

Westpac Massey
**Fin-Ed
Centre**



**YOUNG NEW ZEALANDERS ONGOING
PERSONAL FINANCE JOURNEY:
A LONGITUDINAL STUDY – STAGE 2**



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SURVEY AT A GLANCE

The report presents findings from the second stage of the Fin-Ed Centre's 20-year longitudinal study, which tracks the financial knowledge, attitudes and behaviours of a group of New Zealanders through different life stages. The longitudinal study is unique in New Zealand. The first stage occurred in 2012 when the cohort was aged from 18 to 22 years. Now, five years on, the participants are aged from 23 to 27 years. The study will repeat again in 2022, 2027, and conclude in 2032. At study termination, the participants will range in age from 38 to 42 years. Of the original 350 cohort, 232 participated in the second phase of the study – a 66 percent retention rate. The study undertook interim updates in 2014 and 2016, which dealt with the topical issues of economic inclusion and housing affordability.

The current focus is to determine how attitudes and behaviours have changed over the past five years as participants move into new life stages. The study finds young New Zealanders still rely on their parents for financial advice, despite many harbouring doubts about parental advice. Nearly half the participants said they had learned “everything” or “almost everything” from their parents. While this was down from two-thirds in 2012, the reliance on parental advice was surprising, given only 35 percent felt that their parents knew what was best for them in terms of their finances. When asked about how they expected to learn about money management in the future, parental advice still featured highly, but the dominant source, at 39 percent, was “life experiences.”

The study found a gender gap in how participants performed in a financial literacy test and how they assessed their own financial literacy levels. The average score for the financial literacy test was 70 percent for males, compared with 54 percent for females, while 41 percent of males assessed their financial literacy levels as “very good” or “excellent”, compared to only 21 percent of females. Interestingly, participants' self-assessment had declined despite an improvement in actual financial literacy results, which suggests they have become more aware of what they don't know. Overall, the report found the cohort had many positive financial behaviours, including a participation rate of 89 percent in KiwiSaver. It also found that more than two-thirds of young people remain wary of credit card debt, with many saying they use their credit card primarily for rewards, and pay the balance in full every month to avoid paying interest. However, there are still some areas of concern, including 60 percent of participants wishing they were better at saving.

RESULTS AT A GLANCE

- Parents continue to be the primary source of information and lessons on personal financial management matters, although many doubt the knowledge their parents are imparting;
- Financial literacy improved, but participants' self-assessment of their financial literacy declined;
- Participants remain confident about their ability to manage their money, while remaining wary of credit cards, and acknowledging the importance of saving;
- At 89 percent, participants have a very high participation rate in KiwiSaver;
- More than 90 percent know where their money is spent;
- 65 percent budget and track spending;
- 60 percent wished they were better at saving;
- 67 percent think it's better to make purchases from savings rather than use credit;
- Only 30 percent considered long-term planning beyond 5 years;
- 72 percent still have a student loan to pay off;
- Impulse spending is a key problem;
- Females scored an average of 54 percent on the financial literacy test while males scored 70 percent.

1. INTRODUCTION

This report covers the second stage in a 20-year longitudinal study that considers the financial knowledge, attitudes and behaviours of a cohort of young New Zealanders. The original cohort were aged from 18-22 years for the baseline study conducted in 2012 (Stangl & Matthews, 2012). The key findings from that initial study were that, overall, financial knowledge levels were low, there was a lack of formal financial education and parents were a key source of informal financial education. The study also found that young New Zealanders knew about the key elements of good financial management, such as needing to save; however, there was concern that they were not putting this knowledge into practice. Finally, there was a strong aversion to debt, particularly in the form of credit cards. The current study took place five years later, in 2017, with the cohort now aged from 23 to 27 years old. The key focus of this stage is to determine how the financial knowledge, attitude and behaviours of this cohort have changed as they have matured over the last five years. While the cohort experienced changes over this period, there were also macro level changes to the financial literacy landscape during this time.

OVERVIEW OF CHANGES IN THE FINANCIAL LITERACY LANDSCAPE

As financial products and markets have become even more complex, financial literacy and financial education continue to be the focus of much research. However, a key trend observed over the past five years, since the initial study was carried out, has been the change in focus from financial literacy, which often only considered financial knowledge, to the broader concept of financial capability and the ultimate goal of financial wellbeing.

The initial interest in financial literacy was based on the growing concern that, due to the complicated nature of financial decisions, individuals were making poor decisions and these could lead to financial hardship. It was first thought that improved financial literacy would lead to improved decision making and many programmes were developed with this aim. However, the initial concept of financial literacy focused mainly on knowledge and understanding of economic and financial concepts. Over time there was a realisation that it was not sufficient to focus on this narrow concept of financial literacy as even financially knowledgeable people did not necessarily make good financial decisions. This led to a change in focus to financial capability, which encompasses financial literacy but is a broader concept that also highlights the individual's behaviour, skills and attitudes (Xiao, 2015).

Financial capability is generally considered to be the ability to combine financial knowledge and skills to perform desirable financial behaviours, which then lead to the achievement of financial goals which are in turn linked to increased financial wellbeing (Hoelzl & Kapteyn, 2011; Kempson, Collard, & Moore, 2006; Xiao, Chen, & Chen, 2014). In addition, while knowledge and behaviour focus on the internal financial capability of individuals there are external factors, such as the institutional and regulatory environment, that are important to consider. In particular, inclusion and access to financial services play an important role in financial capability (Johnson & Sherraden, 2007). The United Kingdom was one of the first countries to switch focus from financial literacy to financial capability (Kempson *et al.*, 2006) and many countries have now followed suit (Xiao, 2016).

The move to a focus on financial capability and ultimately financial wellbeing is highlighted in the national strategies and policies being implemented worldwide. In the USA the Consumer Financial Protection Bureau (CFPB) is focused on understanding and promoting financial well-being, which they define as "a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow enjoyment of life" (CFPB, 2015).

The Australian Securities and Investment Commission (ASIC) is in the process of updating the National Financial Literacy Strategy, and along with changing the terminology used from financial literacy to financial capability, specifically notes that "The 2018 National Strategy will support initiatives that aim to build all aspects of financial capability. It will also encourage collective efforts towards long-term behavioural change that contributes to financial wellbeing." (ASIC, 2017) New Zealand has had a national strategy for financial literacy since 2008, and the updates to the strategy in 2015 explicitly accounted for the shift with the revised 2015 "National Strategy for Financial Capability". As specifically outlined in the strategy "Building financial capability of New Zealanders is a priority for the Government. It will help us improve the wellbeing of our families and communities, reduce hardship, increase investment and grow the economy" (CFFC, 2015).

THIS STUDY

This longitudinal study began with a focus on financial literacy. Following on from the findings and insights of stage one, this second stage continues to contribute to a better understanding of issues related to the levels of financial literacy and financial capability in New Zealand, in an effort to assist with improving financial literacy and levels of savings for New Zealanders. In particular, the study seeks to understand how the financial knowledge, attitude and behaviours of this cohort of young New Zealanders has changed over the last five years. An overview of the current state of financial literacy and capability worldwide, as well as current trends in financial literacy research are discussed in the next section and provide the context in terms of which findings from the current study can be interpreted.

2. PRIOR RESEARCH

GLOBAL STUDIES


The overall levels of financial literacy and financial capability worldwide remains concerning. A study by the OECD (2017a), which reviewed the financial knowledge, behaviour, attitudes and inclusion of adults in 21 countries, found that financial literacy scores were low with average scores of 12.7 out of 21 (where there were seven points for knowledge, nine for behaviour and five for attitudes). When each aspect was considered separately, for financial knowledge less than half of the participants from G20 countries were able to score higher than 70 percent (the targeted minimum). With respect to financial behaviours just over half of participants reached the target of six or more out of the nine behaviours. The study also found that men were more likely to reach the targeted minimum financial knowledge score than women in most of the countries. The percentage gap between men and women who scored the targeted minimum was highest in Norway (28%), followed by the Netherlands (25%), and Germany (23%), while the gap was 22 percent in both Canada and the United Kingdom.

Another global study of financial literacy in 143 countries, which focused only on measuring financial knowledge, found country level financial literacy levels ranging from 13 percent to 71 percent (Klapper, Lusardi, & van Oudheusden, 2015). The study included individuals aged 15 and older, and defines an individual as financially literate if they correctly answer three of four basic financial concept questions. Using this definition, only one-third of individuals worldwide are financially literate. The percentage who are financially literate is high in developed countries, with 71 percent of adults in Denmark, Sweden and Norway classified as financially literate. Australia ranks ninth with 64 percent considered financially literate, and New Zealand is eleventh with 61 percent. Once again there is a worldwide gender gap in financial literacy levels with 35 percent of men considered financially literate compared with 30 percent of women.

Along with overall low levels of adult financial literacy there have been concerns about low levels of financial literacy among young people. In an effort to understand levels of financial literacy in 15 year olds, the OECD Programme for International Student Assessment (PISA) undertook an initial study in 2012 (OECD, 2014), with a further study in 2015 (OECD, 2017b).

The 2012 study included 29,000 students in 13 OECD countries and economies (including Australia and New Zealand) and five partner countries and economies. The country/economy with the highest mean score in financial literacy was Shanghai-China, with Australia and New Zealand ranked fourth and fifth respectively in terms of their mean scores, with both scoring above the OECD mean. There were large variations in scores between top and bottom performers within countries and economies, and on average there were 15 percent of students across the OECD countries who scored below the baseline level (indicating very low levels of financial literacy). In addition, within countries, socio-economically advantaged student scores were on average higher than those of less advantaged students. However, unlike in adult populations, there was no gender gap in financial literacy scores for all participating countries and economies, other than Italy. While there were more top-performing males than females in financial literacy, there were also more low-performing males than females. It should be noted that the questions were specifically designed to allow students to answer in their own words in an effort to minimize gender differences (Lusardi, 2015; OECD, 2014).

The 2015 PISA study included 10 OECD countries and economies (New Zealand was not a participant) and five partner countries and economies. Beijing-Shanghai-Jiangsu-Guangdong (China) reported the highest mean score, Australia ranked sixth in terms of mean score, and again reported a mean score above the OECD average. In 2015 on average across the OECD countries and economies, 22 percent of students performed at or below the baseline proficiency level, compared with 15 percent in 2012. Gender differences were observed in 2015, but only in Italy did males score higher on average than females. In Australia, Lithuania, Poland, the Slovak Republic and Spain this was reversed, and females outperformed their male counterparts on average. There were no gender differences in mean scores in the remaining countries. Once again, advantaged students scored higher on average than disadvantaged students.

A close-up photograph of a person's hand holding a yellow pen, pointing at a financial chart on a desk. The chart features various data visualizations including bar graphs, pie charts, and line graphs. The text is overlaid on the right side of the image.

Along with overall low levels of adult financial literacy there have been concerns about low levels of financial literacy among young people.

NEW ZEALAND

Studies of financial knowledge and capability in New Zealand were commissioned by the Commission for Financial Capability (CFFC) and undertaken in 2006, 2009 and 2013. While the initial surveys in 2006 and 2009 focused on financial knowledge, the 2013 survey included financial knowledge as well as behaviour (CFFC, 2013). Financial knowledge initially increased between 2006 and 2009, and then remained constant at the 2009 level in the follow up study in 2013. In comparing the performance of New Zealand to other countries in the OECD, 78 percent of New Zealanders could correctly answer six or more out of the eight financial knowledge questions, which was higher than the 14 other countries included in the OECD study.

The most recent study of financial capability and the first comprehensive study of financial wellbeing in New Zealand is the ANZ Financial Wellbeing study (ANZ, 2018). The study was guided by the Financial Wellbeing Conceptual Model developed by Kempson *et al.* (2017) this report offers a working definition and an a priori conceptual model of financial well-being and its possible determinants. Using survey data from Norway (2016) which considers four areas that influence financial wellbeing: social and economic environment; financial knowledge and experience; psychological factors; and financially capable behaviours. The average financial wellbeing score for adult New Zealanders was 59 out of 100, which was the same as that of the adult Australian population, but lower than the average score of 77 for Norwegian adults. The two biggest predictors of financial wellbeing in New Zealand were active saving and not borrowing for daily expenses. Therefore, the key drivers of financial wellbeing were behaviours, and financial knowledge had much less of an effect than expected. Psychological factors, particularly confidence in money management abilities, and internal locus of control, were significant predictors of financial wellbeing.

Specific studies of financial literacy and capability among the youth of New Zealand have also been carried out over the past five years. As already mentioned, New Zealand was a participant in the PISA 2012 financial literacy study and had a mean score above the OECD average. Additional specific findings for New Zealand were that there was a higher proportion of students with advanced skills and knowledge (19%) compared with the OECD average (10%). There were also large differences in the mean financial literacy scores of students based on socio-economic background. In addition, M ori and Pasifika students had lower financial literacy scores compared to the overall New Zealand average. Those who did not speak English as a first language, or who were from an immigrant background also had lower average financial literacy scores (Whitney, May, & Lamy, 2014). This is echoed by the findings of a separate study carried out in secondary schools in New Zealand which also finds that financial literacy is the lowest among financially disadvantaged students, and students with less English ability (Cameron, Calderwood, Cox, Lim, & Yamaoka, 2014).

In the context of financial literacy education in secondary schools, the PISA 2012 study found that 30 percent of New Zealand students were in a school that did not provide financial literacy education, compared to the OECD average of 48 percent. However when considering the provision of compulsory financial literacy education, only 8 percent of New Zealand students were in a school where financial literacy education was compulsory, while the OECD average was 28 percent (Whitney *et al.*, 2014). There is ongoing debate regarding the role of financial education and the question of whether financial literacy education can improve financial capability, and in turn financial wellbeing, is considered in more detail in the following section.



The two biggest predictors of financial wellbeing in New Zealand were active saving and not borrowing for daily expenses.

FINANCIAL EDUCATION

While there is widespread support for educating people to become more financially literate, the debate regarding the effectiveness of financial education is ongoing. One review of 201 financial literacy studies finds that financial education produces minimal benefits (Fernandes, Lynch, & Netemeyer, 2014), while another review finds support for financial education having a positive impact on both financial behaviour and overall financial literacy (Kaiser & Menkhoff, 2017). However despite disagreements regarding the effectiveness of programmes, there is general support for offering “just-in-time” financial education in the context of using “teachable moments” to produce the most effective outcomes (Fernandes *et al.*, 2014; Kaiser & Menkhoff, 2017).

Although financial education can have positive outcomes, the benefits may be limited. Studies have found that financial education targeted at lower income groups is less effective. In addition, while financial education may positively impact on savings behaviours, it might not be particularly effective in changing behaviours with respect to the use of debt (Kaiser & Menkhoff, 2017). In spite of these challenges, positive outcomes have been observed in programmes that target disadvantaged youth and make use of teachable moments (Loke, Choi, & Libby, 2015). Despite debt behaviours being difficult to change, one study finds that financial education at high school is related to lower use of non-student debt and better repayment behaviour in later in life. However, this dissipates with age, which might explain why other studies, that often focus on middle aged participants, have contradictory findings (Brown, Grigsby, van der Klaauw, Wen, & Zafar, 2016).

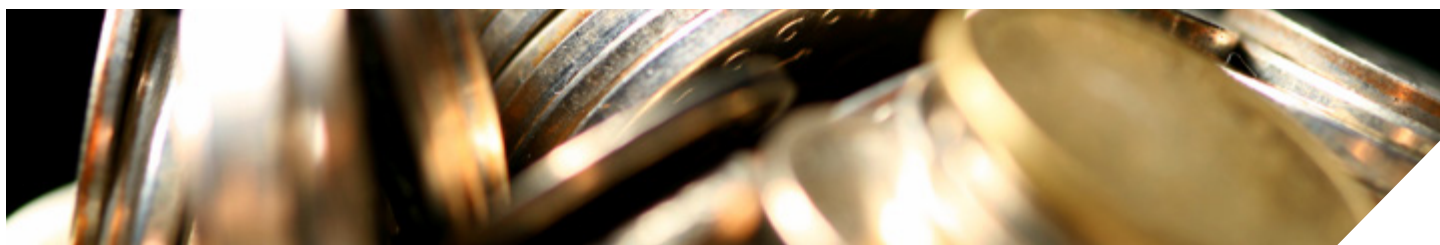
Closer to home, studies in Australia have highlighted the potential for personal finance courses delivered to undergraduates to positively impact on both objective and subjective financial literacy (Gerrans, Heaney, & Smith, 2016). However, reviews of financial literacy education at a school level have raised concerns regarding how teachers are guided, educated and supported to deliver effective financial literacy education in schools (Blue, Grootenboer, & Brimble, 2014). Barriers to effective financial literacy education at a secondary school level have also been identified in New Zealand. Key barriers to including financial literacy courses, or incorporating financial literacy into existing curriculum, include time constraints and pressure to cover required curriculum. In addition, lack of relevant professional development is also highlighted as an obstacle (Neill, Berg, & Stevens, 2014).

BENEFITS OF IMPROVED FINANCIAL LITERACY AND CAPABILITY

Despite the ongoing debate regarding the effectiveness of financial literacy education, the consensus continues to be that both individuals and society benefit from higher levels of financial literacy and financial capability among households. The necessity for a financially literate population, which was brought into sharp focus with the global financial crisis in 2008, is even more relevant today as the complexity of financial decision-making increases. In addition, young financial consumers are required to make high-stakes financial decisions at a much earlier age than previous generations as they take on student and other debt which can have far-reaching consequences in terms of their financial wellbeing in later years (Sherraden & Grinstein-Weiss, 2015).

Previous research has documented the potential benefits of improved financial literacy in terms of wealth accumulation, retirement savings decisions and the effective use of debt (Lusardi & Mitchell, 2014; Van Campenhout, 2015). More recently, work has been undertaken to quantify the actual benefit, with one recent analysis suggesting that 30 to 40 percent of retirement wealth inequality can be attributed to differences in financial knowledge (Lusardi, Michaud, & Mitchell, 2017). Another study estimated that the economic benefits of improved financial capability in the UK would amount to between £105 billion and £127 billion over a thirty year period as a result of increases in general savings and retirement savings, better financial and investment product selection, and decreased over-indebtedness (Europe Economics, 2016). Further work in the UK has focused on the economic benefits of providing debt advice with estimates of benefits between £301 million and £568 million as a result of, among other factors, improved mental wellbeing and productivity (Europe Economics, 2018).

Another area of research exploring the costs associated with low levels of financial capability relates to the impact of scams and frauds. Consumer fraud, and the costs associated with it, have been increasing rapidly in recent years and concerns exist that those with low levels of financial literacy and capability are more likely to fall victim to scams (Lusardi & Mitchell, 2014). While there is no single specific victim profile, research has identified that financial capability plays a role as individuals with lower levels of financial literacy are more likely to be victims of lottery fraud scams, while those with lower levels of self-control are generally more likely to be victims of fraud (Deevy, Lucich, & Beals, 2012).



FACTORS RELATED TO INDIVIDUAL FINANCIAL CAPABILITY

In terms of the model of financial capability, individuals with better knowledge and skills, as well as confidence and attitude, are more likely to engage in positive financial behaviours which lead ultimately to financial wellbeing. In addition, financial inclusion, which focusses on access to safe and appropriate financial products and services, plays a crucial role (Sherraden & Grinstein-Weiss, 2015). Focusing on the last point, studies have found that Millennials who have access to financial education as well as access to a financial product in the form of a savings account displayed significantly better financial behaviours compared to those who did not (Friedline & West, 2016).

Another area of research has focused on understanding where individuals acquire financial knowledge and skills, and what shapes confidence and attitudes towards financial decision-making. Studies have considered the financial socialisation process of children and young adults and find that active financial socialisation from parents is related to good financial behaviour and in turn is positively related to financial literacy levels (Grohmann, Kouwenberg, & Menkhoff, 2015). The 2015 PISA study also found that discussing money matters with parents was associated with higher levels of financial literacy (OECD, 2017b). Studies find increased savings and wealth in later life as a result of parental teaching (Buccioli & Veronesi, 2014; Hira, Sabri, & Loibl, 2013). Parental financial socialisation might also provide some insights into the gender gap that has been observed in financial literacy levels. A study of school and university students in New Zealand found that males, on average, have their first discussion regarding finance in the home at a younger age than females, and this finding persists across different socio-economic groups (Agnew & Cameron-Agnew, 2015).

The important role of parental financial socialisation not only has an influence when children are young, but continues to play a role as they enter adulthood (Shim, Serido, Bosch, & Tang, 2013). The growing recognition of the vital role parents play in financial education and socialisation highlights the need for parental involvement, and consequently the requirement to enhance parents' own financial capability (Van Campenhout, 2015).

Other studies confirm that, in addition to financial education and parents' financial experience, personal financial experience positively impacts on the financial knowledge of young adults. What is interesting to note is that both personal and parental financial experience can help offset the gap in knowledge which may result from a lack of financial education (Tang & Peter, 2015). Studies have found that an individual's personal financial experience is a key source of learning (Hilgert, Hogarth, & Beverly, 2003). Personal experience may in turn lead to better decision making over time as individuals learn by doing, and prior experience has been found to impact on financial knowledge in respect of debt and credit (Lyons, Mitchell, & Scherpf, 2007). However, many financial decisions are made infrequently and where there are long delays before the consequences of an incorrect decision are known, relying on experiential learning can be costly (Hastings, Madrian, & Skimmyhorn, 2013).

CONTRIBUTION

The focus of this study is to determine how knowledge, attitudes and behaviours have changed over the past five years as participants move into new life stages. This study is intended to contribute to a better understanding of issues related to the level of financial literacy in New Zealand, and therefore to assist with improving financial literacy and levels of savings for New Zealanders. In particular, the longitudinal nature of the study provides the opportunity to understand how financial knowledge, behaviour and attitude evolve as the participants mature with the aim of providing insights for both financial practitioners and policy makers.



3. METHODOLOGY

The study follows the OECD guidelines for financial literacy surveys, which recommends surveying individuals and using a personal interview (OECD, 2011). A personal interview allows unprompted questions and enables the interviewer to probe a full response. The OECD guidelines further recommend the use of cross-tabulations for analysis (OECD, 2011).

Initially, in 2012, the study identified participants randomly from the New Zealand electoral roll, using six geographic locations. The locations selected were Auckland, New Plymouth, Palmerston North, Wellington, Nelson and Christchurch. The study identified these six locations as providing a representative demographical cross-section and accessibility for interviewing. In total, there were 7,500 invitations mailed to obtain the original cohort of 350 participants, representing an approximate 5 percent response rate.

The study undertook periodic communications and two intermittent surveys, conducted in 2014 and 2015, to remain in contact with the participants over the intervening 5 years since the 2012 survey. In 2017 the study was able to reconnect with 240 (69%) of the original participants and, of those contacted, 97 percent completed the survey. Therefore returning participants now number 232 from an original cohort of 350, ranging in age from 23 to 27 years. Due to the smaller number of Māori participants from the Ngāi Tahu cohort responding to the survey in 2017, it was not statistically appropriate to generate a separate report for Māori participants, and it was decided to only report the combined data in the 2017 report.

As in 2012, the current study collected data in two ways. The first was an online questionnaire. The second was an interview used to obtain detailed responses, providing a deeper understanding of the answers provided to the online questionnaire. Responses to the online questionnaire were not available to the interviewer at the time of the interview. The online survey instrument comprised 65 questions compared with 44 questions in the first stage. Additional questions were included to elicit responses to topical considerations related to home ownership, retirement provision, and economic inclusion. Like the baseline study, the questionnaire included seven standard financial literacy questions to provide comparability with international benchmarks measuring financial literacy. It also contained questions related to experience of both formal and informal financial education, as well as attitudes towards finance and finance-related behaviours. The questionnaire concluded with demographic questions about the participant. Questions used a 5-point Likert scale of agreement or importance. The interviews lasted 25 minutes on average, with a range of 10 minutes to 35 minutes. The online questionnaire took 10-15 minutes to complete.

The original 2012 interviewer conducted the interviews again, providing response continuity and participant familiarity. Although the 2012 study undertook face-to-face interviews, the current study utilised Skype/Zoom to facilitate interviews with the now geographically dispersed cohort. While perhaps preferable to conduct face-to-face interviews, advanced video technology provided for a seamless process with no apparent loss to the personal connection. In total, the interview comprised 16 questions, with semi-structured follow up questions included to elicit deeper participant responses. The interviewer recorded and transcribed all interviews. The study utilised NVivo software to code and analyse all transcribed interviews. Interview questions covered topics such as the role of family, friends and others in developing the participant's money management skills, the participant's financial behaviour and money management skills, and the participant's life goals.



Studies have found that an individual's personal financial experience is a key source of learning.

SUMMARY STATISTICS

As shown in Table 1, cohort demographics remain largely stable in comparison with the 2012 benchmark survey, despite the 33.5 percent non-participation rate. Female participation reduces only slightly from 68 percent to 66 percent, still dominating the sample. Participants identified as New Zealand European comprise 77 percent of the participants, up slightly from 74.5 percent. Of course, the entire group has matured, with the average age now 24 years. Not surprisingly, the average income has increased substantially, with 42 percent earning \$15,000 to \$48,000, compared with 68 percent previously earning less than \$15,000. The overall increased average income has implications for financial decisions, as the results will show.

Table 1: Descriptive Statistics

Gender	2012	2017	Age		
Male	32%	34%	23	2%	
Female	68%	66%	24	25%	
			25	34%	
			26	31%	
			27	7%	
Highest Education		2017	Income	2012	2017
Less than high school		1%	0-\$14,999	69%	16%
High school or equivalent		18%	\$15,000-\$47,999	24%	42%
Vocational or trade qualification		10%	\$48,000-\$69,999	1%	32%
Bachelor's degree		51%	\$70,000-\$99,999	0%	6%
Higher degree		16%	\$100,000 or more	na	1%
Other, please write in		5%	Prefer not to answer	6%	3%
Ethnicity	2012	2017	Marital Status	2012	2017
New Zealand European	73%	77%	Never married	84%	55%
Māori	5%	6%	Not married, but living with a partner	13%	32%
Chinese	3%	3%	Separated	1%	1%
Other European	3%	2%	Now married or in a civil union	2%	12%
Pasifika	3%	1%	Divorced	0%	0%
Indian	2%	3%	Widowed	0%	0%
Other Asian	4%	2%			
Other	6%	5%			

Notes: Table reports descriptive statistics for the sample cohort for gender, age, education, income, ethnicity, and marital status.

The study has limitations. Notably, the samples are not demographically representative of the New Zealand population in terms of gender and ethnicity, due to the composition of invitee response. A self-selection bias in the sample is likely, due to the willingness of those more interested in financial literacy and financial matters generally to participate in the study. While the direct effect of the self-selection bias is unknown, the results generally align with other international studies. Additionally, while every effort was made to remain in contact with participants, there was a dropout of 33.5 percent and the 2012 and 2017 results are not 100 percent comparable. Nonetheless, the demographics between samples are generally stable.

4. RESULTS – FINANCIAL LITERACY, BEHAVIOUR AND ATTITUDES

FINANCIAL KNOWLEDGE

Financial Literacy Scores:

Figure 1 reports the average score for the financial literacy test in 2017 was 4.2 out of seven (60%). This represents a 10 percent increase in the average score from the 2012 study (3.5 out of 7, i.e. 50%) equating to a 20 percent improvement in average financial literacy scores. However, it is important to note that approximately 33 percent of the original cohort did not participate in the second stage of the study, which could potentially account for some of the increase in the average score, particularly if those participants who dropped out had lower overall financial literacy scores.

The average score for female participants was 3.83, which was significantly lower than that of male participants at 4.92 ($p < 0.01$), although marginally higher than the 2012 average score of 3.44, shown in **Figure 1**. Comparatively, average male scores were up 31 percent from 3.75 to 4.92 over the period.

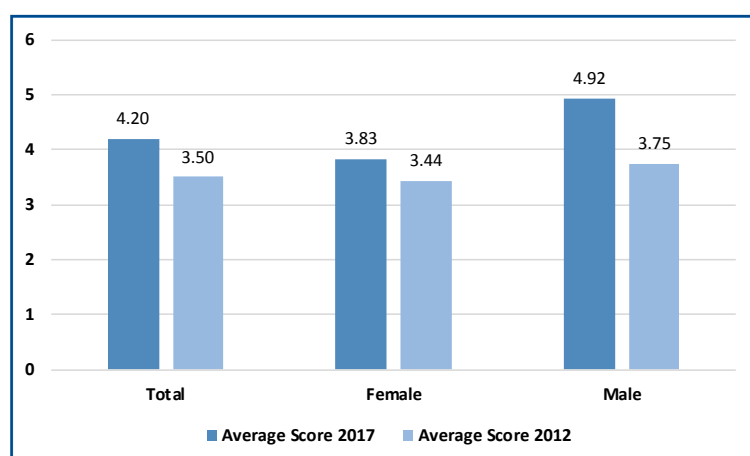


Figure 1: Comparison of Average Scores for Standardised Financial Literacy Test

Notes: Figure compares the average scores for the standardised financial literacy test for 2012 and 2017.

Two participants answered all the questions correctly (in 2012 none answered all questions correctly), and only one participant answered all the questions incorrectly (compared to three participants in 2012).

Table 2: Comparison of Individual Responses for Standardised Financial Literacy Test

Question	Response	2017	2012
The owner of a lost or stolen credit card is legally responsible for what? [Lost/stolen credit card]	All unauthorized charges	4%	5%
	All unauthorized charges until the loss or theft is reported	32%	39%
	Only the first \$50 of any unauthorized charges	3%	0%
	Only the first \$500 of any unauthorized charges	0%	1%
	No unauthorized charges	16%	8%
	Do not know	44%	47%
John inherits \$10,000 today and Elizabeth inherits \$10,000 6 months from now, whose inheritance is worth more? [Time value of money]	They are equally rich	13%	20%
	Elizabeth	9%	11%
	John	66%	56%
	Do not know	12%	14%
Suppose you have \$100 in a savings account and the interest rate is 20% per year for the next five years. You never withdraw any money or interest. After 5 years, how much would you have in this account in total? [Compounding interest]	Exactly \$200	14%	28%
	More than \$200	78%	58%
	Less than \$200	3%	5%
	Do not know	5%	9%
Imagine that the interest rate on your savings account is 2% per year and inflation is 3% per year. After 1 year, how much would you be able to buy with the money in this account? [Effect of inflation]	More than today	9%	12%
	Less than today	62%	47%
	The same amount	1%	2%
	Do not know	28%	39%
When a person invests money among different types of financial assets, such as stocks and bonds, compared to investing in only one type of financial asset, the risk of losing money [Diversification]	Increases	17%	25%
	Decreases	64%	47%
	Stays the same	2%	6%
	Do not know	17%	22%
If you have any negative information on your credit report, a credit repair agency can help you remove that information. [Negative credit report]	TRUE	25%	27%
	FALSE	75%	73%
If the interest rate on a home loan with a floating interest and rates goes up, your minimum monthly mortgage payments will also go up? [Home loan]	TRUE	76%	77%
	FALSE	24%	23%

Notes: Table presents response selections for each question of the standardised financial literacy test for 2012 and 2017, with the correct response highlighted.

The worst answered question related to unauthorised charges on a credit card, shown in **Table 2** and illustrated in **Figure 2**, where only seven participants or 3 percent knew that the owner of a credit card is liable only for the first \$50 of any unauthorised charges (in 2012 only one participant answered that question correctly).

Interestingly, knowledge related to borrowing and investing, such as interest, time value of money, and diversification, show the largest improvement from 2012. The increase in financial literacy scores may therefore be attributable, in part, to participants engaging more in financial decision making over the past five years as they have entered the work force and actively started to participate in decisions related to investing and borrowing.

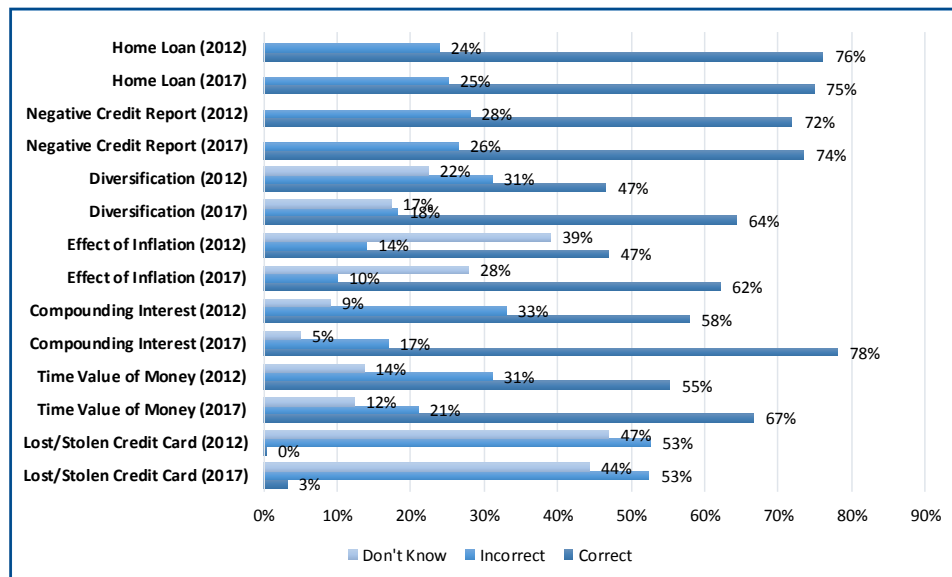


Figure 2: Correct Responses to Standard Financial Literacy Questions

Notes: Figure compares responses to individual responses for the standardised financial literacy test for 2012 and 2017.

Self-assessed Financial Literacy Levels

An interesting shift occurred in self-assessed levels of financial literacy, shown in Figure 3. Fewer participants ranked themselves as “Good” in 2017 (30%) compared with 2012 (41%). Participants seemed to have lessened their self-appraisal over the period. Those ranking their understanding of personal-finance and money-management concepts as “Very Good” or “Excellent” increased from 23 percent in 2012 to 27 percent, for a 4 percent gain. However, the number of participants who considered themselves to have either a “Fair” or “Poor” understanding also increased by 6 percent from 36 percent in 2012 to 41 percent in 2017.

In keeping with the findings of 2012, there was a significant difference in the self-assessment based on gender ($p < 0.01$). Forty-seven percent of females assessed themselves as “Fair” or “Poor” (compared to 32 percent of males), while 41 percent of males assessed themselves as “Very Good” or “Excellent” (compared to 21 percent of females).

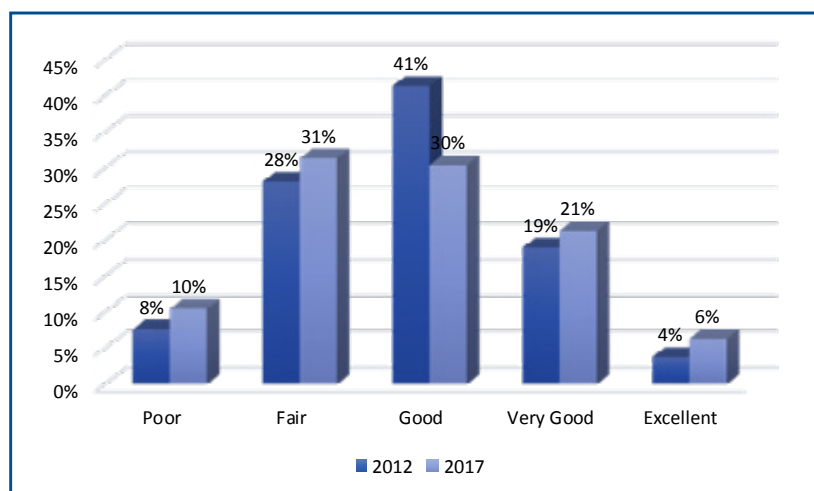


Figure 3: Self-Assessment of Financial Literacy

Notes: Figure compares the self-assessed financial literacy for 2012 and 2017. Participants were asked to rate their overall understanding of personal finance and money management concepts from poor to excellent.

Comparison Between Objective and Subjective Assessments

There was a significant positive correlation between financial literacy test scores and individuals' self-assessments of their financial knowledge ($p < 0.01$). Therefore, in general those with higher financial literacy test scores rated themselves as having higher levels of financial knowledge. However, there were some instances where individual's self-assessments were not reflective of their test scores:

- 17.1 percent of participants who answered less than three questions correctly considered themselves to have a "Very Good" or "Excellent" understanding of personal finance and money management (compared to 15.5 percent in 2012).
- 34.9 percent of participants who scored five or more on the financial literacy test considered themselves to have only a "Fair" or "Poor" understanding of personal finance and money management (compared to 26.8 percent in 2012).
- The two participants who scored full marks for the test both rated themselves as only have a "Good" understanding of personal finance and money management.

Therefore, a small proportion of individuals are overconfident about their level of knowledge of financial matters, while a slightly larger proportion appear to lack confidence in their knowledge levels. From the interviews there were some comments which highlighted a lack of confidence such as individuals who noted they were "Not as confident as I should be. There are times when I consider hiring an Accountant. A Financial Advisor" and others who stated that they were "Not that confident. Occasionally I am a bit slack and will spend on things that don't fit in with my current plan. For example, spending \$50 on a dinner, but then I go 'oh well, I am young'".

At the same time some participants expressed confidence in their financial abilities, with one noting: "I am fairly confident. I haven't gone a month yet without missing a payment on rent or anything, so I am fairly confident". Another participant also spoke to an increased level of confidence stating: "I have to say I am relatively confident because I haven't really had a 'cry out' to my family or friends, not that I ask them for money, it is more of a complaining thing that I used to do."

While objective knowledge has improved, the decrease in self-assessed level of knowledge may be attributable to individuals realising how limited their knowledge is when faced with real world financial decision making. Additionally, individuals might have moderated initial overconfidence regarding levels of financial knowledge as they start to make real world financial decisions and left the safety net created by parents. Participant comments such as "I feel less confident about managing money in the adult world,"; "[there is] uncertainty about what to do when you have more money," and "I would say [I'm] less confident, just because I am paying my own bills and so I don't have the security of parents" are illustrative.



"I am fairly confident. I haven't gone a month yet without missing a payment on rent or anything, so I am fairly confident."

EXPERIENCES OF INFORMAL AND FORMAL FINANCIAL EDUCATION

Financial education comes in two broad formats, formal and informal. Informally and on a daily basis, individuals learn about money matters from a variety of sources. Key influencers typically include family, friends, workmates, and simple observations. Over time, those influences change. The current study investigated this process of change in a number of ways. First, the study investigated the specific steps individuals had taken to enhance their money management skills and which sources had been most helpful. Secondly, information was collected to ascertain how much they had learned about money management from a number of different sources in the past five years, and which sources they expected to learn from in the next five years.

From the perspective of proactively enhancing their skills, 52 percent of participants reported having taken steps over the past 12 months to improve their money management skills. However, individuals only infrequently referred to attending classes, workshops or seminars on money management (3%), talking with financial planners or counsellors (2%), or seeking assistance from a budget advisor (2%) as steps taken to improve financial literacy. Talking to bank staff was mentioned more frequently (8%), but as in 2012, the main sources were talking to parents (19%), talking to friends (18%) or finding information on the internet (17%). Another source of learning was budgeting or other financial apps or online tools (12%). Participants found talking to parents (24%), followed by money management information found on the internet (21%), and talking with friends (17%), the information sources that were most helpful.

Turning now to the question of where participants have learned about money management in the past five years **Figure 4** illustrates the current sources of both informal and formal financial education. There are many opportunities for informal education, with family and friends, the internet and life experiences among the possible sources of informal education. From a formal education perspective, sources included classes, workshops, and seminars, as well as consulting with financial practitioners.

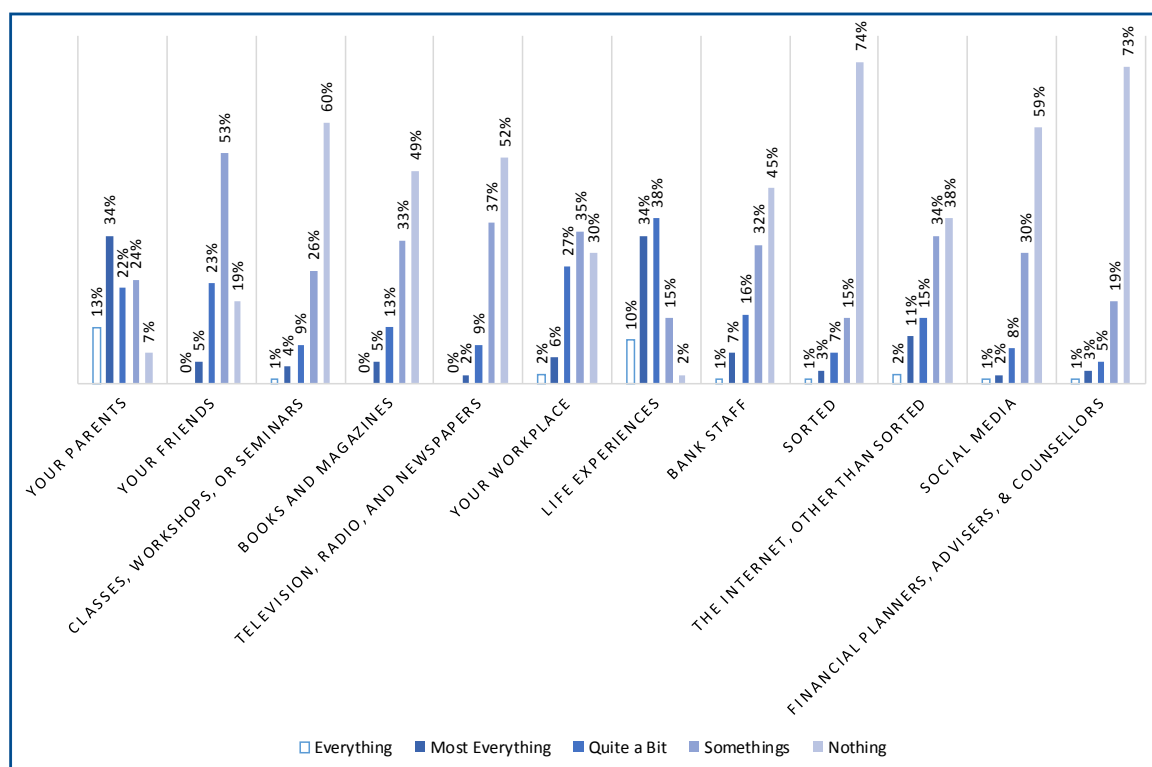


Figure 4: Current Sources of Informal and Formal Financial Education

Notes: Figure illustrates participant formal and informal sources for financial education using a 5-point Likert scale ranging from 5 (Everything) to 1 (Nothing).

In keeping with the 2012 findings, parents and life experiences remained the main sources. However, the extent of reliance on these sources had declined over the five years. Forty-seven percent of participants reported that they had learnt “everything” or “most everything” from their parents (compared to 68.8 percent in 2012). The influence of parents found here reinforces responses given to other questions, such as the role of parents as role models. However, as an informal source of information, parental influence shows the biggest decline, dropping 21 percent. In addition, parental influence varies. Some participants highlighted the positive side of parental influence with statements such as:

“I have observed my parents and how they manage money and they are really good savers, so I feel I learn a bit from them and try and take that on board”;

“Probably it is the influence of my Dad. He has always told me to save for something before I buy it”;

“My parents definitely imbibed me with good savings habits and where to avoid the tricks when getting into debt”;

“My parents actually taught me to ‘pay yourself before you pay your bills’”.

Alternatively, parental influence can be for all the wrong reasons, as indicated by:

“The main thing I have learnt ... is just seeing the mess my parents put themselves into”;

“Both my parents are really bad with money. They just weren’t conscious of it and I suppose I have taken that away as a learning”.

Life experiences were also a key source of learning; with 44 percent indicating this was where they had learnt “everything” or “most everything” (50 percent in 2012). Some of the comments related to this include:

“The biggest lesson was when I had to move out. The key lesson from that was to be prepared for the unexpected, make sure that you do have some sundry cash when you need it”;

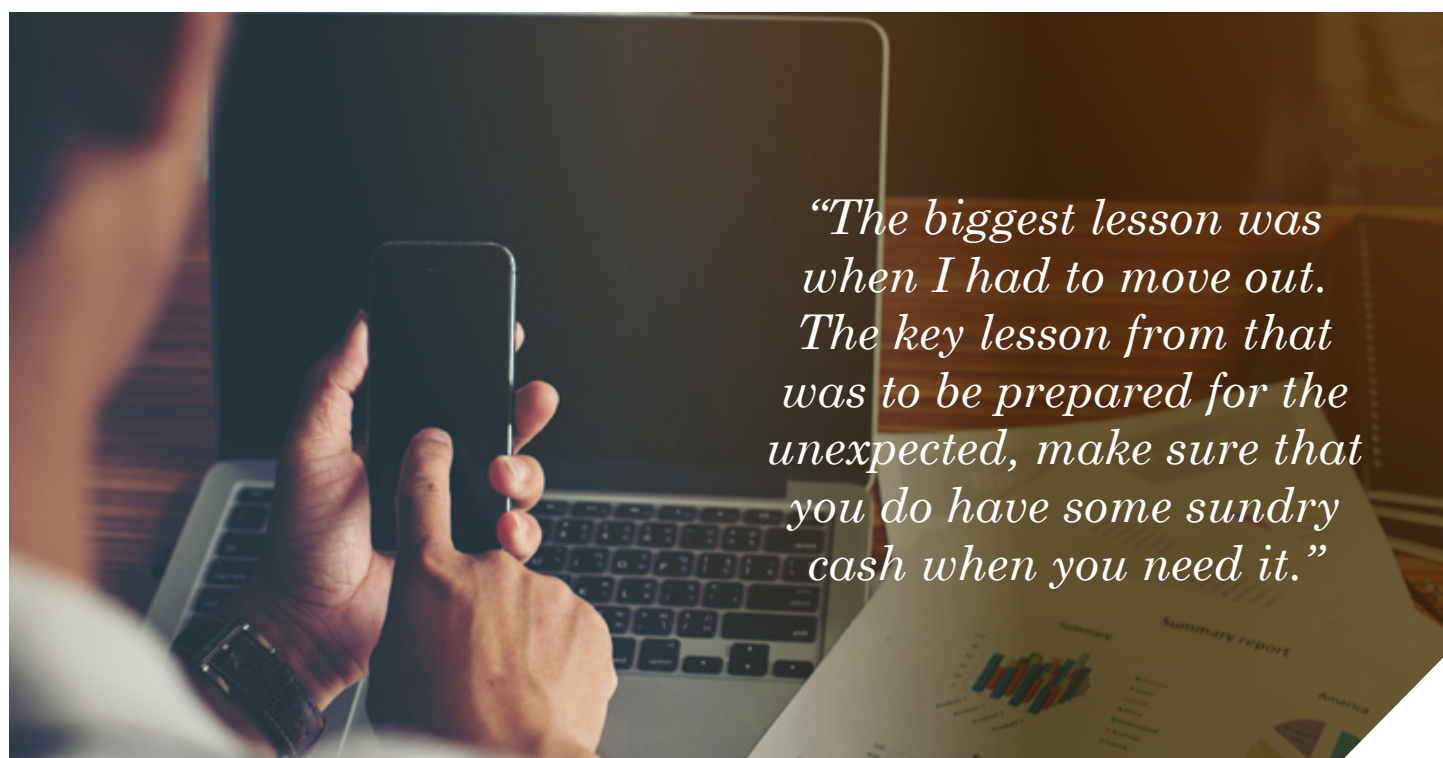
“The main one would be that habits are really important. The habit of putting a little bit aside each month or each week actually adds up to a whole lot”;

“I guess to try and avoid the lifestyle creep [that comes from] a higher income”;

“It has been beneficial seeing what other people have done [to] their lives with consumer debt, which has completely put me off things”.

The influence of friends had nearly doubled but remained small, with only 7 percent reporting this as a source of learning “everything” or “most everything” (3.8 percent in 2012). Only 13 percent of the participants acquire financial knowledge from the internet, compared with 11 percent in 2012. While Social Media did not feature in 2012, it remains an inconsequential source of information, with 89 percent responding that they learned only “Something” or “Nothing” from this source.

In line with 2012, formal financial advice was not a key informational source, with only 4 percent ranking this as an important source of information, while 73 percent indicated that they had learnt “nothing” from financial planners, advisors or counsellors (71 percent in 2012). However, comments such as “I would like to get some more professional advice on how to manage money. I didn’t do any Accounting or Business at school or anything” indicate a future desire to seek professional financial advice. Formal financial education (such as classes, workshops, seminars, books, and magazines) barely register as sources of information as 60 percent indicated they had learnt “nothing” from classes, workshops, or seminars, and 74 percent reported that they had learnt “nothing” from Sorted, the CFFC website.



“The biggest lesson was when I had to move out. The key lesson from that was to be prepared for the unexpected, make sure that you do have some sundry cash when you need it.”

Looking forward, **Figure 5** compares the importance placed on current sources of financial information with expectations five years forward. The results report current and five-year expectations averages for sources of financial education from a 5-point Likert scale ranging from “Everything” (5) to “Nothing” (1). The importance of parental advice continues to diminish, from 3.2 to 2.79, representing the largest projected decline of all sources. In contrast, the expected importance of financial advice increases substantially from 1.41 to 1.94, indicating it as a more significant source of information in the future. Meanwhile, participants expect the influence of friends to remain almost unchanged. Other sources remain mostly stable.

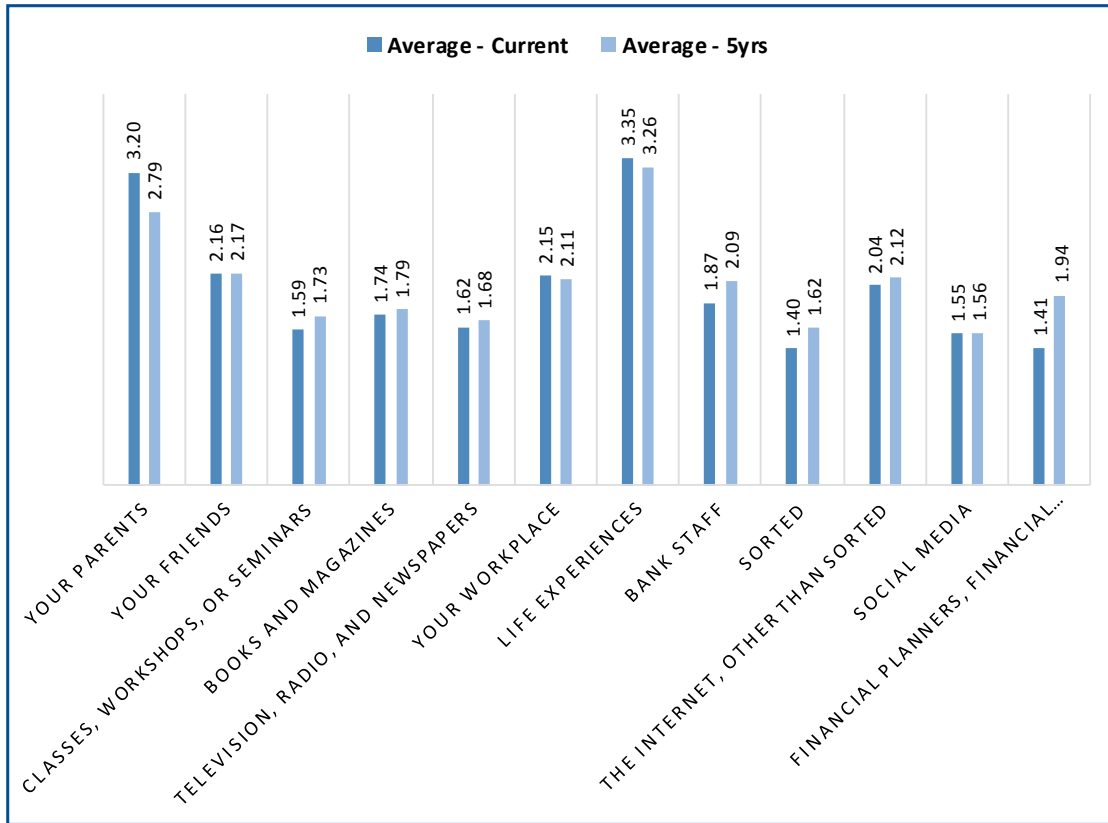


Figure 5: Current and Expected Sources of Informal and Formal Financial Education

Notes: Figure illustrates average response for sources of both formal and informal education using a 5-point Likert scale ranging from 5 (Everything) to 1 (Nothing). The results compare the current use of financial education sources with 5-year expectations.



“I would like to get some more professional advice on how to manage money. I didn’t do any Accounting or Business at school or anything.”

FINANCIAL ATTITUDES

A series of questions were included to assess how confident participants were about their ability to manage their money, shown in **Figure 6**. Generally, the responses were similar to those recorded in 2012. Approximately 80 percent of participants are confident about their ability to manage their own finances, while approximately one-third reported that their finances are a significant source of worry or “*hassle*” for them. Again, in line with 2012, fewer than 10 percent are uncertain about where their money is spent. With respect to savings, 96 percent of participants agreed that regular saving was important, representing a 5 percent increase from 91 percent recorded in 2012. Subsequent questions relate the importance of savings towards life goals reflective of the age group, such housing and retirement as discussed later.

In general, debt and credit cards elicited very negative attitudes in 2012, especially regarding credit cards, with comments like “I prefer to spend what I have. I am a bit scared of getting in debt.” While negativity has lessened over time, there continues to be a cautionary attitude towards credit cards exhibited in the 2017 responses. Seventy percent of participants disagree with the statement that credit cards are safe and risk free, as compared with 75.9 percent in 2012. Showing a similar decrease, 38 percent report that they are afraid of credit and credit cards now compared with 43.5 percent previously. Encouragingly, the number of individuals not comfortable with making only the minimum credit card payment increased from 57.9 percent to 70 percent. A number of individuals attributed the positive change in credit card usage to rewards earned by spending on a card. As one participant put it “I have a credit card now, but I pay that off every month. I use it for the perks of getting Airpoints.” with another commenting, “My attitude to credit cards hasn’t changed. It is a good way to earn fly buys points. The only reason we ever use a credit card is because it gets us free stuff.”

At the same time, a general wariness towards credit cards persists. Some highlight that they are aware of the high costs with statements such as “I understand when there is a use for [debt], but I am still sceptical knowing that you are likely to end up allowing someone to make money off you”. However, the primary motivation for avoiding credit cards appears to be related to perceived personal behaviours. With statements such as “I still don’t have a credit card and tend to avoid going into debt. I am a spender, so I avoid it” and: “It is too easy to get credit cards and too easy to get overdrafts from the bank. It is quite hard to manage yourself so you don’t do that”. Self-awareness of the potential pitfalls of credit card use, as well as coping strategies, were also highlighted: “I learnt very quickly that it is very easy to abuse a credit card. I’ve only got one now and I don’t actively use it that much. It stays at home”.



“I prefer to spend what I have. I am a bit scared of getting in debt.”

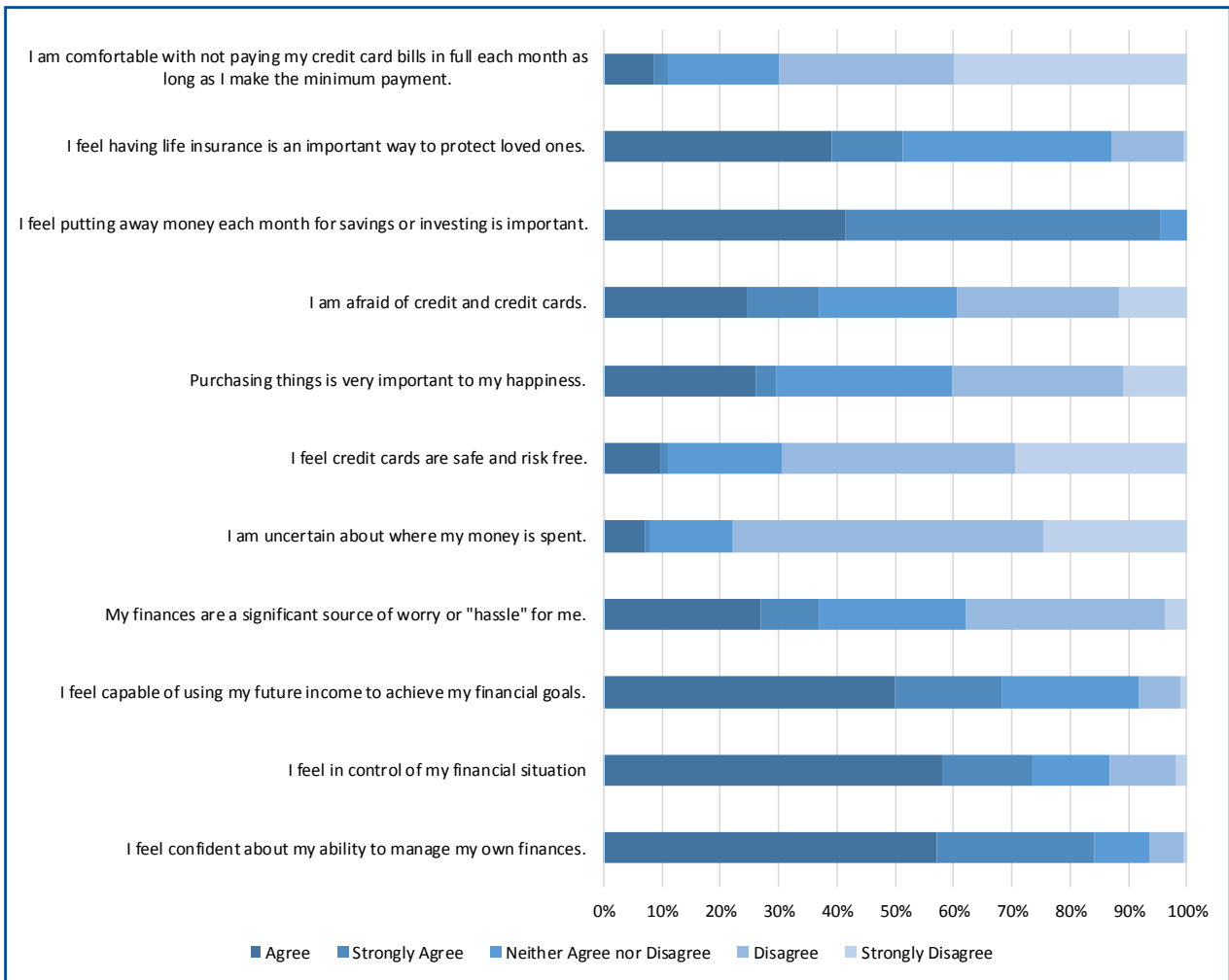


Figure 6: Financial Attitudes

Notes: Figure illustrates survey responses to 11 questions measuring financial attitudes. Questions responses use a 5-point Likert scale ranging from Agree to Strongly Disagree.

Figure 7 reflects the importance placed on specific forward-looking financial attitudes. Similar to 2012, responses also reflect a positive attitude in response to questions related to the importance of spending within budget, paying credit card balances in full each month, learning about money management, and setting and achieving financial goals. The mean responses on a 5-point Likert scale were 4.0, 4.0, 3.8, and 4.0 respectively, compared with 2012 results of 4.1, 3.9, 3.7 and 4.0 respectively.

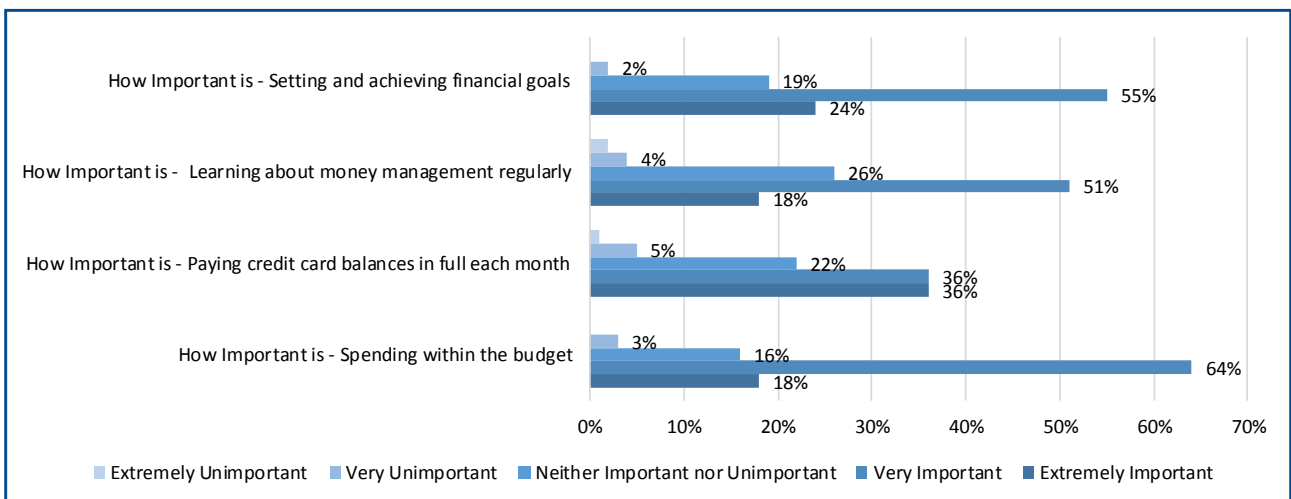


Figure 7: Financial Attitudes Looking Forward

Notes: Figure illustrates the importance placed on financial attitudes looking forward.

Participants placed the greatest importance on Spending within the Budget (82%) and Setting and Achieving Financial Goals (80%) as either “Extremely Important” or “Very Important.” Learning about money management appears to have become increasingly important to these participants, as 70 percent of them now acknowledge that it is either “Very important” or “Extremely important”, compared with 58.7 percent who felt this way in 2012.

This finding was echoed in the interviews where responses include:

“I definitely know that I have a huge gap in financial knowledge. Even though I own a house and I feel confident with my money and I’m not going to go homeless, I know that I don’t know everything and there is a lot, even around the banking terms and what is the best way to use your money. Even looking at long term deposits or shares and all of that stuff, I don’t really know and haven’t wrapped my head around all of that.”

“I would like to get some more professional advice on how to manage money. I didn’t do any Accounting or Business at school or anything. That wasn’t really my strong point. I have friends that are in business and accounting. It wasn’t something I was into at school.”

FINANCIAL BEHAVIOUR

The financial situation of most participants has improved over the past 12 months. Sixty-one percent report a better financial situation, and 36 percent indicate they started a new job. Sixty-eight percent anticipate that their financial situation will improve over the next 12 months. However, there were instances where life events and student loans were adversely affecting individual situations. A number of participants highlighted concerns regarding their student debt such as one individual who commented, “My student loan has definitely got the better of me. More so because after I graduated and used my degree overseas for a period”. According to another individual “I probably feel worse about my financial situation because of the Student Loan debt, but I am also relatively confident I will be able to pay that off reasonably soon enough and it is at zero interest because I am not leaving the country.”

Other life events had also negatively affected individuals with comments including “I have moved back in with my parents which is a place I don’t want to be.” and “I feel like I am not as in control of my own finances, so I would say less confident. Five years ago, I was working, so I could bring in my own income, now I must rely on the Government.” and “I was married and will be divorced at 25 years old. I have a child. Things don’t always work out the way you want it to. I own a house and now have a mortgage, so my situation is that I am a lot more in debt than I was 5 years ago.”

Behaviours generally reflect, not surprisingly, greater disposable income and financial freedom, with both positive and negative impacts on confidence. From a positive perspective individual comments included:

“I definitely have less disposable income for lots of fun and activities but my savings habits have become a lot better”;


“I feel like we have a lot more and we can do more things; things are not as tight as they obviously were when we were students”;

“I have a much better understanding of savings. When I think about how much money, I used to waste on having a student lifestyle”.

However, in some instances, the move to adulthood has reduced confidence:

“I would say less confident, just because I am paying my own bills and so I don’t have the security of parents”;

“I feel less confident about managing money in the adult world. There is this uncertainty there about what to do when you have more money”.



“I feel less confident about managing money in the adult world. There is this uncertainty about what to do when you have more money.”

Figure 8 illustrates responses to questions gauging financial behaviour. Positive financial behaviours in 2017 track those of 2012. Sixty-five percent budget and track spending compared to 64.3 percent in 2012, 81 percent do not get cash advances on their credit cards compared to 68 percent in 2012, and 91 percent compare prices when shopping compared to 92 percent in 2012. In addition, 57 percent have spent time thinking about financial goals, credit cards and spending habits and have decided on a money management method that works for them, compared to 51.3 percent in 2012. Forty-seven percent now contribute to an investment account (34 percent in 2012) and 66 percent feel good about their money management abilities (62 percent in 2012). While there have been improvements in some areas of financial behaviour over the past five years, there are still some areas of concern. Only 32 percent of participants read to increase their financial knowledge (26.2 percent in 2012) and 40 percent still are unclear on what financial management style suits them best (48.3 percent in 2012).

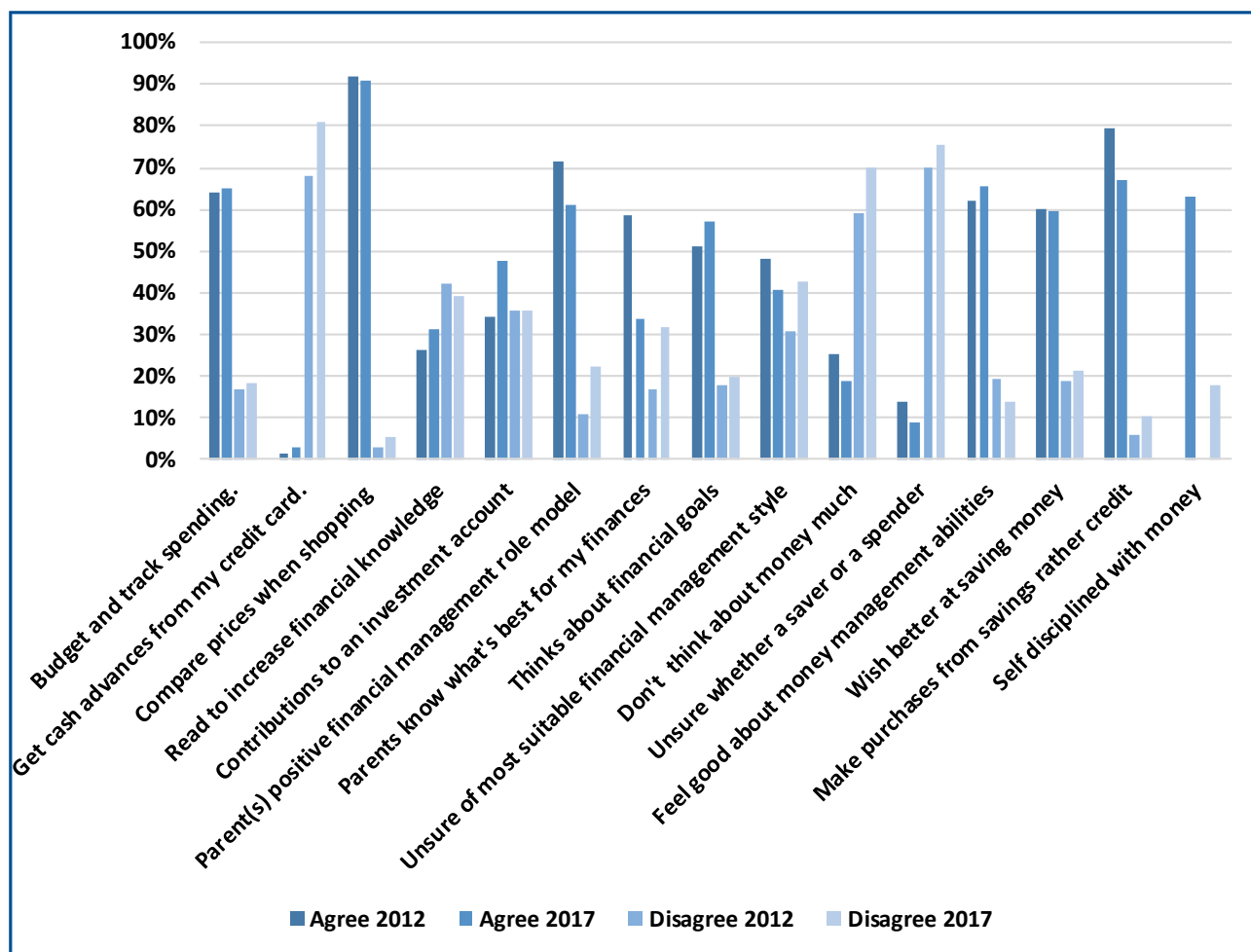


Figure 8: Financial Behaviours

Notes: Figure illustrates select responses to questions reflecting financial behaviours.

Despite evidence of generally positive behaviours, 60 percent wish that they were better at saving money (60.2 percent in 2012). With comments including “I always think I could be better at saving. That is one area and it is working out how to do it without having to miss out on things.” and “Probably making my saving a little more strict and regimented and putting in a little more structure around that.” However, the number of participants who believe it is better to purchase from savings rather than buy on credit has decreased to 67 percent from 79.6 percent in 2012.

Given the reliance on parents for financial advice, it is interesting to note that while 62 percent of participants see their parents as positive financial role models (compared to 70 percent in 2012), only 35 percent believe that their parents know what’s best for them in terms of taking care of their finances (compared to 58 percent in 2012).

In the interviews, the vast majority of responses reflects a growing awareness of budgetary and savings considerations corresponding with a move to adulthood and maintaining households. Positive remarks include such comments as:

“I just don’t buy stuff because it is on special anymore. I only will buy stuff if I have it set in my mind that I really need it”;

“I am more aware of money now and I’m not a crazy teenager who wants to go out at 18yrs and drink. That is not a novelty to me now”;

“I used to spend willy-nilly and spend on what I wanted, but now I question whether I need it or really want it, or whether I can get it from somewhere else cheaper”;

“My friends call me a ‘tight arse’ now! I never used to be. I think about everything that I spend now”.

At the same time, some possibly negative trends also emerge with growing incomes:

“Definitely, my life-style has got more expensive. Because I earn more money, I spend more money. I have a taste for the finer things I guess”;

“I spend more on stuff that doesn’t matter. I have more disposable income, so I do go out to cafés more now, probably by about 300%”;

“I am definitely spending more. Being able to spend more has resulted in me spending more”.

From a budgeting perspective, participants also highlighted the role of spreadsheets for financial planning. Some noted that “Sitting down and doing a proper spreadsheet budget has probably been the best thing we have ever done.” While another commented “I did create a spreadsheet to see where my money was going and why I was broke – and so I could see I spent my money on absolute junk!”

A number of participants also highlight impulse spending as a key problem. Many remarked this was an area to improve, with comments including:

“I am working on impulse control.”

“Impulse spending because I spend and I shouldn’t. I know I shouldn’t spend but I spend it anyway! Sometimes it is food, last week it was a \$200 pair of shoes that was down to \$50. I was ‘oh it is only \$50, \$50 only for \$200 shoes’.”

“Actually, thinking before I splurge on things would be something to think about. I went out the other night and accidentally spent about \$50. I thought ‘whoops, that wasn’t supposed to happen!’.”

Others have identified their problem and come up with ways to overcome it such as one individual who noted “I do a lot of impulse spends on my credit card. I actually leave my credit card at home now. I leave it at home and if I want to buy something I think about it, wait two days and if I still want it, buy it.” While another noted an attempt “To curb online shopping [as] I crack under pressure”.

Regarding practical money management, 43 percent of participants reported having to change food shopping or eating habits because they did not have enough money (44.5 percent in 2012), whereas 48 percent reported cutting back on social and entertainment expenses due to money shortages (60 percent in 2012). Of those with a credit card, 23 percent had exceeded their credit card limit at least once (compared with 2012 when 15 percent of those with a credit card had exceeded their credit card limit at least once).

Generally, participants still focussed on the near term with respect to financial planning, with 24 percent considering the next year as most important in terms of financial planning (29 percent in 2012). While 46 percent focussed on the one to four-year planning horizon (49 percent in 2012), 30 percent were now considering a planning horizon beyond five years (22 percent in 2012).



“Sitting down and doing a proper spreadsheet budget has probably been the best thing we have ever done.”

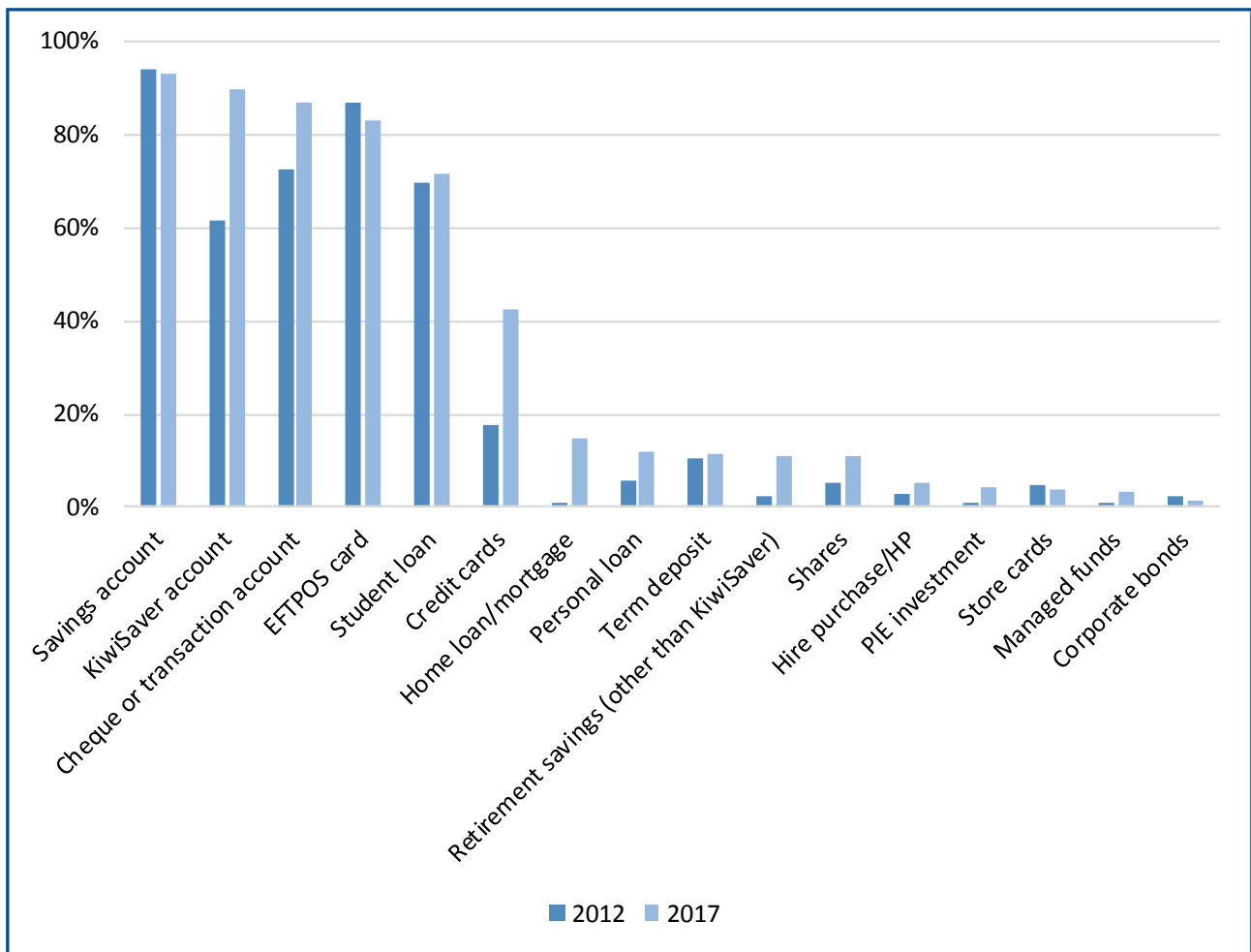


Figure 9: Financial Accounts

Notes: Figure provides comparison on the utilisation of financial tools between 2012 and 2017

Overall, there is a marked increase in the number and variety of financial products held between 2012 and 2017, illustrated in **Figure 9**. In particular, there is a large increase in participants having a KiwiSaver account. Approximately 90 percent of participants indicated they have a KiwiSaver account, compared to 61 percent in 2012. This likely reflects the movement of participants into the formal employment sector over the past five years. The majority of the participants were making regular contributions to their KiwiSaver account and the average balance in KiwiSaver accounts in 2017 was \$9675. The KiwiSaver feature of being able to access funds to buy a first home appears to be an attractive proposition as illustrated in comments such as “I learnt how to manipulate my KiwiSaver to gain as much growth as I want because I also want to buy a house”; “Obviously, retirement is quite a long way away. So, my retirement plan is to do it through property” and “I think I feel quite optimistic. I am in KiwiSaver and I can see that going up. My forecast is that my income will go up over the next however long, and will allow me to buy a house”.

While awareness of retirement provision has grown markedly, evidenced by the increase in KiwiSaver accounts, the below comments offers some insights into how participants feel about retirement:

“My parents are at that stage where they are going though retirement and they are both in very different situations. It puts [retirement planning] into perspective”;

“That is so far away! I am trying to get through this year. I have the feeling that the reason they put KiwiSaver in is that they will be trying to cut out superannuation”;

“I don’t feel optimistic, only because it seems so far away. By the time I get to it, the age will probably go up so it will be even less of a chance to get to it sooner”.

In line with 2012, 72 percent report that they still have a student loan. The percentage of participants holding shares has increased (approximately 10 percent compared to 5 percent in 2012). In addition, approximately 15 percent now have a home loan, compared to less than 1 percent in 2012. Those now holding credit cards has increased substantially from 17 percent to 42 percent.

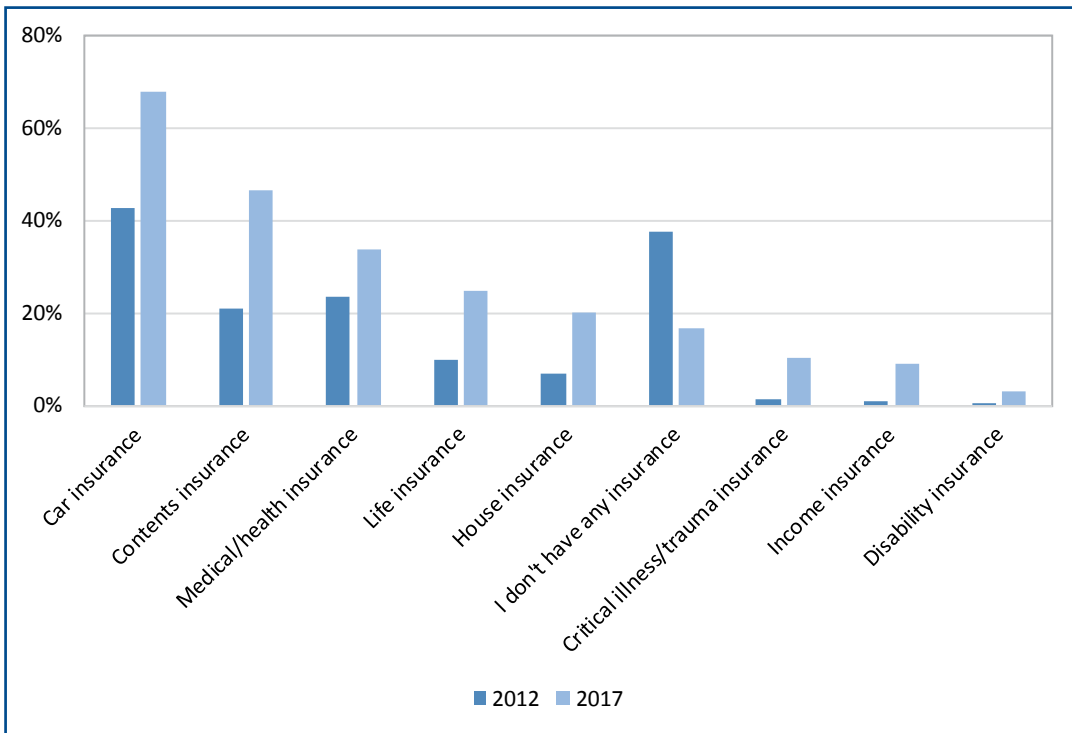


Figure 10: Insurance Products

Notes: Figure illustrates a comparison of insurance products held between 2012 and 2017

Insurance coverage has also increased with less than 20 percent now reporting they hold no insurance (compared to 37 percent in 2012), as shown in **Figure 10**. The majority (68%) have car insurance. In comparison, only 42 percent held car insurance in 2012. Similarly, 46 percent now have contents insurance compared with 21 percent previously. Life insurance also saw a big jump from 10 percent to 25 percent over the same period.

FINANCIAL WELLBEING

Over recent years a greater understanding of the link between financial capability, financial wellbeing, and ultimately overall wellbeing has developed. The study therefore also included a number of questions aimed at obtaining a better understanding of both general and specific areas of wellbeing.

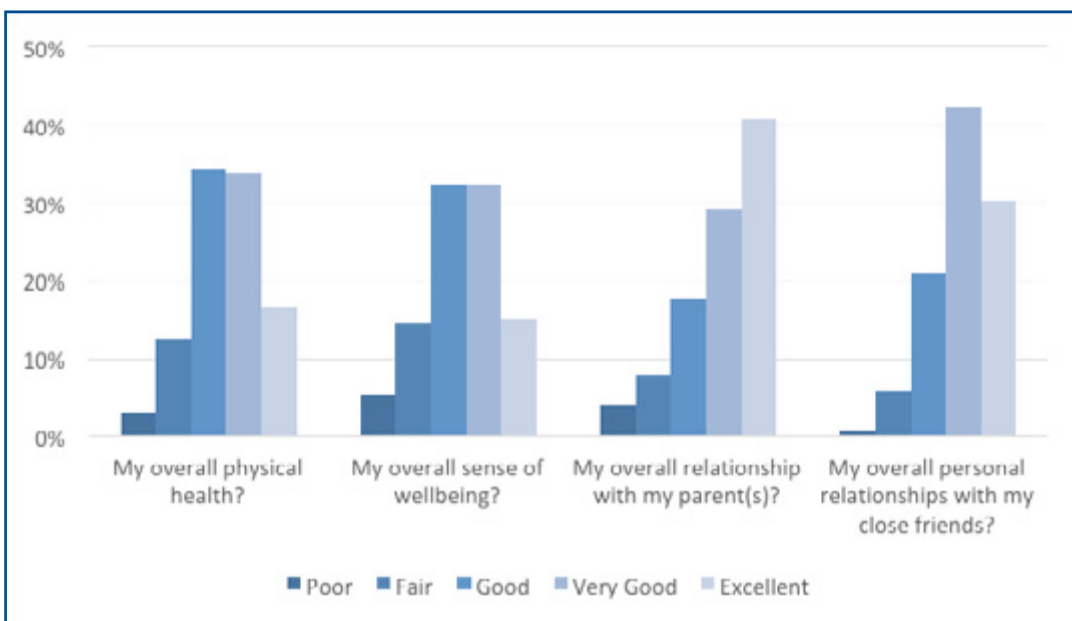


Figure 11: Overall Sense of Wellbeing

Notes: Figure illustrates responses to questions measuring overall wellbeing using a 5-point Likert scale ranging from "Poor" to "Excellent".

Figure 11 illustrates responses to four generic questions that measure wellbeing. The questions measure overall physical health, general wellbeing, relationship with parents, and relationship with friends using a 5-point Likert scale ranging from “Poor” to “Excellent”. Those appraising overall wellbeing as “Very Good” or “Excellent” has declined from 2012 (62%) to 2017 (48%). Participants’ transition from dependent to independent living, with the associated responsibilities, could perhaps explain the decline. Equally, the perception of “Very Good” or “Excellent” relationships with parents, declining 11 percent, and close friends, declining 6 percent, offer an explanation of the overall decline.

Questions were also included to determine both general life satisfaction, and specific satisfaction with respect to their current financial status. Echoing the findings in 2012, 73 percent agreed that they were generally satisfied with life (79 percent in 2012), while only 44 percent were satisfied with their current financial situation (45 percent in 2012).

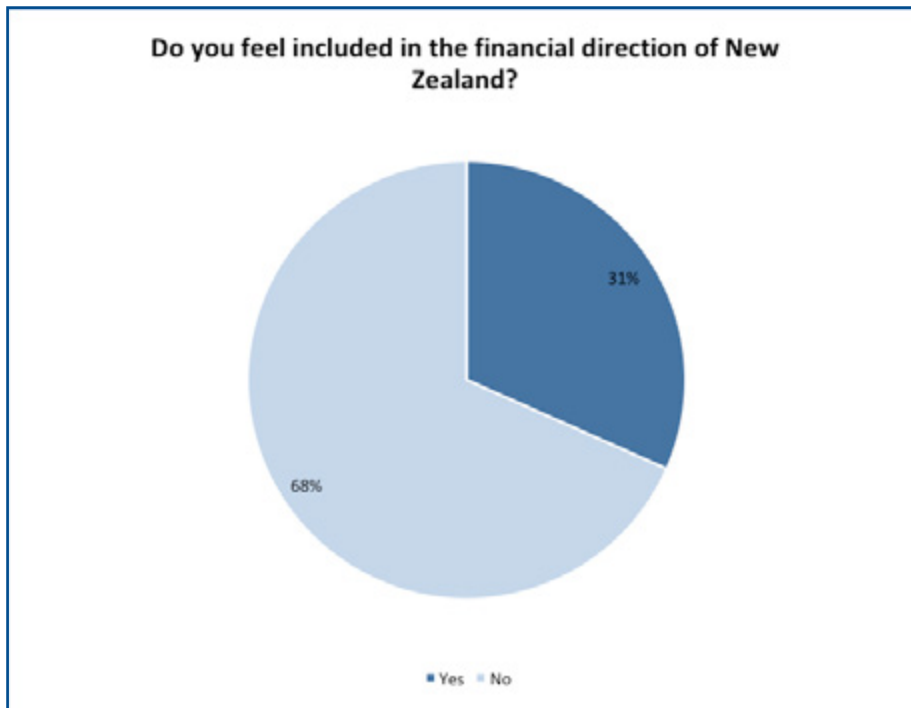


Figure 12: New Zealand’s Financial Direction

Notes: Figure reflects participants view on the economic/financial direction of New Zealand.

Following on from interim studies conducted with the cohort, the current study includes two additional measures of financial wellbeing: financial/economic inclusion and housing. **Figure 12** illustrates the sense of inclusion in the financial direction of New Zealand. Sixty eight percent do not feel included in New Zealand’s financial direction, while 85 percent of the participants were of the opinion that financial inequality was a problem in New Zealand. In comparison, the 2015 interim report showed that 76 percent believed financial inequality in New Zealand was a problem (Stangl & Matthews, 2015).

When asked if they felt financially/economically included in political decisions responses included:

“I don’t really feel included. Hopefully they can realise that there is a generation below the age of most politicians and make policies for us, but I don’t feel included at all”;

“Not at all. I personally believe there is a black cloth dropped in front of my eyes. The Government puts that there to ensure that I only see what they are trying to show me”;

“In terms of my age group I don’t think we are really thought of. I feel like there are a lot of empty promises.”

Of particular concern is that the group feels that the government is not “Moving in the right direction” when it comes to financial inclusion as reflected by home ownership, particularly in Auckland, with comments including:

“seems to be a lot of investment driving the house prices up in the Auckland area and it is starting to cause problems. Government [should] do something about that, maybe a capital gains tax or something”;

“I think housing affordability is a very real issue, but I also think that New Zealanders need to get used to living in medium density housing and in cities in Auckland if they want land to be affordable”;

“The housing market is a massive problem. Houses are how people make wealth and if you can’t get into that market then you are just stuck with your income which is hard to grow.”

Interestingly, while there was a general sense of political and economic disenfranchisement, there was also a strong sense of commitment when asked about plans to vote, with comments like:

“I think it is so important. You can’t complain if you don’t vote”;

“Yes, I am. I believe that if you don’t vote, then you have nothing to argue about. You can’t question what is going on in New Zealand if you aren’t willing to put your own 2cents in”;

“Yes, I did and I feel that you just have to vote because you can’t complain if you don’t vote. I think my Mum would tell me off if I didn’t vote”;

“ Yes I will always vote otherwise I wouldn’t have the right to complain about how the country is being run”.

Another aspect related to financial inclusion and New Zealand’s financial direction focusses on future wellbeing, and expectations regarding retirement. In this respect, 60 percent of participants were of the opinion that the New Zealand Super would not satisfactorily provide for them in retirement. Just under half of participants (44%) believed that means testing would be introduced, while 57 percent thought that an increase to the age of eligibility to 67 years was required.

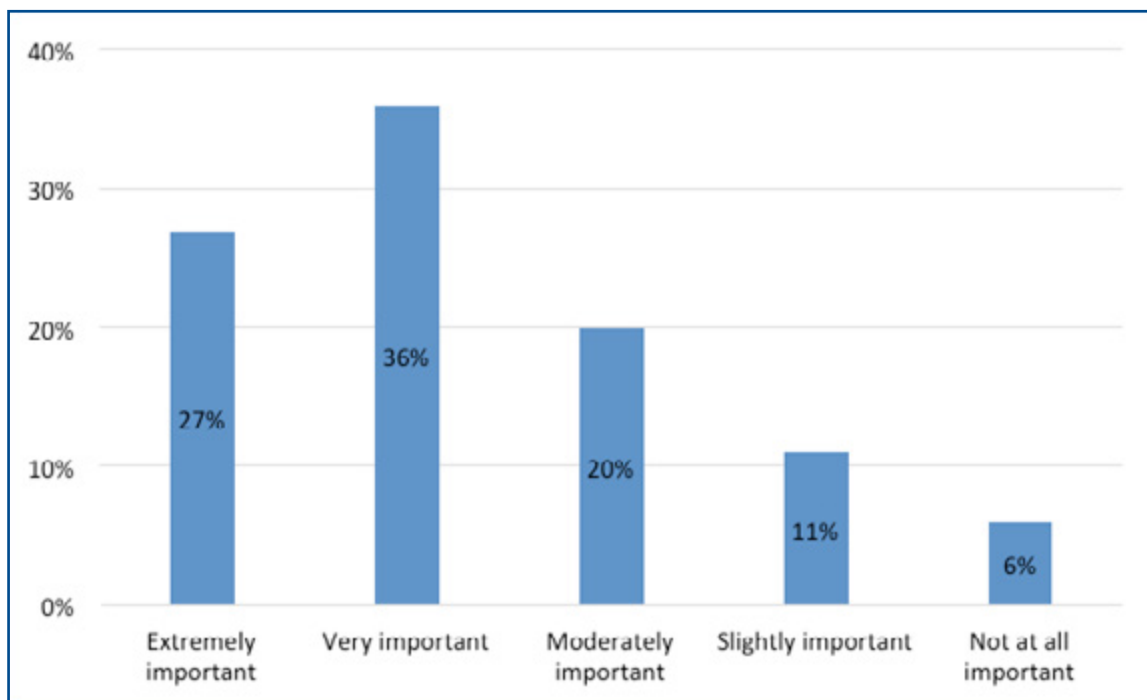


Figure 13: Home Ownership

Notes: Figure illustrates the perceived personal value of home ownership using a 5-point Likert scale ranging from “Extremely Important” to “Not at all important”.

As a final measure of financial wellbeing, the study questions expectations around home ownership. Home ownership traditionally provides a sense of financial stability and hence financial wellbeing. As **Figure 13** reports, 63 percent believe home ownership either “Extremely Important” or “Very Important”. A previous study found 58 percent of the study cohort placed a high importance on home ownership (Flint-Hartle & Stangl, 2014).



Despite the high importance placed on home ownership, expectations around home ownership are predominantly negative, with responses like:

“I have no expectations because I think it is impossible at the moment. I think about the deposit required and realise I couldn’t even imagine doing that right now”;

“Eventually wanting to own one. Being in Auckland currently it is ridiculously high. It just won’t happen”;

“Probably nil. I don’t think that is on the cards or in the distant future. I don’t think I will ever own a home”;

“I’m quite resigned to the idea that I will have to move out of Auckland to buy a house unless something drastic happens that I can’t really foresee”.

On the positive side, there is the sense that the economic prospects of home ownership improve when individuals combine financial resources indicated by comments:

“My partner and I have bought a house. Having a partner is great. It does improve the numbers a lot! The typical thing that people my age are doing is buying a house with their boyfriend or girlfriend. I think it is very rare now to buy one on your own”;

“I would like to own a house at some point which means I would probably have to get into a relationship with someone that has the means for us both to save”.

Despite these sentiments, 38 percent of participants expect to own a home in the next five years (this includes the 15 percent who already own a home), and 35 percent in six to ten years. Almost all participants (96%) believe that owning a home would be helpful for retirement, and 88 percent believe they will own their home freehold by the time they retire.



“My partner and I have bought a house. Having a partner is great. It does improve the numbers a lot! The typical thing that people my age are doing is buying a house with their boyfriend or girlfriend. I think it is very rare now to buy one on your own.”



5. DISCUSSION OF STUDY RESULTS

The findings have provided insights into how the financial knowledge, behaviour and attitudes of the cohort have changed over the past five years. From a financial knowledge perspective, objectively measured financial literacy scores improved by 20 percent when compared to 2012. While there was a dropout of participants that could potentially account for some of the increase in the average score, particularly if those participants who dropped out had lower overall financial literacy scores, a number of other factors also appear to play a role. The increase in financial literacy scores may, in part, be attributable to participants engaging more in financial decision making over the past five years as they have entered the work force and actively started to participate in saving and borrowing decisions. In the financial literacy test, knowledge related to investing showed the largest improvement from 2012, with participants better able to understand diversification and time value of money. The results align with the importance of “Life Experience” as an important source of informal knowledge highlighted in this study.

The higher financial literacy scores may also reflect proactive steps that participants have taken to increase their financial literacy. Fifty-two percent of participants reported having taken steps over the past 12 months to improve their money management skills. However, they are generally not engaging in formal financial education training or talking with financial practitioners, rather they appear to look to parents and friends, as well as online sources as ways to enhance their money management skills. This is in keeping with studies that find that parental socialisation plays a key role in financial knowledge and decision-making even as individuals enter adulthood (Shim *et al.*, 2013).

Subjectively-assessed levels of financial literacy appear to have decreased as fewer participants classified themselves as having a “Good” understanding of financial matters, while more participants classified themselves as having either a “Fair” or “Poor” understanding of financial matters. The decrease could be attributable to individuals realising how limited their knowledge is when faced with real world financial decision making. Additionally, initial overconfidence may have been moderated as they start to make real world financial decisions without the safety net created by parents.

There is a gender gap in both objectively and subjectively assessed financial literacy, which the 2012 results also observed. While this is a common finding (Klapper *et al.*, 2015; OECD, 2017a) there are indications that the gender gap in financial literacy may be related to question design, as different questioning approaches have eliminated the gender gap in some instances (Lusardi, 2015; OECD, 2014). Alternatively, findings linked to parental financial socialisation could also provide insights into the gender gap, as parents have been found to discuss finances with male children earlier than they do with female children (Agnew & Cameron-Agnew, 2015).

From a financial education perspective, in keeping with the 2012 findings, when asked how much they had learned about money management over the past five years from different sources, parents and life experiences remained the main sources. However, the extent of reliance on these sources has declined over the five years. In line with 2012, formal financial advice was again not a key informational source.

The findings appear to indicate that participants do not currently use traditional financial literacy interventions in formal settings as a source of learning. They continue to rely heavily on their parents for financial advice and appear to follow a “learning by doing” approach as life experiences teach them about money management. While there are a number of studies that show positive benefits related to parental financial socialisation (Buccioli & Veronesi, 2014; Grohmann *et al.*, 2015; Hira *et al.*, 2013), if parents are not financially knowledgeable themselves, they may be providing incorrect advice and guidance to their children. Participants appear to be aware of this problem, with only 35 percent believing their parents knew what was best for them financially. This highlights the need to enhance parents’ own financial capability (Van Campenhout, 2015).

From the perspective of life experiences, other studies have also found this to be a key source of learning (Hilgert *et al.*, 2003) which is seen as a way to offset the gap in knowledge resulting from a lack of financial education (Tang & Peter, 2015). However, in learning by doing, mistakes are part of the process, and financial mistakes and incorrect decisions can be costly and may be difficult to reverse (Hastings *et al.*, 2013).

When asked about the expected sources of learning over the next five years, the pattern alters, although parents and life experiences continue to dominate. There is, however, an acknowledgement that financial planners, advisers and counsellors, classes, workshops or seminars, could be expected to play a greater role. More than half of participants believe they will learn about managing money from these sources in the future. This shows that as life stage changes, so does the source of information.

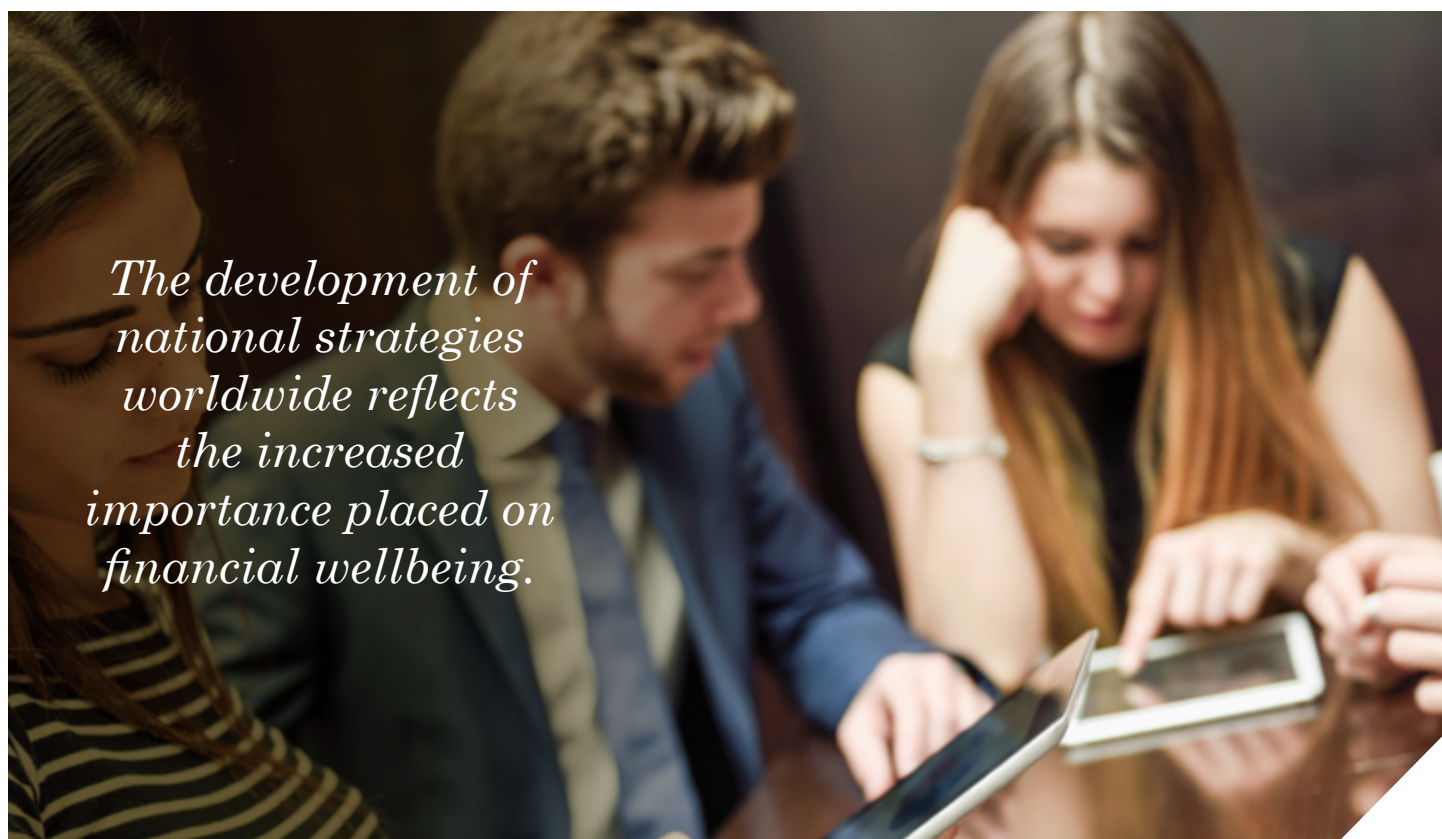
As financial capability extends beyond just knowledge, the study also considered how attitudes and behaviours had changed. With respect to financial attitudes, in line with the 2012 findings, participants still appear to be confident about their ability to manage their money, remain wary of credit cards and acknowledge the importance of saving. Therefore, participants appear to have maintained positive attitudes to money management, but there is an increasing awareness that learning about money management is of key importance. What is essential to consider is whether these positive attitudes have translated into positive behaviours.

Good financial behaviours appear to have persisted over the past five years with the majority reporting that they budget, compare prices when shopping, and use their credit cards more responsibly. While the ability to budget, shop around, and use debt responsibly are important skills, some of the key behaviours that have been associated with financial wellbeing relate to active saving and not borrowing for daily expenses (ANZ, 2018). Therefore, it is concerning that the majority still report that they wish they were better at saving, and that nearly a quarter of those with credit cards have exceeded the limit at least once. In addition, nearly half of participants had to change food or eating habits due to money shortages. In light of the many high-stakes financial decisions that need to be taken at an earlier age by the generation in this cohort, it is key that good financial behaviours are adopted at an early age to ensure financial wellbeing in later life (Sherraden & Grinstein-Weiss, 2015).

Results of this stage of the survey show that participants still focus on the shorter term with respect to financial planning. However, they are also beginning to plan for the distant future, with a very high participation rate in KiwiSaver. The age of this cohort means most will have joined the workforce, or changed employers, since KiwiSaver was launched and therefore will have been auto-enrolled, but it is positive that few have opted out. KiwiSaver is a highly accessible product, and research has found that access to savings accounts improves financial behaviour (Friedline & West, 2016). KiwiSaver participation may also reflect the consensus among this cohort that New Zealand Super will not satisfactorily provide for retirement. The feature that allows access to KiwiSaver funds to purchase a first home may also be adding to the attractiveness of investing in KiwiSaver.

The development of national strategies worldwide reflects the increased importance placed on financial wellbeing. In New Zealand the adoption of the revised National Strategy sees financial wellbeing as an essential priority (CFFC, 2015). In addition to the aspects related to knowledge, behaviour and attitudes, additional aspects of wellbeing were also investigated in this study. From a general perspective, just under half of participants indicated that their general wellbeing was very good or excellent, which has declined from about two-thirds in 2012. At the same time, just under half were satisfied with their financial situation, which was unchanged from 2012. Additional questions were included to understand other aspects related to wellbeing such as financial and economic inclusion, and housing. In general, two thirds did not feel included in the financial direction of New Zealand, and a large majority felt that financial inequality was a problem in New Zealand.

From a housing perspective, almost two-thirds of participants view owning a home as either very or extremely important to their financial wellbeing, while a considerable majority believed that owning a home would be helpful in retirement. Many expressed concerns regarding the difficulty in accessing the property market, especially in areas such as Auckland. However, nearly 40 percent expect to own a home in the next five years. In light of research that finds that home ownership is a key factor in financial wellbeing (ANZ, 2018), more needs to be done to understand the potential implications, from the perspective of both retirement security and financial wellbeing, if members of the generation represented by this cohort do not fulfil their home ownership ambitions.



The development of national strategies worldwide reflects the increased importance placed on financial wellbeing.

6. SUMMARY

CONCLUSION

The key focus of the current study was to determine how the financial knowledge, attitude and behaviours of this cohort have changed as they have matured over the last five years. In terms of financial knowledge, while financial literacy improved, participants' self-assessment of their financial literacy declined. From a financial education perspective, parents continue to be the primary source of information and lessons on personal financial management matters; however, many are not sure their parents know what is best for them regarding their finances. Efforts to enhance the financial capability of parents may therefore be necessary to ensure that they are properly equipped to fulfil the key role of financial information provider to their children.

Even though participants remain generally confident about their ability to manage their money, while remaining wary of credit cards, and acknowledging the importance of saving, concerns exist that these attitudes are not necessarily translating into good financial behaviours. The importance of saving, and the need to carefully manage debt are key areas that need to be emphasised as the generation represented by this cohort comes of age in a very different financial world compared to their parents. While the focus of many remains on the shorter term with respect to financial planning, participants are beginning to plan for the distant future, and the high participation rate in KiwiSaver is an encouraging sign as these individuals navigate a changing world with increasing uncertainty related to both home ownership and universal pension provision.

NEXT STEPS

The current stage marks the second stage of a 20-year longitudinal study at 5-year intervals, with the initial benchmarking study undertaken in 2012. The next stage will occur in 2022, followed by further stages in 2027 and concluding in 2032. During the coming 5-year period, updates will take place approximately every eighteen months, similar to the previous 5 years. The objectives of the interim reports are twofold, to remain connected with the cohort and query the group on topical issues of concern at the time. Efforts will also be made to re-connect with those who were unable to be contacted to participate in this stage of the study.

LOOKING AHEAD: EXPECTED CHANGES OVER THE NEXT FIVE YEARS

With the next Longitudinal Study update in 5 years' time, the financial attitudes, knowledge, and behaviours of the cohort will certainly evolve further. The current study iteration already observes significant changes, with the cohort maturing from youth to young adulthood at 23-27 years. As observed, changes have emerged with respect to budgeting, planning horizons, primary sources of information, and planning for retirement provision. Over the coming five years, the cohort age bracket will increase again to 28-32.

The current study already provides indications of expected changes. When asked about specific life goals in coming years, two clear aspirations emerge. Not surprisingly, marriage and raising a family was one clear goal, with indicative responses to the question like "Getting married, having kids at one point. That is probably what my life revolves around"; "Finding a woman and having a family. Having enough money to help my children succeed,"; "I want to get married. I want to have a couple of kids and have enough money saved for my retirement so I don't have to worry about relying on my pension!" and "I'd love to have a family. The pretty standard Kiwi dream I suppose".

As shown earlier, home ownership is also an important priority for many participants. Participants comment, "I'd like to own my own house with a piece of land. I really want to get into my own home and start putting some things behind me"; "I want to buy a house. I am so hungry to get one"; and "It would be nice to own a house at some point. It just depends where I am going to buy it. It is probably much more realistic to buy in Australia rather than New Zealand".

Looking forward, cohort evolution will be interesting to observe, from both a narrow sense of financial capability development and a more holistic perspective of realising life's goals as an important element of overall wellbeing linked to financial capability.

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8. APPENDIX: LONGITUDINAL STUDY BASELINE AND INTERIM UPDATES

2012 Baseline Study:

Stangl, J., & Matthews, C. (2012). How young New Zealanders learn about personal finance: A longitudinal study (p. 19). Fin-Ed Centre Massey University.

AVAILABLE FROM:

www.massey.ac.nz/massey/fms/Colleges/College%20of%20Business/School%20of%20Economics%20&%20Finance/Long_Study_Interim_Report_Final.pdf

2014 Interim Study:

Stangl, J., & Matthews, C. (2015). How young New Zealanders perceive political & financial wellbeing: a longitudinal study election year update. (p. 15). Fin-Ed Centre Massey University.

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2016 Interim Study:

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