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## **Benchmarking Financial Knowledge, 2012**

Written by



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## TABLE OF CONTENTS

<b>0.</b>	<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>1.</b>	<b>INTRODUCTION</b>	<b>2</b>
<b>2.</b>	<b>WHAT PEOPLE KNOW</b>	<b>3</b>
	2.1 INVESTMENT	4
	2.2 BORROWING (CREDIT)	6
	2.3 PLANNING	7
<b>3.</b>	<b>FINANCIAL KNOWLEDGE</b>	<b>8</b>
	3.1 KNOWLEDGE SCORES	9
	3.2 KNOWLEDGE OF INVESTMENTS	12
	3.3 OTHER ASPECTS OF KNOWLEDGE	13
<b>4.</b>	<b>FINDINGS &amp; CONCLUSIONS</b>	<b>14</b>
<b>5.</b>	<b>STUDY METHOD</b>	<b>15</b>
<b>APPENDIX A.</b>		
	BENCHMARKING FINANCIAL KNOWLEDGE SURVEY FORM	17

## 0. EXECUTIVE SUMMARY

The **Benchmarking Financial Knowledge Survey** is a set of 21 questions that focus on concepts with long-term importance and generally accepted relevance to the building of educated financial consumers. The selection of concepts for the survey was based on a detailed review of issues addressed in other jurisdictions. This survey is a repeat of a survey conducted in 2010. The current survey was administered to a random sample of 1,000 Ontarians in October 2012. Overall results are accurate to within  $\pm 3\%$  some 19 out of 20 times.

On average people get 11.2 out of 21 questions correct for a score of 53%. In 2010, the average was 11.5 correct out of 23 questions for 50%. If we consider 60% correct as a notional “passing grade”, then 36% of Ontarians passed in 2012, up from 29% in 2010. Half of Ontarians answer fewer than half the questions correctly.

To be consistent with the investor focus of the work, thirteen of the 21 questions were directly related to investment. An additional five questions related to financial planning, while three questions focused on borrowing. These questions focus on the level of knowledge that one might expect from a well-informed citizen, rather than basic financial capability. A few clear messages emerge from the pattern of correct and incorrect answers.

- Most people know the basic signs of a potential fraud. Nine in ten (91%) recognize the high return with low risk promise common to frauds.
- There is good awareness of the basic tax implications of RRSPs. Roughly three-quarters of people know that RRSP deposits will typically lower their year’s income tax, but they are also aware that they will have to pay income tax when they withdraw the money in retirement.

- Knowledge of investment risks and returns is medium overall, with people typically getting 50-60% correct answers. More than 6 out of 10 show awareness of the risks of stock ownership and 5 out of 10 know that stocks typically outperform less risky investments over the long run. However, only half (53%) understand the fundamental trade-off between risk and return.
- Even when people understand a financial or economic principle in theory, applying the principle to a real situation is sometimes difficult for them. While 91% know that the longer you owe money the more it costs in terms of the interest you pay, only 48% correctly apply the principle when asked how interest costs are affected by the amortization period of a mortgage.
- Investors know far more about financial matters in general than non-investors. A higher proportion of investors get every question correct compared to non-investors. On average, investors answer one-third more questions correctly.
- Knowledge of financial planning and the strategic value of thinking long-term are generally weak with 3 out of 5 questions scoring in the mid-30% range for correct answers.

Responses point to age-related needs for improvements in knowledge.

- Fewer 21-34 year olds are aware of the tax benefits of an RRSP contribution (64% versus 74%). And compared to middle-aged investors, fewer know when it is taxable (69% v. 81%).
- Under 35s are also less able to correctly understand the consequence of a longer mortgage amortization (42% v. 50%).
- Awareness of typical stock market returns improves with age from 47% correct under age 35 to 62% among seniors.
- Fewer seniors are aware that stocks are riskier than money market mutual funds for short-term investment (53% v. 64%).

## 1. INTRODUCTION

Investor Education Fund (IEF) develops online learning material, calculators and tools that respond to the public need for financial literacy and education. Unlike many organizations, IEF is focused on educating those who have the resources to invest rather than building financial capability among those who lack many of the basic skills needed to manage their money, or who simply lack money for daily living.

In 2010, IEF saw a clear need to assess what investors know about financial matters. The aim was to cover key issues, but to move past the basics into topics that would indicate people know how to make good decisions. The current study is an update on the state of financial knowledge providing a benchmark for identifying the learning needs of today's investor and showing how knowledge of financial matters may have changed in recent years.

With this objective, IEF designed this financial knowledge survey to focus on key financial and investment concepts, such as borrowing, investing, setting goals, timing of money needs, simple versus compound interest, time value of money, inflation, economic cycle, investment risk, diversification, safety, and fraud prevention.

Besides balancing questions on several topics, the survey needed questions that people would be willing to answer over the phone. Part of the strategy for doing this was to initially make the survey questions appear to be more a matter of opinion than a quiz. Thus the initial questions, while being factual in nature, asked for responses on a 5-point scale. Later questions moved to a multiple-choice format familiar to everyone who has taken a standardized test.

## 2. WHAT PEOPLE KNOW

### Highlights

To be consistent with the investor focus of the work, thirteen of the 21 questions were directly related to investment. An additional five questions were related to financial planning, while three questions focused on borrowing. It should be clear that the aim was to cover key issues, but to move past the basics into topics that would indicate people know how to make good decisions.

A few clear messages emerge from the pattern of correct and incorrect answers.

- Most people know the basic signs of a potential fraud. Nine in ten (91%) recognize the high return with low risk promise common to frauds.
- There is good awareness of the basic tax implications of RRSPs. Roughly three-quarters of people know that RRSP deposits will typically lower their year's income tax, but they are also aware that they will have to pay income tax when they withdraw the money in retirement.
- Knowledge of investment risks and returns is medium overall, with people typically getting 50-60% correct answers. More than 6 out of 10 show awareness of the risks of stock ownership and 5 out of 10 know that stocks typically outperform less risky investments over the long run. However, only half (53%) understand the fundamental trade-off between risk and return.
- Even when people understand a financial or economic principle in theory, applying the principle to a real situation is sometimes difficult for them. While 91% know that the longer you owe money the more it costs in terms of the interest you pay, only 48% correctly apply the principle when asked how interest costs are affected by the amortization period of a mortgage.

- Investors know far more about financial matters in general than non-investors. A higher proportion of investors get every question correct compared to non-investors. On average, investors answer one-third more questions correctly.
- Knowledge of financial planning and the strategic value of thinking long-term are generally weak with 3 out of 5 questions scoring in the mid-30% range for correct answers.

## 2.1 Investment

Thirteen of the questions on the survey tested knowledge of investment. On average, 54% of people answered each question correctly, a small decline from two years ago. Seven of the questions asked in 2010 have shifted lower in the past two years.

As **Exhibit 2.1** shows, the proportion of correct answers for the investment questions ranged from a low of 25% to a high of 91%. If someone said they couldn't answer the question, it was treated as an incorrect answer rather than excluded from the total count. Only 2 of the 13 questions were answered by fewer than 90% of respondents compared to 5 questions in 2010.

### High Awareness (70% correct or higher)

Three investment questions were answered correctly by at least 7 out of 10 Ontarians; one fewer question than in 2010.

Some 91% of Ontarians know that a high guaranteed return points to possible fraud. There is also good awareness of RRSPs and their tax implications. Most people know that RRSPs offer an immediate tax break, but that they will likely need to pay tax when they draw the money out as income.

### Medium Awareness (40% to 69%)

Six questions were answered correctly by at least 4 out of 10 Ontarians. All of these questions deal with investment risk and/or returns. Four of the questions are answered correctly less often than in 2010.

Two-thirds of Ontarians are aware that stocks are not a safe place to 'park money' they will need in two years time compared to some

other investment vehicles. They are also able to identify stocks as typically more risky than corporate bonds, money market funds or a high interest savings account.

Half of Ontarians understand that over a period of 20 years, stocks have historically delivered better investment returns than savings accounts. Similarly, more than half of Ontarians (53%) recognize the principle of risk-return, but this is down from two-thirds (66%) in 2010. Knowing the principle does not mean they will necessarily recognize a situation where the principle needs to be applied, as shown in both the [2010 survey](#) and in an Canadian Securities Administrators Survey on [Performance Reporting and Cost Disclosure \(2010\)](#).

Fewer than 5 out of 10 people understand the benefits of diversification. Specifically, they don't understand that a portfolio of many stocks held in a mutual fund is typically less risky than just buying one or two individual stocks for themselves.

### Low Awareness (Less than 40%)

Fewer than 4 out of 10 Ontarians answered four investment-related questions correctly.

The low awareness group of questions begins with understanding compound interest. Only 39% understood how to apply the principle to an investment, unchanged from 2010.

Another low awareness question required people to understand that stocks were riskier than money market funds in the short run. Remaining low awareness questions dealt with the advisor's responsibility for investment choice and the risk of holding bonds.

**Exhibit 2.1 Analysis of Investment Questions**

<b>% Correct</b>	<b>% Answering</b>	
<b>54%</b>	<b>92%</b>	<b>Average</b>
91%	97%	An IA offers an investment that guarantees you a 25% annual return and they tell you it is low risk. What should you do before deciding whether to buy?
76%	90%	If you earn \$1000 on the money in your RRSP, when will this income be taxable?
71%	95%	Most people will pay less income tax if they put money into an RRSP this year.
68%	96%	If you know you will need all of your savings to pay for expenses two years from now, stocks are a safe place to park your money until you need it.
63%	91%	Which of the following types of investments do you consider most risky?
53%	94%	Over the next 20 years, the stock market will probably earn more money than a savings account.
53%	96%	If one investment looks like it will likely earn more money than another, it also means that you have more risk of losing money if you invest in it.
49%	88%	Over an average 20-year period, what annual rate (what percent per year) would you reasonably expect to earn by owning a typical basket of Canadian stocks?
47%	90%	Generally speaking, a stock (equity) mutual fund is less risky than buying one or two stocks yourself.
39%	87%	An investment pays 5% annual interest. If you put in \$1000 today, how much money will you have two years from now?
32%	91%	In the short term, you have a greater chance of losing money invested in stocks than in money market mutual funds.
31%	98%	If an investment advisor can't make money for you every year, they should be replaced.
25%	91%	Bonds guarantee their interest rate, so you can't lose money if you buy and sell them.

## 2.2 Borrowing (Credit)

Only three of the questions dealt with borrowing. Credit awareness was better than investment awareness overall, and was unchanged from 2010.

More than 9 out of 10 consumers understand that the longer they borrow money, the more interest they will pay. While they understand the principle in theory, when asked about the cost of a 25-year mortgage versus a 20-year, fewer than half (48%) understand that they will pay more interest to borrow the money longer. This is down from 55% in 2010. This gap illustrates the problem of financial literacy in Canada – even in instances where consumers understand a financial concept; they may lack the ability to apply it in real life.

Looking solely at knowledge again, we note that almost 8 out of 10 Ontarians know that a line of credit is less costly than a credit card or a payday loan. About 1 out of 10 think that all three would cost the same, but very few people think that a credit card (6%) or a payday loan (3%) would be cheaper.

Exhibit 2.2 Analysis of Credit Questions		
% Correct	% Answering	
72%	94%	<b>Average</b>
91%	99%	The longer you owe money the more it costs in terms of the interest you paid.
77%	94%	If you needed to borrow \$2500 for three months, which way do you think would cost you the least amount of money?
48%	89%	In the long run, a 25-year mortgage will have the same total cost as a 20-year mortgage if they have the same interest rate, but your monthly payment will be smaller.



## 2.3 Planning

The final five questions in the Benchmarking Financial Knowledge Survey focus on financial planning. With a long-term focus, both setting goals and understanding economic impacts like inflation become more important. The survey found that awareness of financial planning issues is low and understanding of issues like inflation has declined since 2010.

Ontarians were highly aware that automatic deduction from pay is a good way of saving money for retirement.

Only one-third of respondents understand that when inflation goes up it hurts their standard of living. Another one-third wrongly

believe that rising inflation will improve their standard of living. When asked to apply the impact of inflation against a wage rise, only one-third successfully made the leap from knowledge to application.

Awareness of typical priorities and strategies for long-term saving is low. People were not sure it made sense to start saving while paying off debt nor whether to plan for the long-term. Balancing savings and debt is an area where people need advice. As we know from past research, many people believe that this kind of advice is not available.

Exhibit 2.3 Analysis of Planning Questions		
% Correct	% Answering	
40%	96%	<b>Average</b>
79%	99%	Automatic deduction from pay is a good way to make sure of saving money for retirement.
37%	96%	Inflation runs at about 2% per year in Canada. A new contract guarantees you will earn 5% more than you do now at the end of 5 years. Five years from now will your standard of living be ...
33%	88%	When inflation rates go up, people's standard of living generally goes up too.
31%	96%	When building a retirement plan, budgeting carefully for the next few months is more important than figuring out how you will get the money you need for retirement.
20%	99%	The best strategy for long-term financial health is pay off all your debts first and then start saving.

### 3. FINANCIAL KNOWLEDGE

#### Highlights

This chapter provides a summary of financial knowledge and identifies groups that consistently know more or less than most others.

On average, 11.2 out of 21 questions were answered correctly for a score of 53%. In 2010, people answered an average of 11.5 questions correctly out of 23 questions for 50%.

If we consider 60% correct as a notional “passing grade”, then only one-third of Ontarians (36%) would be viewed as passing, up from 29% in 2010. As in 2010, half of Ontarians answer fewer than half the questions correctly.

While several demographic groups have significantly higher scores than others, the differences are relatively small even for variables like age, education and income. Looking at behavioral indicators, investors and people saving for retirement know significantly more than others. This difference can be found for virtually every question, as well as for overall score.

Responses point to age-related needs for improvements in knowledge of investing.

- Fewer 21-34 year olds are aware of the tax benefits of an RRSP contribution (64% versus 74%). And compared to middle-aged investors, fewer know when it is taxable (69% v. 81%).
- Awareness of typical stock market returns improves with age from 47% correct under age 35 to 62% among seniors.
- Fewer seniors are aware that stocks are riskier than money market mutual funds for short-term investment (53% v. 64%).

In terms of borrowing, we find that under 35’s are less able to apply an understanding that longer borrowing costs more, when asked to correctly understand the consequence of a longer mortgage amortization (42% v. 50%).

Knowledge of financial planning and the strategic value of thinking long-term is generally weak. There is a need to improve understanding of the value of long-term planning for all demographic groups. The same is true for understanding the impact of inflation.

Non-investors are far less aware of the tax benefits of RRSPs. They also know little or nothing about stock market returns and have little knowledge about the impact of inflation.

### 3.1 Knowledge Scores

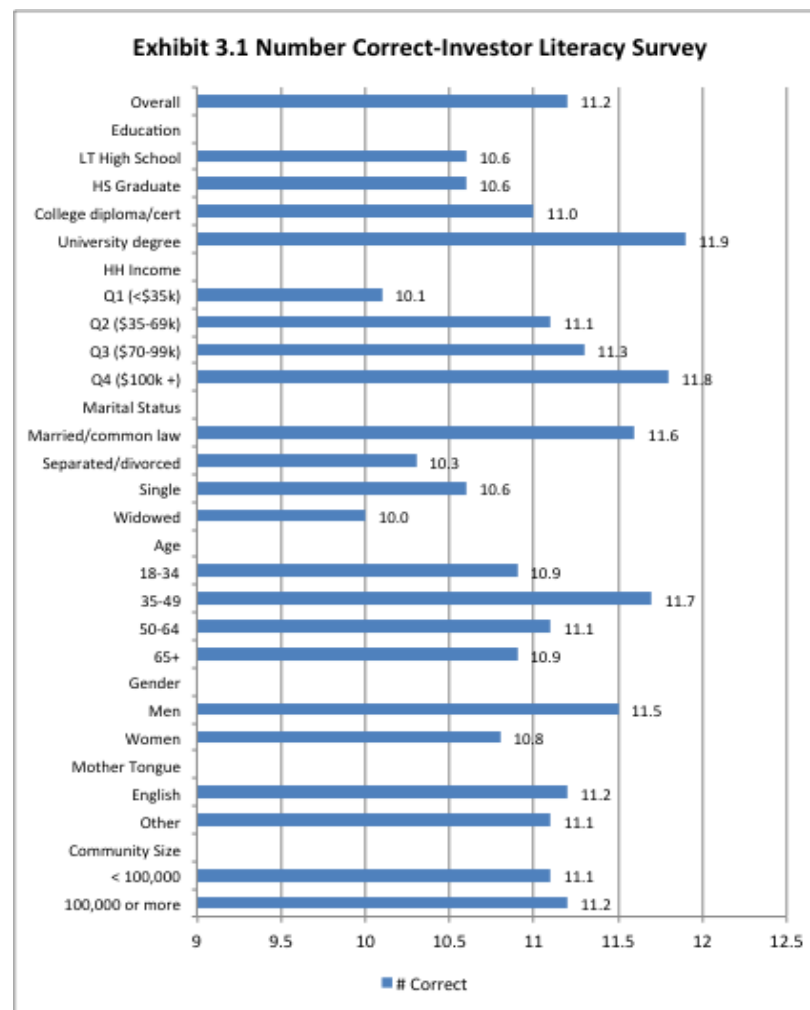
**On average people get 11.2 out of 21 questions correct for a score of 53%.** In 2010, people got an average of 11.5 correct out of 23 questions for 50%.

Two of the most difficult questions from the 2010 survey were dropped from the current survey because the answer could change based on circumstances. Another two questions were altered to simplify their wording and focus on the core issue of the question. The result is that there are much smaller differences in performance by demographic group and behavior in 2012, when compared to 2010 (see Exhibit 3.1).

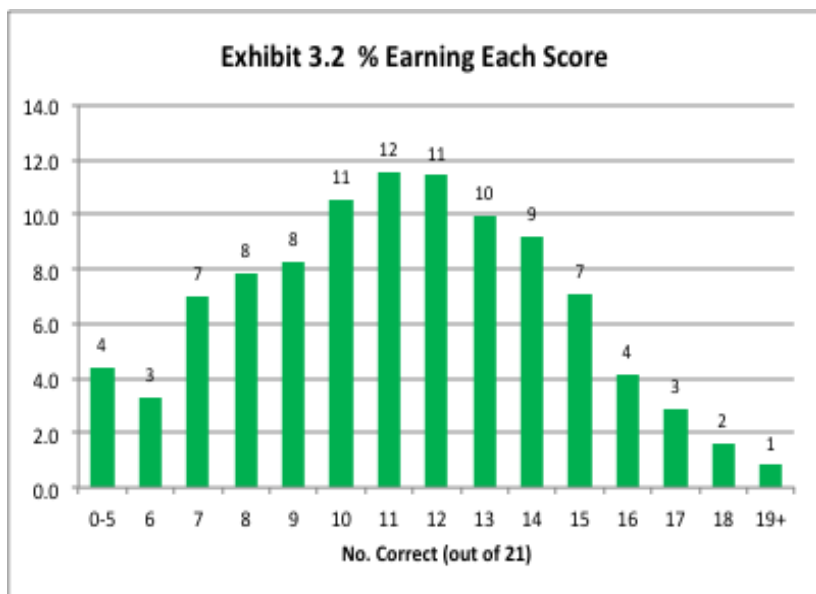
There were significant demographic differences in performance that are worth noting.

- **Education:** There is a 1.3-point gap between highest and lowest levels of education. People who have completed university degrees do better than others.
- **Household Income:** There is a 1.7-point gap by income quartile. Top income quartile scores 11.8 while the bottom quartile scores 10.1.
- **Marital status:** Married/common law score higher than other groups with gaps ranging from 1.0 to 1.6.
- **Age:** There is only a 0.8-point gap between four age groups with the 35-49 age group performing best followed by the 50-64 age group. The under 35s and 65+ score both score lower.
- **Gender:** Men score 0.7 points higher than women on average, down from a 1.2-point difference in 2010.
- **Mother Tongue:** There is no significant difference in score between native English speakers and those with a different mother tongue.
- **Community size:** There is no significant difference in score based on community size.

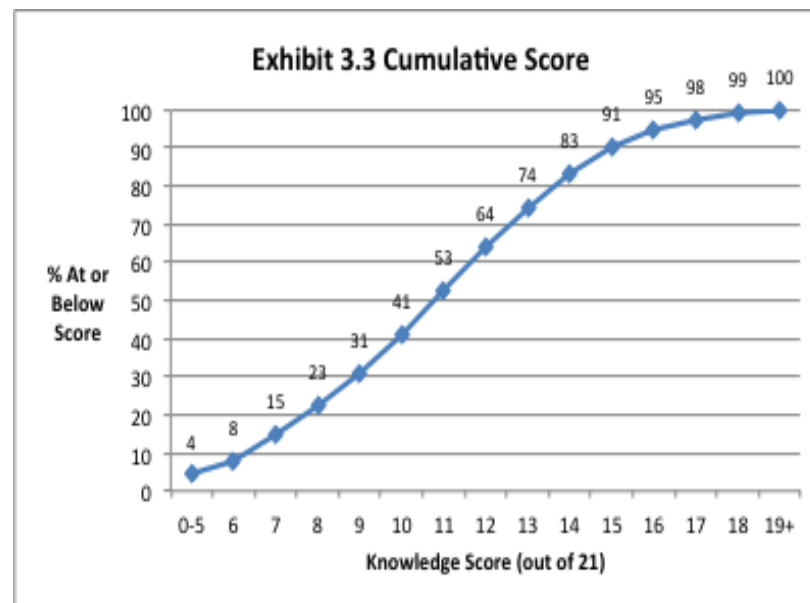
- **Region:** While not shown, there is no significant difference in performance across the seven regions defined for Ontario, although Hamilton/ Niagara and Northern Ontario score lowest (10.6). The other five regions all score between 11.2-11.5.



**Exhibit 3.2** shows a closer look at scores. This exhibit shows the percentage of people earning each score. As we can see, half of the scores lie in the 9-13 range. **If we consider 60% correct as a notional “passing grade”, then only one-third of Ontarians (36%) would be viewed as passing, up from 29% in 2010.** Half of Ontarians answer fewer than half the questions correctly.



**Exhibit 3.3** shows another way of looking at scores. This exhibit shows the cumulative scores. Thus when you look at a score like “10”, it tells us that 41% of Ontarians earned a score of 10 or lower. Some 95% of Ontarians got fewer than three-quarters of the 21 questions correct, unchanged from 2010.



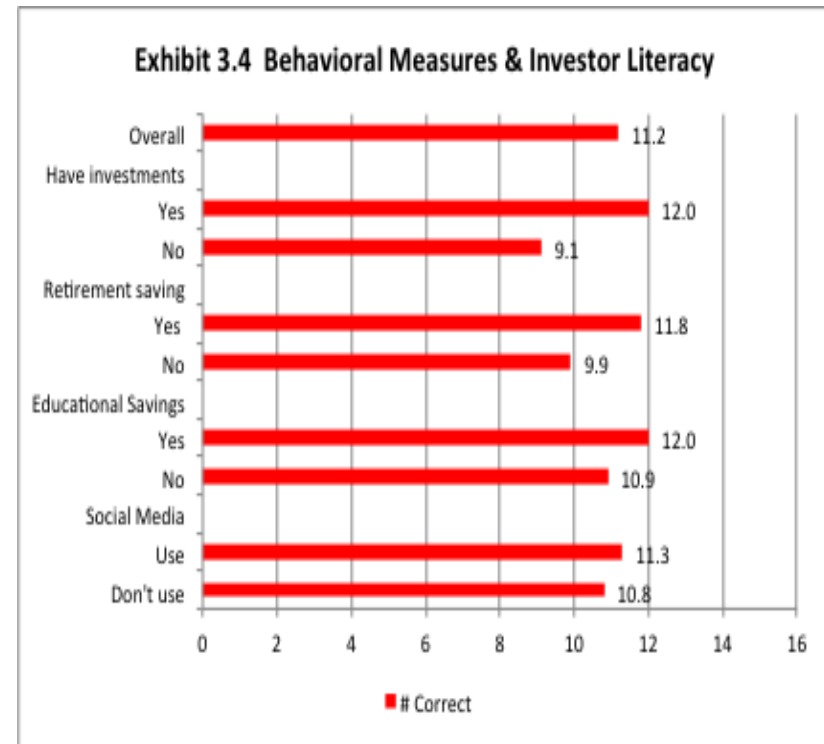
## Behavioral Indicators

There were also four behavioral measures that could potentially affect financial knowledge.

Three measures reflect the need to make financial decisions, and take a pro-active approach to investment. Overall, people who answered questions correctly were more likely to be:

- **Investors:** People who invest score 2.9 points higher than those who don't (12.0 versus 9.1) reflecting the common finding that people learn when they need to make decisions.
- **Saving for retirement:** People saving for retirement score 1.9 points higher than others (11.8 versus 9.9).
- **Saving for kids' education:** People saving for their kids' education score 1.1 points higher than people with kids who aren't saving for kids' education.

The other measure reflects use of social media. People who use social media score just 0.5 points higher than non-users. This difference is likely a complex mix of age and education rather than the use of the technology itself.



### 3.2 Knowledge of Investments

Some 13 of the 21 questions on the Benchmarking Financial Knowledge Survey relate to investments. Just as the total number correct was about 53% for the overall survey, people also get about 54% correct on the investment questions (7 out of 13). This is not surprising since they make up almost 2/3 of the total survey. For the same reason, the demographics of answers to investment questions generally follow the overall survey results.

Across the range of investment questions, those that deal with investment risks (especially stock), RRSP taxation and compound interest are most likely to yield demographic or behavioral differences.

There are two major knowledge differences between those who invest and those who don't, which are particularly significant. First, it is clear that **non-investors are far less aware of the tax benefits of RRSPs**. Second; **non-investors know little or nothing about stock market returns**.

#### Investment Risk

Looking at the three investment risk questions, the results show the following:

- “In the short term, you have a greater chance of losing money invested in stocks than in money market mutual funds”: Men are correct 8% more often, and by age, the 35-49 group is much better informed while seniors lag other age groups.
- “If you know you will need all your money two years from now, stocks are a safe place to park your money”: Investors over age 50 are far less knowledgeable about this, as are household with lower income and less education.

- “Which of the following investments do you consider most risky”: Seniors are less knowledgeable, as are lower income and less educated. Age 35-49 know this better than others.

#### RRSP taxation

Questions on RRSP taxation are less well known among under 35 respondents. These questions also distinguish investors from non-investors with 30% difference in the percent of correct responses.

“Over the next 20 years, the stock market will probably earn more money than a savings account” is another question eliciting differences of 29% between investors and non-investors. Demographically, seniors are most knowledgeable, while under 35s lag the remaining age groups. Women are also less knowledgeable than men on these issues. Knowledge increases with income.

#### Compound interest

Finally, there is a question about the impact of compound interest. Investors and the more educated lead the market by about 12-13 percentage points. Men are also more likely to correctly assess the impact of compounding than women by about 7 percentage points. Knowledge of compounding is strongest in the 35-49 age group.

### 3.3 Other Aspects of Knowledge

#### Borrowing

Because there are only three questions related to borrowing, the ability to differentiate among groups is limited. However, the relative knowledge about borrowing among the different demographic groups matches their total performance.

Looking at borrowing theoretically, there are few real demographic differences for “The longer you owe money, the more it costs in terms of the interest you paid”.

Despite knowing the theory, applying this notion to the total cost of 20-year versus 25-year mortgages sees a drop in correct answers from 91% for theory to 48% for application. Investors, who we know from past proprietary research are also more likely to be borrowers, get the application of the concept right more than non-investors (55% versus 31%). Differences between lowest and highest income quartiles, which also impact likelihood of investing and borrowing for a mortgage, show a similar difference in understanding the time value of money. To a lesser extent, we also see significant differences for education. With regards to age, it is those under 35 that are least likely to understand how time affects mortgage cost.

When it comes to knowing the least costly way to borrow \$2500 for three months, we also find that investors are far more knowledgeable than non-investors (84% versus 60% correct). Other differences are relatively small; although respondents aged 35-49 are more knowledgeable than others.

#### Planning

There are five questions related to planning, and this was the weakest area of knowledge overall. There are very few demographic differences, although investors continue to outperform non-investors, especially with regards to the value of automatic deduction and long-term planning. Higher income households also better understand the value of long-term planning, but more income does provide the luxury of longer-term planning without as much immediate sacrifice.

Two of the questions deal with the impact of inflation, one in theoretical terms and the other in an applied example. Men outperform women by about 7 percentage points on these questions. Investors and non-investors show a similar difference. Correct answers to the questions on inflation increase with level of education.

The lack of actionable significant differences by age makes it impossible to identify event-related learning that is especially critical to an age group. Furthermore, while the nature of planning may change with age, it remains important for all age groups. In general, knowledge of planning concepts is so weak that pointing to one or two areas that require special attention is not merited.

## 4. FINDINGS AND CONCLUSIONS

This chapter briefly summarizes our major findings and the conclusions that we can draw from these findings.

### **Financial knowledge has considerable room for improvement.**

With only 36% of people capable of answering at least 60% of questions correctly, it is clear that many financial decisions are made without being properly informed about the issues.

### **Very good knowledge is not good enough for fraud recognition.**

While 91% recognize that promises of high returns with low risk are indicators of a fraud, the 9% who don't know still represent a fertile field for fraud.

**There is a lack of understanding of economic fundamentals.** Only 39% clearly understood the impact of compound interest. Even fewer understood that inflation erodes living standards (33%) and when wages rise more slowly than inflation your living standard is likely to decline (37%).

**Just knowing a personal finance principle doesn't mean that it can be applied successfully.** This is demonstrated in this study through questions on cost of borrowing over time. The same is shown in a lack of understanding of the benefits of diversification when comparing the risk of owning a single stock versus a portfolio of stock in a mutual fund. As evidenced in a [2010 study for the CSA on Performance Reporting and Cost Disclosure](#), investors had a difficult time applying the principle of risk-return when comparing mutual funds.

**Many people don't understand how their time horizon should affect their choice of investment.** While two-thirds knew that stocks are not a safe place to park money they will need in two

years, our view is that this is more likely due to their sense that stocks are not safe rather than a sense of timing. This is borne out by the finding that fewer than one-third understand that they have a greater chance of losing money in the short term with an investment in stocks compared to money market mutual funds. Similarly, only half understand that stocks are likely to outperform a savings account over a 20-year period. Finally, while not part of this study, work in financial literacy suggests that most people cannot make the complex trade-offs between timing, risk and return that is the foundation of long-term investment.

### **Despite increased fixed income investment in recent years, it is likely most people don't know the risks associated with bonds.**

While only one question deals with bonds, we note that only 25% are aware that the interest guarantee of a bond does not guarantee they won't lose money if they sell a bond before maturity.

### **People don't know how to get started with financial planning, even if most know that automatic payroll deduction will help.**

There is little awareness of balancing short and long-term needs, as well as balancing spending, saving and investment.

**The path to knowledge begins with the decision to invest.** Once people begin to invest their money, they are more likely to seek out information to help them with their decisions. Much of this information stays with them, since investors do better on every question compared to non-investors. Past research for the Investor Education Fund suggests people learn just enough to make the decision they need to make today and to be comfortable with it. This poses a limit, but it also shows that the time of decision is the critical teachable moment for fostering learning.



## 5. STUDY METHOD

The survey design, analysis and reporting was the work of The Brondesbury Group. Research House was contracted for the actual execution of the survey. The survey was done by telephone in early October 2012.

### The Survey Sample

The results presented here are drawn from a sample of 1000 households spread across Ontario. The accurate representation of households from seven regions within Ontario was part of the survey design, as was the balance between male and female respondents. As well, because telephone surveys often under-sample people under 30, we set a minimum quota for the 18-29 age group that ensured comparable accuracy. The final sample was weighted to reflect the most recent population estimates for Ontario prepared by Statistics Canada.

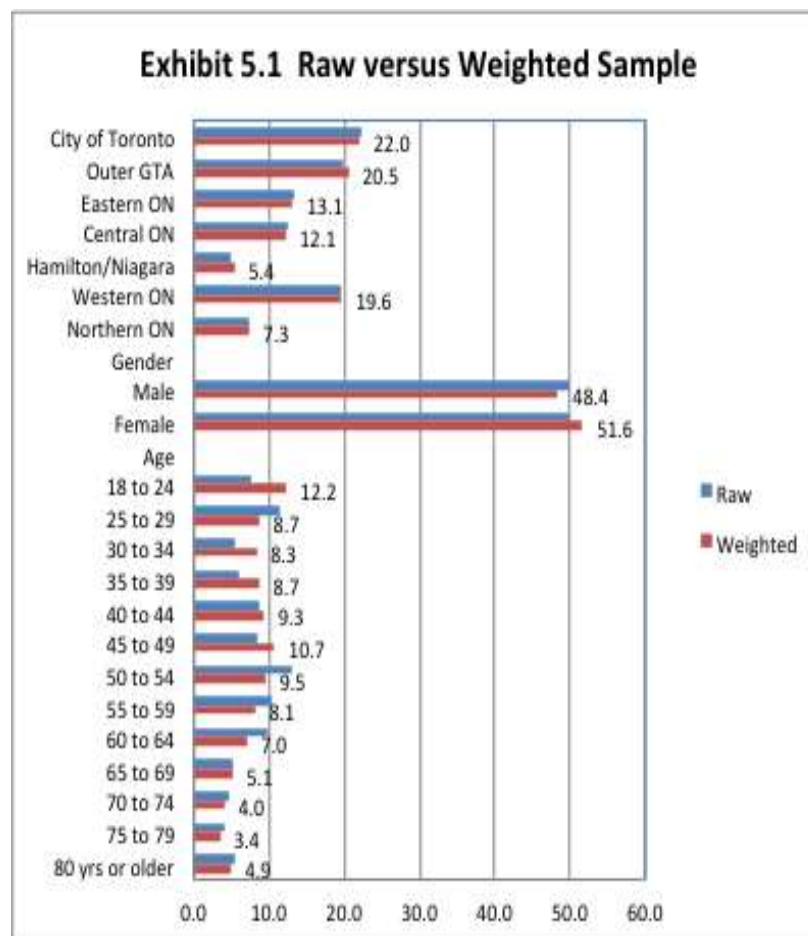
**Exhibit 5.1** shows the sample before (raw) and after weighting. While it demonstrates that the proportions are representative of the Ontario population, a very small amount of difference between the raw and weighted numbers. This tells us that the sample does not have any weighting that distorts results.

Looking at this exhibit, we want to note a few key points:

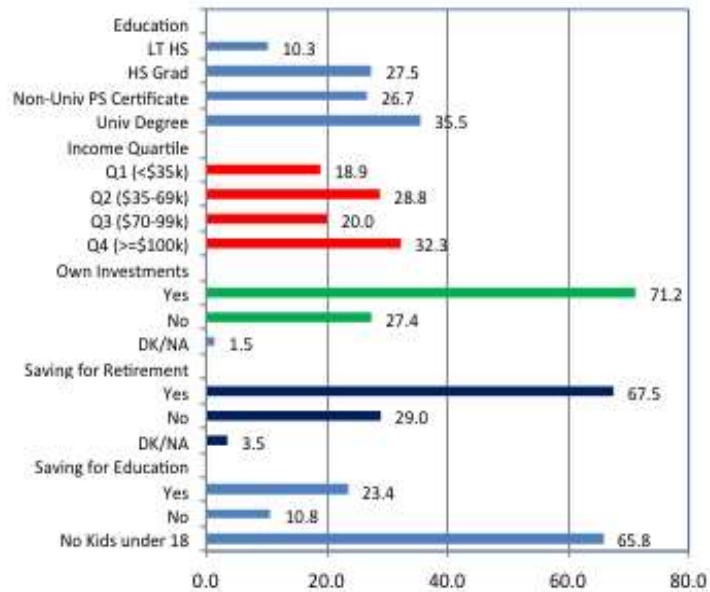
- The GTA including the City of Toronto is 43% of the population;
- The 18-29 year olds are 21% of the adult population;
- Persons age 65 and older are 17-18% of the population;
- Just under 40% are in the peak investing years of age 40-59.

With the raw and weighted numbers so similar, we highlight the remaining demographics solely using weighted numbers. **Exhibit 5.2** (next page) shows:

- We have an educated sample. More than 60% have completed post-secondary education and only 10% have less than high school.
- Median income is very close to the national average.
- More than 7 out of 10 own investments, while 2/3 are saving for retirement. Two-thirds of those with kids under 18 are saving for their kids' education.



### Exhibit 5.2 Secondary Demographics



### Analysis

In the remainder of the report, all of the numbers we show are weighted numbers that reflect the full Ontario population. With the sample of 1000 respondents, any statistical results we mention will be accurate to within  $\pm 3\%$  some 19 out of 20 times for Ontario as a whole. For smaller groups like income quartiles or ten-year age groups, accuracy will be closer to  $\pm 6\%$  some 19 out of 20 times. Bear in mind that these are worst-case numbers and accuracy is often better than this.

Every response in this survey has been analyzed for each of the demographic variables shown in this chapter, but we have focused on selecting results that better help us understand financial knowledge. We also discuss how some specific groups consistently differ in their understanding.

When we do cite a group of respondents as different, the judgment is based on one or more statistical tests. Depending upon circumstances, the tests used include: Analysis of variance (F-test), Chi-square and Analysis of chi-square residuals. Not every statistically significant difference is identified, since some statistically significant differences are too small to have any real impact in practical terms.

## **APPENDIX A**

### **BENCHMARKING FINANCIAL KNOWLEDGE**

#### **(21 SEPTEMBER 2012 – VERSION 4)**

If you are reading the survey questions, you should be aware that the fixed order shown in the appendix was not what the respondent experienced. In the first two questions, each containing 7-8 statements requiring a judgment, the order of the questions was randomized. In subsequent questions, the order of answers was also randomized unless there was a need to put an answer in a specific position (e.g., none of the above must be last). This ensured that order biases did not creep into the responses, as well as ensuring that learning from the series of questions was minimized. The quality and control measures help ensure the results are accurate and unbiased.

Hi, my name is \_\_\_\_\_ and I work for the survey firm, <company>. We are calling on behalf of an Ontario Government agency that delivers web-based information about money matters to people in Ontario. We would like to ask you a few questions to help them get the right information to people who need it.

1. Please answer these questions thinking about what would make sense for most people who are saving or investing money for a retirement that is at least 20 years away. Thinking about the typical person like this, please rate your agreement with each of the following statements on a scale of 1-5 where 1 means Strongly Disagree and 5 means Strongly Agree.
  - a. The best strategy for long-term financial health is pay off all your debts first and then start saving.
  - b. Automatic deduction from pay is a good way to make sure of saving money for retirement.

- c. If an investment advisor can't make money for you every year, they should be replaced.
  - d. In the short term, you have greater chance of losing money invested in stocks than in money market mutual funds.
  - e. When building a retirement plan, budgeting carefully for the next few months is more important than figuring out how you will get the money you need for retirement
  - f. Most people will pay less income tax if they put money into an RRSP this year
  - g. Over the next 20 years, the stock market will probably earn more money than a savings account
2. Using the same 1-5 scale, please rate your agreement with each of the following statements. Please rate the statements in terms of what is generally true, recognizing that special circumstances can sometimes affect what is typical.
  - a. The longer you owe money the more it costs in terms of the interest you paid
  - b. In the long run, a 25-year mortgage will have the same total cost as a 20-year mortgage if they have the same interest rate, but your monthly payment will be smaller.
  - c. Bonds guarantee their interest rate, so you can't lose money if you buy and sell them.
  - d. Generally speaking, a stock (equity) mutual fund is less risky than buying one or two stocks yourself
  - e. If you know you will need all of your savings to pay for expenses two years from now, stocks are a safe place to park your money until you need it.
  - f. When inflation rates go up, people's standard of living generally goes up too
  - g. If one investment looks like it will likely earn more money than another, it also means that you have more risk of losing money if you invest in it.

3. An investment pays 5% annual interest. If you put in \$1000 today, how much money will you have two years from now? Is it most likely to be...?
- (a) \$1100 or less
  - (b) More than \$1100 but less than \$1200
  - (c) More than \$1200 but less than \$1300
  - (d) Don't know
4. If you needed to borrow \$2500 for three months, which way do you think would cost you the least amount of money?
- (a) Credit card
  - (b) Line of credit
  - (c) Payday loan
  - (d) All would cost the same amount
5. Which of the following types of investments do you consider most risky?
- (a) Stocks
  - (b) High interest savings account
  - (c) Corporate Bonds
  - (d) Money market funds
6. Inflation runs at about 2% per year in Canada. A new contract guarantees you will earn 5% more than you do now at the end of five years. Five years from now, will your standard of living be...?
- (a) Better than it is now with the 5% increase
  - (b) Worse than it is now because of
  - (c) About the same as it is now
  - (d) Don't know
7. If you earn \$1000 on the money in your RRSP, when will this income be taxable?
- (a) In the year that you earned the \$1000
  - (b) When you take the money out of your RRSP
  - (c) When you move the money from an RRSP to a RRIF
  - (d) The earnings are never taxed
8. An investment advisor offers you an investment that guarantees you a 25% annual return and they tell you it is low risk. Which of the following things should you do before deciding whether to buy?
- Y N Understand the investment fully by reading the sales literature about it
  - Y N Get an independent opinion from another financial professional
  - Y N Buy a small amount of the investment and see how it does before buying more
  - Y N Contact the police or securities regulator to discuss the adviser and the investment
9. Over an average 20-year period, what annual rate of return (what percent per year) would you reasonably expect to earn by owning a typical basket of Canadian stocks? Would you say about...
- (a) 2-4% per year
  - (b) 6-8% per year
  - (c) 13-15% per year
  - (d) Don't knowinflation

\* Note: Demographics come from standard questions asked by Research House.