me

[List]

1. I follow the advice to save for a rainy day.
2. I enjoy thinking about how I will live years from now in the future.
3. The distant future is too uncertain to plan for
4. The future seems very vague and uncertain to me
5. I pretty much live on a day-to-day basis
6. I enjoy living for the moment and not knowing what tomorrow will bring

Q. 51 To what extent do you agree or disagree with the following statements..

**[GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

1. Slightly agree
2. Moderately agree
3. Strongly agree
4. Undecided
5. Slightly disagree
6. Moderately disagree
7. Strongly disagree

[List]

1. I regard myself as a person preoccupied with ensuring that myself and my family can retire on a good income.
2. I think of myself as a person who is very concerned with building adequate wealth for retirement.
3. I think of myself as a long-term financial planner.

Section 3

The next section is meant to be an enjoyable challenge. Please answer as best as you can. Feel free to use a calculator or pen and paper if you need to.

Q. 52 If the inflation rate is 5% and the interest rate you get on your savings is 3%, will your savings have at least as much buying power in a year's time?

Q. 53 A credit report is a ...?

1. List of financial assets and liabilities
2. Monthly credit card statement
3. Loan and bill payment history
4. Credit line with a financial institution
5. Don't know

Q. 54 Who insures your stocks in the stock market?

1. The National Deposit Insurance Corporation
2. The Securities and Exchange Commission
3. The Bank of Canada
4. No one
5. Don't know

Q. 55 True or false: By using unit pricing at the grocery store, you can easily compare the cost of any brand and any package size.

Q. 56 If each of the following people had the same amount of take home pay, who would need the greatest amount of life insurance?

1. A young single woman with two young children
2. A young single woman without children
3. An elderly retired man, with a wife who is also retired
4. A young married man without children
5. Don't know

Q. 57 Which of the following statements would be correct concerning the interest that you would earn on a savings account at a bank?
(Please select all that apply)

1. Sales tax may be charged on the interest that you earn
2. You cannot earn interest until you pass your 18th birthday
3. Earnings from savings account interest may not be taxed
4. Income tax may be charged on the interest if your income is high enough
5. Don't know

Q. 58 Which group would have the greatest problem during periods of high inflation that lasts several years?

1. Young working couples with no children
2. Young working couples with children
3. Older, working couples saving for retirement
4. Older people living on fixed retirement income
5. Don't know

Q. 59 Lindsay has saved \$12,000 for her university expenses by working part-time. Her plan is to start university next year and she needs all of the money she saved. Which of the following is the safest place for her university money?

1. Corporate bonds
2. Mutual Funds
3. A bank savings account
4. Locked in a safe at home
5. Stocks
6. Don't know

Q. 60 Which of the following types of investments would best protect the purchasing power of a family's savings in the event of a sudden increase in inflation?

1. A twenty-five year corporate bond
2. A house financed with a fixed-rate mortgage
3. A 10-year bond issued by a corporation
4. A certificate of deposit at a bank
5. Don't know

Q. 61 Under which of the following circumstances would it be financially beneficial to borrow money to buy something now and repay it with future income?

1. When something goes on sale
2. When the interest on the loan is greater than the interest obtained from a savings account
3. When buying something on credit allows someone to get a much better paying job
4. It is always more beneficial to borrow money to buy something now and repay it with future income
5. Don't know

Q. 62 Which of the following is incorrect about most ATM (Automated Teller Machine) cards?

1. You can get cash anywhere in the world with no fee
2. You must have a bank account to have an ATM card
3. You can generally get cash 24 hours-a-day
4. You can generally obtain information concerning your bank balance at an ATM
5. Don't know

Q. 63 Which of the following can hurt your credit rating?

1. Making late payments on loans and debts
2. Staying in one job too long
3. Living in the same location too long
4. Using your credit card frequently for purchases
5. Don't know

Q. 64 What can affect the amount of interest that you would pay on a loan?

1. Your credit rating
2. How much you borrow
3. How long you take to repay the loan
4. All of the above
5. Don't know

Q. 65 Which of the following will help lower the cost of a house?

1. Paying off the mortgage over a long period of time
2. Agreeing to pay the current interest rate on the mortgage for as many years as possible
3. Making a larger down payment at the time of purchase
4. Making a smaller down payment at the time of purchase
5. Don't know

Section 4

In this final section of the survey we ask you about your background.

Q. 66 Including yourself, how many members of your household are 18 years of age and older?

Q. 67 How many people in your household are under 18 years of age?

Q. 68 What is the highest level of education that you have completed?

Q. 69 Are you [and your spouse IF MARRIED/Common-law] now..?

**[GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

1. You
2. Your spouse [if married/common-law at S4]

[List]

1. Employed full-time
2. Employed part-time
3. Self-employed full-time
4. Self-employed part-time
5. Not working and looking for work
6. Not working and not looking for work
7. A student
8. Other
9. Prefer not to say

Q. 70 Are you an Aboriginal person, that is, First Nations, Métis or Inuk (Inuit)? (First Nations includes Status and Non-Status Indians.)

Q.71 Have you [and your spouse IF MARRIED/Common-law] ever been a landed immigrant to Canada?

Q. 72 How long ago [did you IF ONLY RESPONDENT IMMIGRATED] [did your spouse IF ONLY SPOUSE IMMIGRATED] [did you and your spouse IF BOTH IMMIGRATED] immigrate to Canada?

[Grid]

1. You
2. Your spouse [if married/common-law at S4 AND spouse immigrated]

[List]

1. 5 or less years
2. 6 to 10 years
3. 11 to 20 years
4. 21 to 40 years
5. Over 40 years
9. Prefer not to say

Q. 73 Could you tell me which ethno-cultural group you most identify with? (Please select all that apply)

1. Aboriginal
2. British Isles
3. Western European
4. Eastern European
5. Other European
6. Arab
7. West Asian (examples include Afghanistan and Iran)
8. South Asian (examples include India and Pakistan)
9. East Asian (examples include China, Japan and Korea)
10. South East Asian (examples include Thailand, Vietnam and Indonesia)
11. Other Asian
12. African
13. Jewish
14. Pacific Islands
15. Caribbean
16. South American
17. Canadian
18. American
19. Other not listed above
99. Prefer not to say

Q. 74 Is there one ethno-cultural group with which you identify most strongly?

1. Yes
2. No

Q. 75 Which one ethno-cultural group do you identify with most strongly?

1. Aboriginal
2. British Isles
3. Western European
4. Eastern European
5. Other European
6. Arab
7. West Asian (examples include Afghanistan and Iran)
8. South Asian (examples include India and Pakistan)
9. East Asian (examples include China, Japan and Korea)
10. South East Asian (examples include Thailand, Vietnam and Indonesia)
11. Other Asian
12. African
13. Jewish
14. Pacific Islands
15. Caribbean
16. South American
17. Canadian
18. American
19. Other not listed above
99. Prefer not to say

Q. 76 Which best describes your total annual household income, before taxes, in 2015?

1. Under \$20,000
2. \$20,000 – \$29,999
3. \$30,000 – \$39,999
4. \$40,000 – \$49,999
5. \$50,000 – \$59,999
6. \$60,000 – \$69,999
7. \$70,000 – \$79,999
8. \$80,000 – \$99,999
9. \$100,000 – \$124,999
10. \$125,000 – \$149,999
11. \$150,000 or more
99. Prefer not to say

Q. 77 What best describes the nature of your household income?

1. Amounts of income are relatively stable and income source is dependable over a longer- term
2. Amounts of income are relatively stable; however income source is not very dependable over a longer-term
3. Amounts of income change substantially from month to month but income source is dependable over a longer-term
4. Amounts of income change substantially from month to month and income source is not very dependable over a longer-term
5. Don't know
9. Prefer not to say

Q. 78 Which of the following best reflects the percentage of your household's total income that you spend on housing costs in a typical month? (This includes mortgage payments or rent, property taxes, water, heat, and electricity and etc.)

1. Less than 19%
2. 20% – 34%
3. 35% – 49%
4. 50% or more
5. Don't know
9. Prefer not to say

Q. 79 In the past five years, have you taken a course or program of study to increase your knowledge and understanding of the economy or financial matters?

Q. 80 Overall, who in your household is mainly responsible for making financial decisions and ensuring that financial commitments are met?

1. Mainly you
2. Mainly your spouse/partner or someone else in the household
3. You share the responsibility equally with your spouse/partner or someone else in the household
4. Nobody in particular
5. Someone outside of the household
9. Prefer not to say

Q. 81 Compared to other people your age, how would you describe your [if married/common-law and your spouse/partner's] state of health?

**[PROG: GRID ACROSS THE TOP;
LIST DOWN THE SIDE]**

[Grid]

1. Excellent
2. Very Good
3. Good
4. Fair
5. Poor

[List]

1. You
2. [insert if married/common-law at S4]
Your spouse/partner

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