Financial Consumer Agency of Canada | Agence de la consommation en matière financière du Canada

The Path Towards Smarter, More Targeted, and More Effective **Financial Literacy**

Post-Symposium Report

March 2017

Canada

About the event

In November 2016, the Financial Consumer Agency of Canada (FCAC) held a **National Research Symposium on Financial Literacy** in Moncton, New Brunswick. The event drew some 80 participants from the public, private and academic sectors, as researchers and practitioners discussed the latest empirical findings on topics related to financial literacy.

Centered on the theme, *The Path Towards Smarter, More Targeted, and More Effective Financial Literacy*, the symposium subject matter was timely. There is a growing focus among stakeholders, both in Canada and around the world, to harness robust research and evaluation to transform the way financial education is delivered, the way it is addressed in public policy and the way it is combined with behavioural approaches to facilitate positive behaviour change and improve financial literacy.

Contents

The field of financial literacy research is relatively new. As FCAC's symposium demonstrated, we're seeing a growing suite of sophisticated tools and techniques – that's taking financial literacy research to the next level, while laying the groundwork for new solutions.

In the following pages we shine a light on some of this exciting research work, some of which is still in progress.

Introduction

To help mark Canada's sixth annual Financial Literacy Month, FCAC hosted a National Research Symposium on Financial Literacy in Moncton, New Brunswick in November 2016. This gathering of leading researchers from the public, private and academic sectors shared groundbreaking findings on topics that hold the key to improving Canadians' financial literacy.

This report highlights these impressive research projects, with the goal of informing the work of many other stakeholders on a nation-wide basis. That aligns with our symposium theme, *The Path Towards Smarter, More Targeted, and More Effective Financial Literacy*. And it supports FCAC's mandate of collaborating with stakeholders to strengthen the financial literacy of Canadians.

A growing body of research

For those who couldn't attend our symposium, I can tell you that the event clearly demonstrated the immense body of work underway, in Canada and the U.S., to advance our knowledge of the findings emerging from the growing field of financial literacy research.

We learned about investigations into the mindsets of consumers and the real impact – and limits – of financial education. And we discovered promising applications of choice architecture leading to better outcomes for people. One fascinating presentation revealed how approaches from the behavioural sciences and design thinking are being applied to facilitate increased education and retirement savings. Another presentation showcased an innovative and scalable program that "nudges" low-income households to deposit their tax refund directly into short- and long-term savings.

The symposium also generated invaluable ideas to improve data contributing to financial literacy research. Prosper Canada, for instance, unveiled their unique online tool to help organizations more effectively measure the impacts of their financial literacy interventions. It was evident that through new structures and partnerships we can steadily develop ever-more sophisticated research that precisely targets the local issues and evolving challenges we face.

A national research plan

Towards that broader goal of contributing to financial literacy research in Canada, FCAC has coordinated – in collaboration with the Research Sub-Committee of the National

Steering Committee on Financial Literacy – the creation of a National Research Plan for Financial Literacy in the years 2016-2018. Our research plan focuses on four key areas and identifies research initiatives to help consumers increase their financial knowledge and make decisions regarding household debt, budgeting, building savings and complex financial products and services.

We're confident that the facts, clues and insights we are distilling from our current research projects will translate into tangible improvements in the design and delivery of financial literacy interventions. Ultimately, increased financial literacy research will strengthen our efforts to help consumers gain the knowledge, skills and confidence to manage their finances successfully. By doing so, Canada can be a global model for putting into practice the latest evidence towards improving the financial well- being of Canadians.

Jane Rooney
Financial Literacy Leader,
Financial Consumer Agency of Canada

International perspective: A forward-thinking approach to financial literacy

Over the past decade, financial literacy programs have sprouted up across North America, with many organizations and groups stepping up to tackle low levels of financial literacy among the population. So what is the current state of financial literacy? Is financial education working, in terms of achieving the desired goals, addressing the right problems and reaching the intended audiences?

While the results are mixed, research is clarifying new avenues for action. There are some important studies being done across North America that are truly expanding insights into consumer actions and know-how around personal finance.

Budgeting and financial decision making in the U.S.

Gary Mottola, PhD, Research Director of the **FINRA Investor Education Foundation** ("FINRA Foundation"), shared findings from the *National Financial Capability Study* (NFCS) – one of the largest and most comprehensive studies of financial literacy and behaviours in the United States.

Three waves of the multi-year study have been conducted to date: in 2009, 2012 and 2015. For each wave, the research team collected data through an online survey of over 25,000 American adults (roughly 500 per state). With over 75,000 responses from the three research waves put together, the NFCS is among the nation's most inclusive and in-depth representations of age, race, education and gender on financial topics. The findings also allow for state-by-state comparisons, which is valuable to policy makers interested in better understanding the level of financial literacy in their jurisdictions.

The NFCS measures four key components of financial capability – making ends meet, planning ahead, managing financial products and financial literacy – and assesses how these indicators vary with underlying demographic, behavioural, attitudinal and financial literacy characteristics.

> **"The NFCS is a large-scale and ongoing study in America aimed at monitoring and better understanding financial capability."**
> *Gary Mottola, FINRA*

Dr. Mottola revealed that the latest iteration of the survey demonstrates interesting changes in key measures of financial capability over the six-year period since the baseline study was done. For example, the study shows that Americans are finding it easier to pay their expenses and are more satisfied with their financial condition. These results are not surprising, in light of the economic recovery over the past few years.

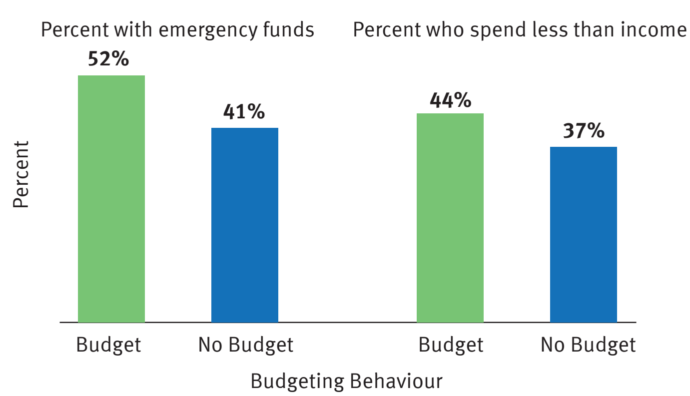
While many Americans are benefiting from the positive economic environment, the 2015 study shows that large segments of society continue to face financial difficulty and struggle with money management, particularly minority populations and those without a college education. Dr. Mottola touched on the findings in two areas: i) budgeting behaviour and ii) financial knowledge.

Budgeting behaviour

Budgeting is a fundamental aspect of financial literacy because it helps consumers with managing their expenses, planning for the future and prioritizing their needs under times of financial constraint. When the research team observed that there was a data gap in the two previous waves of research, questions on budgeting were added to the 2015 study to determine if Americans are engaging in this basic money management activity. Among the findings:

- 56% of American households said they have a budget.
- Of those who do budget, there is little variability between gender, age and income level.
- When asked which budgeting time frame was most important for them, only a quarter (25%) of respondents said they budget over the next few months.
- People who budget are more likely to have set aside three months' worth of emergency funds: 52% versus 41%.
- Budgeting also has an impact on spending: 44% of those who budget said they spend less than their income, while 37% of those who don't budget say they spend less than their income.

Figure 1: Budget by behavior



Assessing financial knowledge

To assess levels of financial knowledge[1], the NFCS asks five basic questions on interest rates, inflation, bond prices, mortgages and risk. The study has found that absolute levels of financial knowledge are low and down slightly since 2009. In the 2015 study, only 36% of respondents are considered to have high financial knowledge, meaning they could answer four or more questions on a five-question quiz.

1 There are a number of definitions and ways of operationalizing financial literacy. FCAC defines financial literacy as having the knowledge, skills and confidence to make responsible financial decisions. In the NFCS, financial literacy is measured through five financial knowledge questions.

This metric was down from 39% in 2012 and 42% in 2009.

Dr. Mottola indicated that financial knowledge is correlated with many positive financial behaviours. The research has shown that respondents with higher financial knowledge are:

- Less likely to take a loan from a 401(k)[2]
- More likely to compare credit card offers
- Less likely to avoid filling a medical prescription due to cost

Figure 2: Financial knowledge quiz results

	2009	2012	2015
Average number correct	2.99	2.88	2.82
High financial knowledge	42%	39%	36%

A rich data source

With three survey waves spanning six years, the NFCS is a treasure trove of data – with the potential to yield tremendous insights on Americans' financial literacy. This data contributes to the growing conversation about how people can best manage and make decisions about their money.

Not surprisingly, the data has drawn considerable attention in the research community. According to Dr. Mottola, hundreds of scholarly articles have referenced the NFCS, citations of NFCS publications in mainstream media are commonplace, and top-tier researchers continue to harness the data. The FINRA Foundation has made its rich data source, including full datasets, methodology and other research documents, available to researchers and policy makers on its website.

More: www.USFinancialCapability.org

Household financial fragility in the U.S.: Evidence and implications

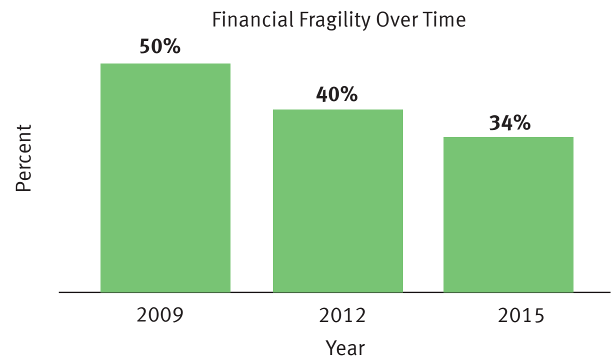
Carlo de Bassa Scheresberg, Senior Research Associate for the **Global Financial Literacy Excellence Centre** (GFLEC) at the George Washington University School of Business, presented findings on the financial resilience of American families six years after the financial crisis.

The financial crisis in 2008-2009 led to a wide-ranging spiral of economic upheaval for millions of U.S. families. Unemployment, mortgage and credit crises, and record foreclosures, were among the problems Americans faced during a long recession that eroded their financial assets and overall economic stability. How have the finances of American families recovered? Is the recent improvement in macroeconomic indicators like GDP growth translating into an improvement in the everyday situation of families? What is the relationship between financial fragility and financial literacy?

To measure a family's financial resilience, the GFLEC team came up with a crucial question as an indicator of financial fragility: "How confident

2 In the U.S., a 401(k) is a retirement savings plan sponsored by an employer.

Figure 3: Financial fragility in the U.S.



are you that you could come up with $2,000 if an unexpected need arose within the next month?" The $2,000 figure represents a "mid-size shock" – for example, the cost of an unanticipated car repair, medical expense or home damage. The answers could reflect actual or perceived financial fragility during times of crisis.

Respondents could reply as follows:

- I am certain I could come up with the full $2,000.
- I could probably come up with $2,000.
- I could probably not come up with $2,000.
- I am certain I could not come up with $2,000.

People are classified as being financially fragile if they selected one of the last two options. Mr. Scheresberg explained that this question is important because, "It puts together the two sides of the balance sheet. On one hand, it looks at whether families have precautionary savings and money in their bank account. On the other hand, it looks at whether people know where to go for money if needed."

Financial fragility over time

In collaboration with other research organizations, GFLEC has been tracking responses to this "financial fragility" question since 2009. The question was included on the TNS Global Economic Crisis Study conducted in 2009 and added to the 2012 and 2015 National Financial Capability Study (NFCS), (introduced in the previous section). Of note, GFLEC has been involved with the NFCS study since its inception, assisting with the design of the survey instruments and co-authoring reports.

What GFLEC has found is that a sizeable segment of the American population is vulnerable to shocks. New data from the 2015 research show that about a third of Americans (34%) are financially fragile, as they probably or certainly could not come up with $2,000 if an expected need were to arise within the next 30 days. The positive news is that this figure has fallen over time, down from 40% in 2012 and 50% in 2009.

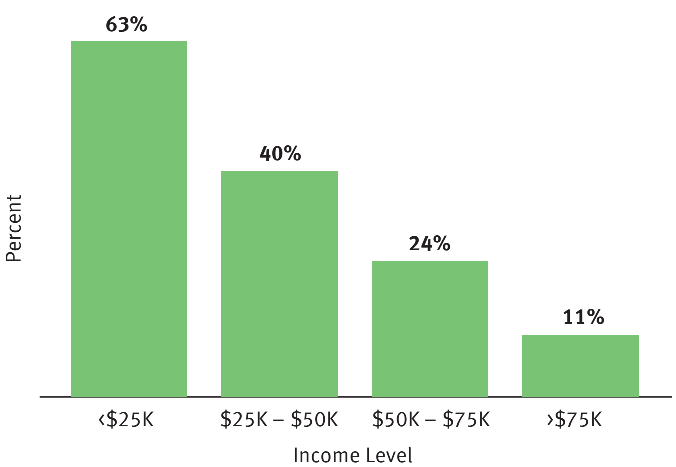
Yet, as Mr. Scheresberg highlighted, while the aggregate data certainly show an improvement in people's capacity to respond to emergencies, there is a different story when slicing the data to study various population subgroups.

Who are the most vulnerable? Among the findings:

- African-Americans and millennials – the generation of Americans born between the early 1980s and the mid-1990s – are very financially fragile, with 48% and 42% respectively unable to come up with $2,000 within 30 days.

- Minorities (in particular, Hispanics), women and those without a college degree are also groups of the population that are more likely to have difficulty handling a short-term unexpected expense.

Figure 4: Financial fragility in the U.S. by income



Another interesting finding: a notable number of seemingly middle-class Americans are financially fragile since they reported that they certainly or probably are not able to cope with even midsize shocks – perhaps due to heavy credit card and debt loads as well as other financial commitments.

Financial fragility and financial knowledge

When assessing the association of financial fragility with financial knowledge, GFLEC found that 44% of people who do not know at least one of the three basic financial concepts (interest, inflation and risk) are financially vulnerable.

Financial fragility is much lower among people with higher levels of financial knowledge, suggesting that increased financial knowledge is associated with financial resilience.

In summary, GFLEC's research has deepened the exploration of a major socio-economic issue that is highly relevant today. Several years after the financial crisis, the finances of some families have not recovered. This poses serious implications not just for individual prosperity but also for broader economic health, leading Mr. Scheresberg to raise two key questions: Should household financial resilience be part of public policy? And, what is the role that financial education can play to empower consumers and reduce fragility? He indicated that through its research, education and policy recommendations, GFLEC is working hard to be part of the solution to financial fragility.

More: www.gflec.org

"There has been improvement in the level of financial resilience of Americans, but we still find many important groups are financially fragile. And this has implications for the economy because [these] people will find it difficult to deal with unexpected shocks."

Carlo de Bassa Scheresberg, Global Financial Literacy Excellence Centre

Financial well-being: The goal of financial education

There is a growing consensus that improving financial well-being is the ultimate goal of financial literacy. But what constitutes financial well-being? How is it measured? And, how can financial education best support it?

Until recently, a standardized definition of financial well-being did not exist in the U.S. Nor was there a uniform way to measure it. The **U.S. Consumer Financial Protection Bureau** (CFPB) set out to change that. Established in 2010 in response to the financial crisis, the CFPB has a mandate to protect and empower consumers. Soon after its formation, the bureau launched a multiphase research effort to define financial well-being from the consumer perspective, to determine a reliable way to measure it, and to study how financial education can help people improve their well-being.

Genevieve Melford, Senior Research Analyst at the CFPB, provided symposium attendees with a "high level tour" of this effort, which represents four years of foundational research and activities. As she explained, the CFPB needed to know "how to do financial education that works," so their research agenda focused on strengthening the bureau's understanding in that area.

A consumer-driven definition of financial well-being

As a first step, the CFPB started by asking Americans what financial well-being means to them. The research team conducted open-ended, one-on-one interviews with consumers around the U.S., which produced 1,600 pages of transcripts to code and analyze for common themes. From these insights CFPB learned that financial well-being has the following four elements:

1. Having control over finances (day-to-day, month-to-month)
2. Having the capability to absorb a financial shock
3. Being on track to meet financial goals
4. Having the financial freedom to make choices that allow one to enjoy life

Translating research into practical approaches

The next step in the project was to research the factors, both personal and situational, that support higher levels of financial well-being. The research team found that financial well-being is influenced by a host of factors, ranging from the actions people take, to the options, resources and opportunities available to them, to their socio-economic context.

How does the practice of financial education fit into this picture? The CFPB's research during this phase led to the design of financial education approaches with these "influencing factors" in mind. Synthesizing its own research findings with significant external research, the CFPB developed five principles for how financial educators can support consumers in making money choices that will improve their financial well-being:

Principle 1: Know the individuals and families to be served, so that interventions can be tailored.

Principle 2: Provide timely, relevant and actionable information.
Principle 3: Improve key skills and the development of new habits.
Principle 4: Build on motivation and create implementation plans for people to achieve their goals.
Principle 5: Make it easy for people to make good decisions and follow through on their desired actions.

Additionally, the CFPB worked with subject matter and scale development experts to develop and test a 10-question scale (the CFPB Financial Well-Being Scale) to measure financial well-being that takes into account differences in a consumer's circumstances, life stage and preferences. This free, publicly available survey instrument and measurement tool allows practitioners and researchers to measure an individual's current state of financial well-being, as well as track the person's progress over time.

Creating a financial foundation for children and youth

Once the CFPB had defined financial well-being and pinpointed the skills, habits and attitudes that support it, the Bureau turned its attention to children and youth to understand when and how they can develop these characteristics. As Ms. Melford outlined, "We wanted to understand the developmental origins of adult financial capability and well-being: what are the 'building blocks' we can develop early that put us on the path to financial well-being in adulthood?"

The CFPB worked with a team of experts in developmental psychology and consumer sciences to create a developmental model of financial capability. The model consists of three building blocks that are considered to be "precursors to adult financial capability":

a) **Executive function** (a general set of cognitive processes that support self-control, future orientation and the ability to engage in purposeful research and planning);
b) **Financial habits and norms**; and
c) **Factual financial knowledge and decision-making skills**.

These building blocks typically emerge over three developmental stages: early childhood (ages 3-5), middle childhood (ages 6-12), and the teen years and young adulthood (ages 13-21).

Figure 5: Building blocks of financial capability for children and youth

	1. Executive function *Self-control, working memory, problem solving*	**2. Financial habits and norms** *Healthy money habits, norms, rules of thumb*	**3. Financial knowledge and decision making skills** *Factual knowledge, research and analysis skills*
Early childhood (ages 3-5)	✓	Early values and norms	Basic numeracy
Middle childhood (ages 6-12)	✓	✓	Basic money management
Adolescence and young adulthood (ages 13-21)	Development continues	Development continues	✓

Ms. Melford noted that the last building block is normally the main focus of financial education for children, but without strong executive function and effective financial habits and norms, it will be far less likely that a young person will be able to act on newly acquired financial knowledge.

Flowing from this model, the CFPB developed the following set of recommended strategies that financial educators, schools, policy experts and other stakeholders can apply to help youth develop financial capability and build the foundations for adult financial well-being:

1. For children in early childhood, focus on developing their "executive function".
2. Help parents and caregivers to more actively shape their child's financial socialization.
3. Provide children and youth with experiential learning opportunities.
4. Teach financial research skills (such as comparison shopping).

More: www.consumerfinance.gov

The impact of financial education on knowledge and attitudes: A life-course perspective

Inspired by the mixed results of past financial literacy interventions – and a belief that people acquire financial knowledge through many sources, including life experience, self-learning and formal study – **David W. Rothwell**, PhD at **Oregon State University's College of Public Health and Human Sciences** and colleagues examined the measurable impact of financial education on financial capability and financial inclusion, based on data from the Canadian Financial Capability Survey.

The research sought to understand the impact of financial education on knowledge and attitudes, with the underlying belief that increasing knowledge is the first step to changing behaviours. Potential parallels were drawn with health sector research that examined the link between health knowledge and improved health outcomes. They also aimed to highlight the impact of financial literacy efforts targeted at different life stages, in light of the financial vulnerability observed in certain age segments.

Examining outcomes of Canadian financial education

Drawing upon national, pooled data of 22,204 participants in two waves of the Canadian Financial Capability Survey in 2009 and 2014, the investigation focused on identifying to what extent past financial education increases objective financial knowledge and financial self-efficacy, over the life course of participants.

The researchers reviewed responses to 14 objective financial knowledge questions, and five financial self-efficacy-related questions that measured participants' ability to keep track of their finances, make ends meet, shop around and stay informed. A question asking whether participants had taken a course or program of study in the past five years to increase their knowledge and understanding of the economy or financial matters served as the treatment variable to measure the impact of financial education. A weighted 10 percent of pooled respondents indicated they had done so.

The participants were well-distributed across age groups, to enable analysis by life course, with controls in place for gender, education, employment and income levels, and researchers performed propensity score full matching so that the two groups (those who had financial education and those who did not) could be more accurately compared based on observable variables in the survey.

Key findings from the study

Among the conclusions relating to financial knowledge, when comparing those who had financial education and those who did not, there were statistically significant differences in objective financial knowledge. Specifically, those who had completed some financial education scored almost four points higher on a 100-point scale. There were variations across age groups, with the impacts being highest for those in the middle age group, including those approaching retirement, age 55-64.

There were also distinctions in financial knowledge findings relating to gender. The data revealed that men across the life course who

Figure 6: Objective knowledge across age

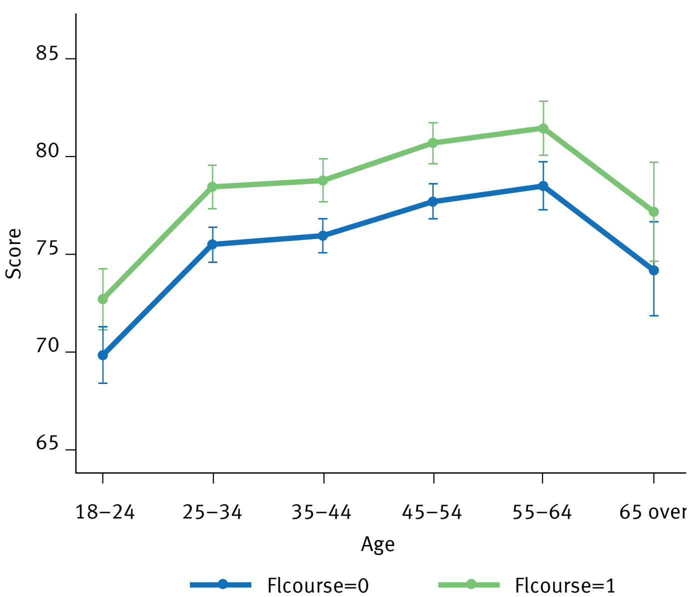
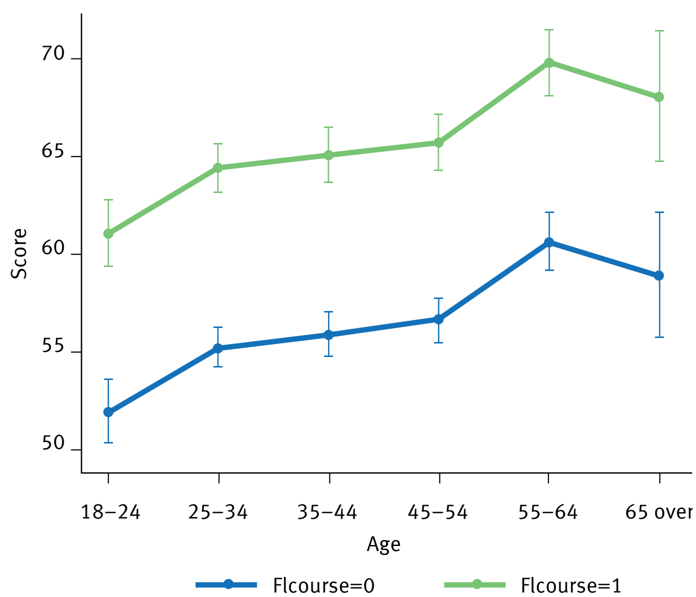


Figure 7: Financial self-efficacy across age



In both graphs, the blue line shows people across age segments that have not completed any financial education studies and the red line shows those who have.

had some financial education showed higher financial knowledge scores than did women. In fact, the disaggregated data found that there was no noticeable association between financial education and objective knowledge for women.

Upon examining financial self-efficacy, the data uncovered a larger magnitude impact of financial education on financial self-efficacy than on financial knowledge, of approximately seven points on a 100-point scale. This was evident across the life course, with consistent data across age groups. When broken down by gender, the researchers found a fairly consistent pattern of higher financial self-efficacy among both males and females who had completed some financial education.

Next steps for discussion

Although the research team noted potential limitations in their work, including an absence of information about the precise nature of financial education that participants had completed, they affirmed that their study offers insights to guide the financial literacy community. For example, it should provoke discussion regarding the effectiveness of financial education on women and the importance of tailoring financial literacy interventions to life course and age group.

Dr. Rothwell concluded that, "In the context of some literature and discourse advocating that we should abandon financial education, I believe our work shows that there is a noticeable impact of education on financial literacy and self-efficacy, and we've seen some promising effects associated with knowledge and perception."

More: For more information, please contact Dr. David Rothwell.

"A study that revealed increases in financial knowledge and financial self-efficacy among Canadians who completed financial education suggests that tailored interventions can have a positive impact on financial literacy."

David W. Rothwell, Oregon State University's College of Public Health and Human Sciences

Budgeting and planning for the unexpected

From youth to seniors, having a budget and plan for the unexpected is a cornerstone of proactive financial management. Yet we know from extensive research that many people worry and struggle daily with money issues, and lack a medium- to long-term view of their financial affairs that prevents them from planning ahead. Many Canadians find the subject of finance daunting and often make important financial decisions based on convenience, impulse or what other family and friends are doing.

During the symposium, two presentations revealed interesting insights of consumer behaviour in this area and promising paths to help people get a better grip on their finances.

Squeezed: Coping with constraint through efficiency and prioritization

How do consumers cope with constraint? This question underpins extensive research conducted by **Christina Kan**, PhD, an assistant professor of marketing at the **Mays Business School at Texas A&M University**. Her work – a joint effort with Phil Fernbach and John Lynch, both of the University of Colorado-Boulder – explores the psychology of consumer financial decision-making, including how people make decisions under resource scarcity and the impact of budgeting on their choices.

Dr. Kan shared some of the background and findings from this research at the symposium. The researchers focused on two common strategies consumers use to help them cope with shortage: **"efficiency planning"** and **"priority planning"**.

She explained that efficiency planning yields savings by stretching a resource to achieve the same goal. Through coupon clipping, shopping around, combining multiple orders together to get a bulk discount and other techniques, consumers use efficiency planning to get the most out of a resource without considering opportunity costs from competing goals and without making explicit trade-offs. Compared to priority planning, efficiency planning tends to feel good, and is also perceived as less costly.

Priority planning, on the other hand, achieves savings by making trade-offs between one's goals given resource constraints. Faced with a spending decision, for instance, consumers who use this type of planning will consider the opportunity costs and sacrifice less important goals (e.g., choosing not to buy an iPad in order to save for a better laptop). Priority planning tends to feel painful or more costly because consumers have to give something up.

Over the past several years, Dr. Kan and her colleagues have conducted studies to investigate how these two distinct types of planning differ, how they vary with constraint, and how they interrelate.

Study one: Is there psychological reality to the distinction?

The goal of their first study was to test whether efficiency and priority planning do, in fact, constitute distinct categories of coping responses, each characterized by unique characteristics.

The research team divided study participants into two groups: an efficiency plans group and a priority plans group. Participants in the former were asked to cite a recent time when they saved money by being more efficient – when they bought what they wanted, but spent less money. Participants in the priority plans group were asked to cite a recent time when they prioritized one expense over another expense – giving up one thing they wanted to afford something else they wanted. Both groups came up with their own real-life examples of the two types of plans.

Following this, the research team recruited another group of study participants who were given the examples cited by the first two groups and asked to identify the plans as efficiency or priority. Overall, the results of the study provided evidence that people do recognize and engage in these two different kinds of planning, and that there is some psychologically reality to this distinction.

Study two: How financial "shock" affects the planning mix

The next question the researchers sought to ask was, "If there are these two types of plans, how does the planning mix that people engage in vary as a function of constraint?" To test this, the research team posed a hypothetical scenario to study participants, asking them to plan their holiday gift shopping and then modify their plans in the face of a "financial shock" (an unexpected bill) that needs to be paid immediately. The value of the bill was manipulated to be low ($100), medium ($500) or high ($1000). Participants came up with response plans in light of the unexpected bill.

What the results showed was that as financial constraint increases, the "planning mix" shifts toward more prioritization relative to efficiency. The researchers also analyzed reaction times to determine how the two types of planning interact, and discovered that participants who started with one type of plan (e.g., efficiency) were slower or more reluctant to switch to the other (e.g., priority). For a variety of reasons, there is a tendency to continue down the same path.

Dr. Kan stated that a key takeaway from this study overall is that even though people increasingly engage in priority planning as constraint dials up, this shift is often insufficient. Many people are reluctant to move from efficiency to priority planning, and this can sometimes make a bad financial situation worse and lead to dysfunctional behaviours (e.g., consumers may behave impulsively or erratically). As a result of these findings, the research team "wanted to see how we could shift people to a planning mix that's higher in prioritization relative to efficiency, a little bit earlier, and whether that helps them reduce these dysfunctional behaviours." For this, they turned to budgeting – the focus of their third study.

Study three: Budgeting for spring break

Dr. Kan explained that budgeting is important because it can reduce ambiguity on a person's financial situation. It helps people know exactly how much money they have to spend on various categories of expenditures.

The team recruited university students who were traveling for spring break to participate in a two-part study. The first part was conducted prior to spring break and provided a baseline measure of efficiency and priority planning. The second part was done in the week after spring break, with the students reporting on their spending behaviours during the trip, in particular, their tendency to engage in the efficiency and priority plans as well as dysfunctional behaviours.

Among the key findings:

- Budgeters respond to constraint with more priority planning than non-budgeters
- Budgeting makes the biggest difference for those with the highest financial constraint
- Budgeters engage in fewer dysfunctional behaviours, like overspending and impulsive shopping

Summary

Across their studies exploring how consumers plan to cope with resource constraint, Dr. Kan highlighted the following takeaways:

1. Efficiency and prioritization are two planning strategies that people use to deal with constraint, that differ in how they alleviate constraint and how they feel.
2. As constraint increases, people shift to a planning mix higher in prioritization relative to efficiency planning. This is important because priority planning tends to save more of a resource on a single occasion than efficiency planning. However, this shift is often insufficient given the extent of constraint, yielding a deeper deficit in later periods that results in dysfunctional behaviours such as giving up altogether.
3. Budgeting before resource consumption makes timely prioritization more likely and mitigates dysfunctional behaviour.

More: For more information, please contact Dr. Christina Kan

Carrot Rewards mobile app builds confidence among non-budgeters

FCAC's research team has achieved encouraging results in a pilot project to use a mobile application to help non-budgeters adopt positive budgeting behaviours. **Marcie McLean-McKay**, Research and Policy Officer at **FCAC** presented the preliminary findings at the symposium.

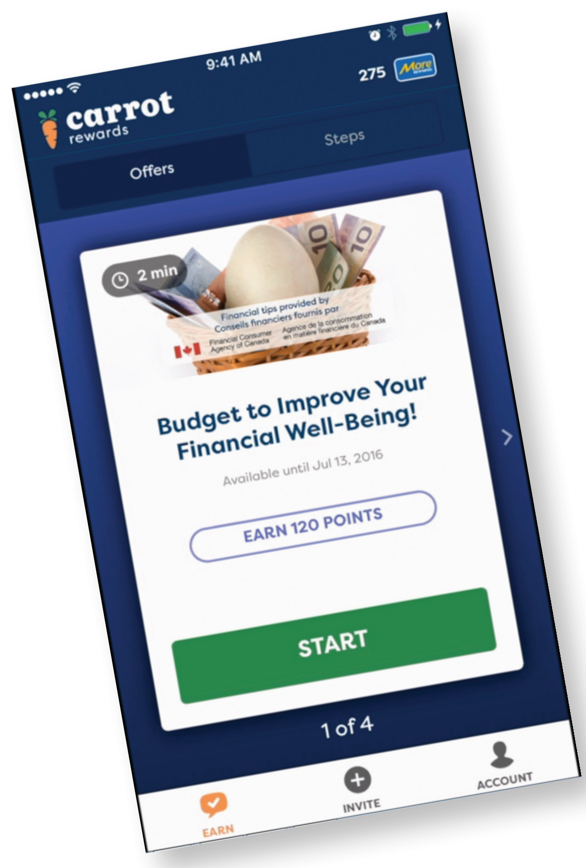
FCAC began the pilot to investigate how to empower more Canadians to budget since budgeting is seen as one of the best ways to achieve one's financial goals. Based on data from the 2014 Canadian Financial Capability Survey, while only 46% of Canadians have a household budget, 93% of those who do budget say they usually or always stay on budget.

Many financial literacy programs have been criticized for focusing primarily on disseminating knowledge while neglecting the need to develop skills and confidence. Behavioural economic approaches are now considering the human influences (e.g., biases and overconfidence) and the role of environmental factors (e.g., the way options are presented) in individual decision-making. These new and innovative approaches to influencing decision-making present opportunities to address the shortcomings of more traditional interventions.

Further to this, emerging technologies are providing opportunities to deliver simplified messages that incorporate behavioural economic practices to effectively change behaviour. For example, recent research has demonstrated that consumer messages received through mobile devices work to change behaviour. Given this evidence, FCAC was seeking a mechanism for delivering financial literacy messages directly to consumers who do not budget in order to enable them to build their knowledge, confidence related to budgeting and create a budget for themselves.

Applying the Carrot Rewards mobile app

The Carrot Rewards mobile app was developed by Carrot Insights, a private Canadian company, with a grant from the Public Health Agency of Canada (PHAC) as part of the Government of Canada's multisector approach to promote healthy living and prevent chronic diseases. Financial stress can be highly detrimental to an



individual's health. As such, it is important that Canadians be equipped with the knowledge, confidence and skills they need to manage their personal finances and improve their financial well-being. The Carrot Rewards mobile app was considered an innovative tool that can be used to help support Canadians towards this goal.

Specifically, the Carrot Rewards app offers consumers loyalty rewards points (including, Aeroplan Miles, Petro-Points, Scene or More rewards points) in exchange for performing simple tasks, such as reading brief text passages, taking quizzes and watching short videos. At the time of the pilot project, the app was available to consumers in British Columbia and Newfoundland.

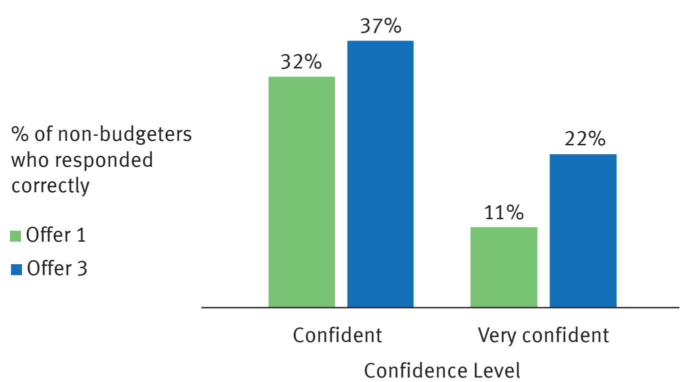
The FCAC team contracted Carrot Insights to present a series of consumer education messages and quizzes on the app for a one-month period, between July and August 2016. To examine the impact of FCAC's financial education materials, a pre- and post-design was used and a control group was created. A first intervention[3] was sent to a wide audience and was used to identify those who did not have a budget. Individuals who did not have a budget were sent two subsequent quizzes and consumer education materials to encourage them to create a budget for themselves. Changes in knowledge, confidence and behaviour were measured for this group and were compared to the control group to assess the impact of FCAC's education materials.

Key findings from the pilot test

After the one-month pilot, and participation by over 29,000 Carrot Rewards users, researchers reached several significant, preliminary results:

- In terms of financial knowledge, 67% of non-budgeters correctly answered a knowledge-based question after the intervention, which represents a 10 percentage point increase from the beginning of the pilot.
- Regarding financial confidence, the number of non-budgeters who felt confident about budgeting rose by 5 percentage points, from 32% to 37%. The number of non-budgeters who felt very confident in budgeting doubled, from 11% to 22%.
- Finally, the Carrot Rewards app drove an improvement in the use of budgeting by non-budgeters, since, by the end of the month, 14% of participants who were not budgeting previously had begun to use a budget.

Figure 8: Carrot Rewards app – Preliminary findings



After completing the three Carrot Rewards app offer modules, non-budgeters showed improved levels of confidence in their ability to budget.

3 An intervention is a combination of consumer education messaging and questions that participants answered in exchange for loyalty reward points.

> **"Budgets help individuals prioritize their spending in times of financial constraint. So it's important to help consumers improve their knowledge, skills and confidence about budgeting to help them manage their money."**
> *Marcie McLean-McKay, FCAC*

Essentially, the program demonstrated statistically significant improvements across all three tracked metrics (knowledge, confidence and behaviour). In summary, financial education interventions delivered through a mobile application increased knowledge and confidence related to budgeting among non-budgeters. These interventions also enabled non-budgeters to begin budgeting, which is noteworthy in the context that 44% of non-budgeters had stated that without a budget, they "don't know where to begin." Results of the pilot suggest that directly targeting financial literacy messaging and resources to consumers has the potential to result in positive behavioural change and improved financial well-being for large numbers of Canadians.

Next steps for the program

While more detailed analysis of the data will be done to examine how the treatment group differed from the control group, the research team will also consider returning to the sample to see whether pilot program participants continued to budget six or 12 months later. They will also explore the use of mobile apps to teach budgeting across Canada.

More: For more information, please contact ResearchandPolicy-RechercheetPolitique@fcac-acfc.gc.ca

Choosing financial products and services, and building savings

Financial products, services and channels continue to grow in number and sophistication. Consumers are being asked to take on more responsibility – and assume more risk – for planning and saving for their future. Digital innovation is widening financial access and inclusion, while also exposing consumers to a host of new challenges. All of this increases the onus on consumers to seek out information and advice to help them navigate today's financial world, to shop around when making financial decisions, and to be more diligent than ever in safeguarding their interests.

To help consumers as they choose products and services in a complex marketplace, a number of research projects are underway that are drawing on insights from behavioural economics, in light of growing evidence that education alone is sometimes not enough to encourage people to make better decisions about their finances that will, in turn, enhance their financial well-being.

"Fin lit" in a box

Avni Shah, PhD, Assistant Professor of Marketing at **University of Toronto Scarborough** and Research Fellow of the Behavioural Economics in Action Research (BEAR) Cluster, presented exciting work that her team is currently doing in behavioural economics to facilitate desired financial behaviours. They are developing and testing potential tools for an ongoing initiative called **Financial Literacy in a Box** (FLIB), which is a promising new approach.

What is FLIB and why is it a potential solution?

FLIB is designed to be a set of complementary measures to financial education involving choice architecture. According to Dr. Shah, financial education might decay with time, for example, or financial education might be too abstract when it is presented out of context. FLIB is therefore designed to fill the gap between financial education and effective decision-making, in part by highlighting and reminding people, at the time that they are making a financial choice, of what they have previously learned through financial education.

Dr. Shah noted that FLIB is not a substitute for financial literacy but rather "it provides a coupling of the literacy itself with just-in-time information – context-specific tools to help people make decisions." The goal is to give people a "take-away" – which can vary in format from print materials to online videos and smartphone apps – that serves multiple functions:

- A refresher in topical areas – including rules of thumb that will help them make decisions.
- Guidelines for those important decisions, and the types of questions to ask a financial provider
- A to-do list – what they should follow up with after they have made their purchase

Dr. Shah's team of undergrads, MBA students and faculty at BEAR started working on FLIB in the summer of 2016, focusing first on three critical topics of personal finance: compound interest; education savings; and retirement benefits. The team's approach for each topic area is understanding audience needs, identifying barriers that could be addressed in toolkit design, creating a potential solution (i.e., FLIB tool), then engaging end users in extensive testing to help further fine-tune the tool.

Compound interest

What is compound interest? The idea behind it may be straightforward (interest earning interest), but many people struggle to grasp the potential of compound interest. Dr. Shah's research team discovered that people don't often understand how money multiplies over time, or they wait too long to optimize the impact.

To help people understand the power of compound interest, the research team set out to distill the concept in a concise and easy-to-understand way. They determined that a visually engaging approach was needed, and created and tested a four-minute whiteboard animation video. Designed for any age group, the video walks people through the complex concept, illustrating through clear examples of every day financial products and situations how compound interest can work for and against a person. The final video is available on YouTube.

Education savings

The focus of the second project is Registered Education Savings Plan (RESP). Individuals and families who contribute to an RESP account for a child's post-secondary education are eligible for grant money from the federal government. Yet many Canadians are not taking advantage of RESPs.

For this project, the team is collaborating with SmartSaver, the Toronto District School Board (TDSB) and Woodgreen Community Services. Previously, SmartSaver had disseminated some 250,000 flyers to school kids from grades 1 to 12 on RESPs, with messaging that highlighted the free money people get when they contribute to education savings through RESPs. Despite good intentions, that particular campaign didn't result in a strong uptake.

Feedback from parents and guardians helped the research team create a more engaging flyer on RESPs, geared to increasing motivation and ultimately enrolment in these savings plans. Why weren't families registering? Dr. Shah's team was recruited to find out. After conducting polling research, they discovered that parents/guardians weren't signing up for various reasons: some felt the word 'free' was a trap;

others said they were either putting money in a regular savings account or not saving at all because they viewed university as too expensive; and several kids weren't even bringing the flyer home.

Drawing on the user feedback, the team redesigned the flyer to focus on the key benefits of opening an RESP account and to guide parents and relatives to easily create one for the child. The new flyer was made more compelling for both kids and parents, with engaging components that include a quiz, checklist and cut out card. Most importantly, the emphasis was on trying to prompt action, with clear information on how to enrol.

To test effectiveness, different versions of the new flyers will be rolled out to schools in fall 2017.

Retirement savings

For the third FLIB tool, the research team moved from education savings to the other end of the life journey: retirement savings. Currently a work in progress, the research team is aiming to get people thinking about retirement savings more strategically. When is it optimal to start receiving Canada Pension Plan (CPP) income? Studies show many Canadians don't view the CPP question as an important reflection point. People have a tendency to withdraw as soon as they can, but that can have a huge impact on how much CPP income they receive over their remaining lifetime, depending on when they begin to claim CPP.

Dr. Shah's team is conducting an ongoing collaborative project with Service Canada and Employment and Social Development Canada (ESDC) to encourage Canadians to give more consideration to timing (when to access their money), thereby letting compound interest work for them. Key goals include:

- Helping people understanding what the impact of withdrawing a pension is, at different times, and to identify the factors that may influence this decision.
- Reducing the sense of urgency that Canadians feel when faced with the decision regarding when to begin receiving CPP income; for example, by posing specific questions like 'do you need this money at 65' and presenting key information, such as number comparisons, to make gains and losses as concrete as possible so people understand exactly what they are losing by withdrawing early.

Once the project partners get a better sense of barriers and opportunities, potential solutions will be developed and tested.

Next steps

As a long-term initiative, the ultimate goal of FLIB is to ensure that financial education is converted into better financial decisions. Dr. Shah envisions that FLIB will build over time to comprise a wealth of tools on wide-ranging financial topics, providing consumers with basic guidance on the kinds of financial decisions that they should be taking at various stages in their lives. The research team plans to keep adding new tools that can be distributed at community centers, public libraries, YMCA's and other place where community members visit, in addition to digital channels.

Refund to savings: Building financial security at tax time

Stephen Roll, PhD, research assistant professor with the Center for Social Development at **Washington University in St. Louis**, presented the Refund to Savings (R2S) initiative, which was created to build financial security among Americans at tax time.

This multi-year research initiative – the largest saving experiment conducted in the U.S. to date – was performed by a team of researchers from Washington University in St. Louis, Duke University and Intuit, the makers of Turbo Tax software. The project applied behavioural economics to drive financially-beneficial actions by tax filers, successfully increasing the rate at which Americans choose to save – rather than spend – their annual tax refund.

Convincing taxpayers to convert tax refunds into savings

Dr. Roll noted that in the U.S., 79% of 147 million tax returns result in a refund, with an average value of USD$2,719. Since this sum represents the largest cash infusion each year for many households, the R2S team recognized tax season to be a 'golden moment' to improve their savings rate.

> **"We know financial literacy alone is not enough, so it's important to use just-in-time and decision point specificity to improve behaviour. This is a lot more productive for the individual."**
> *Avni Shah, University of Toronto Scarborough*

The researchers based their work on behavioural economics and the premise that it is not simply the cost and benefits of a decision that matter but rather the structure of the decision that prompts individuals to act. For example, when shoppers are funneled through a grocery store checkout line, they are more likely to purchase impulse goods presented to them. The R2S initiative operates on a similar logic by endeavouring to make savings options as prominent and easy as possible.

To explore this approach, the R2S researchers decided to intervene with tax filers at the moment they are notified of their tax refund, and structure the decision environment in a way to encourage them to immediately save their refund.

Testing behavioural economics on low-income tax filers

Over the past several years the R2S team has experimented with different behavioural interventions among U.S. tax filers, using the Intuit TurboTax software as their platform.

Each year, the TurboTax Freedom edition is offered free-of-charge to almost a million lower-income tax filers. This has enabled researchers to expose this population to a number of different interventions over the years, including: messaging prompts to save; emails priming filers to think about saving; choice architecture to make the savings decision more prominent; and anchoring – in which the software suggests a specific amount (e.g., 50%, 100%, etc.) a tax filer could allocate to savings.

In 2015, the researchers tested interventions relating to choice architecture. At the moment when the tax filer learns the value of their tax refund, the control group was provided with standard options to direct their refund to a bank account, paper cheque or to split the funds among various accounts. In contrast, the savings option to deposit the refund to a savings account was emphasized among the treatment groups. Researchers also randomly targeted one of three messages to the treatment groups, highlighting the benefits of saving for emergencies, retirement or other longer-term goals.

R2S boosts savings rate at tax time

As a result of the 2015 interventions, researchers observed that the treatment groups chose to save their refund at a rate of 12-14%, compared to the control group that deposited their refunds to savings at an 8% rate. They also found that the emergency savings message in conjunction with the choice architecture drove the largest volume of savings decisions.

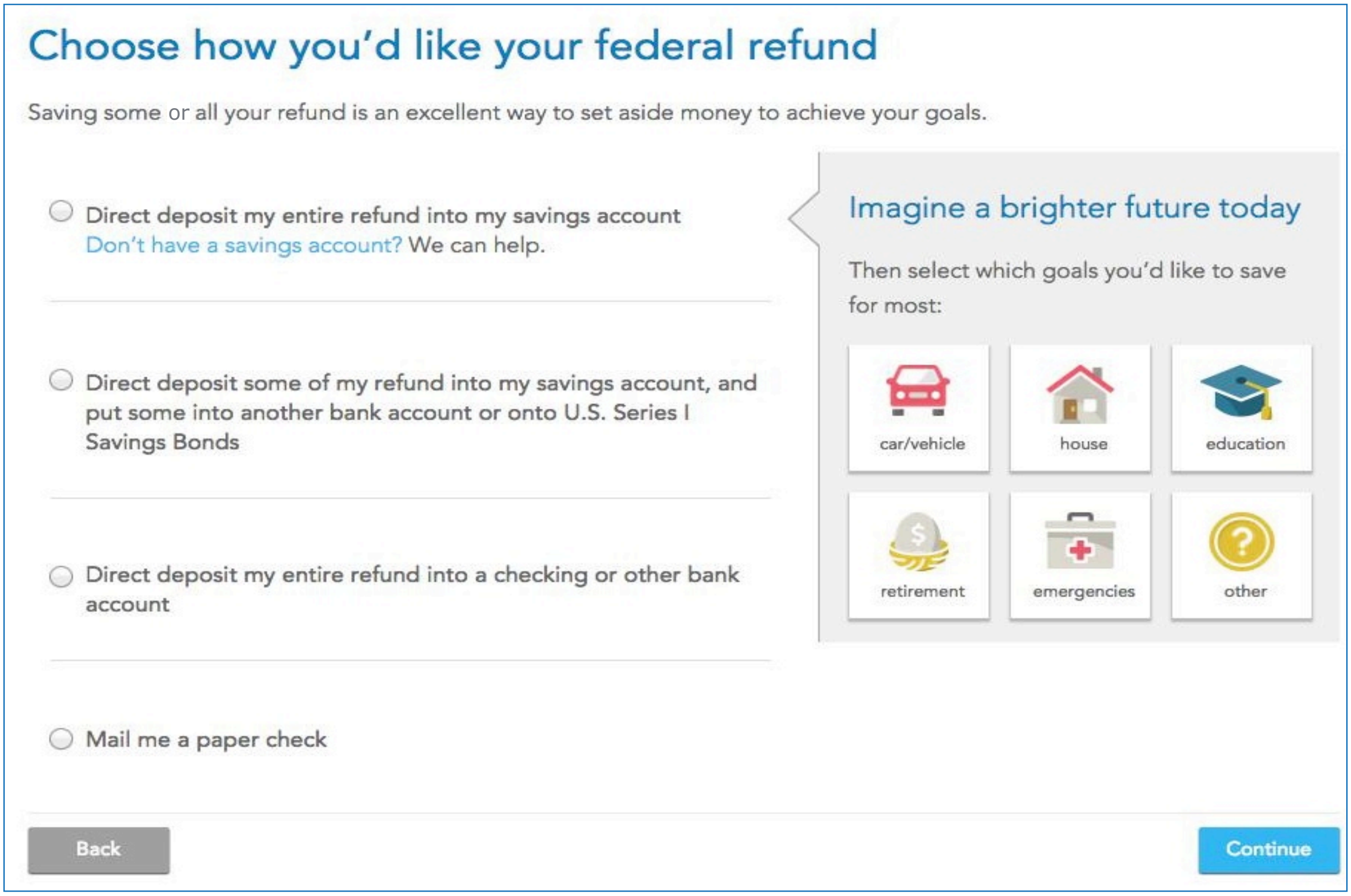
In addition, while control group members deposited an average amount of USD$150 to savings, the treatment group members selected a considerably higher average savings amount between USD$225-250. These interventions prompted 21,012 more low to moderate income tax filers to save, translating into USD$35.6 million in funds deposited into savings vehicles.

It's significant to note that while financial education initiatives are often time-consuming for participants and resource-intensive for service providers, by leveraging tax-filing software to reach millions of tax filers the R2S initiative offers a 'low-cost, low-touch, and highly-scalable intervention' in which a participant can make a positive financial decision in a few seconds.

Tax filers who participated in R2S research were presented with convenient, interactive savings options for their tax refund. The rate of savings among tax filers increased significantly from the control group versus tax-filers who were strongly encouraged to save their refund for emergencies, retirement or other long-term goals.

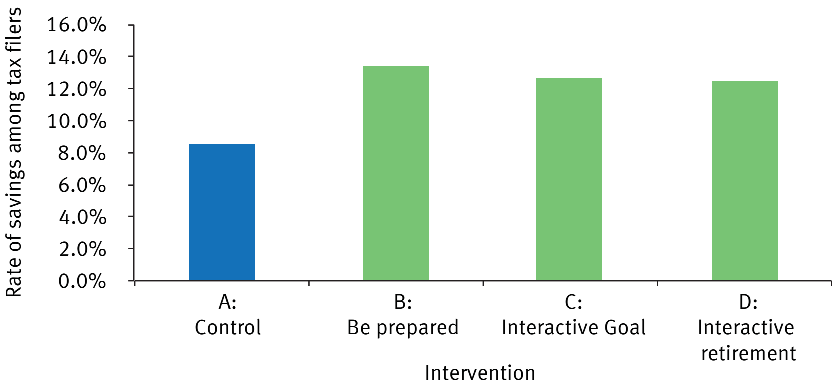
Dr. Roll also pointed out that tax-time interventions can produce invaluable research data for policy-makers. Participants in the R2S program are invited to take part in the Household Financial Survey, when they file their taxes and six months later. Researchers have

Figure 9: Goal prompts



Tax filers who participated in R2S research were presented with convenient, interactive savings options for their tax refund.

Figure 10: Saving the tax refund for future goals



The rate of savings among tax filers increased significantly from the control group versus tax filers who were strongly encouraged to save their refund for emergencies, retirement or other long-term goals.

gathered groundbreaking data on issues such as the propensity of tax filers to use alternative financial services, such as payday loan and cheque cashing services, and have been able to delve into how many financial behaviours and outcomes are correlated with key demographic factors like race/ethnicity, education and income.

While acknowledging that there are differences between the US and Canadian tax regimes, Dr. Roll commented that there is great promise to apply the lessons from R2S in the Canadian tax system. For example, among the 26 million annual tax returns filed in Canada, 76% are completed electronically, which creates an opportunity for online interventions. Also, the average Canadian refund of CAD$1,641 represents a sizable potential boost to Canadians' annual savings rate.

More: Refund to Savings Initiative

"This program has worked very well in the U.S. and I believe it could be optimized for the Canadian tax system, after considering your distinct opportunities or challenges. We've shown that low-cost, low-touch interventions can drive behavioural change if you reach the right people, at the right moments, in the right ways."
Stephen Roll, Washington University in St. Louis

More effective evaluation

Financial literacy providers often struggle with the complex, time-consuming and expensive process of designing evaluation tools for their financial education initiatives.

To remedy this challenge, **Prosper Canada**, a national charity dedicated to expanding economic opportunity for Canadians living in poverty, received funding from the Canadian Bankers Association, to build an easy-to-use, online outcome evaluation tool. FCAC contributed to the development of this tool by providing subject-matter expertise, input and guidance to align with and support the advancement of the National Financial Literacy Strategy. An advisory group made up international experts also contributed to the development of this important tool.

Strengthening evaluation of financial literacy programs in Canada

Prosper Canada's **Lilian Knorr**, PhD, Research and Evaluation Manager, and **Salima Shariff**, Research and Evaluation Officer, presented their newly-created Financial Literacy Outcome Evaluation Tool, which houses tested questions and scales in a central location to help organizations evaluate the outcomes of their financial literacy and financial empowerment programs.

In embarking on this project, the research team recognized that, while there are excellent evaluation toolkits available to help users design evaluations, including building a logic model, and identifying data collection methodologies, these tools are rarely subject specific. As such, they can't help users choose good, tested questions to get strong data that effectively measures their outcomes.

Figure 11: Prosper Canada's new evaluation tool

The Financial Literacy Outcome Evaluation Tool, developed by Prosper Canada, helps overcome the difficult barriers to effectively evaluating financial literacy and empowerment program outcomes by creating an easy-to-use, online evaluation design tool and database.

The research team thus chose to build an online tool to assist practitioners in choosing questions that can be then used to develop pre-post surveys and collect data to measure the impact of their program.

Developing the optimal evaluation tool

To develop the tool, researchers studied existing tested questions and scales in the field of financial literacy and empowerment. They also performed a stringent review of indicators to identify the highest quality questions for inclusion and metadata adhering to international standards, and also consulted with experts, practitioners and stakeholders in the financial literacy field.

Evaluation questions and scales were sourced from reputable international institutions and from the Canadian non-profit community, and covered topics ranging from creating a budget and reducing debt to accessing financial services and reaching financial goals.

Providing users with design options

The Outcome Evaluation Tool provides two paths for users to find questions and scales that could be used to evaluate the outcome(s) of a financial education, coaching or counselling program:

- Users can follow a guided screening process, by which the tool suggests questions and scales based on a number of screening criteria. The user can select whichever scales and questions are most appropriate for their program and participants and download them as a Word document or Excel file.
- Users may access the questions and scales through a browsing option. Most suited to experienced evaluators, this approach enables users to search for questions relating to a specific outcome area or instrument they are interested in. They can then export their chosen questions into Word or Excel.

The tool provides both a feedback mechanism, so that users can comment on the tool's effectiveness, and a resource page, which directs users to helpful information about program evaluation.

A valuable tool for any organization

The online tool, which was officially launched in early 2017, is accessible at www.outcomeeval.org. Available in French and English, the free, easy-to-navigate platform is a valuable resource for experienced evaluators and organizations with the capacity to conduct an evaluation of their program.

More: http://outcomeeval.org/

Poster presentations

Delegates had an opportunity to view poster presentations displayed at the symposium. The posters presented research findings, and representatives from the exhibiting organizations were on hand to discuss their research and answer questions. A summary is provided below, and readers can access any of the presentations by contacting individual authors.

Poster title	Presenter	Abstract
Auto Finance: Market Trends	Financial Consumer Agency of Canada For more information please contact: ResearchandPolicy-RechercheetPolitique@fcac-acfc.gc.ca	Automobiles are the nonfinancial asset most widely held by Canadian consumers. FCAC recently conducted a targeted review of the auto finance market to examine trends, industry practices and consumer issues. This poster highlights some of the research findings.
Financial Literacy and Retirement Well-being in Canada	Financial Consumer Agency of Canada For more information please contact: ResearchandPolicy-RechercheetPolitique@fcac-acfc.gc.ca	Compared to younger Canadians, seniors score the lowest on assessments of financial knowledge, but rate their financial confidence as the highest of any age group. Drawing on an analysis of the 2014 Canadian Financial Capability Survey, FCAC's research team examined how financial literacy relates to the ability of seniors to meet their financial needs in retirement. This poster presents the findings of that research.
Fraud in Canada: Incidence and Levels of Awareness and Prevention	Cairine Wilson and Paul Long Chartered Professional Accounts of Canada For more information please contact: PLong@cpacanada.ca	According to the Canadian Anti-Fraud Centre, only 5% of fraud taking place in Canada is reported. This poster presents findings of a 2016 CPA Canada Fraud Survey that looked deeper into fraud awareness and prevention: ▪ How widespread fraud is in Canada? ▪ To what extent are Canadians aware of fraud and protecting themselves? ▪ Is this impacting their behaviour?

Poster title	Presenter	Abstract
Millennials in Crisis: Myth Busting Millennial Debt Narratives	Stephanie Ben-Ishai Osgoode Hall Law School For more information please contact: SBenIshai@osgoode.yorku.ca	Millennials have been commonly portrayed in the media as the most troubled and debt-ridden generation. This poster presents research that considered the accuracy of this commentary, as well as the role that recent financial literacy initiatives and legislative developments play in safeguarding millennials.
Payday Loans: Market Trends	Financial Consumer Agency of Canada For more information please contact: ResearchandPolicy-RechercheetPolitique@fcac-acfc.gc.ca	This poster shares findings from a 2016 FCAC survey of payday loan users in Canada. Key research questions focused on who uses payday loans and why, how financial literacy relates to payday loan use, and whether consumers are well-informed about the associated costs vis-à-vis other forms of credit.
Self-Confidence, Self Efficacy, Financial Knowledge and their Association with Financial Behaviour: A Canadian Study	Tania Morris and Vivi Koffi University of Moncton For more information please contact: tania.morris@umoncton.ca or vivi.koffi@umoncton.ca	This poster sheds light on results and lessons learned from a study that aimed to better understand the interactions between various components that influence the financial behaviour of Canadian university students.
The OECD/INFE International Survey of Adult Financial Literacy Competencies – A Canadian Perspective	Financial Consumer Agency of Canada For more information please contact: ResearchandPolicy-RechercheetPolitique@fcac-acfc.gc.ca	The Organisation for Economic Co-operation and Development and the International Network on Financial Education (OECD/INFE) developed an international measure of financial literacy and financial inclusion. The findings show that Canadians scored well on overall measures of financial literacy in comparison to other countries. FCAC further analyzed the findings to identify gaps in the financial knowledge and skills of Canadians, and this poster presents the results.
Understanding the Financial Knowledge Gap across the Life Course	Mohammad N. Khan, David W. Rothwell, and Katrina Cherney, McGill University, Centre for Research on Children and Families Montreal, QC, Canada, Oregon State University, College of Public Health, Corvallis, OR, U.S. For more information please contact:mohammad.khan7@mail.mcgill.ca or david.rothwell@oregonstate.edu	Using analysis of the 2009 and 2014 Canadian Financial Capability Survey data, this research team explored the “financial knowledge gap” – the distance between subjective and objective financial knowledge. This poster highlights their findings, including how the life course is related to the financial knowledge gap.

Get involved

Harnessing the power of research to drive better financial outcomes

The symposium clearly showed there is considerable interest and work underway, in Canada and internationally, to enrich lives through research on financial literacy. Distinguished researchers are exploring and innovating to better understand consumer financial behaviour and the complexity of factors shaping financial decision-making.

While the types of study vary, much of the research is leading to similar themes. And what we're discovering are profound insights that are providing a window into knowledge gaps and areas of the population that are at greater risk. At the same time, the latest research findings are unleashing tremendous opportunities: to translate back to improvements in the design and delivery of financial education, as well as inform the emerging role of behavioural change approaches.

Canada's **National Research Plan on Financial Literacy** aims to focus efforts and enhance coordination among researchers to generate key empirical evidence that will contribute to the successful implementation of the *National Strategy for Financial Literacy—Count me in, Canada*. The Plan describes key research opportunities and important areas of focus that are of primary interest to the goals of the national strategy.

As the financial literacy space continues to mature, research will be instrumental in shaping smarter, more targeted, and more effective interventions in the coming years as we collectively work to enhance the financial well-being of Canadians.

CONTRIBUTE

Read and contribute to Canada's **National Research Plan on Financial Literacy.**

FCAC is seeking research partners and funders for upcoming projects.

SHARE

Inspired?
Share this report and all future research on Twitter, using the hashtag:

#FinLitResearch

USE

Submit a resource to include in FCAC's Canadian Financial Literacy Database.

Appendix

Symposium agenda – November 16, 2016

9:00 a.m. **Welcome and introduction**
Bruno Levesque, Director, Consumer Education, Research and Policy, FCAC

9:15 a.m. **Keynote speaker**
Jane Rooney, Financial Literacy Leader, FCAC

9:30 a.m. **Panel discussion**
Topic: International perspective: A forward-thinking approach to financial literacy
Moderator: David Rothwell, Oregon State University

1. *Budgeting and Financial Decision-Making in the U.S.*
   Gary Mottola, FINRA Investor Education Foundation
2. *Household Financial Fragility in the U.S.: Evidence and Implications*
   Carlo del Bassa Scheresberg, Global Financial Literacy Excellence Center
3. *The Impact of Financial Education on Knowledge and Attitudes: A Life-Course Perspective*
   David Rothwell, Oregon State University
4. *Financial Well-Being: The Goal of Financial Education*
   Genevieve Melford, Consumer Financial Protection Bureau

10:45 a.m. **Break and poster presentations**

11:00 a.m. **Topic: Budgeting and planning for the unexpected**
Moderator: Karen Duncan, University of Manitoba

1. *Squeezed: Coping with Constraint through Efficiency and Prioritization*
   Christina Kan, Texas A&M University
2. *Strengthening the Financial Literacy of Canadians through the Carrot Rewards Mobile Application*
   Marcie McLean-McKay, Financial Consumer Agency of Canada

12:00 p.m. **Lunch break and poster presentations**

1:15 p.m. **Guest speaker**
Topic: Complexity of choosing financial products
Andrew Nicholson
Financial and Consumer Service Commission of New Brunswick

1:30 p.m. **Topic: Choosing financial products and services, and building savings**
Moderator: Pierre-Carl Michaud, École des Hautes Études Commerciales de Montréal (HEC Montréal)

1. *"Fin Lit" in a Box*
   Avni Shah, University of Toronto
2. *Refund to Savings: Building Financial Security at Tax Time*
   Stephen Roll, Washington University at St. Louis

2:30 p.m. **Break and poster presentations**

2:45 p.m. **Topic: More effective financial literacy/program evaluation**
Moderator: Maura Drew-Lytle, Canadian Bankers Association
Strengthening Evaluation of Financial Literacy Programs
Lillian Knorr and Salima Shariff, Prosper Canada

3:45 p.m. **Closing remarks**
Jane Rooney, Financial Literacy Leader, FCAC

List of participating organizations

- ABC Life Literacy Canada
- British Columbia Institute of Technology
- Canada Mortgage and Housing Corporation
- Canadian Association of Student Financial Aid Administrators
- Canadian Bankers Association
- Canadian Centre for Elder Law
- Canadian Life and Health Insurance Association
- Concordia University of Edmonton
- Consumer Financial Protection Bureau (U.S.)
- CPA Canada
- CPA New Brunswick
- Credit Counselling Canada
- Credit Counselling Services of Atlantic Canada
- Dalhousie University
- Economic and Social Inclusion Corporation
- Employment and Social Development Canada
- Financial and Consumer Services Commission of New Brunswick
- Financial Consumer Agency of Canada
- Financial Planning Foundation
- Financial Services Commission of Ontario
- FINRA Foundation
- Global Financial Literacy Excellence Center
- Government of PEI, Workforce & Advanced Learning
- HEC Montréal
- HigherEdPoints.com
- Indigenous and Northern Affairs Canada
- Investment Funds Institute of Canada
- Kingswood University
- McGill School of Social Work
- Ministère de l’Éducation et du Développement de la petite enfance
- Mount Royal University
- National Bank
- NBTA Credit Union
- OCAD University
- Oregon State University
- Prosper Canada
- Saint John Community Loan Fund Inc.
- Saint Mary’s University
- Scotiabank
- Simon Fraser University
- TD Bank Group
- Texas A&M University
- UNI Coopération financière
- University of King’s College
- University of Manitoba
- Université de Moncton
- University of Toronto
- University of New Brunswick
- University of Winnipeg
- Washington University in St. Louis
- York University

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