

# Young New Zealanders' Ongoing Personal Finance Journey

A Longitudinal Study— Stage 3



TE KUNENGA  
KI PŪREHUROA  
**MASSEY**  
UNIVERSITY  
UNIVERSITY OF NEW ZEALAND

NZ  
FIN-ED  
CENTRE

# CONTENTS

Acknowledgements .....	3
About the Authors .....	3
Survey at a Glance .....	4
Results at a Glance .....	4
1. Introduction .....	5
Overview of changes in the financial literacy landscape .....	5
This study .....	5
2. Prior Research .....	6
Global studies .....	6
New Zealand .....	7
Financial education .....	8
Benefits of improved financial literacy and capability .....	8
Factors related to individual financial capability .....	9
Contribution .....	9
3. Methodology.....	10
Summary Statistics .....	11
4. Results – Financial Literacy, Behaviour and Attitudes .....	12
Financial Knowledge .....	12
Financial Literacy Scores: .....	12
Self-assessed Financial Literacy Levels.....	13
Comparison Between Objective and Subjective Assessments .....	14
Experiences of Informal and Formal Financial Education .....	15
Financial Attitudes .....	18
Financial Behaviour.....	20
Financial Wellbeing .....	24
5. Discussion of Study Results .....	28
6. Summary.....	30
Conclusion .....	30
Next Steps .....	30
Looking Ahead: Expected Changes over the Next Five Years .....	30
7. References.....	31
8. Appendix: Longitudinal Study Baseline and Interim Updates .....	32
2012 Baseline Study: .....	32
2014 Interim Study:.....	32
2016 Interim Study:.....	32



# About the Authors

**Associate Professor Claire Matthews** joined Massey University in 1996 after 12 years with Trust Bank. Her research interests centre on consumers' financial behaviour, decisions, and attitudes, with a particular interest in payment channels including internet banking, and KiwiSaver. Claire has a PhD in Banking on the subject of Switching Costs in the New Zealand Banking Market, and is a Fellow of the Financial Services Institute of Australasia.

**Dr Jeffrey Stangl** joined Massey University in 2004. He has founded and directed several US and Indonesian based SMEs in the manufacturing, transportation, and gift industries, and the focus of his business career has been start-up innovative companies. Jeffrey believes in the responsibility of extending financial literacy. He was a founding Board Member for the Fin-Ed Centre and is President of the New Zealand Society of Chartered Financial Analysts.

**Dr Pushpa Wood ONZM** was appointed as an Officer of the New Zealand Order of Merit in the Queen's 90th Birthday Honours List for 2016 for her services to financial literacy and interfaith relations. Pushpa has a long history of financial literacy advocacy. She was previously the Education Manager at the Commission for Financial Capability and has worked in financial literacy across the school, tertiary, and industry sectors. Her research interests include identifying what motivates people to change their financial behaviour, preparedness of women in planning for their future and testing culturally appropriate evaluation tools.



## Acknowledgements

The authors wish to acknowledge the significant contribution made by Deborah Plank, who carried out the interviews, and without whom this study would not have been possible. The authors also wish to thank Rolando Filler, who helped with locating and contacting participants and coordinated their completion of the online survey and interview arrangements.

The Authors acknowledge the contributions of those who participated in the survey with appreciation, and gratitude for their ongoing participation in this study.

The Fin-Ed Centre is grateful to Westpac NZ for their financial contribution towards this study. Westpac NZ has been providing financial support for this study since the beginning.

# Prior Reports

## *2012 Baseline Study*

Stangl, J., & Matthews, C. (2013). How young New Zealanders learn about personal finance: A longitudinal study. Fin-Ed Centre Massey University.

AVAILABLE FROM:

[https://www.massey.ac.nz/documents/1383/FinanceStudy-December\\_2013.pdf](https://www.massey.ac.nz/documents/1383/FinanceStudy-December_2013.pdf)

## *2014 Interim Study – Election Year*

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

AVAILABLE FROM:

[https://www.massey.ac.nz/documents/1384/LS\\_Study\\_Update\\_-\\_2014.pdf](https://www.massey.ac.nz/documents/1384/LS_Study_Update_-_2014.pdf)

## *2016 Interim Study – Retirement Planning*

Stangl, J., Matthews, C., & Wilson, B. (2016). Young New Zealanders and retirement planning: a longitudinal study update. Fin-Ed Centre Massey University.

AVAILABLE FROM:

[https://www.massey.ac.nz/documents/1389/187694\\_NZ\\_Retirement\\_Planning\\_Study\\_v2a.pdf](https://www.massey.ac.nz/documents/1389/187694_NZ_Retirement_Planning_Study_v2a.pdf)

## *2018 Stage 2 Study*

Stangl, J., M Matthews, C., Reyers, M., Stangl, J. and Wood, P. (2019). Young New Zealanders Ongoing Personal Finance Journey: A Longitudinal Study – Stage 2. Fin-Ed Centre, Palmerston North, New Zealand.

AVAILABLE FROM:

[https://www.massey.ac.nz/documents/1387/Young\\_NZs\\_Ongoing\\_Personal\\_Finance\\_Journey\\_WEB.pdf](https://www.massey.ac.nz/documents/1387/Young_NZs_Ongoing_Personal_Finance_Journey_WEB.pdf)

## *2019 Interim Study – Retirement Savings*

Reyers, M., Wood, P, & Matthews, C. (2020). Young New Zealanders and retirement savings engagement: a longitudinal study update. Fin-Ed Centre Massey University.

AVAILABLE FROM:

[https://www.massey.ac.nz/documents/1388/LS\\_interim\\_study\\_2020.pdf](https://www.massey.ac.nz/documents/1388/LS_interim_study_2020.pdf)

## *2021 Interim Study – Covid-19*

Reyers, M., Wood, P, & Matthews, C. (2021). Young New Zealanders and financial resilience in the time of Covid-19: a longitudinal study update. Fin-Ed Centre Massey University.

AVAILABLE FROM:

[https://www.massey.ac.nz/documents/477/LS\\_interim\\_study\\_2020\\_final.pdf](https://www.massey.ac.nz/documents/477/LS_interim_study_2020_final.pdf)

# Survey at a Glance

The report presents findings from the third 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, using participants identified randomly from the New Zealand electoral roll from six geographic locations. The sample is not demographically representative of the New Zealand population in terms of gender and ethnicity, with a likely self-selection bias, but the demographics between samples are generally stable. The first stage occurred in 2012 when the cohort was aged from 18 to 22 years, with stage 2 following in 2017. Now, five years further on, in the third stage the participants are aged from 28 to 32 years. The study will repeat again in 2027, before concluding 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 third phase of the study – a 66 percent retention rate. The study undertook interim updates in 2014, 2016, 2019 and 2020, which dealt with topical issues including economic inclusion, housing affordability and the COVID-19 pandemic.

The focus of this report is to consider how participants’ attitudes and behaviours have changed over the past five years as they move into new life stages. While the study finds young New Zealanders still have some reliance on their parents for financial information, the parental influence has dropped, with parents now the source of “everything” or “almost everything” learned about finance for just 26 percent of participants. Life experiences had replaced parents as the most popular source of information, and was expected to dominate in the future.

The gender gap in financial literacy is narrowing, with a 17 percent increase in the average score for females compared to just 6 percent for males. Overall, there was an improvement in financial literacy. In addition, there was an improvement in participants’ self-assessed literacy, returning to the self-confidence of 2012; however, the gender gap also remained with only 29 percent of females assessing their financial literacy as “Very Good” or “Excellent” compared to 44 percent of males. Part of the improvement in financial literacy may reflect the higher proportion who reported having taken steps to proactively enhance their money management skills, including a much higher proportion of participants reporting talking to financial professionals such as bank staff and financial planners/counsellors.

We found the cohort continued to report generally positive financial behaviours, including nearly all (95%) having some form of insurance, and KiwiSaver membership remaining high (92%). Debt wariness continues but has become more nuanced, with home loans being seen as necessary and/or acceptable. The time horizon for the cohort is starting to lengthen, with a third now focussed on a planning horizon of five years or more.

The study found good levels of resilience, with half reporting they could easily raise \$3000 for an emergency within one week, with a further 41 percent reporting they could raise the money after making sacrifices or taking drastic action. In addition, 40 percent indicated they could live off their savings for six months or longer.



# 2022 Results at a Glance

- Life experiences have now replaced parents as the primary source of information on personal financial management matters, although parents continue to be important
- Financial literacy improved, as did participants' self-assessment of their financial literacy, although the gender gap remained
- Participants reported being more pro-active in seeking to improve their financial knowledge
- Confidence in their ability to manage their money remained high
- Satisfaction with their current financial situation is improving
- Attitudes towards debt has become more nuanced, with credit cards still viewed relatively negatively while home loans are seen as necessary and/or acceptable
- Participation in KiwiSaver remained high at 92 percent
- Just 5 percent had no form of insurance, with car and contents insurance the most common
- 67 percent feel good about their money management abilities
- 73 percent have spent time thinking about financial goals, credit cards and spending habits
- Participants remained optimistic about their financial situation, with 61 percent describing their situation today compared to a year previous as "A bit better" or "A lot better" and 60 percent expecting their financial situation to improve
- A third now considered long-term planning beyond 5 years.

## Key Changes 2012 – 2022

- Financial knowledge has steadily improved, with the average score increasing from 3.5 in 2012 to 4.2 in 2017 to 4.7 in 2022.
  - The gender gap (0.8) remains, having worsened since 2012 (0.3) but improved since 2017 (1.1).
- Parents remain important sources of financial information, but their influence has dropped substantially.
  - Life experiences are now the key source of financial education.
- Some financial behaviours have improved
  - Reading to increase financial knowledge improved from 26 percent in 2012 to 40 percent in 2022
  - Thinking about financial goals increased from 51 percent in 2012 to 73 percent in 2022
  - The proportion who were unsure of the most suitable financial management style for them dropped to 27 percent in 2022 from 48 percent in 2012.
- Confidence in their money management is good and improving
  - Feeling in control of their financial situation has increased to 78 percent in 2022 from 69 percent in 2012
  - In 2022 67 percent agreed they feel good about their money management abilities, a slight increase from 62 percent in 2012, but only 9 percent disagreed in 2022, down from 19 percent in 2012.
- Participants' time horizon has lengthened with 33 percent focussed on a planning horizon of 5+ years, up from 22 percent in 2012, with just 12 percent now focussing on the next year in 2022, down from 29 percent in 2012.
- Financial product ownership has changed
  - KiwiSaver membership has increased from 62 percent in 2012 to 92 percent in 2022
  - Home loans are held by 55 percent of participants in 2022, compared to less than one percent in 2012
  - Shares are now owned by 43 percent in 2022, up from 5 percent in 2012
  - The proportion with student loans has fallen from 70 percent in 2012 to 47 percent in 2022
  - Just 5 percent have no insurance in 2022, compared to 37 percent in 2012, with 83% holding car insurance in 2022 (up from 43 percent in 2012) and 65 percent holding contents insurance (up from 21 percent in 2012).

## 1. INTRODUCTION

This report covers the third stage in a 20-year longitudinal study that explores 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 second study took place five years later, in 2017, with the cohort now aged from 23 to 27 years old (Matthews, Reyers, Stangl & Wood, 2019). This study found there was still a strong dependence on parental advice, although there was growing doubt about that advice. While participants' financial literacy had improved, their self-assessment had declined. The study found the cohort had many positive financial behaviours, including a participation rate of 89 percent in KiwiSaver and a continued wariness regarding credit card debt, although many still wished they had better savings habits.

The key focus of this stage is to determine how the financial knowledge, attitude and behaviours of this cohort have further changed as they have matured over the last five years. While the cohort experienced personal changes over this period, they also had the global pandemic to deal with and there were continuing changes to the financial landscape.

### OVERVIEW OF CHANGES IN THE FINANCIAL LITERACY LANDSCAPE

The 2018 report noted that the focus of research on individuals and finance had moved to financial capability and financial wellbeing. This change has continued since then with a continuing and growing emphasis on financial wellbeing as the ultimate goal of improved financial capability. More recently there has been a tangential shift to financial resilience, particularly in light of the global pandemic and the financial challenges were similar to that created for many people around the world.

Lusardi and Mitchell have been researching in the field for more than twenty years and note that initially their research was due to concerns about "inadequate saving, financial vulnerability, and retirement insecurity" (2023, p.4). They note that the arrival of disruptive new financial products, including cryptocurrencies and buy now, pay later loans, is requiring consumers to make complex financial decisions. Consequently, they explain that "it has become increasingly important for consumers seeking to make sensible financial decisions in their everyday lives to acquire and implement financial literacy" (p. 3).

At first many programmes were developed with the objective of improving financial literacy in the belief it would lead to improved decision making. However, there was soon a realisation that financial literacy, with its focus on knowledge and understanding of economic and financial concepts, was too narrow, as financially literate people did not necessarily make good financial decisions. As a result, the focus moved to financial capability, which is a broader concept that extends beyond financial literacy to also include the individual's behaviour, skills and attitudes (Xiao, 2015). There has also been a growing recognition of the external factors that also need to be considered, such as the institutional and regulatory environment. An important role for financial inclusion and access to financial services has been identified (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) but many countries followed suit (Xiao, 2016). Increasingly, countries' focus has moved on again to financial wellbeing. In the USA, the Consumer Financial Protection Bureau (CFPB), which seeks to empower and educate consumers, notes that "the principal aim of financial education is to improve financial well-being" (CFPB, 2023, p. 14). In the UK, the financial capability strategy is now the UK Strategy for Financial Wellbeing with a 10-year framework and a vision of "Everyone making the most of their money and pensions" (MaPS, 2020, p. 2). Reading the UK strategy it is clear that it is including financial resilience within its definition of wellbeing, referencing data that "11.5m people have less than £100 in savings to fall back on. 9m people often borrow to buy food or pay for bills" (p. 4) and the knock-on effects of financial stress. The MaPS definition of financial wellbeing is:

"Financial wellbeing is about feeling secure and in control. It is knowing that you can pay the bills today, can deal with the unexpected, and are on track for a healthy financial future. In short: confident and empowered". (MaPS, 2020, p. 9).

In Australia, the National Financial Literacy Strategy has been rewritten in response to the pandemic because "the economic impacts of COVID-19 have put pressure on the finances of millions of Australians" (Australian Government, 2022, p.1). The 2022 Strategy has extended the definition of financial capability to refer "not only to the knowledge needed to make sound financial decisions, but to a combination of financial knowledge, skills, attitudes, and confidence that leads to positive financial behaviours and money management decisions that fit the circumstances of one's life" (p. 2). The vision for financial capability in Australia under the 2022 strategy is "For Australians to have the knowledge, skills, attitudes and confidence to engage in positive financial behaviours and make financial decisions appropriate to their individual circumstances throughout their lives" (p. 6).

New Zealand's first national strategy for financial literacy was released in 2008. The most recent update for 2021-2024 also referenced the pandemic, noting that "the economic impact of COVID-19 has made the need to enhance New Zealanders' financial capability more important than ever" (TAAO RC, 2021, p. 3). However, it is important to note that the New Zealand strategy is for the financial capability community, rather than the population, based on a belief that "the Strategy will be most helpful to New Zealanders if it encourages and enables the financial capability community to work together, with a shared purpose and vision, and defined goals" (p. 3). Nevertheless, the strategy recognises that "building strong financial capability among New Zealanders and their families/whānau is essential to help people not only reach their life goals in a more difficult landscape, but for New Zealand's economic recovery" (p.3).

## THIS STUDY

This longitudinal study began with a focus on financial literacy. Following on from the findings and insights of stages one and two, this third stage continues to contribute to improved understanding of issues related to the levels of financial literacy and financial capability in New Zealand, with the aim of helping improve financial literacy and wellbeing for New Zealanders. In particular, this 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 which findings from the current study can be interpreted.

## 2. PRIOR RESEARCH

### GLOBAL STUDIES

Internationally, there are continued concerns about the levels of financial literacy and financial capability. The most recent OECD international survey of financial literacy, which measures a set of basic financial skills, behaviours and attitudes found an average score of 12.7, just over 60% of the maximum score of 21 (OECD, 2020a), similar to the results in the earlier study (OECD 2017a). This survey used the OECD/INFE 2018 Toolkit and involved participants from 26 countries and economies across three continents. The scores ranged from 11.1 for Italy to 14.8 for Hong Kong, China. Comparing the outcomes for the component parts of the survey, the average score for Knowledge was 63% of the maximum, while it was 59% for both Behaviour and Attitude. The survey also found that large groups of people in many economies have limited financial resilience, with 28% reporting a financial cushion of about one week if they were to lose their main income and a further 25% able to support themselves for about a month. In a related finding, financial stress was found to be common with 42% worrying about meeting everyday living expenses. As found previously, men had statistically greater financial knowledge and wellbeing scores, overall and in many of the participating countries. Young people were also found to have consistently and significantly lower financial literacy and attitude scores, as well as lower financial knowledge and they displayed less prudent financial behaviour. A key finding was that "large groups of citizens are lacking the necessary financial literacy and financial resilience to deal effectively with everyday financial management" (p. 10).

An earlier, and broader, global study of 150,000 people in 143 countries which focussed on financial knowledge, found country level financial literacy levels ranging from 13 percent to 71 percent (Klapper, Lusardi, & van Oudheusden, 2015). Using their definition of an individual as financially literate if they correctly answer three of four basic financial concept questions, only one-third of individuals worldwide are financially literate. This study also found a worldwide gender gap in financial literacy, with 35 percent of men considered financially literate compared with 30 percent of women.

Due to concerns about low levels of financial literacy among young people specifically, in addition to those of the population more generally, the OECD Programme for International Student Assessment (PISA) expanded to include financial literacy. The initial study was in 2012 (OECD, 2014), with further studies in 2015 (OECD, 2017b) and 2018 (OECD,



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

2020b). The 2018 study<sup>1</sup> included 117,000 students from 13 OECD countries and economies and seven partner countries and economies. The country/economy with the highest mean score in financial literacy was Estonia, with Australia ranked 5th, down from 4th in 2012<sup>2</sup>. Boys scored slightly better than girls on average across the OECD participant group, and this difference was statistically significant. As in the previous studies, socio-economically advantaged students performed better, by about one proficiency level.

## NEW ZEALAND

A number of studies have been undertaken to understand financial knowledge and capability in New Zealand. Studies commissioned by Te Ara Ahunga Ora Retirement Commission have been undertaken periodically since 2006. The initial surveys in 2006 and 2009 focused on financial knowledge, with the survey extended to include financial knowledge and behaviour in 2013 (CFFC, 2013). The most recent of their financial capability studies in 2021 found that financial wellbeing across the New Zealand population was 61, out of a possible 100. The average scores for the components of financial capability ranged widely, from 31 (Financial inclusion) to 88 (Experience of money management). The proportion who achieved a high score on these components also ranged widely, from 3% (Financial inclusion) to 83% (Restrained use of consumer credit). A higher proportion achieved high scores for the Financial behaviour components on average (50%) than for either the Financial knowledge and experience components (34.6%) or Psychological factors components (20%). The low results for financial inclusion mean that New Zealanders have and buy few financial products, with low levels of insurance a key contributor to this result along with the exclusion of default KiwiSaver membership.

In 2017 the first comprehensive study of financial wellbeing in New Zealand was undertaken, the ANZ Financial Wellbeing study (ANZ, 2018), guided by the Financial Wellbeing Conceptual Model developed by Kempson et al. (2017). The average financial wellbeing score for adult New Zealanders in this study was 59 out of 100, and the key drivers of financial wellbeing were found to be behaviours, with psychological factors also found to be significant predictors of financial wellbeing. However, financial knowledge had much less of an effect than expected. The study was repeated, with some revisions to the model, in 2021, and the average financial wellbeing score increased to 63 (Galicki, 2021). Young adults (18-40, single, no children) had an average financial wellbeing score of 61, but this was similar to Young families (60) and Older families (62). The gender comparison showed men generally had higher financial wellbeing scores (66 compared to 61), and higher financial knowledge scores.

Another, now regular, survey in New Zealand is the FSC Financial Resilience Index which tracks New Zealanders' view on five indicators of financial resilience. The third, and most recent, survey in February 2022 found that although financial confidence had increased, self-assessed financial literacy had fallen.

The primary study of financial literacy and capability among the youth of New Zealand was the OECD's PISA 2012 financial literacy study which found the mean score for young New Zealanders was above the OECD average. Other findings of note for New Zealand were the higher proportion of students with advanced skills and knowledge (19%) compared with the OECD average (10%), and the substantial differences in mean financial literacy scores of students based on socio-economic background. Also of note, Māori 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).



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

<sup>1</sup> New Zealand participated in the financial literacy study in 2012, but has not participated subsequently.

<sup>2</sup> For comparison, New Zealand was ranked one place behind Australia at 5th in the 2012 study.

## BENEFITS OF IMPROVED FINANCIAL LITERACY AND CAPABILITY

The benefits of financial literacy for individuals and society are widely recognised, with Strege (2019) noting that even the founders of the United States recognised the value of financial literacy for both individuals and society. Philippas & Avodulas (2019) suggest financial knowledge is now an essential skill due to “the instability of global markets, asymmetric information in those markets, increasing complexity of financial products, and the rapidly increasing growth in financial technology” (p. 360).

The global financial crisis in 2008 brought the need for a financially literate population into sharp focus. Gudjonsson, Jonsdottir & Minelgaite (2022) note that in a crisis, when uncertainty is amplified, personal financial management skills are even more important. In addition, a study by Erdem & Rojahn (2022) found that “financial resilience significantly increases with financial literacy” (p. 1465). This has been heightened with the increasing complexity of financial decision-making and the growth of digital financial services in recent years. Sherraden & Grinstein-Weiss (2015) make the point that young people today are required to make high-stakes financial decisions, such as taking on student debt, at a much earlier age than previous generations and these decisions can have far-reaching consequences in terms of their financial wellbeing in later years.

Prior research has reported 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). In addition, Lusardi (2019) suggests financial literacy is also associated with higher returns on investments, due in part to investment in more complex assets that generally offer higher returns, and greater ability to cope with emergencies, including income shocks. A recent study in New Zealand found that, contrary to prior evidence, financial literacy is important for retirement preparedness (Noviarini, Coleman, Roberts & Whiting, 2021).

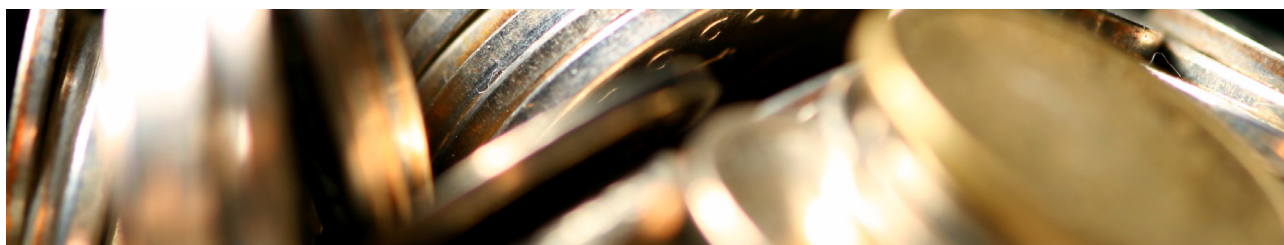
Attempts have been made to quantify the actual benefit, with 30 to 40 percent of retirement wealth inequality able to be attributed to differences in financial knowledge according to one recent analysis (Lusardi, Michaud, & Mitchell, 2017). Another study estimated increased general savings and retirement savings, improved financial and investment product selection, and decreased over-indebtedness from improved financial capability in the UK would result in economic benefits of £105-127 billion over a thirty-year period (Europe Economics, 2016). Subsequent analysis focused on the provision of debt advice estimated the economic benefit to the UK of £301-568 million from improved mental wellbeing and productivity, among other factors, (Europe Economics, 2018).

## FINANCIAL EDUCATION

While the benefits of financial literacy for individuals and society are widely recognised, as noted above, there is an ongoing debate regarding the effectiveness of financial education. In a review of 201 financial literacy studies, Fernandes, Lynch, & Netemeyer (2014) found that financial education produces minimal benefits. On the other hand, in their review, Kaiser & Menkhoff (2017) found support for a positive impact of financial education on both financial behaviour and overall financial literacy. More recently, a study by Harrison, Marchant, Ansell & Vernon-Harcourt (2020) confirmed “the transformative impact of financial education on the financial well-being of young people” (p. 99). The latest OECD survey on financial literacy suggests that “effective financial education can encourage the use of appropriate products in a safe way and contribute to improving financial inclusion” (OECD, 2020a, p. 63).

Goyal & Kumar (2021) have undertaken an extensive analysis of the existing literature on financial literacy. They report that while studies have concluded that financial education results in financial knowledge, there is a lack of understanding how to translate that knowledge into behaviour. They report that recent research has emphasised the need for “specific financial situation-based counselling and teaching in groups to motivate the participants”, which reinforces earlier support for the desirability of using “teachable moments” to provide “just-in-time” financial education for the most effective outcomes (Fernandes et al, 2014; Kaiser & Menkhoff, 2017).

Lusardi (2019) argues “financial education is a crucial foundation for raising financial literacy and informing the next generations of consumers, workers, and citizens” (p. 6). In order to be effective, she suggests initiatives to improve financial literacy “need to be large and scalable” (p. 6), and goes on to suggest schools, workplaces and community platforms are suitable venues to deliver financial education. She attributes the continued low levels of financial literacy, despite the extensive efforts to provide financial education, to the need for content tailored for the specific target audience. Lusardi provides three reasons, which she argues are compelling, for offering financial education in schools: the importance of exposing young to basic financial concepts before they make consequential financial decisions;



providing access to financial literacy to those who may otherwise not get access; and, to reduce the cost of financial literacy acquisition. Similarly, education in the workplace can be provided efficiently and recognise the socioeconomic context of the employees.

Kaiser & Menkhoff (2017) found that financial education may not be particularly effective in changing behaviours with respect to the use of debt, although it may positively impact on savings behaviours. Nevertheless, financial education at high school has been found to be related to lower use of non-student debt and better repayment behaviour in later in life, although this effect dissipates with age, which might explain the contradictory findings in other studies focussed on middle-aged participant. (Brown, Grigsby, van der Klaauw, Wen, & Zafar, 2016).

Key barriers to offering financial literacy education at a secondary school level in New Zealand, either through financial literacy courses or incorporating financial literacy into existing curriculum, include time constraints and pressure to cover required curriculum, as well as lack of relevant professional development for teachers (Neill, Berg, & Stevens, 2014).

## FACTORS RELATED TO INDIVIDUAL FINANCIAL CAPABILITY AND WELLBEING

In their recent study, Lone & Bhat (2022) found financial literacy had a significantly positive impact on both financial self-efficacy and financial well-being. This can be explained in terms of the financial capability model, whereby individuals with better knowledge and skills, as well as confidence and attitude, are more likely to engage in positive financial behaviours.

The importance of demographic and socio-economic factors for financial capability was noted in the latest Te Ara Ahunga Ora Retirement Commission report (Galicki, 2021). These factors can impact on opportunities to gain financial knowledge and experience, and affect psychological factors. They can also affect financial behaviour; for example, income may limit the available choices or make careful budgeting a necessity rather than an option. This was supported by the most recent ANZ study which found “socio-economic factors accounted for 54.8% of the explained variation in a person’s overall financial wellbeing” (ANZ, 2021, p. 2).

Another finding from the ANZ study was that the strongest influence of financial knowledge on financial wellbeing was indirect, by enhancing feelings of financial confidence and control which are thought to be crucial to developing financial wellbeing. There is a positive feedback loop with improved financial wellbeing then leading to greater confidence and sense of control in financial matters, which reinforces spending and saving behaviours.

An emerging concept is digital financial literacy, which recognises the growth of digital financial services and the associated challenge of linking financial literacy to digital literacy. Lyons & Kass-Hanna (2021) suggest a need to



investigate how digital financial literacy can boost financial inclusion and improve individuals' livelihoods. Digital literacy was incorporated into the conceptualisation and measurement of financial capabilities in the 2021 ANZ survey due to the growing stream of literature confirming "the inescapable impacts of fintech on financial behaviours and financial wellbeing" (ANZ, 2021, p. 37). The report noted the importance of consumers understanding the potential benefits of their digital profile.

Financial inclusion, which focusses on access to safe and appropriate financial products and services, can also play a crucial role in financial capability (Sherraden & Grinstein-Weiss, 2015). For example, studies have found that Millennials with 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).

Research has also sought to understand how individuals acquire financial knowledge and skills, and what shapes confidence and attitudes towards financial decision-making. The most recent ANZ survey in New Zealand identified sources of financial information, guidance or support used, with parents the most popular source (27%) in the previous 12 months, followed by bank staff (24%) and bank websites (24%) (ANZ, 2021). A substantial group (43%) had not sought information, guidance or support from any formal sources. The differences between the financial wellbeing groups are interesting. The No worries group were reported to be more likely to speak to a professional (accountant or financial planner) than the national average, while the other three groups were more likely to seek parental support. Furthermore, a large proportion of the Struggling group (57%) reported not seeking any information, guidance or support.

The latest research from Te Ara Ahunga Ora Retirement Commission found that having "friends and family who can help financially had a positive effect on several components, for example, informed product choice and active saving" (Galicki, 2021, p. 12). On average the study found the parents of 51% had discussed money with them, but this ranged from 41% for the In Difficulty group to 59% for the Secure group. Only one third, on average, had received financial education at school, and fewer (22%) had received financial education in the workplace.

The 2018 PISA study found that students who looked to their parents for information about money matters achieved better financial literacy than students who did not do so, with a similar result for students who used the Internet as an information source (OECD, 2020b). However, students who used other sources (friends, television or radio, magazines, or teachers) actually achieved lower financial literacy scores than those who did not use those sources.

Earlier studies considering the financial socialisation process of children and young adults, found active financial socialisation from parents is related to good financial behaviour which is then positively related to financial literacy levels (Grohmann, Kouwenberg, & Menkhoff, 2015). Other studies have also found increased savings and wealth in later life as a result of parental teaching (Buccioli & Veronesi, 2014; Hira, Sabri, & Loibl, 2013). A New Zealand study of school and university students also suggests parental financial socialisation may help explain the financial literacy gender gap, finding, across different socio-economic groups, that on average males' first discussion regarding finance in the home occurs at a younger age than females (Agnew & Cameron-Agnew, 2015).

The importance of parental financial socialisation is not limited to when children are young, continuing to play a role as children enter adulthood (Shim, Serido, Bosch, & Tang, 2013). The recognition of parents' vital role in financial education and socialisation highlights the need to enhance parents' own financial capability (Van Campenhout, 2015).



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

### 3. METHODOLOGY

As with the two previous stages in this study, we have followed the OECD guidelines for financial literacy surveys, which recommend surveying individuals and using a personal interview (OECD, 2011). A personal interview allows unprompted questions and enables the interviewer to probe for a full response.

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

The study undertook periodic communications and intermittent surveys to remain in contact with the participants over the intervening 5 years between stages. Interim surveys between Stages 1 and 2 of the study were conducted in 2014 and 2015, and in 2019 and 2020 between Stages 2 and 3.

The study was able to reconnect with 240 (69%) of the original participants for Stage 2 of the study in 2017 and, of those contacted, 97 percent completed the survey. This gave 232 participants for Stage 2, from the original cohort of 350, now 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.

For this latest stage, we received survey responses from 234 participants (67 percent of the original participants, and 98 percent of the Stage 2 participants). Of those, 176 (75%) completed the interviews. The participants are now aged 27 to 32 years.

As in both previous stages, the current study collected data in two ways. The first was an online questionnaire. The second was an interview used to obtain detailed responses and provide 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 68 questions compared with 44 questions in the Stage 1 survey and 65 in the Stage 2 survey. The questions added in Stage 2 sought responses to topical considerations related to home ownership, retirement provision, and economic inclusion. In this survey, we added questions to follow up the interim surveys in 2019 and 2020. As in the two previous stage studies, the online 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 online questionnaire took 20-30 minutes to complete.

The interviews were conducted by the same interviewer used in both 2012 and 2017, which provided response continuity and participant familiarity. In the first stage of the study in 2012 all the interviews were completed face-to-face. In 2017, the now geographically dispersed cohort of participants saw a move to Skype/Zoom for the interviews. The use of online interviews, via Zoom, was continued in 2022. While face-to-face interviews were important in the first stage to establish a good connection with the study, the advanced video technology now available provided for a seamless process with no apparent loss to the personal connection between the participant and the interviewer. In total, the interview comprised 14 questions, with semi-structured follow up questions included to elicit deeper participant responses. The interviewer recorded and transcribed all interviews. Subsequently, NVivo software was used to code and analyse the transcribed interviews. Interview questions covered topics such as the participant's changing money management skills, the participant's financial behaviour, and the participant's life goals, as well as questions to explore the additional topics in the online survey such as financial inclusion, home ownership and retirement planning. The interviews lasted 25 minutes on average.

### SUMMARY STATISTICS

As shown in Table 1, and as expected, cohort demographics remain largely unchanged<sup>3</sup> in comparison with the two previous stages, despite the 33 percent non-participation rate. Although female participation has reduced slightly to 63 percent, from 68 percent in 2012 and 66 percent in 2017, they continue to dominate the sample. A reduction in participants identified as New Zealand European to 74 percent of participants (down from 77 percent in 2017) brings it to a similar level to the 73 percent in 2012. Of course, the entire group has matured, with the average age now estimated

<sup>3</sup> The demographic splits, with respect to gender and ethnicity, have changed slightly between stages as a result of some participants withdrawing, eg the proportion of males in the cohort has increased from 32 percent in the first stage to 35 percent in the latest stage. However, the changes are not significant and the cohort remains broadly the same. Changes in education, income and marital status are expected as these differ for individuals at different stages of life.

to be 30 years and ranging from 27 to 32 – unfortunately an error in the survey meant the incorrect age options were included. Income levels have continued to increase, with 58 percent now earning at least \$70,000 compared to 69 percent earning less than \$15,000 in 2012, and 74 percent earning \$15,000 to \$70,000 in 2017. Marital status has also changed with 63 percent now married, in a civil union or living with a partner, compared to 44 percent in 2017 and 15 percent in 2012. The increase in income and changed marital status can be expected to be reflected in financial attitudes and behaviours.

**Table 1: Cohort Descriptive Statistics**

Gender	2012	2017	2022	Age	2017	2022	
Male	32%	34%	35%	27		3%	
Female	68%	66%	63%	28+		97%	
Other		0%	1%				
Highest Education		2017	2022	Income	2012	2017	2022
Less than high school		1%	1%	0-\$14,999	69%	16%	3%
High school or equivalent		18%	10%	\$15,000-\$47,999	24%	42%	10%
Vocational or trade qualification		10%	10%	\$48,000-\$69,999	1%	32%	28%
Bachelor's degree		51%	49%	\$70,000-\$99,999	0%	6%	36%
Higher degree		16%	25%	\$100,000 or more	na	1%	20%
Other, please write in		5%	5%	Prefer not to answer	6%	3%	2%
Ethnicity	2012	2017	2022	Marital Status	2012	2017	2022
New Zealand European	73%	77%	74%	Never married	84%	55%	36%
Māori	5%	6%	8%	Not married, but living with a partner	13%	32%	34%
Chinese	3%	3%	4%	Separated	1%	1%	1%
Other European	3%	2%	4%	Now married or in a civil union	2%	12%	29%
Pasifika	3%	1%	0%	Divorced	0%	0%	1%
Indian	2%	3%	2%	Widowed	0%	0%	0%
Other Asian	4%	2%	2%				
Other	6%	5%	6%				

**Notes:** Table reports descriptive statistics for the sample cohort for gender, age<sup>4</sup>, education, income, ethnicity, and marital status.

As noted in previous reports the study has limitations. Of particular note, the samples are not demographically representative of the New Zealand population in terms of gender and ethnicity, due to the composition of invitee response. We also acknowledge a likely self-selection bias in the sample 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. In addition, as noted above, despite the efforts made to remain in contact with participants, there was a dropout of 33 percent from the original 2012 sample, although it was pleasing to note the much smaller dropout of 2 percent between 2017 and 2022. Nevertheless, this does mean results of the different stages are not 100 percent comparable. Despite this, the demographics between samples are generally stable, as noted in Table 1.

<sup>4</sup>An error in the the age groups for the Stage 3 survey meant that the same age options were available as for the Stage 2 survey, despite it being five years later. As a result, the maximum age available to participants was 28+, whereas this cohort is now aged 27-32.

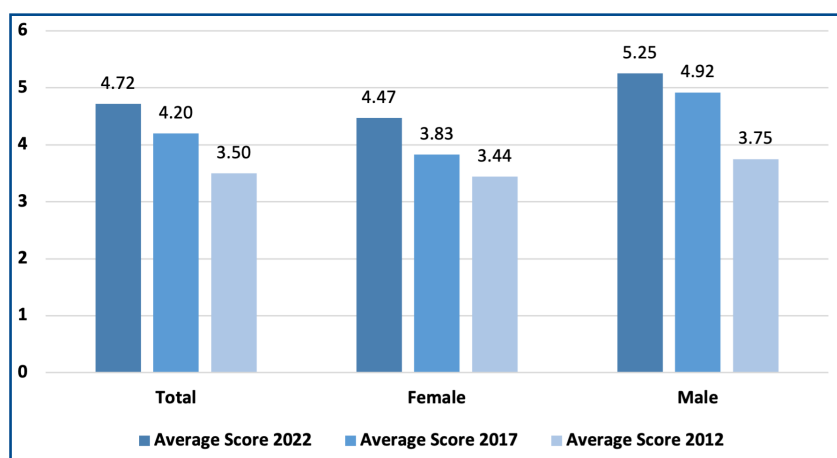
## 4. RESULTS – FINANCIAL LITERACY, BEHAVIOUR AND ATTITUDES

### FINANCIAL KNOWLEDGE

#### Financial Literacy Scores:

The average score for the financial literacy test in 2022 was 4.7 out of seven (67%). This is a further increase (of nearly 12 percent) compared to 2017, and as shown in Figure 1 there has been a steady improvement since the first survey in 2012. There has been a 34% improvement in the average financial literacy scores since the 2012 study. As noted in the previous section, it is important to remember that approximately one third of the original cohort did not participate in this stage of the study, though the participation rate for this stage is similar to Stage 2. Some of the improvement in the financial literacy score over the first stage in 2012 could potentially be explained by the loss of some participants, particularly if those participants had lower overall financial literacy scores. However, the increase from 2017 is less likely to be impacted by the loss of participants, and therefore more likely to reflect a real increase in financial literacy.

The average score for female participants was 4.47, which remains substantially lower than that of male participants at 5.25, although an improvement on the 2017 average score of 3.83, shown in Figure 1. The improvement in the average financial literacy score for females was comparatively greater, at 17 percent, than the increase in the average male score, at 6 percent 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, 2017 and 2022. One participant answered all the questions correctly in 2022, compare to two in 2017 and none in 2012; however, no participant answered all questions incorrectly, compared to one participant in 2017 and three participants in 2012).

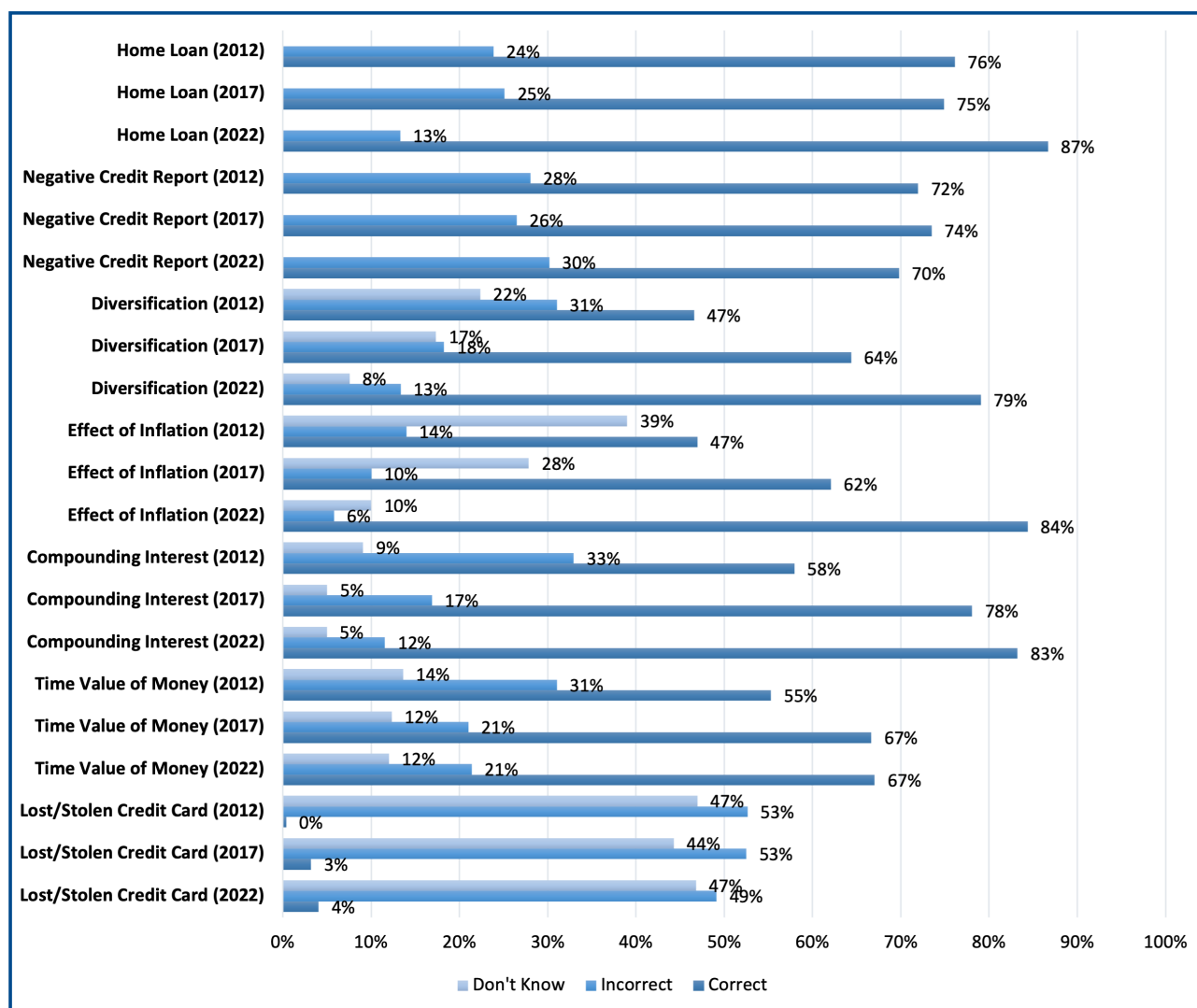
**Table 2:** Comparison of Individual Responses for Standardised Financial Literacy Test

Question	Response	2022	2017	2012
The owner of a lost or stolen credit card is legally responsible for what? <b>[Lost/stolen credit card]</b>	All unauthorized charges	2%	4%	5%
	All unauthorized charges until the loss or theft is reported	27%	32%	39%
	Only the first \$50 of any unauthorized charges	4%	3%	0%
	Only the first \$500 of any unauthorized charges	0%	0%	1%
	No unauthorized charges	20%	16%	8%
	Do not know	47%	44%	47%
John inherits \$10,000 today and Elizabeth inherits \$10,000 6 months from now, whose inheritance is worth more? <b>[Time value of money]</b>	They are equally rich	12%	13%	20%
	Elizabeth	10%	9%	11%
	John	67%	66%	56%
	Do not know	12%	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? <b>[Compounding interest]</b>	Exactly \$200	9%	14%	28%
	More than \$200	83%	78%	58%
	Less than \$200	2%	3%	5%
	Do not know	5%	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? <b>[Effect of inflation]</b>	More than today	4%	9%	12%
	Less than today	84%	62%	47%
	The same amount	2%	1%	2%
	Do not know	10%	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 <b>[Diversification]</b>	Increases	9%	17%	25%
	Decreases	79%	64%	47%
	Stays the same	5%	2%	6%
	Do not know	8%	17%	22%
If you have any negative information on your credit report, a credit repair agency can help you remove that information. <b>[Negative credit report]</b>	True	30%	25%	27%
	False	70%	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? <b>[Home loan]</b>	True	87%	76%	77%
	False	13%	24%	23%

**Notes:** Table presents response selections for each question of the standardised financial literacy test for 2012, 2017 and 2022, with the correct response highlighted in bold.

The worst answered question continues to be the question related to unauthorised charges on a credit card, shown in Table 2 and illustrated in Figure 2, where only seven participants or 4 percent knew that the owner of a credit card is liable only for the first \$50 of any unauthorised charges. The explanation for this low score may simply lie in a low level of credit card use by this age group.

In the latest survey, knowledge has improved in almost all areas of financial literacy. There was only a small improvement in the result for the credit card question, no change in the time value of money question and a slight decrease in the negative credit report question. As noted in the Stage 2 report these changes may simply reflect changes in participants' involvement in financial activities.



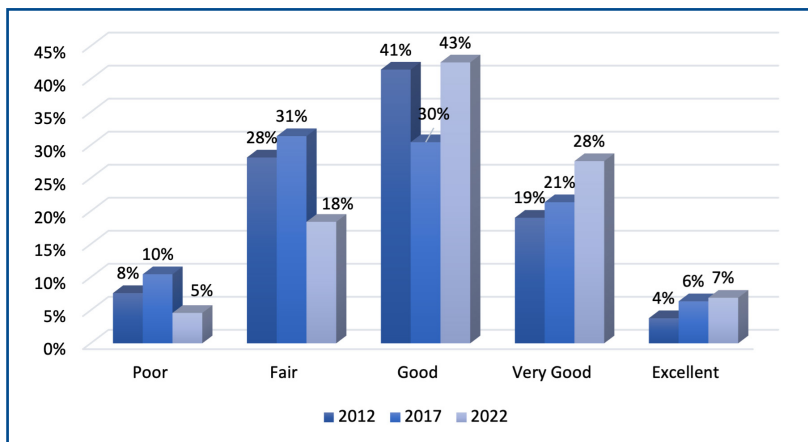
**Figure 2:** Correct Responses to Standard Financial Literacy Questions

**Notes:** Figure compares responses to individual responses for the standardised financial literacy test for 2012, 2017 and 2022.

### Self-assessed Financial Literacy Levels

In 2022, we see a marked increase in the self-assessed levels of financial literacy, shown in Figure 3. The proportion of participants ranking themselves as “Good” in 2022 (43%) has returned to a similar level to that of 2012 (41%). There has been a further increase in those ranking their understanding of personal-finance and money-management concepts as “Very Good” or “Excellent”, up to 35 percent in 2022 compared to 27 percent in 2017 and 23 percent in 2012. At the same time, the number of participants who considered themselves to have either a “Fair” or “Poor” understanding has decreased to 23 percent in 2022 from 41 percent in 2017 and 36 percent in 2012.

In keeping with the findings of both 2012 and 2017, there was a substantial difference in the self-assessment based on gender. While the proportion of females assessing themselves as “Fair” or “Poor” had decreased to 30 percent, compared to 47 in 2017, this was considerably higher than the 10 percent of males who rated themselves in these categories. In contrast, 44 percent of males assessed themselves as “Very Good” or “Excellent” (compared to 29 percent of females).



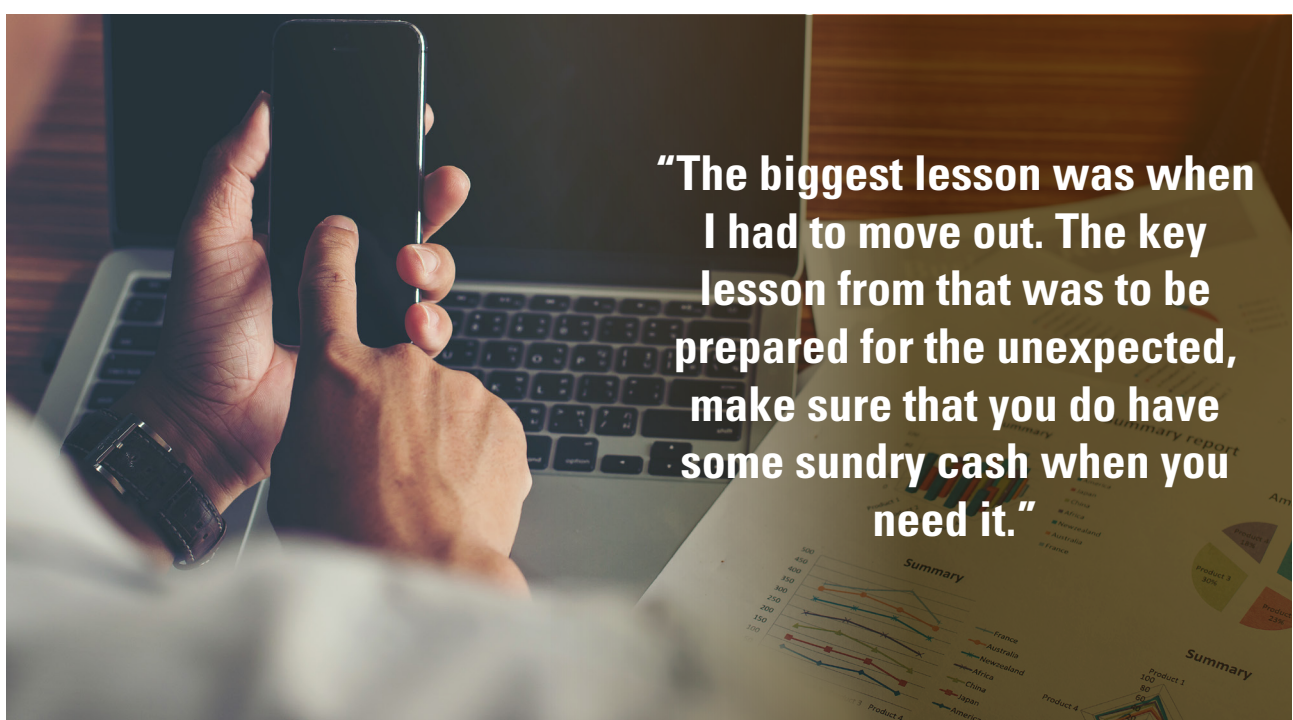
**Figure 3:** Self-Assessment of Financial Literacy

**Notes:** Figure compares the self-assessed financial literacy for 2012, 2017 and 2022. 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 positive correlation between financial literacy test scores and individuals’ self-assessments of their financial knowledge. 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, although there was closer alignment:

- 12 percent of participants who answered fewer than three questions correctly considered themselves to have a “Very Good” or “Excellent” understanding of personal finance and money management (compared to 17 percent in 2017 and 16 percent in 2012).
- 19 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 35 percent in 2017 and 27 percent in 2012).



- The only participant who scored full marks for the test rated themselves as only having 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.

The comments in the interviews reinforced the changing levels of knowledge, such as the participant who said “I feel like I’m more well equipped in terms of the knowledge and, extra five years’ experience. But the more I learn and find out the more I realise how far behind I am”, while another suggested they had “probably gone wiser, gained more knowledge about what works, what doesn’t kind of work” since the last interview in 2017. However, another participant continued to doubt their knowledge, noting “I think my lack of knowledge always concerns me a little bit. I mean, not in the way and not in the sense that I worry about it every day. But sometimes I think, Oh, could I be doing better?” The need for ongoing improvement was also noted, such as “I’m pretty happy on the whole, but definitely want to keep improving.”

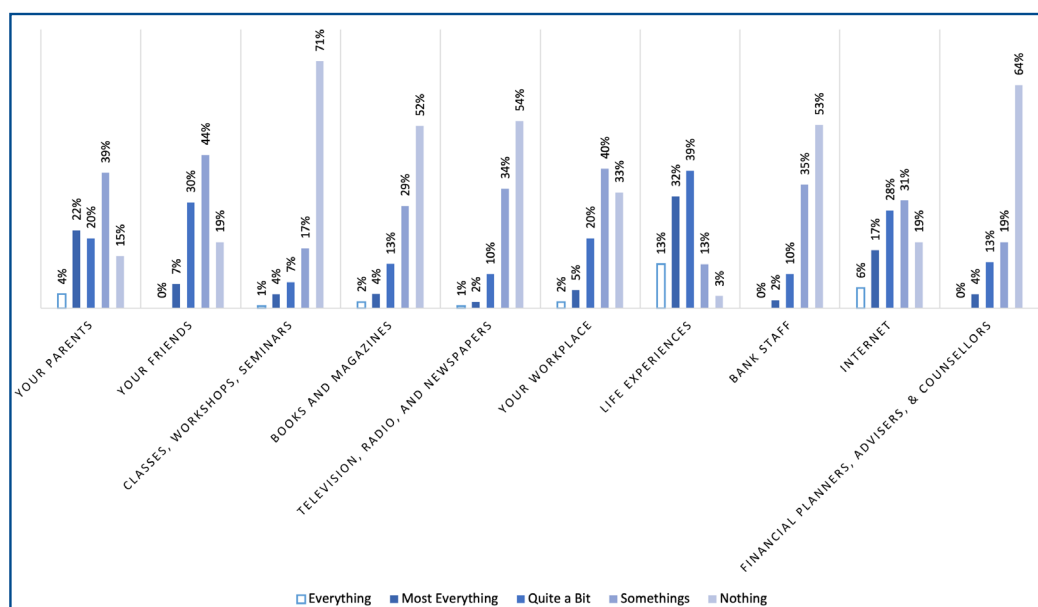
Changing life circumstances can make a difference, such as the participant who described themselves as “Fairly confident. I think, especially having my [spouse], we make a really good team.”

Some participants were very confident, for example the participant who described themselves as “10 out of 10, super confident”.

## EXPERIENCES OF INFORMAL AND FORMAL FINANCIAL EDUCATION

As noted in the earlier reports, financial education comes in two broad formats, formal and informal. Individuals are learning about money matters from a variety of sources. Key influencers that provide this informal education typically include family, friends, and workmates, as well as observations of the economic world in which they are operating. However, over time, those influences may change. The current study continued to investigate this process of change. Firstly, the study explored what individuals had consciously done to enhance their money management skills and which actions they had found most helpful. Secondly, participants were asked for information about what they had learned about money management from a variety of sources in the past five years, and then which sources were expected to provide further information in the next five years.

A higher proportion of participants reported having taken steps over the past 12 months to proactively enhance their money management skills (63 percent, compared to 52 percent in 2017). However, individuals only infrequently referred to attending classes, workshops or seminars on money management (8%), or seeking assistance from a budget advisor (2%) as steps taken to improve financial literacy. Talking with financial planners or counsellors was much more common (24% compared to 2% in 2017) and talking to bank staff was also mentioned more frequently (15% compared to 8% in 2017). However, as we found in both 2012 and 2017, the main sources were talking to parents (33%), talking to friends (52%) or finding information on the internet (64%). While all three were reported as being more common in 2022, the increase for friends (from 18% in 2017) and the internet (up from 17%) was notable. Participants found money management information found on the internet (28%) and talking with friends (13%) were the most helpful the information sources, although a substantial proportion (19%) were unable to pick just one ‘most helpful’ source. This was markedly different from 2017, with parents only the most helpful information source for 6 percent, compared to being the most helpful source at 24 percent in 2017.



**Figure 4:** Current Sources of Informal and Formal Financial Education

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

Turning our attention to 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.

As above, we find a move away from a dependence on parents as a source of information, with 45 percent of participants reporting that they had learnt "everything" or "most everything" from Life experiences (slightly more than the 44 percent in 2017). Parents were the next most popular source, but had fallen substantially from 47 percent in 2017 to just 26 percent in 2022. Reliance on the internet had increased to 22 percent in 2022 (from 13 percent in 2017).

The positive parental influence was highlighted by some participants, with comment such as:

"[my parents] have taught me most of the stuff I know, in terms of just general money stuff";

"Probably the most thankful thing my parents taught me was savings"; and,

"Dad was quite good with us growing up, teaching us about budgeting and about like priority spending."

As noted above, life experiences have been a key source of learning, with one participant noting that while they talk to their parents, friends and spouse they also "live as an adult and experience things". Another participant reported having "put a little bit of money in stocks ... but the market just crashed last year, and I haven't seen any of them go up since... which is fine, because I'm not going to take them out at all until they're making money...so I guess I've learned a bit about that". One participant explained very clearly how they had learned from experience: "All of my lessons have really been self-learned, I guess. It's just honestly, it's mostly been me making mistakes. And being like; that was a terrible idea, or like, I should have done so and so. Now I know to do that." Another participant noted the lessons from not having a job: "It definitely was an eye opener for me to not have the safety net of a job and the month to month pay cheque that I expected."

A key life experience for many of the participants had been the purchase of a home, and that had clearly provided useful education for many of them. Comments included:

"I think buying a house, you learn a lot that you previously didn't understand about mortgages and interest rates and all these kinds of things.";

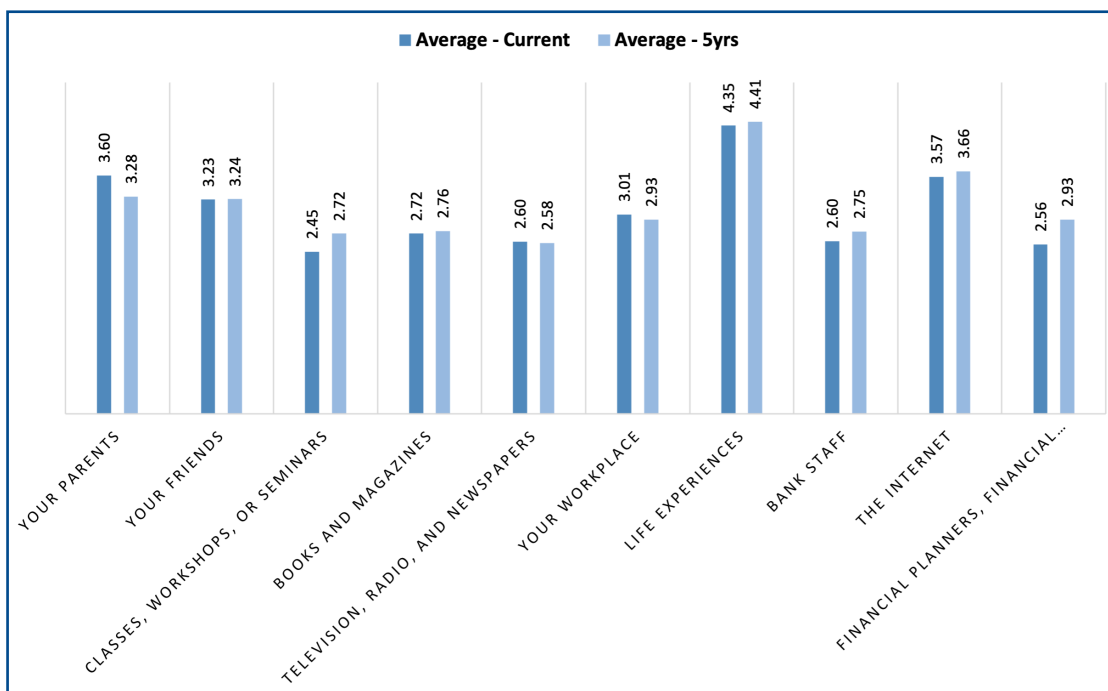
"I guess probably just, like buying and selling the house was a big learning curve";



“Well, the process of buying a house has definitely meant that I’ve had to read a lot more stuff, specifically with regards to how to manage insurance, and how to manage money flow to make sure that everything always lines up for the right dates.”

Friends remain a limited source of information with only 7 percent reporting them as a source of learning “everything” or “most everything” (the same as in 2017). Use of professionals such as bank staff and financial planners remains low.

Looking forward, Figure 5 compares the importance placed on current sources of financial information with expectations for the next five years. Respondents expect to continue to reduce their dependence on their parents, although it is interesting to note that the dependence is not falling as quickly as respondents have expected. The importance of professional advisers, including bank staff, is expected to substantially increase. Other sources remain relatively 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.



## FINANCIAL ATTITUDES

Participants were presented with a series of statements to assess their confidence in their ability to manage their money, with the results shown in Figure 6. Generally, the responses were similar to those recorded in 2012 and 2017, but with some evidence of growing confidence. Approximately 90 percent of participants are now confident about their ability to manage their own finances (up from 84 percent in 2017 and 81 percent in 2012). However, nearly one-third still reported that their finances are a significant source of worry or “hassle” for them. The importance of saving had dropped slightly, with 92 percent agreeing that regular saving was important (down from 96 percent of participants in 2017). Other questions about the importance of saving for specific life goals, such housing and retirement are discussed later.


A key finding in the first study in 2012 was the very negative attitudes towards debt and credit cards, particularly the latter, with comments including “I prefer to spend what I have. I am a bit scared of getting in debt.” Negativity lessened in 2017 and has further reduced in 2022, with the proportion who agree that they are afraid of credit and credit cards reducing to 23 percent (from 38 percent in 2017) but 60 percent still disagree that credit cards are safe and risk free. The proportion of participants not comfortable with making only the minimum credit card payment also increased further to 74 percent (from 70 percent).

Although negativity towards credit cards has lessened, it was still evident in some of the participants’ responses, such as “I still haven’t got a credit card. It’s still fairly firmly in the ‘I don’t need this’ boat” and “I still don’t like credit cards. I don’t see the point.” The challenge of credit cards was highlighted by one participant’s experience:

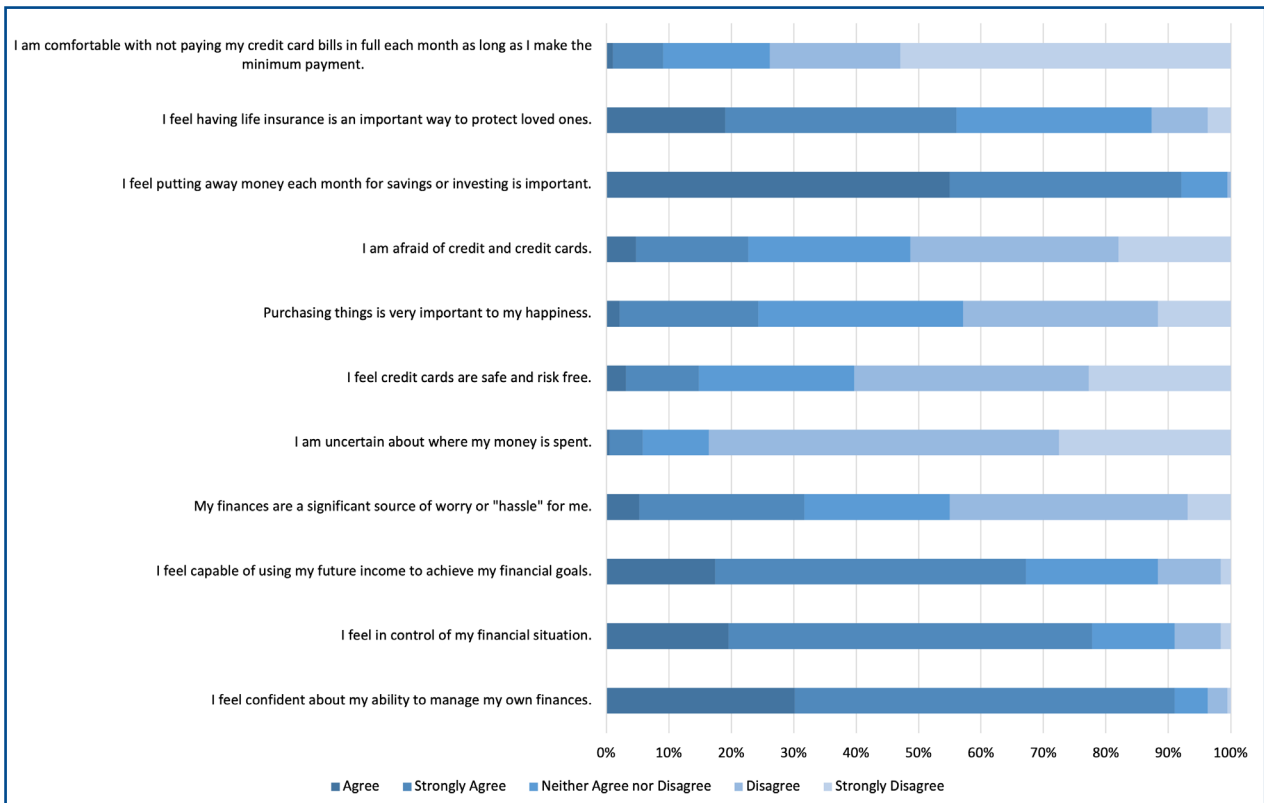
“I’ve had credit card debt for a long time now. And I’ve always been trying to get rid of it. It’s so hard to get rid of to be honest. So, I think probably five years ago, I probably was also feeling very anti-credit card. I am trying to get rid of it.”

However, as in 2017 some participants did have positive views on credit cards, such as “We use it for convenience purposes”, and “I have had to use my credit card quite often. But I don’t see it as a negative thing, because I always pay it off in time”. One participant summed it up well, saying “I guess my attitude towards them is that they are great for the points and the benefits, and so long as you’re paying it off on time without incurring any interest, then they are probably not bad but it is whether or not you can personally maintain that”.

Attitudes towards debt have generally become more positive, with one participant explaining “I used to think that [debt’s] not a good thing. But now I’ve realised that debt allows you to purchase things that you wouldn’t have the means to. So as long as you know how to service that debt, or you have a plan to service that debt, then taking on that debt is good”. However, there is still a reluctance to take on debt, with participants’ comments including “I hate owing money. I would rather wait to buy luxury things and budget more and skimp more when we can, to pay things off faster if we need to do things like that”; “I’ve never really had much debt. And I don’t like it. Well, actually, I have a mortgage now. But I feel in control of it”; and “I don’t want to get debt that’s not necessary”.



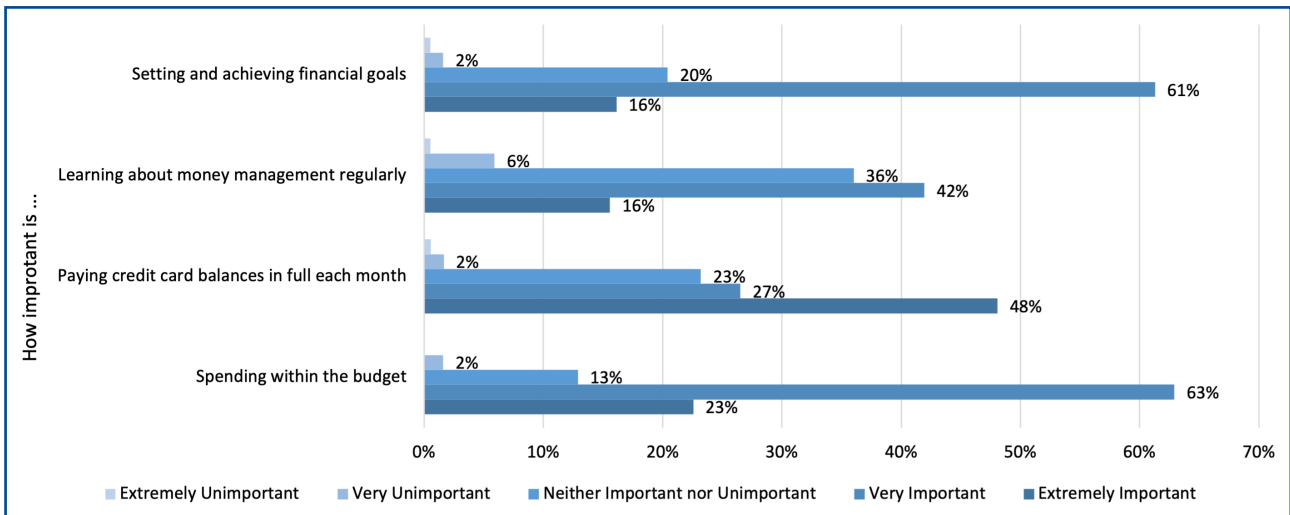
**“I feel less confident about managing money in the adult world. There is this uncertainty about what to do when you have more money.”**



**Figure 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.

As in the previous stages, the participants had a positive attitude to the importance of specific financial attitudes that are more future-focussed: spending within budget, paying credit card balances in full each month, learning about money management, and setting and achieving financial goals, as reflected in Figure 7. The mean responses on a 5-point Likert scale were 4.0, 4.2, 3.7, and 3.9 respectively, which were very similar to the results in both previous stages.



**Figure 7:** Financial Attitudes Looking Forward

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

The greatest importance was placed on Spending within the Budget, with 85 percent rating it “Extremely Important” or “Very Important”, followed by Setting and Achieving Financial Goals (77%), compared to 82 percent and 80 percent respectively in 2017. Learning about money management has dropped in importance to 58 percent, which is similar to the proportion in 2012 but down from 70 percent in 2018.

In the interviews, participants talked about their life goals, which included things like home ownership, marriage, children, travel and retirement. They recognised the importance of financial management to help in achieving these goals with comments such as:

“I guess my goal is still to have some investment, a couple of investment properties that will pay for our retirement and it’s just about how and when”;

“Having a family, being able to provide for them is something quite important to me, so I’m trying to set myself up for that”;

“I guess my goal is that I want to be financially secure enough at whatever life stage that I can do whatever I want at that life stage. Because I don’t know what I want when I’m 70yrs”;

“I think it’s like we’ve both entered our 30’s, I think we’ve realised that this next decade is all about us, trying to make ourselves as financially secure as possible”.

## FINANCIAL BEHAVIOUR

Compared to twelve months earlier, 61 percent reported their financial situation was better, with just 13 percent reporting it had worsened. Participants were optimistic about the coming year, with 60 percent expecting their financial situation to improve and 13 percent expecting it to worsen. Around a quarter (235) attributed the change in their financial situation to a new job, while 18 percent indicated the change was due to the general economic situation in New Zealand (including the impact of COVID-19). A third (34%) cited reasons other than the options given, with the most common of these other reasons being purchase of a house and having a baby.



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

The comments referenced the reality of growing up and the changes that creates, such as

“[five years ago] I was excited about not being a student anymore and living an adult life. Now I’m kind of a little bit cynical, and a bit freaked out about my financial situation.”

“I guess I’m probably more of an adult now. So, my financial situation is determined by things like being able to buy a house and stuff.”

“I feel like five years ago was a long time ago. I was a different guy than to what I am now in some ways. You could almost think, I’m not a kid, or I’m not an adult. I feel a lot older.”

“I can’t even think how I would have felt then, but I definitely feel more money-wise now. I’ve got a family now. So, I suppose I’m more cautious now about what to spend it on and don’t just blow it.”

Where concerns were expressed these often centred around the economic situation, such as:

“Probably, the only kind of concerning thing, is I guess being able to meet the rising costs of living”; “I probably believe it’s a bit worse off than what it was five years ago, due to COVID, I think has a lot to do with it. Because obviously, the cost of living and the price of food and everything else has gone up”

“It’s slightly better. But I think the cost of living is the biggest worry. And how that compares to your salary, what you earned beforehand, and going forward because like inflation is like ridiculous, and we haven’t experienced that in the last five years”

Some participants have become more established in the workforce, which comes with greater disposable income and financial freedom, with comments such as:

“Definitely a lot more confident with finances at the stage of life that I’m in at the moment, though. I have financial stability, have a plan, a budget, different bank accounts when money comes in.”

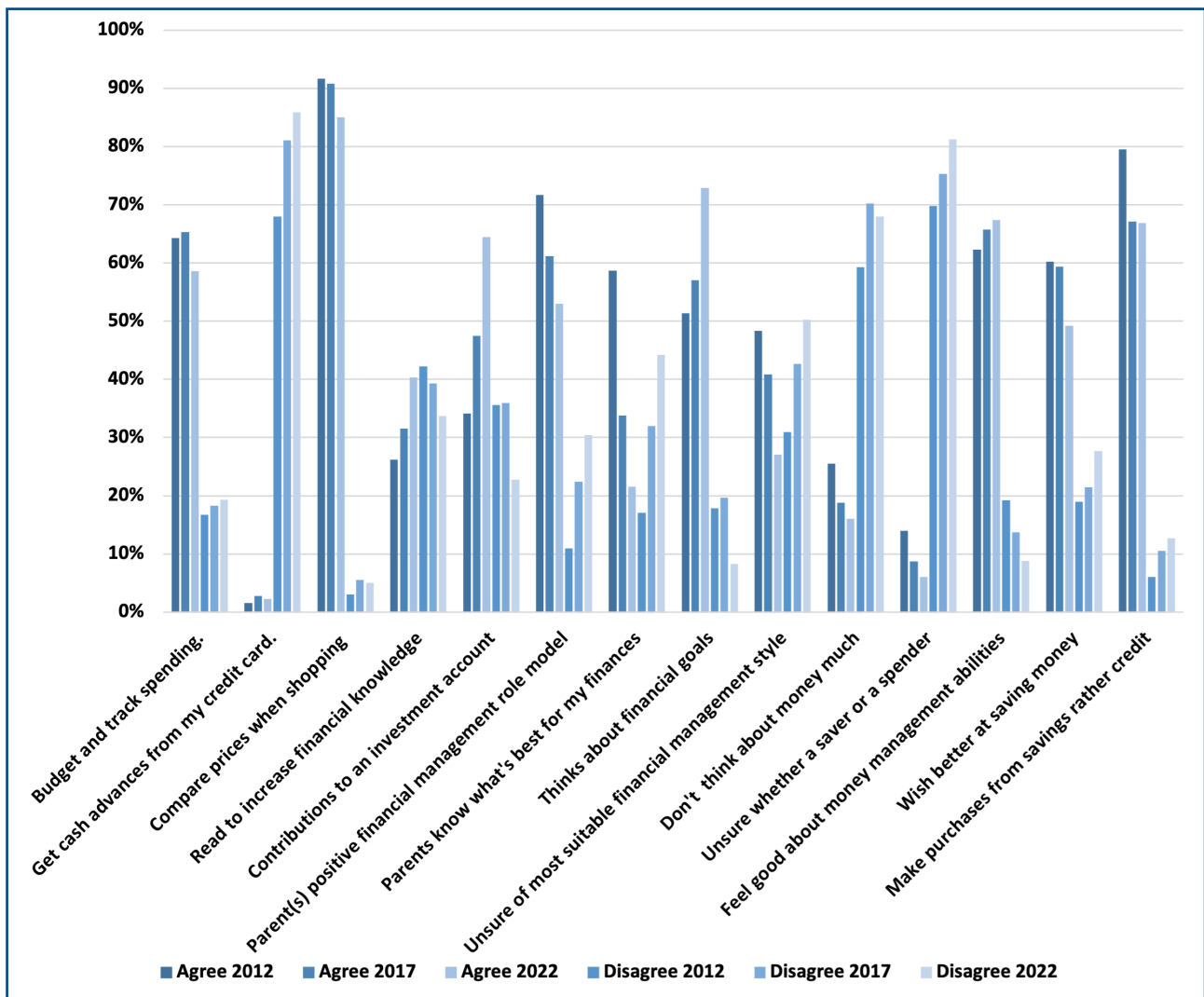
“But now, both me and my wife, we earn enough, and we’ve kind of put in place controls and stuff like that. So, we initially started with a budget. And now what we do is it just kind of manages itself, I don’t even need to think about it.”

However, for other participants the changes in their financial situation were challenging:

“A bit more challenging and that’s due to the birth of two children, and I guess, the purchase or the building of our new home, or our first home. Obviously, what comes with having children around is a drop in income due to parental leave and the likes.”

“We’ve had lots of ups and downs; we’ve sold a couple houses. Bought a couple of houses. We have changed jobs, we have had a baby and so obviously, now things are quite tight because we have a baby.”

Participants were asked a series of questions to explore their financial behaviour, with the results shown in Figure 8. Some positive financial behaviours have dropped a little since 2017. Fifty-nine percent reported they budget and track spending, down from 65 percent in 2017, and 85 percent compare prices when shopping, down from 91 percent in 2017. However, most have further improved, with 86 percent reporting they do not get cash advances on their credit cards compared to 81 percent in 2012 and 73 percent reporting having spent time thinking about financial goals, credit cards and spending habits and have decided on a money management method that works for them (up from 57 percent in 2017). In addition, 64 percent contribute to an investment account (up from 47 percent) and 67 percent feel good about their money management abilities (similar to the 66 percent in 2017). The proportion that are unsure on what financial management style suits them best has dropped substantially to 27 percent (from 41 percent in 2017), and fewer than half (49%) now wish they were better at saving money (down from 59 percent in 2017).



**Figure 8:** Financial Behaviours

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

Although the results shown in Figure 8 reflect generally positive behaviours, some participants still see room for improvement. For example, one participant said “I think, as I’m heading into the end of my 20s, and into my 30s next year, I’m sort of just like, ‘okay, let’s get let’s get more of a plan sorted’.” However, another participant acknowledged their improved financial behaviour, saying “I think more about my spending habits and where money’s going than I did five years ago, I would have been 22/23yrs. It definitely was spend, spend, spend, and not a lot of saving.”

Despite the continued reliance on parents for financial advice noted earlier, it is interesting to note that fewer see their parents as role models (53 percent compared to 61 percent in 2017 and 72 percent in 2012), and only 22 percent now believe their parents know what’s best for them in terms of taking care of their finances (compared to 35 percent in 2017 and 58 percent in 2012).

One of the themes to come through the interviews was the systematic approach to money management that many participants had adopted, such as:

“What we do is split our money into various accounts for various purposes.”

“I use Google Sheets to monitor it and, just kind of see how much I’ve got. So, I’ve got like, a little bit of a forecast. It’s only a sort of a 12 month one, just factoring in repayments and mortgages and things like that. And it’s just kind of more just to watch it, watch things grow and things.”

“I’ve got my own little charts that I’ve designed that show me the exact data that I want to see.”

“I’ve probably got a better idea of where I’m spending my money. I have used different ways of tracking it to really just break it down to; Ubers, Uber Eats, just things like that, because it’s interesting to see where you are spending your money each month and to see a great figure on something like Ubers, for example, it just really makes you more wary of it and not wanting to do it so often.”

“One thing I do is I keep my savings account at a particular level, say like \$2,000. And if it drops anywhere below

\$1,000, then I will re-evaluate my spending until it climbs back up to \$2000, then I will just spend however I want. If it drops down to \$1000 again, then I stop spending until it climbs back up to \$2000.”

“Well, I’ve been using that saving the change tool on my bank app. So that just like any leftover, it just goes to my other savings account.”

However, some participants also noted some aspects of their financial behaviour that were less positive:

“I think my spending still pretty bad. I think there’s that typical trap of as your income goes up, you end up spending more.”

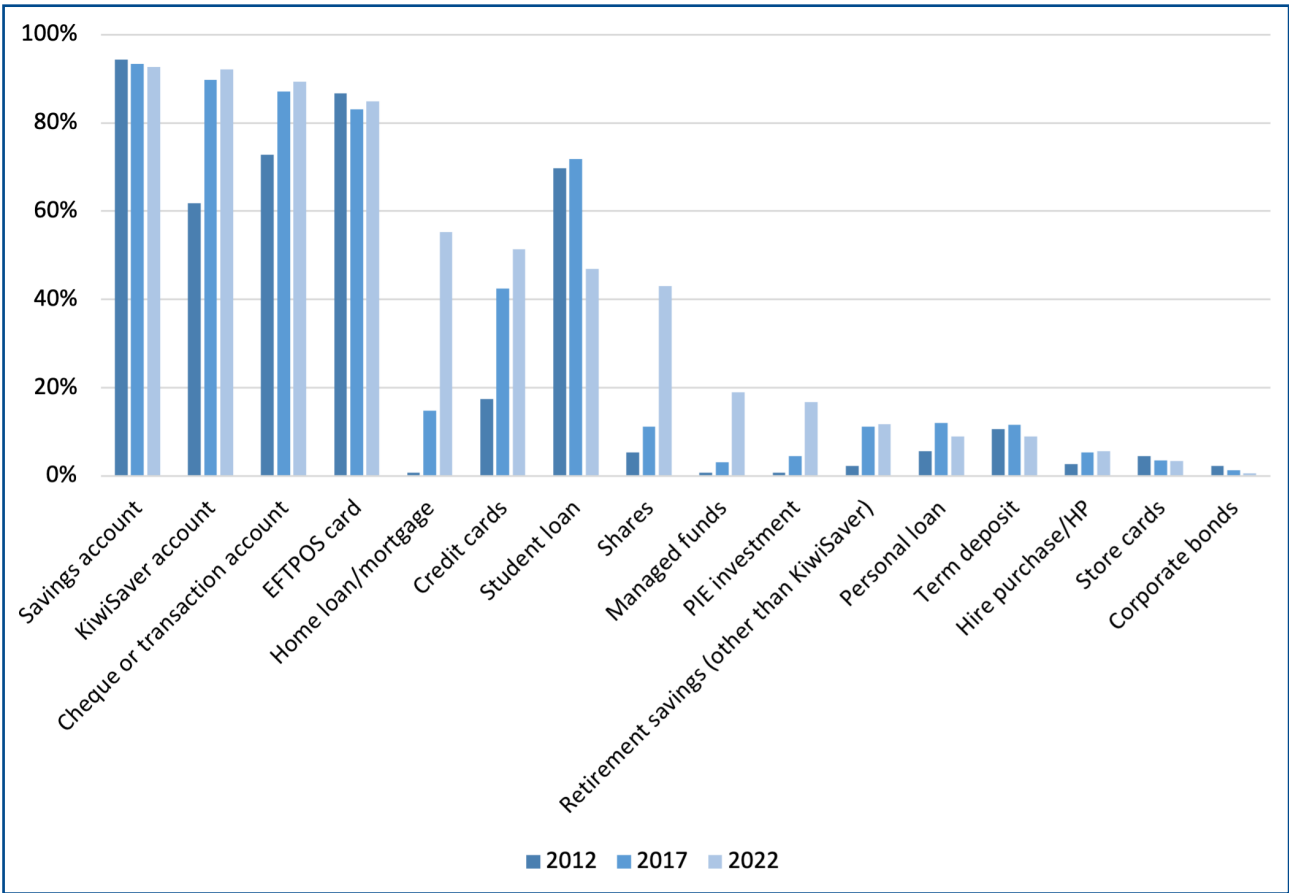
“I’ve gotten slovenly because my income is risen. I’ve remarked to my wife that we seem to eat out maybe as much as once a week or once a fortnight.”

“I’m probably a bit more lenient and I’ll probably rather than looking for a sale, I’ll just buy something – I want it now.”

On a positive note, the proportion of respondents who reported having to change food shopping or eating habits because they did not have enough money had dropped to 33 percent (down from 43 percent and 45 percent in 2017 and 2012 respectively). Similarly, the proportion reporting they had cut back on social and entertainment expenses due to money shortages reduced to 34 percent in 2022 (from 48 percent in 2017 and 60 percent in 2012).

Participants’ planning is now more future-focused, albeit still relatively short-term. Most (56%) were focussed on the one to four-year planning horizon, up from 46 percent in 2017 (and 49 percent in 2012). The proportion focussed on the next year in planning their finances had fallen to 12% (from 24 percent in 2017 and 29 percent in 2012). The proportion focussed on a planning horizon of five years or more had risen to 33 percent (from 30 percent in 2017 and 22 percent in 2012).

In 2017, we noted a marked increase in the number and variety of financial products held, and this has increased further in 2022, as reflected in Figure 9. The most notable increases are in Home loans (now 55 percent compared to 14 percent in 2017), Shares (up to 43 percent in 2022 from 11 percent in 2017) and Managed funds and PIE investments (increased from three percent and four percent respectively in 2017 to 19 percent and 17 percent respectively in 2022). The notable decrease was in Student loans, which had dropped to 47% (from 72 percent in 2017). The KiwiSaver participation rate remains high (at 92 percent). Forty-four percent of KiwiSaver members were contributing at the required rate of 3 percent, but a substantial portion (26%) were making contributions at 4 percent or more.



**Figure 9:** Financial Accounts

**Notes:** Figure provides a comparison on the utilisation of financial tools at each stage of the study in 2012, 2017 and 2022

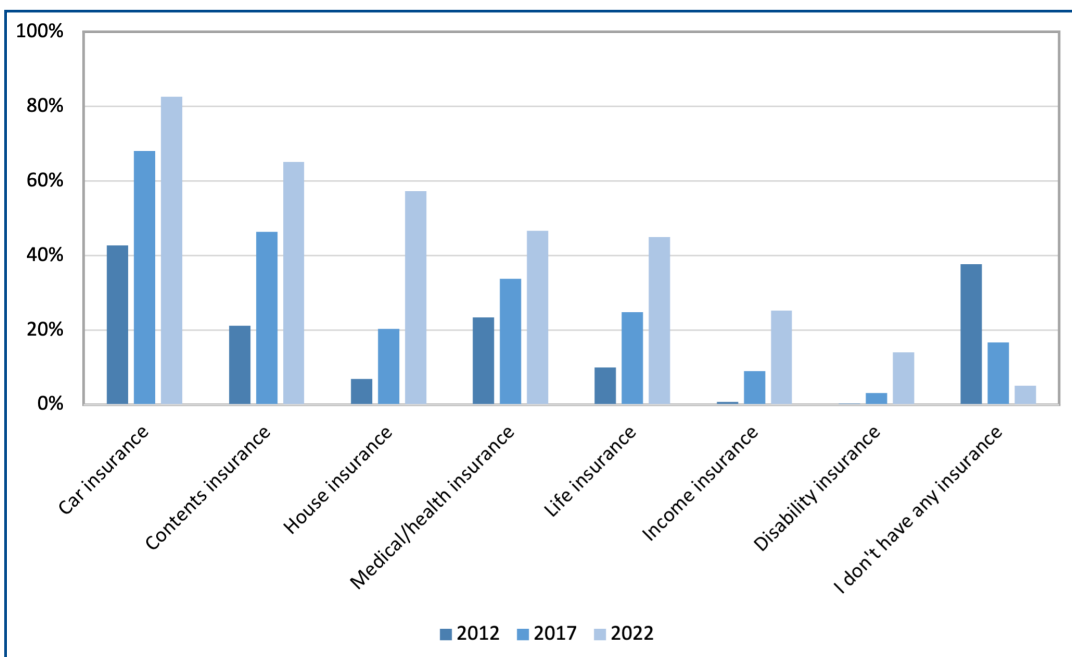
KiwiSaver is viewed as a key contributor to retirement preparation, although in some cases it represents a fairly passive approach:

“I haven’t actually thought long-term about [retirement], because I have KiwiSaver ticking along, behind in the background.”

“We both have KiwiSaver, which will continue to grow over time.”

“I guess I’m kind of pinning all my hopes on my KiwiSaver. I know that when I do all the calculators, I should be putting a lot more into it and I will need a whole lot more money than what I’ve got in there now.”

Similarly, there has been an increase in insurance coverage, with just 5 percent now reporting they don’t have any insurance (down from 17 percent in 2017 and 37 percent in 2012) as shown in Figure 10. Car insurance remains the primary form of insurance, held by 83 percent of participants (up from 48 percent in 2017) but a majority now also have contents insurance (65 percent) and house insurance (57 percent). There was another substantial increase in life insurance as well, with 45 percent now holding life insurance (compared to 25 percent in 2017).



**Figure 10:** Insurance Products

**Notes:** Figure illustrates a comparison of insurance products held at each stage of the study in 2012, 2017 and 2022



## FINANCIAL WELLBEING

Recent years have seen the development of a better understanding of the link between financial capability, financial wellbeing, and ultimately overall wellbeing. Accordingly, some of the survey questions sought to understand participants' wellbeing better, both generally and in specific areas of their life.

The four questions reported in Figure 11 asked about participants' overall physical health, general wellbeing, their relationship with parents, and their relationship with friends. The proportion describing their wellbeing as "Very Good" or "Excellent" in each category was similar to the results for 2017. General wellbeing was described as "Very Good" or "Excellent" by 49 percent in 2022 (48% in 2017), while the results for their relationships with parents and friends were 70 percent and 69 percent respectively (compared to 70 percent and 72 percent in 2017). Physical health was the only area with an increase (55% in 2022 compared to 50% in 2017).

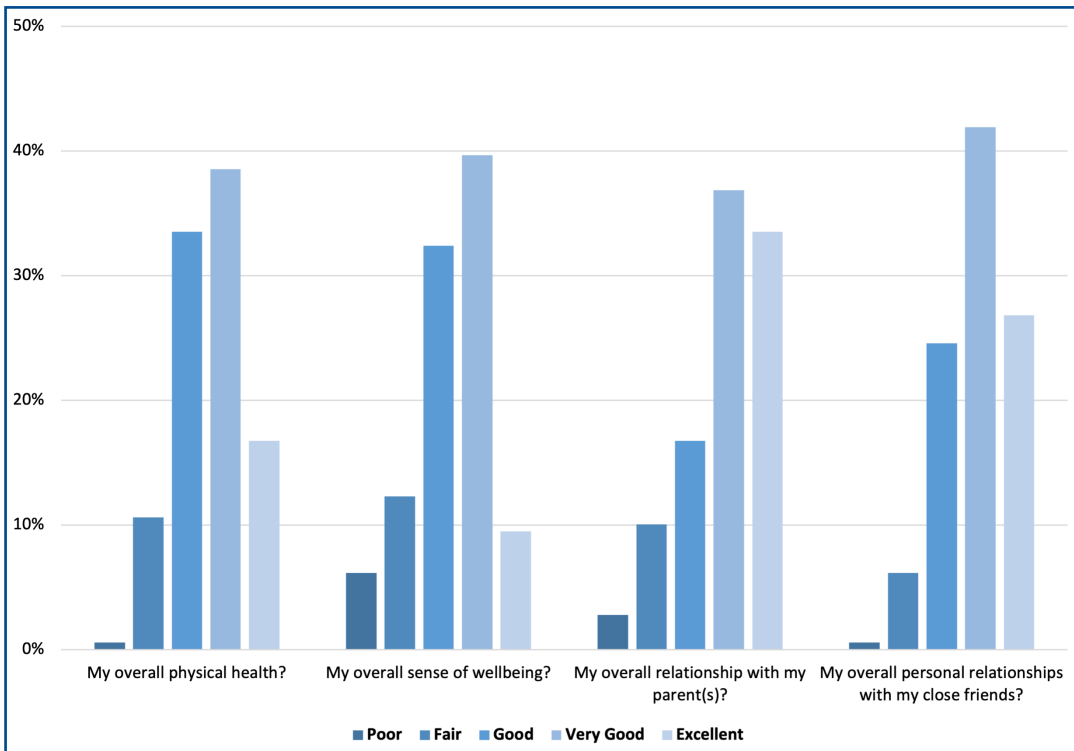


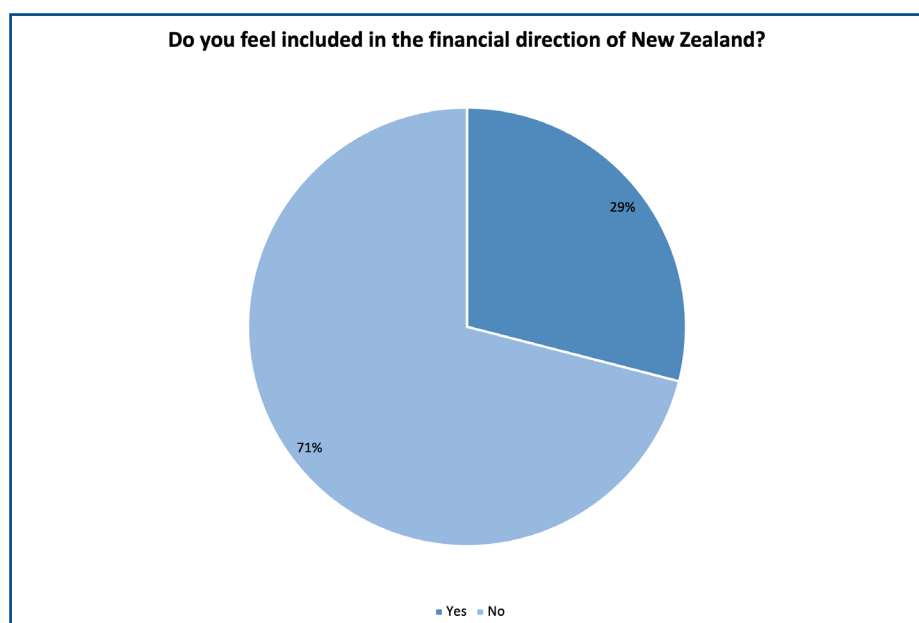
Figure 11: Overall Sense of Wellbeing



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

The survey also asked how satisfied participants were with their life, and then specifically with respect to their financial status. Life satisfaction remained high at 75 percent (compared to 73 percent in 2017 and 79 percent in 2012). Satisfaction with their current financial situation has improved to 51 percent (up from 44 percent in 2017 and 45 percent in 2012). The greater satisfaction with their financial situation may reflect the lower student debt and greater home ownership noted above.

A separate question asked how participants viewed their financial situation today compared to 12 months earlier, and how they expected it to change over the next twelve months. Sixty-one percent described their situation today compared to a year previous as “A bit better” or “A lot better”, with a further 26 percent describing it as about the same. Participants remained optimistic about the next twelve months, with 60 percent expecting their financial situation to improve.



**Figure 12:** New Zealand’s Financial Direction

**Notes:** Figure reflects participants’ sense of inclusion in the economic/financial direction of New Zealand.

Beginning with the 2015 interim survey, participants were asked about their sense of inclusion in the financial direction of New Zealand. The proportion who reported not feeling included in New Zealand’s financial direction had increased slightly to 71 percent in 2022 (compared to 68% in 2017), as shown in Figure 12. The proportion of participants that considered financial inequality was a problem in New Zealand was also stable at 88 percent (compared with 85 percent in 2017).

We asked participants how included they feel economically by political decisions and policy, and their responses were relatively negative, such as:

“I feel like I can’t get ahead in New Zealand, no matter how well or good I do.”

“I work in healthcare. And it’s been a very dire situation for quite a long time in healthcare.”

“I’m in hospitality, we got to hit pretty hard. We are still struggling. So, I just feel like Labour has kind of made it a bit harder for us, as a whole, as a small business.”

We also asked what changes they would make to the country’s economic direction if they had the opportunity, and the responses covered the standard issues including health, welfare, and housing. Comments included:

“Definitely, the health system is the sort of stuff I can say I’d put more money into.”

“I would definitely go more towards providing more welfare assistance and housing assistance.”

“I think we need to address our poverty. We talk a lot about poverty in this country but not really, it gets hushed under the carpet.”

“I would like housing to be less of a viable investment. I know that we’ve already made some changes in that direction. But I really feel that not enough has been done. I also think we’re decades behind the rest of the world in tenancy laws.”

“Probably a bit of public transport. That is one thing that do get a little bit annoyed with when I’m driving places, that you can’t easily catch a train to different places.”

The strong sense of commitment to participating in the electoral system that we found in 2017, continued with several referencing voting as being a civic duty:

“I believe it’s everyone’s civic duty to vote. It’s important in a functioning democracy for as many people to make their voice heard as possible.”

“I’m a firm believer that if you have a criticism of any, towards current or past governments and you don’t vote then you don’t have much of a leg to stand on, if you haven’t gone and voted. A lot of people have sacrificed a lot to give us the opportunity to be able to vote democratically. So, I feel it’s a responsibility for us.”

“I was overseas, but I still voted [in 2020]... because women fought really hard for us to have the vote. And I’m not gonna disrespect them by not voting, and it is only a democracy if you vote.”

“I voted because I think it’s a privilege to be consulted on these matters, and who should be leading the country and for what policies they stand for. I see it more as a citizen obligation.”

However, some participants indicated some disillusionment with the electoral system:

“I did struggle to decide who to vote for this time, because a lot of the parties are not offering things that I want to see. That’s been incredibly frustrating.”

“Lately, I’ve gotten quite disillusioned. I just feel like my vote doesn’t count. The only reason I continue voting is because it benefits my demographic. It gives me political power. Politicians will pander to my interests because I’m a voter. It’s fairly cynical, but that’s kind of where I’m at with voting.”

Views on retirement can also help understand participants’ sense of inclusion and their expectations for future wellbeing. An increasing percentage of participants do not believe New Zealand Super will satisfactorily provide for their retirement (68 percent in 2022 compared with 60 percent in 2017). In addition, the proportion that expect means testing for eligibility for New Zealand Super to be introduced rose to 62 percent in 2022 (from 44 percent in 2017), while the proportion expecting an increase in the age of eligibility for New Zealand Super was 88 percent.

On the subject of home ownership and retirement, 97 percent believe owning a home would be helpful for retirement and 85 percent expected to own a home freehold by the time they retired.

Reflecting a common attitude among New Zealanders, the importance of home ownership for retirement was reflected in participants’ comments:

“I feel better with having a home, knowing that... well, I’m fairly confident that the home will be worth what it is now, if not more, and whenever we decide to sell it and that being a large chunk of our I guess, security come retirement.”

“Well, our property is kind of my retirement plan. So, by the time I retire, I would hope that I wouldn’t have a mortgage on the property and that by that stage we would be looking to downsize.”

While retirement is still well into the future for the study participants, it is clear that it is something they are thinking more about. Comments included:

“I guess I’m well prepared for retirement because I’m not going to retire. I want to keep working. I’ve read in books, that when people stop doing work, they just like die the next week. You don’t have anything to do, you’re just gonna die.”

“I do have plans in place to try to get to a position where I can retire comfortably and it’s not marrying a rich person!”

“I’m doing a retirement module on my course at the moment. I’ve got this, this is my goal. This is my timeline up here that I’ve got. (Map on the wall shown) It’s just I follow the line to all my goals each year and definitely feeling like it’s doable, feeling like it’s gonna get there.”

However, some participants do not expect to achieve home ownership especially on their own, with responses like:

“I’ve kind of accepted the fact that I’m probably never going to own a house.”

“In the current climate, I don’t see myself owning a home or purchasing a home of my own.”

“Whether I buy with [my brother] and we buy an investment, or if a relationship comes around. I just cannot do it alone.”

More than half (53%) the cohort are now homeowners with a home loan, while a small additional group (2%) own a home without a home loan. Despite the concern expressed by some about their prospects of future home ownership, 85 percent reported they expect to own their own home by retirement (down from 88 percent in 2017), which in part is likely to reflect the almost unanimous view (97%) that owning a home would be helpful for retirement.

## RESILIENCE

In 2020, an interim survey explored participants’ financial resilience with a particular focus on the effects of the pandemic. The interim study (Reyer, Wood, Matthews, and Stangl, 2020) found that most participants had high levels of financial resilience. In this full stage of the study, this was explored further.

To understand participants’ general financial resilience the survey asked how easily they would be able to raise \$3000 for an emergency in one week. Fifty-two percent believed they could easily raise the money, up from 45 percent in the interim survey. A further 41 percent (47 percent in 2020) believed they could raise the money but it would require a sacrifice or drastic action. Only a small proportion (7%) did not think they could raise the money. Most of those that could raise the money would do so from savings (76 percent, up from 67% in 2020), while borrowing from a relative who lives elsewhere was the next most popular option (9%).

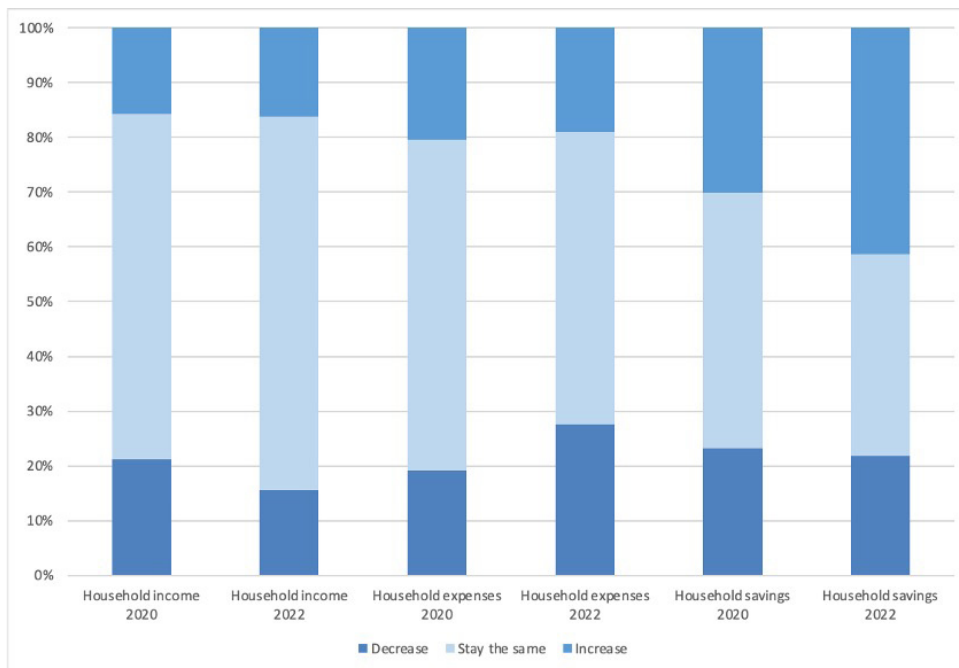
A related question asked how long participants believed they could live off their current savings. As reported in Table 3, the length of time the savings would last has reduced slightly, with fifteen percent indicating their savings would last for more than twelve months, compared to 18% in 2020. A similar proportion indicated their savings would last less than six months, but a higher proportion reported having no savings.

Gender	2020	2022
More than 1 year	17.80%	14.94%
9 - 12 months	5.50%	12.64%
6 - 8 months	18.50%	12.07%
3 - 5 months	18.50%	18.39%
1 - 2 months	17.10%	18.97%
Less than a month	13.00%	12.07%
I do not have any savings	9.60%	10.92%

**Table 3:** How long participants can live off their current savings.

**Notes:** Table presents response selections for the interim survey in 2020 and the full study in 2022.

Moving on to the question of how the Covid-19 pandemic had affected participants’ household finances, participants reported that household finances had generally improved relative to 2020. The impact on income was less than in 2020 with 68 percent reporting no change (compared to 63 percent in 2020), and slightly more reporting an increase in income. While fewer reported no change to household expenses (53 percent in 2022 compared with 60 percent in 2020), the greatest change was a reduction in household expenses. In addition, household savings had increased for 41 percent in 2022, up from 30 percent in 2020.



**Figure 13:** Impact of COVID-19 on household finances

**Notes:** Figure reflects participants reporting of the impact of Covid-19 on household income, expenses and savings in 2020 and 2022.

Concerns over job security had also reduced, with 74 percent reporting they were not concerned about job security in relation to the impact of Covid-19, which was a marked increase over the 60 percent in 2020.

Participants noted there were some financial benefits from the pandemic, with comments such as:

“COVID was actually really good. for me money wise, I actually was better off because I could only go to the supermarket to get food. I couldn’t get takeaways or eat out. I didn’t have to pay for transport. I was still working.”

“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”;

“Even though COVID was a shit time, it has been good in that sense, I know I can plan all my meals and save so much money because if you go to buy something at work, it is \$20. So that has helped.”

“I think COVID has really made me be very conscious and saving for an emergency or like saving for a rainy day.”

However, they also acknowledged the downsides, financially and in other ways, such as:

“I think [Covid-19] has contributed to the highest level of inflation we have seen in decades and rising living costs.”

“COVID has kind of thrown a spanner in the works for a lot of people.”

“I do worry about the inequality that’s been caused by the expansionary monetary policy over the last 24 months and the impact that’s had on asset prices and driven more of a wedge between wealth in New Zealand and the poor in New Zealand.”

“I think that obviously the whole thing with COVID has just made it more obvious for me that I could potentially lose my job at any moment.”

“I have got family working in hospitals around the country, and they are under immense pressure and stress to the point where their personal boundaries are always being crossed.”

## 5. DISCUSSION OF STUDY RESULTS

The results from this latest stage of the study have provided insight into the changes in financial knowledge, behaviour and attitudes as well as experiences for this cohort. It is worth noting that it is now ten years since this longitudinal study began, and our participants have moved from young adulthood (18-22) to established adulthood (28-32) and have generally experienced the type of life changes that come with maturity, such as those with respect to careers and relationships.

Financial literacy has improved further, albeit by a smaller proportion in the last five years. While some of the improvement in the second stage was attributed to some participants dropping out of the study, this appears to have had less impact this time. The opportunities over the past five years for new financial experiences and the associated learning that comes with it is likely to account for much of the improvement in financial literacy. This is supported by the finding that since 2017, “Life Experiences” had moved to being the most important source of informal education. The improvement in financial literacy was also accompanied by an increase in participants’ self-assessment of their financial knowledge and was reflected in their comments.

The gender gap in both objectively and subjectively assessed financial literacy remained, although it had narrowed further. This gender gap is consistent with other studies. For example, Lusardi and Mitchell (2023) reports a “sizeable gender gap for each of the financial literacy questions separately, as well as for the overall Big Three score” (p. 5) and note that it is remarkably stable across topics and countries. Concern about this gender gap is reflected in women being one of the four target cohorts in the Australian National Financial Capability Strategy, because “women are still more likely than men to have low financial capability” (Australian Government, 2022, p. 21). Similarly, women are one of the priority audiences under New Zealand’s National Strategy for Financial Capability, with the strategy noting that “Women often relate to money in different ways to men, and financial capability messages have not always resonated with them” (TAAO RC, 2021, p. 7).

In addition, a higher proportion of participants had proactively sought to increase their financial literacy. While this rarely included formal education in the form of seminars or workshops on financial management, talking with professionals such as financial planners or bank staff was much more common than previously. However, while participants reported talking to friends and finding information on the internet more than in the previous stages these were not actually the main sources of what they had learned. Participants reported continuing to talk to their parents, but their parents’ role as a source of education had diminished.

As noted above, life experiences were the most important source of education over the previous five years. This is in line with other studies that have also found life experiences to be a key source of knowledge (Hilgert, Hogarth, & Beverly, 2003) which may offset a knowledge gap resulting from a lack of formal financial education (Tang & Peter, 2015). Unfortunately, mistakes may be part of the process of learning by doing, and there can be a high cost to financial mistakes and incorrect decisions, which may also be difficult to reverse (Hastings, Madrian, & Skimmyhorn, 2013).

Despite the lower reliance placed on parents in the recent past, it is interesting to note that participants expect to continue to seek information and advice from their parents, albeit to a lesser extent. They also expect to place greater emphasis on financial professionals, which reflects their recent experience.

Participants’ confidence in their financial management continues to grow but they remain wary of debt, particularly credit cards, while continuing to acknowledge the importance of saving. Negativity towards debt has lessened, largely due to many participants now having purchased a home and therefore having direct experience of debt via a home loan. This was reflected in more nuanced views about debt with some, such as home loans, seen as necessary and/or acceptable, while other debt, such as credit cards, was not. Participants continued to show positive attitudes towards future-focussed behaviours, such as setting and achieving financial goals. However, their comments did reference the fact that they were getting older and the changes that brought for them.

While good behaviours have largely continued or improved, some have deteriorated a little compared to five years ago. Most participants continue to budget and track spending and compare prices when shopping, but at slightly lower levels than in 2017. However, they are doing more reading to improve their financial knowledge and a substantially higher proportion are contributing to an investment account and thinking about financial goals. The proportion who wish they were better at saving has dipped below 50 percent, while a much lower proportion remain unsure of the most suitable financial management style for them.

We are now seeing participants becoming focussed on a longer time frame, albeit still shorter term, with a third now focussed on a planning horizon of five or more years. While the one to four-year time horizon remains the focus for most, this is offset by the high rate of KiwiSaver membership, which is now over 90 percent. Despite the relatively short time horizon for planning, participants have given some thought to their retirement. They are relatively pessimistic about New Zealand Super, with most believing it will be insufficient for their retirement, while also expecting means testing to be introduced and the age of eligibility to be increased. Participants were almost unanimous in their belief that home ownership would aid their retirement, although some did not expect to have a freehold home by the time they retired.

With the growing focus on financial wellbeing, as the expected and desired outcome of improved financial capability, the study sought to explore participants' wellbeing. Nearly half of participants continued to report their overall wellbeing as Very Good or Excellent, with fewer than one-fifth reporting it as Poor or Fair. Similarly, life satisfaction remained high while satisfaction with their current financial situation had improved. However, this contrasts with the low proportion that feel included in New Zealand's economic direction, and the high proportion that see financial inequality as a problem in New Zealand.

In this study, we continued to ask about resilience, a topic that had been introduced in the interim surveys, as this is another means of assessing financial wellbeing. About half thought they could easily raise \$3000 for an emergency within one week, and only a very small proportion thought they could not raise it at all. Forty percent reported they could live off their savings for at least six months.

A new topic in this study was the impact of the Covid-19 pandemic. The position has improved since we first asked about it in 2020, with some participants noting financial benefits from the pandemic. Fewer reported a reduction in household income as a result of the pandemic, and most (68 percent) reported no change. Similarly, fewer participants reported an increase in household expenditure, and more reported reduced household expenditure. In addition, there had been a greater increase in household savings, and more reported that they were not concerned about job security.

## KEY CHANGES 2012 – 2022

What we have seen over the three stages of this study is a steady improvement in financial literacy of our participants, which is a positive trend. However, the gender gap has continued, albeit it has shrunk as the financial literacy of the female participants has increased more than that of the male participants. This has been coupled with an increase in self-assessed financial literacy, with a strong correlation between self-assessed financial literacy and the objective financial literacy assessment, which means participants have recognised the improvement in their financial literacy. This is reflected in their growing self-confidence in financial matters.

The source of financial education has changed over period of the study, although informal education continues to dominate. We have seen a diminishing reliance on parents, although they are still seen as an important source of education. This has been offset by a growing source of education through life experiences. The impact of life experiences is not surprising given the age group of the cohort, who have moved from being in the post-secondary period (aged 18-22) to adults (28-32), a period of life which includes such things as starting work, joining KiwiSaver, buying a house, and having long-term relationships, all of which have financial implications.

This supports arguments that more needs to be done to improve financial literacy, particularly for females, and at a younger age. Young people start making important financial decisions in their final years of compulsory education and in the period immediately after that. Being forced to rely on parents, who may themselves not have good financial literacy, and life experiences, where the education often comes in the form of mistakes made, is not conducive to good financial outcomes. As discussed elsewhere in this report, improved financial literacy has benefits for the individuals and the wider economy.

Of interest is the change in the attitudes towards debt, from something to be avoided to something that has value in certain circumstances, such as buying a home. While the time-horizon for planning remains relatively short-term, it has lengthened over the study period, and we would expect to see it lengthen further as our participants age.

Interestingly, despite the increase in financial literacy there has been only limited corresponding increase in participants' sense of wellbeing. While life satisfaction remained high (and therefore expecting further increases may be unrealistic), satisfaction with their current financial situation had improved only a little. This is accompanied by an increasing proportion not feeling included in New Zealand's financial direction and increasing pessimism about their future retirement and particularly the prospects for government support in retirement.

## 7. REFERENCES

- Agnew, S., & Cameron-Agnew, T. (2015). The influence of consumer socialisation in the home on gender differences in financial literacy. *International Journal of Consumer Studies*, 39(6), 630–638.
- ANZ. (2018). *Financial wellbeing: A survey of adults in New Zealand*. ANZ. Retrieved from <https://bluenotes.anz.com/content/dam/bluenotes/images/financial-wellbeing/ANZ%20Financial%20Wellbeing%20Summary%20Report%20-%20New%20Zealand.pdf>
- ANZ (2021). *Financial wellbeing: A survey of adults in New Zealand*. ANZ. Retrieved from <https://www.anz.com.au/content/dam/anzcomau/documents/pdf/aboutus/esg/financial-wellbeing/anz-nz-adult-financial-wellbeing-survey-2021.pdf>
- Australian Government (2022). *National Financial Capability Strategy 2022*. Retrieved from: <https://www.financialcapability.gov.au/strategy-2022>
- Brown, M., Grigsby, J., van der Klaauw, W., Wen, J., & Zafar, B. (2016). Financial Education and the Debt Behavior of the Young. *The Review of Financial Studies*, 29(9), 2490–2522.
- Buccioli, A., & Veronesi, M. (2014). Teaching children to save: What is the best strategy for lifetime savings? *Journal of Economic Psychology*, 45, 1–17.
- CFFC. (2013). *Financial Knowledge and Behaviour Survey 2013*. Retrieved from <https://assets.retirement.govt.nz/public/Uploads/Financial-Capability-Research/Financial-Knowledge-and-Behaviour/51d57fe1e9/FKBS-2013-Financial-Knowledge-and-Behaviour-Survey-11-06-2013.pdf>
- [CFPB] Consumer Financial Protection Bureau. (2023). *Financial Literacy Annual Report*. Retrieved from <https://www.consumerfinance.gov/data-research/research-reports/2022-financial-literacy-annual-report/>
- Erdem, D. and Rojahn, J. (2022). The influence of financial literacy on financial resilience – New evidence from Europe during the COVID-19 crisis. *Managerial Finance*, 48 (9/10), 1453-1471. <https://doi.org/10.1108/MF-09-2021-0442>
- Europe Economics. (2016). *The economic impact of improved financial capability*. Retrieved from <https://moneyandpensionservice.org.uk/wp-content/uploads/2021/03/economic-impact-of-improved-financial-capability.pdf>
- Europe Economics. (2018). *The economic impact of debt advice*. Retrieved from <https://www.moneyadvice.service.org.uk/en/corporate/economicimpactdebtadvice>
- Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861–1883.
- Friedline, T., & West, S. (2016). Financial education is not enough: Millennials may need financial capability to demonstrate healthier financial behaviors. *Journal of Family and Economic Issues*, 37(4), 649–671.
- FSC. (2022). FSC Financial Resilience Index. Retrieved from <https://f.hubspotusercontent10.net/hubfs/7422267/FSC%20Corporate/Documents/Research%20Reports/FSC%20-%20Financial%20Resilience%20Index%20-%20February%202022%20-%20FINAL.pdf>
- Galicki, C. (2021). *New Zealand Financial Capability Survey 2021*. Te Ara Ahunga Ora Retirement Commission.
- Goyal, K. & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*, 45(1), p. 80-105.
- Grohmann, A., Kouwenberg, R., & Menkhoff, L. (2015). Childhood roots of financial literacy. *Journal of Economic Psychology*, 51, 114–133.
- Gudjonsson, S., Jonsdottir, S. M., & Minelgaite, I. (2022). Knowing More Than Own Mother, Yet not Enough: Secondary School Students' Experience of Financial Literacy Education. *Pedagogika*, 145(1), 5-21. Retrieved from <https://ejournals.vdu.lt/index.php/Pedagogika/article/view/3078>
- Harrison, T., Marchant, C., Ansell, J., Vernon-Harcourt, R. (2020). Does Training Teachers in Financial Education Improve Students' Financial Well-Being? An Abstract. In: Wu, S., Pantoja, F., Krey, N. (eds) *Marketing Opportunities and Challenges in a Changing Global Marketplace. AMSAC 2019. Developments in Marketing Science: Proceedings of the Academy of Marketing Science. Springer, Cham*. [https://doi.org/10.1007/978-3-030-39165-2\\_40](https://doi.org/10.1007/978-3-030-39165-2_40)
- Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). Financial Literacy, Financial Education, and Economic Outcomes. *Annual Review of Economics*, 5(1), 347–373.
- Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Fed. Res. Bull.*, 89, 309.
- Hira, T. K., Sabri, M. F., & Loibl, C. (2013). Financial socialization's impact on investment orientation and household net worth. *International Journal of Consumer Studies*, 37(1), 29–35.
- Johnson, E., & Sherraden, M. S. (2007). *From financial literacy to financial capability among youth*. *Journal of Sociology and Social Welfare*, 34, 119–146.
- Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? *The World Bank Economic Review*, 31(3), 611–630.
- Kempson, E., Collard, S., & Moore, N. (2006). *Measuring financial capability: An exploratory study for the Financial Services Authority*. (No. 39). London: Financial Services Authority. Retrieved from [http://www.pfrc.bris.ac.uk/publications/completed\\_research/Reports/Fincap\\_June05.Pdf](http://www.pfrc.bris.ac.uk/publications/completed_research/Reports/Fincap_June05.Pdf)
- Kempson, E., Finney, A., & Poppe, C. (2017). *Financial Well-Being A Conceptual Model and Preliminary Analysis*. Retrieved from <https://www.bristol.ac.uk/media-library/sites/geography/pfrc/pfrc1705-financial-well-being-conceptual-model.pdf>

- Klapper, L., Lusardi, A., & van Oudheusden, P. (2015). *Financial literacy around the world: Insights from the Standard & Poor's Ratings Services global financial literacy survey*. Retrieved from [https://gflec.org/wp-content/uploads/2015/11/Finlit\\_paper\\_16\\_F2\\_singles.pdf](https://gflec.org/wp-content/uploads/2015/11/Finlit_paper_16_F2_singles.pdf)
- Lone UM, Bhat SA. Impact of financial literacy on financial well-being: a mediational role of financial self-efficacy. *Journal of Financial Services Marketing*. 2022 Oct 3:1–16. doi: 10.1057/s41264-022-00183-8. Epub ahead of print. PMID: PMC9527722.
- Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss J Economics Statistics* 155, 1. <https://doi.org/10.1186/s41937-019-0027-5>
- Lusardi, A. and Mitchell, O. S (2023), *The Importance of Financial Literacy: Opening a New Field*. Wharton Pension Research Council Working Paper No. 2023-06, Available at SSRN: <https://ssrn.com/abstract=4425861> or <http://dx.doi.org/10.2139/ssrn.4425861>
- Lyons, A. and Kass-Hanna, J. (2021). *A Multidimensional Approach to Defining and Measuring Financial Literacy in the Digital Age*. Available at SSRN: <https://ssrn.com/abstract=3873386> or <http://dx.doi.org/10.2139/ssrn.3873386>
- [MaPS] Money and Pensions Service (2020). The UK Strategy for Financial Wellbeing 2020-2030. Retrieved from <https://moneyandpensionservice.org.uk/wp-content/uploads/2020/01/UK-Strategy-for-Financial-Wellbeing-2020-2030-Money-and-Pensions-Service.pdf>
- Neill, A., Berg, M., & Stevens, L. (2014). *Financial literacy of secondary students, and its place within secondary schools*. Study commissioned by the Commission for Financial Literacy and Retirement Income. Wellington.
- Noviarini, J., Coleman, A., Roberts, H., & Whiting, R.H. (2021). Financial literacy, debt, risk tolerance and retirement preparedness: Evidence from New Zealand. *Pacific-Basin Finance Journal*, 68. <https://doi.org/10.1016/j.pacfin.2021.101598>
- OECD. (2011). *Improving financial education efficiency: OECD- Bank of Italy Symposium on Financial Literacy*.
- OECD. (2014). *PISA 2012 Results: Students and Money: Financial Literacy Skills for the 21st Century (Volume VI)*. PISA, OECD Publishing. Retrieved from [https://www.oecd-ilibrary.org/education/pisa-2012-results-students-and-money-volume-vi\\_9789264208094-en](https://www.oecd-ilibrary.org/education/pisa-2012-results-students-and-money-volume-vi_9789264208094-en) or <http://dx.doi.org/10.1787/9789264208094-en>
- OECD. (2017a). *G20/OECD INFE report on adult financial literacy in G20 countries*. Retrieved from <https://www.oecd.org/daf/fin/financial-education/G20-OECD-INFE-report-adult-financial-literacy-in-G20-countries.pdf>
- OECD. (2017b). *PISA 2015 Results (Volume IV): Students' Financial Literacy*. PISA, OECD Publishing, Paris. Retrieved from <http://dx.doi.org/10.1787/9789264270282-en>.
- OECD (2020a), *OECD/INFE 2020 International Survey of Adult Financial Literacy* [www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport.htm](http://www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport.htm)
- OECD (2020b), *PISA 2018 Results (Volume IV): Are Students Smart about Money?*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/48ebd1ba-en>.
- Philippas, N. D. & Avdoulas, C. (2020) Financial literacy and financial well-being among generation-Z university students: Evidence from Greece, *The European Journal of Finance*, 26(4-5), 360-381, DOI: 10.1080/1351847X.2019.1701512
- Sherraden, M. S., & Grinstein-Weiss, M. (2015). Creating Financial Capability in the Next Generation: An Introduction to the Special Issue. *Journal of Consumer Affairs*, 49(1), 1–12.
- Shim, S., Serido, J., Bosch, L., & Tang, C. (2013). Financial Identity-Processing Styles Among Young Adults: A Longitudinal Study of Socialization Factors and Consequences for Financial Capabilities. *Journal of Consumer Affairs*, 47(1), 128–152.
- Strege, D.G. (2019). The societal benefits of financial literacy. *Financial Advisor*. Retrieved from <https://www.fa-mag.com/news/the-societal-benefits-of-financial-literacy-51765.html>.
- [TAAO RC] Te Ara Ahunga Ora Retirement Commission (2021). *National strategy for financial capability 2021-2024*. Te Ara Ahunga Ora Retirement Commission. Retrieved from <https://assets.retirement.govt.nz/public/Uploads/National-Strategy/National-Strategy-2021-booklet.pdf>
- Tang, N., & Peter, P. C. (2015). Financial knowledge acquisition among the young: The role of financial education, financial experience, and parents' financial experience. *Financial Services Review*, 24(2), 119–137.
- Van Campenhout, G. (2015). Revaluing the Role of Parents as Financial Socialization Agents in Youth Financial Literacy Programs. *Journal of Consumer Affairs*, 49(1), 186–222.
- Whitney, L., May, S., & Lamy, M. (2014). *PISA 2012: New Zealand financial literacy report*. Ministry of Education. Retrieved from <http://www.educationcounts.govt.nz/publications/series/2543/pisa-2012/148116>
- Xiao, J. J. (2015). *Consumer Economic Wellbeing*. New York: Springer.
- Xiao, J. J. (2016). Consumer financial capability and wellbeing. In J. J. Xiao (Ed.), *Handbook of Consumer Finance Research* (pp. 3–17). New York: Springer International Publishing.

## LONGITUDINAL STUDY KEY FINDINGS TO DATE

### **2012: Baseline study**

- Relatively low level of financial knowledge compared to studies in other countries.
- Parents remain the key source of informal financial education for this group, although in some cases the parents' own personal financial knowledge may be limited, restricting their ability to provide the knowledge required by their children.
- Young New Zealanders are scared of debt, particularly in the form of credit cards.

### **2014: Interim study – Election-focussed**

- Outlook towards the future does not seem very positive.
- 71% feel "in control" of their financial situation and 69% feel good about their money management skills.
- 75% sought advice from their parents, 43% discussed the decision with friends while 49% researched using the internet.
- 41% believe that they and their friends were worse off financially than a similar group of friends would have been 15 years ago.

### **2016: Interim study – KiwiSaver and retirement**

- 62% feel "in control" of their financial situation and 73% feel good about their money management skills.
- 90% are currently a member of KiwiSaver.
- 45% believe NZ Super will not be sufficient in retirement.

### **2017/18: Stage 2**

- Confidence in managing money remained high, and interview showed that their own assessment of managing money low.
- Financial literacy improved, but participants' self-assessment of their financial literacy declined.
- The focus remains on the shorter term with respect to financial planning; however, participants are beginning to plan for the distant future, and have a very high participation rate (89%) in KiwiSaver
- Only 30 percent considered long-term planning beyond 5 years
- 72 percent still have a student loan to pay off
- Females scored an average of 54 percent on the financial literacy test while males scored 70 percent.

### **2019: Interim study – Retirement savings**

- Interest in home ownership is growing.
- Participants had generally high levels of engagement with their retirement savings .accounts, more than 96 percent have a KiwiSaver account, and of these, 90 percent actively contribute to KiwiSaver.
- A quarter of participants have already used their KiwiSaver funds for a first home purchase, and another quarter are looking to use their funds for a home purchase in the next three years.
- While parents remain a key advice source for participants, we see an increasing use of the internet and seeking advice from partners or spouses compared to responses in prior surveys.

### **2020 Interim study – Covid-19**

- Key lessons learnt by participants from the COVID-19 experience was the necessity of being financially prepared for an emergency, and insights into their own spending habits during the lockdown period.
- In general, our participants are satisfied with their current financial situation and continue to be optimistic about their future financial position in the coming year.
- We continue to see an increasing trend in seeking financial advice and guidance from partners or spouses rather than parents as our cohort matures and one of the key sources of help in acquiring money skills continues to be the internet.

