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Commonwealth Bank of Australia and Melbourne Institute Financial Wellbeing Scales Technical Report No. 2
Chapters 1-11
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THE UNIVERSITY OF MELBOURNE

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Abstract

This report provides a first-of-its-kind view into the state of financial wellbeing in Australia. It comprehensively analyses two innovative measures: the Commonwealth Bank of Australia (CBA) and Melbourne Institute (MI) Reported Financial Wellbeing Scale of self-reported financial outcomes and the CBA-MI Observed Financial Wellbeing Scale of bank-record outcomes. It examines how these scales vary among Australians with different personal characteristics, household structures, economic and social resources, capabilities, financial attitudes, financial behaviours, banking relationships, and other characteristics. The analysis uses a conceptual model that identifies household and personal characteristics, external conditions, and financial behaviours as determinants of financial wellbeing. It examines self-reported measures of these characteristics from an on-line survey of 5,682 CBA customers as well as financial measures of these customers from bank records. The report uses the survey and bank record data to identify characteristics of customers that are associated with high and low levels of financial wellbeing and with differences in self-reported and bank-indicated financial wellbeing. It finds that income, wealth, and other resources are associated with financial wellbeing, but it also finds that financial attitudes, capabilities, and behaviours have strong associations.

JEL classification: D1, I3

Keywords: Financial wellbeing, on-line survey, bank record data, financial behaviour, Australia

Contents

1. Introduction

Finances are a universal concern for people. However, differences in people's circumstances, resources, capabilities, preferences, and other characteristics lead them to deal with financial issues in myriad ways, with myriad different outcomes. In this report, we examine how financial outcomes vary among Australians, using the concept of *financial wellbeing*. Further, we aim to *identify characteristics of people* that are associated with having high or low financial wellbeing.

Financial wellbeing is a complex, multi-faceted condition. It includes using resources today to cover bills and buy things. It also involves trade-offs over time so that people can undertake these activities in the future when resources might be low, such as in retirement; when expenses might be high, such as the purchase of a home; and when negative shocks occur, such as the loss of a job. Financial wellbeing also involves people's needs for control and security over these financial situations and their ability to reach long-term goals.

Because of its complexity, financial wellbeing has tended not to be well or consistently measured, with many analyses relying on measures of convenience rather than measures that are carefully thought through or rigorously developed. However, better measures are coming into use, including scales of financial wellbeing for the United States (Consumer Financial Protection Bureau 2015; Prawitz et al. 2006) and Norway (Kempson et al. 2017). A limitation of these measures, though, is that they rely entirely on people's self-reports.

A First-of-its-kind Analysis Using Self Reports and Bank Records

In a first-of-its-kind analysis, Commonwealth Bank of Australia (CBA) and the Melbourne Institute: Applied Economic & Social Research (MI) have developed multi-item scales of Australians' financial wellbeing that draw on *self-reports* of people's perceptions and experiences of financial outcomes but also incorporate *bank-record* indicators of financial outcomes. This research, which is described in an earlier report by Comerton-Forde et al. (2018), produced the CBA-MI Reported and Observed Financial Wellbeing Scales (version 1). Comerton-Forde et al. showed that each scale discriminates between differences in financial wellbeing across a wide range of levels and that they are correlated with several financial and personal characteristics of Australians.

This report uses these two innovative scales to analyse comprehensively and quantitatively how financial wellbeing differs among Australians with different characteristics and in different circumstances. It uses data from an on-line survey of CBA customers that underpinned the development of the scales. The survey asked about customers' financial wellbeing and other characteristics thought to affect financial wellbeing including:

- Household characteristics of economic and material resources, personal capabilities, household needs, preferences, and attitudes
- External conditions of social support, social capital, and geography, and
- Financial behaviours of financial management, spending habits, savings habits, borrowing habits, financial discipline, planning, and budgeting.

This report also examines data from customers' bank records that were linked to their survey responses.

The report begins by formally defining financial wellbeing as a concept and describing how it is measured through the CBA-MI Reported and Observed Financial Wellbeing Scales. It next presents a conceptual model of how personal and household characteristics, external conditions, and financial behaviours contribute to people's financial wellbeing. The model helps identify observable characteristics that we should analyse and indicates expected directions of relationships.

Some Unexpected Findings

The fundamental contributions and the bulk of the report are comprehensive descriptive analyses of how reported and observed financial wellbeing are distributed across the customers in our analysis sample. Financial wellbeing varies in ways that we would expect. For instance, it tends to rise with income and fall with illness or disability. However, some unexpected findings also appear, including that financial wellbeing is higher for customers with large mortgage payments. The report documents this, and a host of other patterns.

An intriguing feature of the CBA-MI Reported and Observed Financial Wellbeing Scales is that they sometimes disagree. Survey respondents with high reported financial wellbeing tend to also have high observed financial wellbeing (and vice versa), but this is not always the case. The report analyses how agreement and disagreement between the scales vary with different customer characteristics. This provides a more complete picture of financial wellbeing and its determinants than is possible from a single scale.

Toward Targeted Interventions to Improve Financial Wellbeing

Understanding the components and correlates of people's financial wellbeing is valuable for several reasons. First, it helps identify people who are at risk of having low levels of financial wellbeing. This can be useful in targeting interventions to improve financial wellbeing or assistance to overcome the negative effects of low wellbeing. Second, the results provide insights into possible ways to increase Australians' financial wellbeing. Along these lines, a key finding is that financial wellbeing is strongly related to financial behaviour, attitudes, and capabilities. This suggests that *there is scope for interventions to improve Australians' financial outcomes through increased knowledge and better decision-making* that do not necessarily rely on raising their incomes or material resources.

Results that Add to Understanding About All Australian Society

The analyses in this report focus on people from the on-line survey who indicated that they did most or all of their banking with CBA. This focus is necessary because we construct financial wellbeing measures from CBA bank records. Many of our findings, however, are applicable to Australians generally. Where possible, we have re-analysed our results with weights to make our sample representative of all Australian adults (the detailed results for this adjusted sample are in Appendix D). There are almost no appreciable differences between our findings for the adjusted and unadjusted samples. So, our results add to understanding about Australian society.

2. Definition and Measurement of Financial Wellbeing

2.1 The Definition of Financial Wellbeing

We define people's financial wellbeing in terms of financial *outcomes* that people achieve or experience, rather than all the conditions, characteristics, and behaviours that might contribute to those outcomes. Our definition is informed by several considerations.

First, it incorporates CBA's conceptual framework for financial wellbeing, which emphasises how outcomes fit into three types of situations that are relevant to people's finances:

- 'every day' situations that encompass their immediate, day-to-day and month-to-month financial outcomes
- 'rainy day' situations that encompass outcomes that prepare them to maintain their wellbeing in unexpected, adverse events, and
- 'one day' situations that encompass outcomes that allow them to sustain their wellbeing over time and achieve long-term goals.

Second, it includes functional dimensions of financial wellbeing that are elements of definitions put forward by other researchers, including Bray (2001), the Consumer Financial Protection Bureau (CFPB; 2015), and Muir et al. (2017). The functional dimensions are the goals and objectives identified for people to meet their financial obligations, have the financial freedom to enjoy extra consumption and other fulfilling choices, control their finances, have security, and be free from financial worries.

Third, the definition is informed by empirical analyses by Comerton-Forde et al. (2018) which revealed that financial wellbeing has two primary components:

- financial outcomes that people experience and interpret through a personal, subjective lens and that they can report, and
- financial outcomes that can be objectively observed in people's financial records, accounts, and transactions.

From these considerations, we define people's financial wellbeing as:

> *the extent to which people both perceive and have:*
> 1. *financial outcomes in which they meet their financial obligations*
> 2. *financial freedom to make choices that allow them to enjoy life*
> 3. *control of their finances, and*
> 4. *financial security—*
>
> *now, in the future, and under possible adverse circumstances.*

We measure financial wellbeing through two distinct, yet related, scales.

2.2 The CBA-MI Reported Financial Wellbeing Scale (version 1)

The CBA-MI Reported Financial Wellbeing Scale (version 1) is formed from people's responses to 10 questions that ask about their perceptions and experiences of financial wellbeing outcomes. These questions were chosen through a rigorous quantitative procedure explained in detail in Comerton-Forde et al. (2018). Each question has five possible responses, with the worst outcomes assigned values of zero and the best outcomes, values of four. Table 2.1 lists the questions and possible responses.

Table 2.1 CBA-MI Reported Financial Wellbeing Scale (version 1)

Question	Responses
1. In the last 12 months, how difficult was it for you to meet your necessary cost of living expenses like housing, electricity, water, health care, food, clothing or transport?	0 - Very difficult 1 - Difficult 2 - Neither difficult nor easy 3 - Easy 4 - Very easy
How well do the following statements describe you or your situation? **2.** I can enjoy life because of the way I'm managing my money **3.** I could handle a major unexpected expense **4.** I am securing my financial future	0 - Not at all 1 - Very little 2 - Somewhat 3 - Very well 4 - Completely
How often do the following statements apply to you? **5.** My finances control my life * **6.** I have money left over at the end of the month **7.** Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month *	0 - Never 1 - Rarely 2 - Sometimes 3 - Often 4 - Always
When it comes to how you think and feel about your finances, please indicate the extent to which you agree or disagree with the following statements: **8.** I feel on top of my day to day finances **9.** I am comfortable with my current levels of spending relative to the funds I have coming in **10.** I am on track to have enough money to provide for my financial needs in the future	0 - Disagree strongly 1 - Disagree 2 - Neither agree nor disagree 3 - Agree 4 - Agree strongly

* Negative statement that is reverse-coded in scale.

A person's reported financial wellbeing scale value is formed by adding the responses to all 10 questions and multiplying the sum by 2.5. This results in a 0-100 scale in which larger values indicate higher levels of reported financial wellbeing.

2.3 The CBA-MI Observed Financial Wellbeing Scale (version 1)

The CBA-MI Observed Financial Wellbeing Scale is formed from five additional measures numbered 11-15 below that come from customers' financial records. Each measure, except for item 12, has three possible outcomes, with the worst financial wellbeing outcomes assigned values of zero and the best outcomes assigned values of two. Table 2.2 lists the measures and possible outcomes.

Table 2.2 CBA-MI Observed Financial Wellbeing Scale (version 1)

Item	Outcomes
11. Number of months in last year with payment dishonours	0 - 7 or more months 1 - 1 to 6 months 2 - None
12. Any payday loans in last year?	0 - Yes 1 - No
13. Days in last year with liquid balances below one week's average expenses	0 - 75% or more 1 - 1% to 75% 2 - Never
14. Days in last year during which customer had the ability to raise one month's expenses from savings or available credit	0 - 25% or less 1 - 25% to 99% 2 - Always
15. Age-normed percentile of customer's median savings balance over last year	0 - Below 35^{th} percentile 1 - 35^{th} to 90^{th} percentile 2 - Above 90^{th} percentile

A person's observed financial wellbeing scale value is formed by adding the outcomes to all five items and multiplying the sum by 11 1/9. This results in a 0-100 scale in which larger values indicate higher levels of observed financial wellbeing.

Unlike the items from the reported financial wellbeing scale, which distinguish between five categories of outcomes, quantitative testing indicated that the items from the observed financial wellbeing scale only distinguish between three—or in the case of payday loans, two—categories. Statistical tests further indicated that observed financial wellbeing was distinct from reported financial wellbeing and that none of the items in the scales overlapped. Because it has fewer components and fewer possible outcomes per component, the observed financial wellbeing scale is coarser than the reported financial wellbeing scale.

Easily Calculated and Directly Tied to Component Conditions

Both scales are formed from simple summations of categorical responses, which are then multiplied by either 2.5 or 11 1/9. This method imposes restrictions on the ways that the underlying data contribute to the scales. The method treats each item as being equally informative about people's underlying reported or observed financial wellbeing. It also treats each unit (+1) increase in the response to a given item within a scale as having the same relationship with financial wellbeing as a unit increase in the response to any other item in the scale. Comerton-Forde et al. (2018) compared the simple scales to more complex scales that allowed for differences in each item's reliability and indicative severity. The simple scales capture almost all the information of the more complex scales, yet they can be easily calculated. Also, their values can be directly tied to the component conditions.

A Measure of Relative Wellbeing with No Absolutes

The scores from the CBA-MI Reported and Observed Financial Wellbeing Scales have been developed to measure the *relative extent* of someone's financial wellbeing—they indicate higher or lower positions along a distribution. The scores do not identify specific, absolute 'good' or 'bad' conditions. A Reported Financial Wellbeing Scale score of 20 is lower than most scores, but the value does not necessarily indicate 'bad' financial wellbeing in an absolute sense. Similarly, a score of 80 is higher than most, but it does not necessarily represent 'good' financial wellbeing in an absolute sense. The most appropriate interpretation of the values is of how people's financial wellbeing compares to others'.

Descriptive Categories of Reported and Observed Financial Wellbeing

We recognise, however, that readers may want to place more meaning on the score values. To help with this, we provide descriptive categories for ranges of score values based on the logical relationships between the values and the underlying component conditions. The categorisations are based on the types of financial outcomes that people report, such as the best or worst categorical outcome, or the type of outcome indicated by the financial records. We provide four descriptive categories for the Reported Financial Wellbeing Scale and explain their meanings in Table 2.3 below.

Table 2.3 Descriptive Categories of the CBA-MI Reported Financial Wellbeing Scale

Descriptive label	Scores	Explanation
Having trouble	0 – 22.5	Experienced the worst possible outcome for one or more reported financial wellbeing conditions
Just coping	25 – 47.5	Experienced a negative outcome (second-worst or lower) for one or more reported conditions
Getting by	50 – 75	The averages of people's outcomes were in the neutral (neither good nor bad) or second-highest categories
Doing great	77.5 – 100	Experienced the best possible outcome for one or more reported conditions

Because the observed scale is, as yet, less refined than the reported scale, we could not divide its middle range of scores. Thus, we provide three descriptive categories, which we list and explain in Table 2.4.

Table 2.4 Descriptive Categories of the CBA-MI Observed Financial Wellbeing Scale

Descriptive label	Scores	Explanation
Having trouble	0 – 33.3	Had frequent dishonours, held payday loans, had frequent low balances, or could seldom raise a month's expenses
Doing okay	44.4 – 77.8	Consistent with positive and negative observed outcomes but not at either extreme
Doing great	88.9 – 100	Experienced the best possible outcome for four or five observed conditions

We emphasise that the categories for both scales should be interpreted as descriptions, not absolute statements of financial wellbeing. Scores near the adjoining thresholds of the categories—say, scores of 75.0 and 77.5 for the reported scale—imply very similar sets of underlying conditions.

3. Conceptual Model of How Financial Wellbeing is Determined

In this section, we present a conceptual model of how people's financial wellbeing is determined. The conceptual model helps us understand the properties of financial wellbeing—for instance, how we would expect financial wellbeing to differ between people at different life stages or with different economic opportunities. Importantly, the model gives us a framework for interpreting the empirical results that follow.

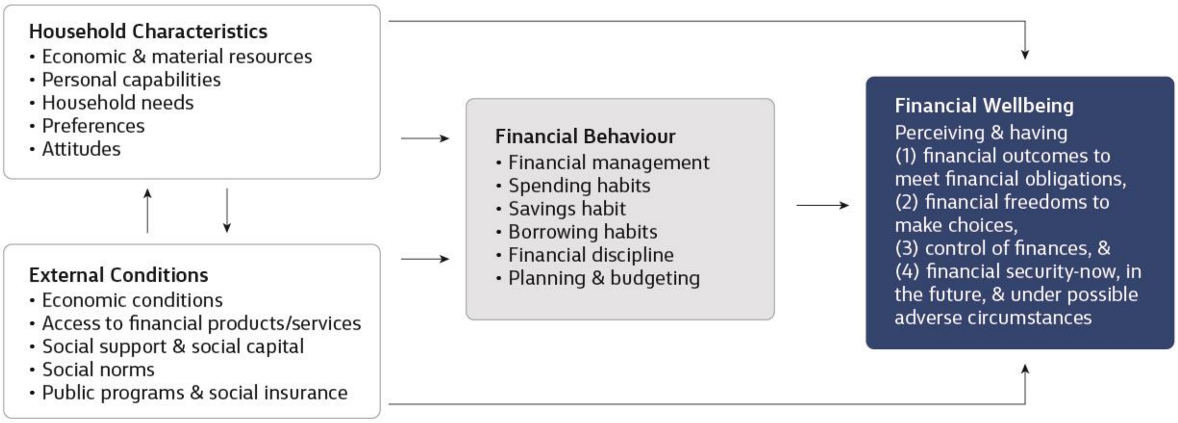
We conceptualise financial wellbeing as having three general sets of determinants: *household characteristics*, *external conditions*, and *financial behaviour*. We show these in Figure 3.1. For simplicity, we assume that household characteristics and external conditions are largely outside people's control and that people's autonomous actions take place as financial behaviours.

Financial Behaviour Today Affects Outcomes Now and in the Future

We consider people's financial behaviour through a series of separate time periods—for example, now, near future, future, and distant future. We assume that people care about the goods and services that they can purchase, consume, and enjoy in each period. People's economic resources to make purchases in each period come from their earnings, government payments, investment income, borrowing, wealth, and other sources.

We also assume that people recognise that financial actions they undertake now involve trade-offs for the future. If they spend less than they earn, they can increase their wealth and future investment income through savings, and thereby purchase more in the future. If they spend more than they earn, they will have to borrow or deplete their wealth, which lowers purchases in the future. People can direct money away from immediate consumption and towards insurance, which helps them maintain their consumption if a bad event happens.

Figure 3.1 Conceptual Model of the Determinants of Financial Wellbeing



If people fail to pay bills or miss other financial obligations, they may damage their financial reputations and lose access to future financial opportunities. We assume people generally understand these trade-offs, even though sometimes they find it hard to act consistently with them.

Financial Behaviour, Household Characteristics and External Conditions

We assume that people undertake financial behaviour, including their financial management, spending, savings, borrowing, planning, and budgeting, to balance their current and future consumption, subject to their personal and household characteristics and external conditions.

In this framework, household characteristics and external conditions affect financial wellbeing by influencing people's financial behaviours. For example, a high level of income—a household characteristic—will allow people to save more—a financial behaviour. However, household characteristics and external conditions can also directly affect financial wellbeing, such as a high income directly increasing people's comfort with their finances.

Other Factors Influencing Financial Behaviour

Financial behaviour is influenced by people's needs. People with children or care responsibilities will have greater needs than people without these responsibilities, which would affect their current and future expenditures. Conversely, people living in couples may have fewer needs because of the lower costs of shared housing and the opportunities for partners to specialise in market and household work.

People’s financial behaviour also depends on their preferences and attitudes. People value additional expenditure more when they are relatively ‘poor’ than when they are relatively ‘rich’, and they value consumption now more than expected consumption in the future. People are generally risk averse, valuing certain income over uncertain, risky income. They may also compare their expenditures to others like or around them, e.g., “Keeping up with the Jones’”.

Financial behaviour and decisions also depend on people’s capabilities to earn resources—people need financial protection for disability and illness, and they need provisions for retirement. Other capabilities will also influence financial behaviour, including people’s ability to understand and manage their finances.

The economic and material resources that people have in each period are partly determined by their own actions but also by the economic conditions around them, including the aggregate economic growth, unemployment rate, and interest rates. If available, people can draw on public programs and social insurance, as well as community-based resources such as social support and social capital (networks of relationships with shared norms and values), to make their financial decisions. Other conditions held constant, people with more resources will have a greater scope for behaviour and be able to achieve greater financial wellbeing. Access to financial institutions and financial products is another critical resource.

4. The On-line Survey, Bank Data, and Analysis Samples

This report analyses responses to an on-line survey distributed via email that was conducted with 5,682 CBA customers in the first week of August 2017. The report also uses financial-record data linked to the customers’ responses. The survey responses and bank-record data were used by Comerton-Forde et al. (2018) to develop the CBA-MI Reported and Observed Financial Wellbeing Scales. Their report describes the survey in more detail and provides the questionnaire, recruiting materials, and consent documents.

A critical consideration for recruiting customers for the survey was what the research team would be able to observe from their CBA financial records. While bank records are a rich source of data, their depiction of customers’ financial activities is necessarily incomplete if customers conduct financial transactions or hold financial products with other institutions.

The team was particularly interested in recruiting customers who use CBA as their main financial institution (MFI) and whose records would provide relatively complete descriptions of their financial outcomes. However, the team also wanted a sample that could describe all of CBA’s customers. To balance these needs, the survey sampled customers from three strata:

Stratum A: A nationally representative sample of 1,611 CBA customers.

Stratum B: A sample of 2,899 ‘sole-MFI’ customers who were believed, based on their transactions data, to undertake their banking solely through CBA.

Stratum C: A sample of 1,172 'split-MFI customers' for whom CBA appears to be the main – but not sole – banking provider and for whom CBA has other financial data.

The analyses in the main body of this report use most, but not all, of the survey responses. We drop observations for 50 customers who did not answer all the financial wellbeing questions. We also drop observations for 1,162 people who reported not being MFI customers. Thus, the sample for our analyses consists of 4,470 people who reported being either sole- or split-MFI customers. We focus on MFI customers because we can calculate their observed financial wellbeing scores. A reliable observed scale has not yet been developed for non-MFI customers.

The distributions of all the characteristics that we consider in this report from the on-line survey and the linked bank records are reported in Appendix A.

Although the survey over-sampled sole-MFI customers and was subject to some non-random response, the main body of the report presents results from unweighted analyses of the survey responses.

Alternative analyses that weight the sample to be representative of all of CBA's MFI customers are presented in Appendix C. Reported and observed financial wellbeing in the weighted sample are slightly higher than in the unweighted sample, but the other relationships between financial wellbeing and customers' observed characteristics are fundamentally the same.

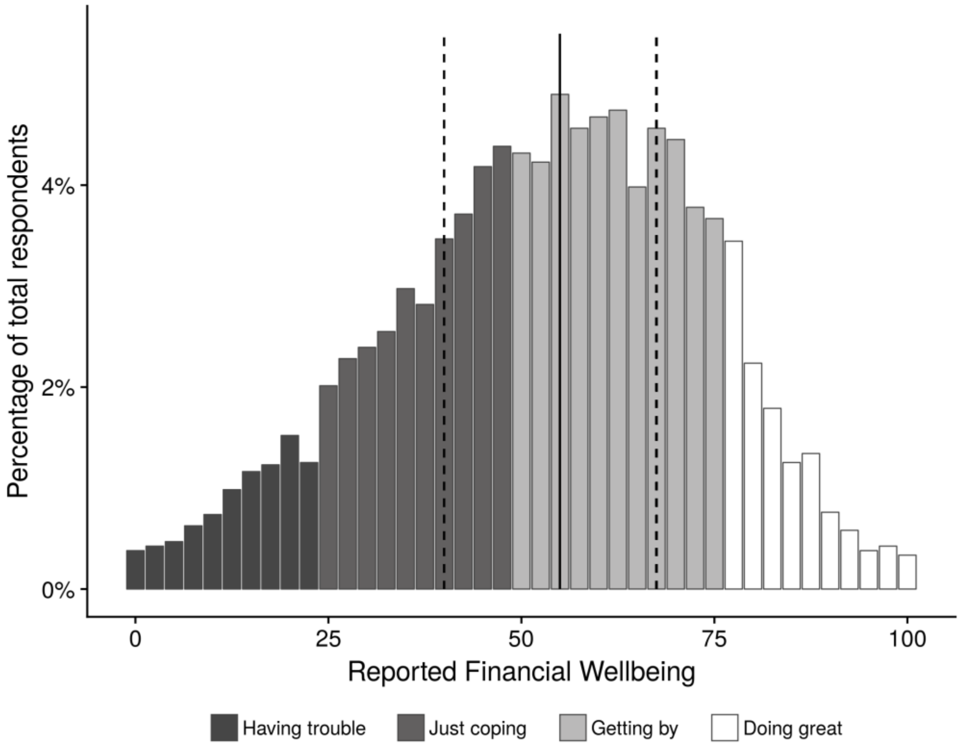
Alternative analyses of the Reported Financial Wellbeing Scale that weight the full survey sample of MFI and non-MFI customers to be representative of (a) all CBA customers and (b) all Australian adults are presented in Appendix D. The relationships between reported financial wellbeing and people's observed characteristics in those analyses are also fundamentally the same as those presented in the main body of the report.

5. Financial Wellbeing among the Survey Respondents

5.1 Distributions of the Financial Wellbeing Scales

Figure 5.1 shows the percentages of MFI customers in our on-line survey with each score from the Reported Financial Wellbeing Scale. Customers' scores ranged over all the possible outcomes from 0 to 100. The black vertical line in the figure indicates the median value of reported financial wellbeing—that is, the value at which half of the sample reports higher values and half reports lower values. The median value and modal value (the value with the most responses) of the Reported Financial Wellbeing Scale were each 55. The average value was 53.2 The distribution is skewed towards higher scale values, meaning that customers were somewhat more likely to report experiencing or perceiving good outcomes for a given condition than bad outcomes.

Figure 5.1 Distribution of Reported Financial Wellbeing



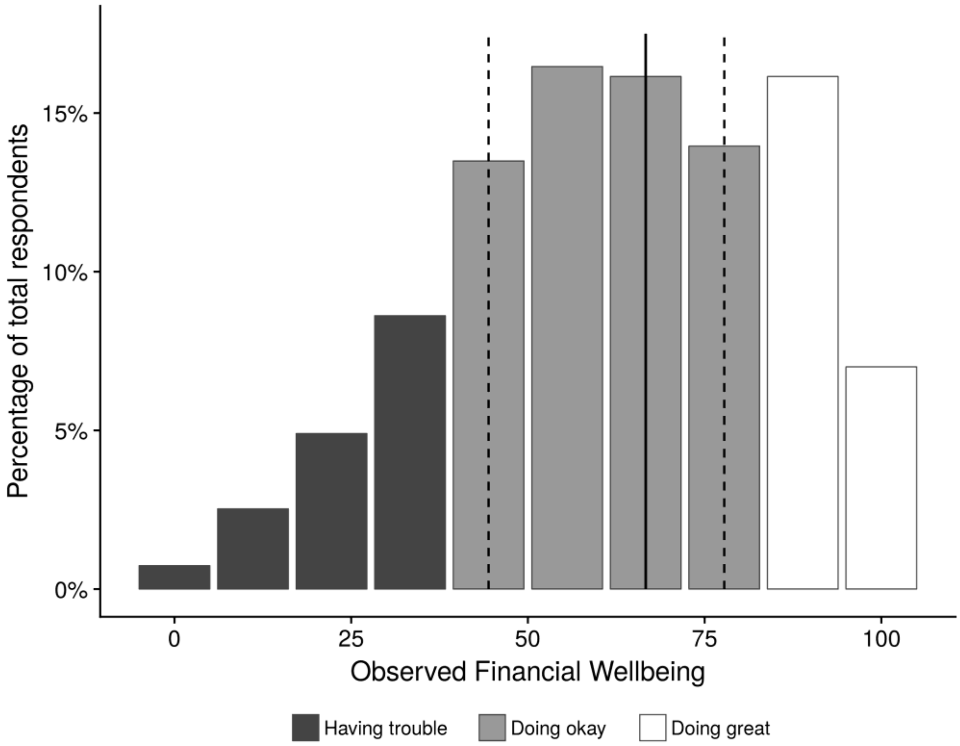
A quarter of customers had reported scale values that were 40 or lower (the 25th percentile in the distribution, indicated by the dashed line on the left). A quarter of customers had values that were 67.5 or higher (the 75th percentile indicated by the dashed line on the right). Only a few people had values near the top or bottom ends of the scale (about one percent had scores of 5 or lower and about one percent had scores of 95 or higher).

Figure 5.1 is also shaded to show the portions of customers in each of our descriptive categories for the Reported Financial Wellbeing Scale.

- 8.8 per cent of customers had scores in the lowest category of 'having trouble'
- 30.8 per cent had scores in the second lowest category of 'just coping'
- 47.9 per cent had scores in the second highest category of 'getting by', and
- 12.5 per cent had scores in the highest category of 'doing great'.

Figure 5.2 shows the percentages of surveyed MFI customers with each score from the Observed Financial Wellbeing Scale. As with reported financial wellbeing, customers' observed financial wellbeing scores spanned all the possible scale values. The median value was 66.7; the modal value was 55.5, and the average was 62.4. The distribution was strongly skewed towards higher values. The 25th percentile value was 44.4, and the 75th percentile value was 77.8. Relatively few customers had scale values at the absolute bottom of the distribution, although a modest number (seven per cent) had values at the top.

Figure 5.2 Distribution of Observed Financial Wellbeing



For the descriptive categories of the Observed Financial Wellbeing Scale,

- 16.8 per cent of customers had scores in the lowest category of ‘having trouble’
- 60.1 per cent had scores in the middle category of ‘doing okay’, and
- 23.1 per cent had scores in the highest category of ‘doing great’.

The Reported and Observed Financial Wellbeing Scales are positively related—customers with high reported financial wellbeing also tend to have high observed financial wellbeing. Formally, the sample values for the two scales had a positive (Spearman) correlation of 40 per cent. To convey the relationship, Figure 5.3 plots the percentages of customers with both scores at or above the median values, both scores below the median values, and scores that are at or above the median on one scale but below the median on the other.

Consistent with the positive relationship between the two scales, most customers—about two-thirds—have values on the two scales that are both at or above the median (35 per cent) or both below the median (30 per cent). About a sixth of customers have reported financial wellbeing scores that at or above the median but observed financial wellbeing scores that are below the median, while another sixth have observed financial wellbeing scores that are at or above the median but reported financial wellbeing scores that are below the median.

Figure 5.3 Distribution of Combined Financial Wellbeing

5.2 Distributions of Specific Financial Wellbeing Outcomes

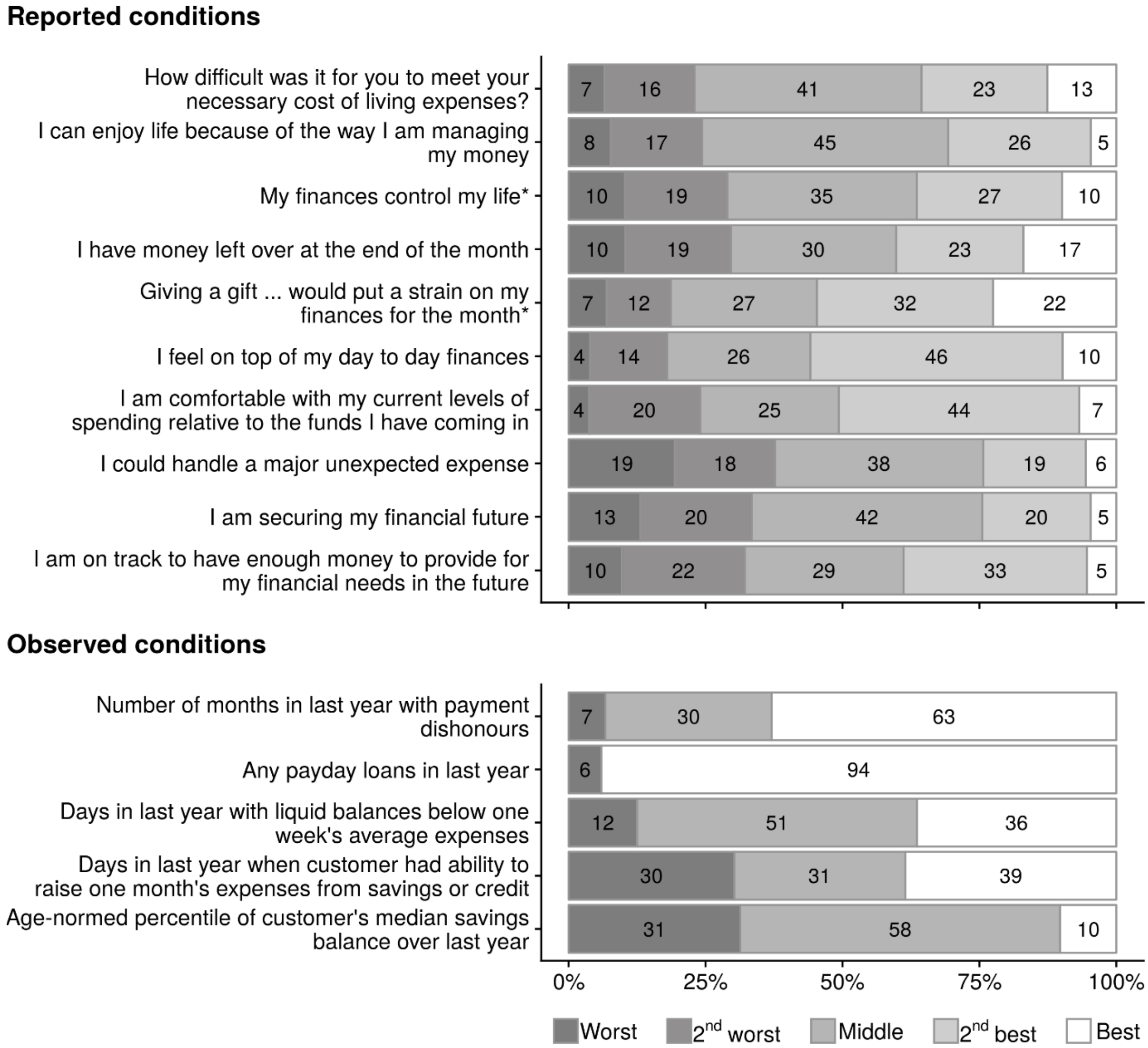
Figure 5.4 shows the percentages of customers who gave each type of response to the 10 questions that make up the Reported Financial Wellbeing Scale or had each type of outcome for the five conditions that make up the Observed Financial Wellbeing Scale. Information for each question or bank-record measure is arranged as a stacked bar, with the worst financial wellbeing outcomes shown first, the next-worst financial wellbeing outcomes shown second, and so on. Percentages of customers with each outcome are indicated within the bars (note that because of rounding, the percentages may not sum to 100).

Everyday Financial Conditions

Nearly a quarter (23 per cent) of customers reported it was very difficult (seven per cent) or difficult (16 per cent) to meet necessary expenses in the preceding year. Another 41 per cent reported it was neither difficult nor easy, 23 per cent reported it was easy, and 13 per cent reported it was very easy to meet expenses.

Similar percentages of customers indicated that the statement about enjoying life because of the way they were managing their money did not apply to them or applied very little (25 per cent in the two lowest categories) or disagreed with the statement about being comfortable with their spending (24 per cent in the lowest two categories).

Figure 5.4 Distribution of Customers' Reported and Observed Financial Wellbeing Outcomes



Substantial minorities also said their finances often or always controlled their lives (29 per cent) or that they never or rarely had money left over at the end of the month (29 per cent). However, large percentages reported good outcomes for these conditions, with 37 per cent indicating that finances rarely or never controlled their lives and 40 per cent indicating that they often or always had money left over.

Few customers reported that giving a gift would always or often strain their monthly finances (19 per cent) or disagreed with the statement that they were on top of their finances (18 per cent). Majorities of customers gave positive responses for these conditions.

Rainy Day and One Day Financial Conditions

Much higher percentages said that they were not able to handle a major unexpected expense (37 per cent in the lowest two categories), secure their financial future (33 per cent in the lowest two categories), or not on track to provide for future needs (32 per cent in the lowest two categories).

Overall, customers reported fewer problems in the everyday dimensions of meeting necessary expenses, having money left over, and being able to afford gifts, and more problems with the rainy day and one day conditions of being prepared for unexpected expenses, securing their financial futures, and being on track to provide for future needs. The CFPB (2017) and other researchers have found that people tend to achieve financial wellbeing in their day-to-day outcomes before achieving financial wellbeing for unexpected or future outcomes. Good rainy day and one day financial outcomes therefore indicate higher levels of financial wellbeing than good everyday outcomes.

The lower panel in Figure 5.4 shows how customers' observed, bank-record-based financial wellbeing outcomes are distributed. Only seven per cent of surveyed customers had payment dishonours in seven or more months of the preceding year; 30 per cent had dishonours in one to six months, and 63 per cent had no dishonours at all. Similarly, very few customers (six per cent) transacted with payday lenders.

About an eighth of customers had liquid balances below one week's expenses for 75 per cent of the year or more. About half had low balances for a shorter portion of the year, and about three-eighths never had low balances.

Many customers appeared to have difficulty raising one month's expenses if necessary—30 per cent could raise the money on less than a quarter of the days during the year, 31 per cent could do this on more days but not every day, and 39 per cent could do this every day. The data also indicate that 31 per cent of customers had low savings balances, 58 per cent had a middle level of savings, and 10 per cent were in the highest savings category.

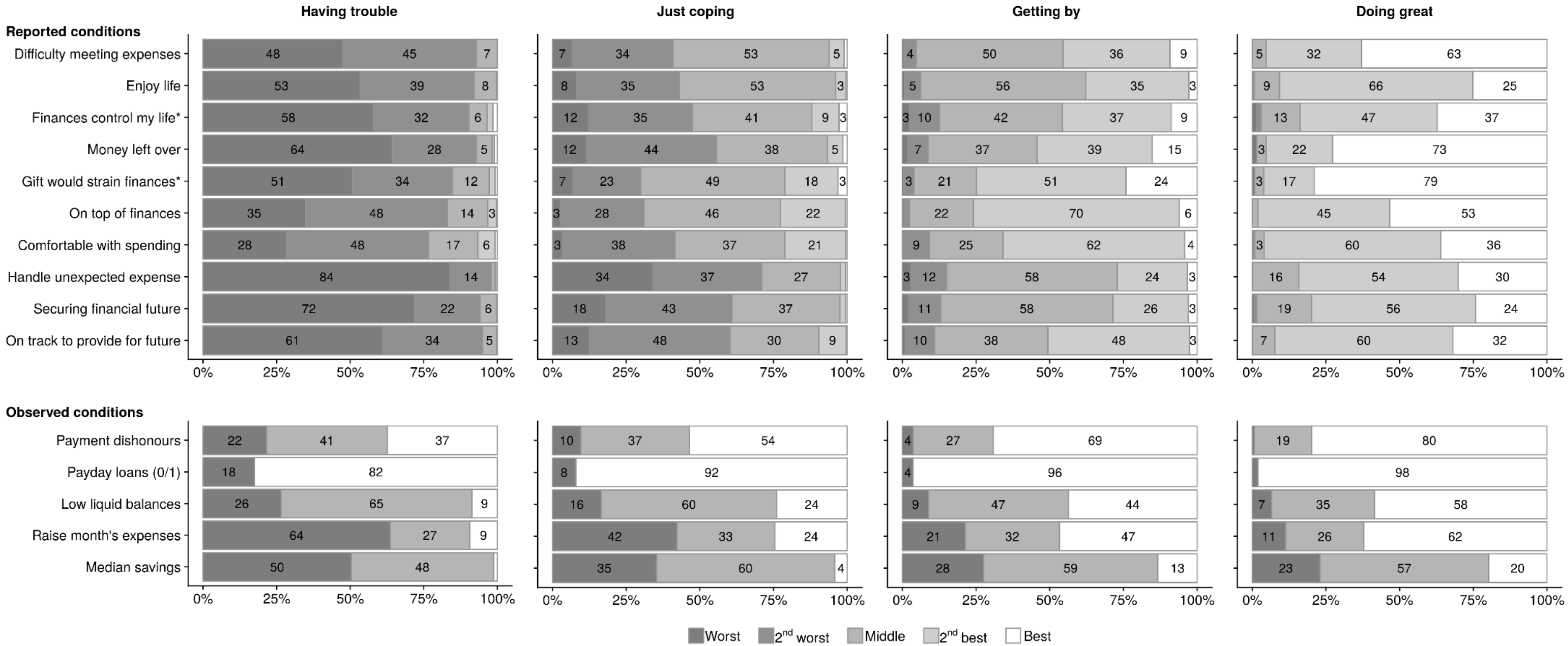
5.3 Distribution of Financial Wellbeing Outcomes by Descriptive Categories

Figures 5.5 and 5.6 show how customers' specific financial wellbeing outcomes varied depending on their position within the Reported Financial Wellbeing Scale descriptive categories (5.5) and the Observed Financial Wellbeing Scale descriptive categories (5.6). As previously discussed, the descriptive categories imply logical conditions on the reported outcomes. However, the figures help to show the range of conditions experienced by customers in each category.

'Having Trouble'

The vast majority of customers in the lowest, 'having trouble' Reported Financial Wellbeing Scale descriptive category reported either the worst or second-worst responses to each financial wellbeing question. The numbers ranged from 83 per cent reporting the worst or second-worst outcomes for being comfortable with spending to 98 per cent reporting the worst or second-worst outcomes for their ability to handle an unexpected expense. More than half of these customers reported the worst outcomes for the questions regarding enjoying life because of how they were handling their finances, finances controlling their lives, having money left over, gifts straining their finances, the ability to handle an unexpected expense, securing their financial future, and being on track to provide for future needs.

Figure 5.5 Reported and Observed Financial Wellbeing Outcomes for Customers in Each Reported Financial Wellbeing Scale Descriptive Category



The rates of giving the worst responses for the rainy day and one day outcomes were especially high. Virtually no one in the lowest descriptive category reported positive (the highest two) outcomes for any of the conditions. The reported conditions are consistent with this group 'having trouble' with their finances.

Customers in this category also tended to have worse observed bank-record outcomes than other customers. Within this group, 22 per cent had payment dishonours in seven or more months of the preceding year; 18 per cent used payday lenders; 28 per cent had low liquid balances for more than three quarters of the year; 64 per cent could not raise a month's expenses for three quarters of the year, and 50 per cent were in the lowest savings category.

'Just Coping'

Customers in the second-lowest, 'just coping' Reported Financial Wellbeing Scale descriptive category also reported more financial problems than average. The numbers reporting the worst outcomes ranged from three to 12 per cent for everyday outcomes and from 13 to 34 per cent for the rainy day and one day outcomes. Most customers in the 'just coping' category reported either the second-worst or middle/neutral outcomes for the conditions. Only a few customers, ranging from two per cent for the handling an unexpected expense condition to 23 per cent for the being on top of finances condition reported positive outcomes. Customers in this category also had higher rates of the worst and middle observed condition outcomes than customers generally.

'Getting by'

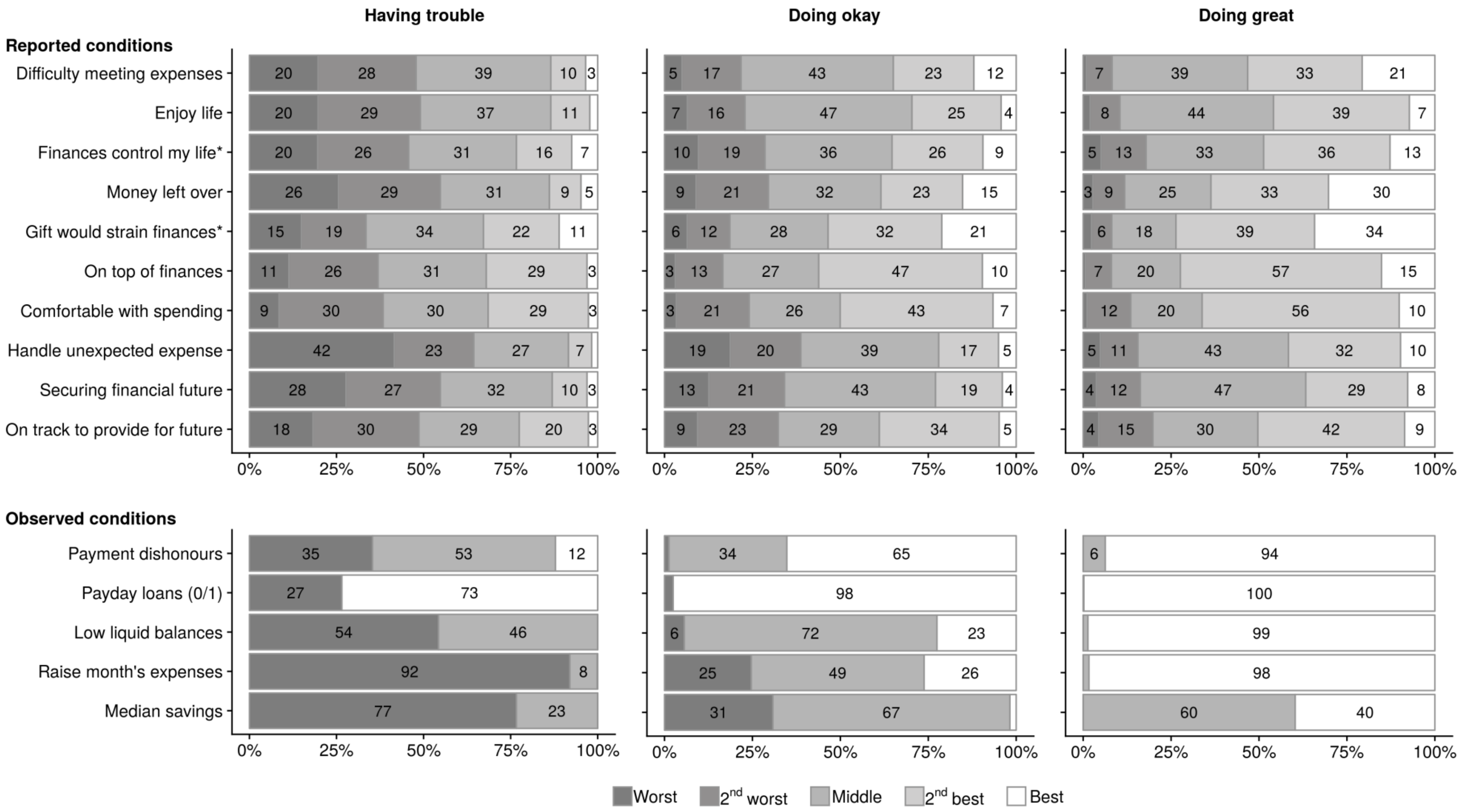
Customers in the second-highest, 'getting by' category reported conditions that were better than average. Few customers reported the worst or second-worst outcomes for any of the conditions. Majorities reported outcomes that were neutral or worse for the conditions that involved meeting necessary expenses, enjoying life, handling an unexpected expense, and securing their financial future. However, majorities also reported positive (second-highest or highest) outcomes for the conditions involving having money left over, giving gifts, being on top of finances, being comfortable with spending, and being on track to provide for the future. Few customers, however, gave the most positive responses. Customers in the 'getting by' category also had better observed financial wellbeing outcomes than average.

'Doing Great'

Substantial majorities of customers in the highest, 'doing great' category gave positive responses to the reported conditions. Majorities of customers reported the best outcomes in terms of meeting necessary expenses, having money left over, giving gifts without strain, and being on top of finances. These customers also had observed financial wellbeing outcomes that were much better than average; majorities had the best outcomes for all the observed conditions except for savings.

Figure 5.6 shows a similar set of estimates but conditions the results on customers' positions in the Observed Financial Wellbeing Scale descriptive scale categories, rather than the Reported Financial Wellbeing Scale. We are again interested in what specific conditions are associated with different values of the overall objective scale.

Figure 5.6 Reported and Observed Financial Wellbeing Outcomes for Customers in Each Observed Financial Wellbeing Scale Descriptive Category



'Having Trouble'

Customers in the lowest, 'having trouble', Observed Financial Wellbeing descriptive category have higher than average rates of the worst and second-worst outcomes for all the reported wellbeing conditions. They report fewer neutral outcomes than average for meeting necessary expenses, enjoying life because of their financial management, handling unexpected expenses, securing their financial futures, and controlling their finances. They also report more neutral outcomes than average for giving gifts, being on top of finances, and being comfortable with their spending.

Customers in this category report fewer good financial outcomes than average, although modest proportions do report good outcomes. These customers also have very high rates of the worst bank-record outcomes, with 92 per cent unable to raise a month's expenses for three quarters of the year, 77 per cent being in the lowest savings category, and 54 per cent having low liquid balances for at least three quarters of the year.

'Doing Okay'

Reported financial wellbeing outcomes for customers in the middle, 'doing okay', category mostly resemble those of the average customer. The main distinction is that customers in the 'doing okay' category have slightly higher rates of the neutral outcomes for most of the conditions.

While these customers also have markedly lower than average rates of the worst outcomes for most of the bank-record conditions, large shares also have the lowest outcomes for days being able to raise one month's expenses (25 percent) and low savings (31 percent). These customers have higher than average rates of all the neutral observed financial wellbeing outcomes. They also have higher than average rates of the highest outcome for payment dishonours and payday loans (in fact, almost none of these customers have payday loans). However, they have lower than average rates of the highest outcomes in liquid balances and ability to raise one month's expenses conditions. Virtually no customers in this category report the highest savings outcome.

'Doing Great'

Customers in the highest, 'doing great', category indicate experiencing the worst and second-worst outcomes at much lower rates than average for all the reported wellbeing conditions. They report neutral outcomes at near average rates and second-best outcomes at much higher rates than average for all reported wellbeing conditions. When it comes to meeting necessary expenses, having money left over at the end of the month, being strained by giving a gift, and feeling on top of their finances, they report the best outcome at higher rates than average.

Customers in this category never have the worst outcome in any of the observed financial wellbeing conditions. In fact, they never require payday loans, and almost all of them have the best outcome regarding payment dishonours, having liquid balances, and having the ability to raise one month's expenses. However, less than half of these customers (40 per cent), have the best savings outcome.

6. Analysis of Household Characteristics

Key findings:

- Financial wellbeing tends to increase with income, but financial wellbeing still varies substantially among people with a given level of income
- Financial wellbeing also tends to increase with other types of economic resources, including home ownership, larger bank deposits, larger superannuation balances, and larger offset account balances
- Financial wellbeing tends to decrease with credit card debt and personal loans
- Financial wellbeing is much higher among customers with good financial understanding, clear savings goals, preferences to not live on credit, and willingness to sacrifice for the future, and it is lower among customers who find finances confusing
- Customers who are conscientious and decisive and those who feel in control of their lives have much higher financial wellbeing than other customers
- Financial wellbeing tends to be higher for retirees, customers who are married, and university graduates, and it tends to be lower for customers with disabilities, poor health, mental distress, and caring responsibilities that interfere with work
- Aside from marriage, financial wellbeing is only modestly associated with household structure and size, and aside from having a university degree or only a grade school education, it is weakly associated with schooling
- The distributions of observed and reported financial wellbeing do not vary much with age before age 64 but increase after that
- Financial wellbeing does not vary much with geography and country of origin

Our conceptual model in Section 3 indicated that personal and household characteristics, including household structure, economic and material resources, personal capabilities, household needs, preferences, and attitudes, are key determinants of financial wellbeing. In this section, we examine how customers' reported and observed financial wellbeing vary with measures that fall into these categories.

6.1 Personal Characteristics

Figure 6.1 shows bar graphs with the 25th percentile, median, and 75th percentile values of the Reported and Observed Financial Wellbeing Scales calculated for customers with different personal characteristics. The left edge of each bar indicates the 25th percentile score; the labelled line within the bar indicates the median value; and the right edge of the bar indicates the 75th percentile. Bars for the values of the reported scale appear on the left, and bars for the observed scale appear on the right.

Figure 6.1 Financial Wellbeing and Household Characteristics: Personal Characteristics

^ and * indicates questions that are not significantly correlated with reported and observed scales respectively.

The top panel of Figure 6.1 shows that reported financial wellbeing is distinctly better for men than for women, with men having higher 25th percentile, median, and 75th percentile scale values. However, the differences do not appear for observed financial wellbeing where men's and women's 25th percentile, median, and 75th percentile scale values are the same.

Customers have similar distributions of reported financial wellbeing from ages 18 to 64; however, reported financial wellbeing is much higher after age 64. The pattern for observed financial wellbeing is slightly different, with the scale values decreasing between the 18-24 and 25-39 age groups, remaining stable across the 25-39, 40-49, and 50-64 age groups, and increasing for the 65+ age groups.

Across both scales, customers born in the Americas, the UK, or Europe have slightly better observed and reported financial wellbeing than customers born in Australia, while customers born in New Zealand and the Pacific Islands have lower wellbeing.

Financial wellbeing differs modestly across geography. Customers living in metropolitan areas have higher reported and observed financial wellbeing than those living in rural areas. There are also differences in reported financial wellbeing across Australian states and territories, with residents of the Northern Territory and ACT having higher than average median values, and residents of Queensland and Tasmania having lower values. We see no differences in observed financial wellbeing across Australian states and territories.

Reported financial wellbeing is higher for immigrants who have lived in Australia for over 30 years than for more recent immigrants but does not vary much across shorter tenures. The median observed financial wellbeing is identical regardless of how long immigrants have lived in Australia. However, the variability in observed financial wellbeing, as indicated by the gap between the 25th and 75th percentile values, widens for immigrants with 10 or more years' residence.

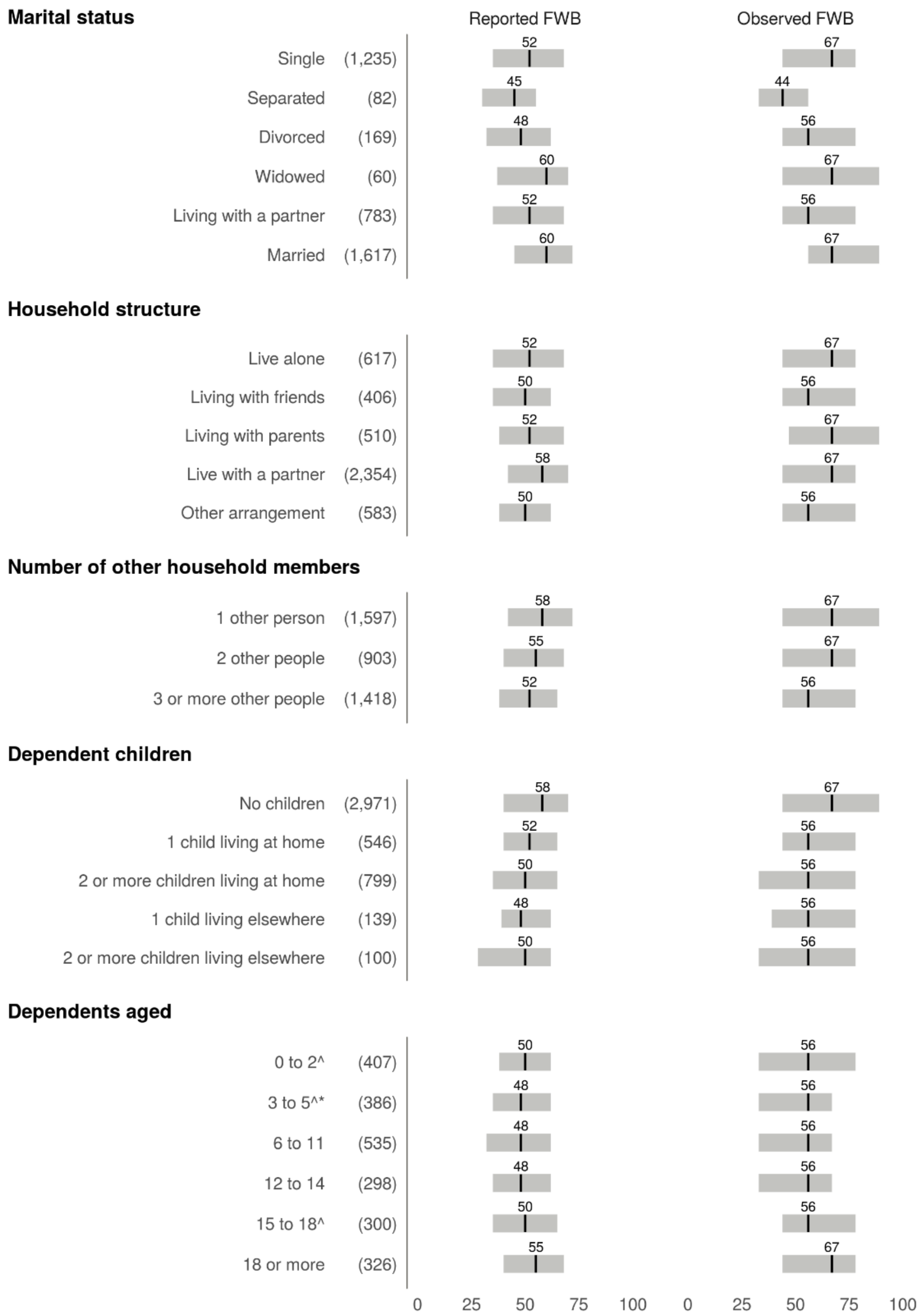
6.2 Household Structure

Figure 6.2 shows the 25th percentile, median, and 75th percentile values of the reported and observed scales for customers in different living situations, measured by marital status, household structure, household size, and the number and ages of dependent children. These living situations may affect household needs and how households make spending and saving decisions.

Separated and divorced customers have low reported and observed financial wellbeing, while married and widowed customers have high financial wellbeing. Customers who are living with a partner outside of marriage have lower than average distributions of reported and observed financial wellbeing. Single customers also have lower than average distributions of reported financial wellbeing but average distributions of observed financial wellbeing.

In terms of household structure, reported financial wellbeing is highest for customers living with a partner. All other types of household structures are very similar in terms of their reported financial wellbeing. Observed financial wellbeing is also highest for customers living with a partner, though it is also equally high for customers living alone or with their parents.

Figure 6.2 Financial Wellbeing and Household Characteristics: Household Structure



^ and * indicates questions that are not significantly correlated with reported and observed scales respectively.

Reported financial wellbeing is lower in households with more people. Observed financial wellbeing is lower for customers living with three or more other people compared to those in households with two or fewer. This general pattern of lower reported and observed financial wellbeing for larger households is also present when looking at the number of children living in the household and living elsewhere; both reported and observed financial wellbeing are lower for customers with one or more children living at home or living elsewhere.

Customers with dependent children who are 18 years of age or older have distributions of reported and observed financial wellbeing that are near the customer averages, while customers with younger children have lower reported and observed financial wellbeing.

6.3 Income and Work Status

Figure 6.3 shows the distributions of the reported and observed financial wellbeing scales across different income levels, income sources, and work situations. Income is arguably the most crucial economic resource for households. We see a uniform increase of reported financial wellbeing with income, with customers receiving less than $20,000 a year having a median reported financial wellbeing that is 22 points lower than customers earning $100,000 or more a year. Income has a positive but weaker relationship with observed financial wellbeing.

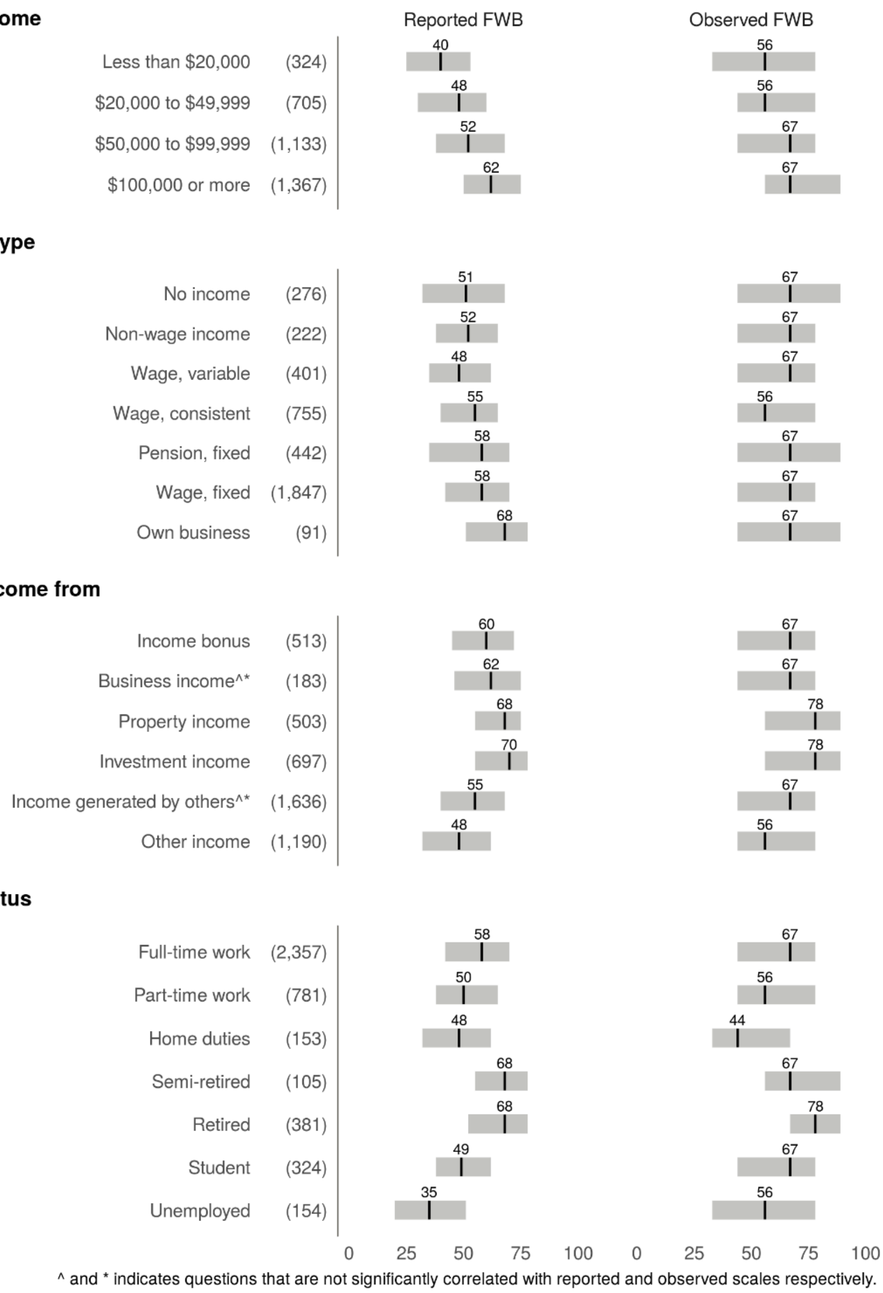
Despite the positive relationship, income does not completely determine financial wellbeing. There are substantial distributions of the financial wellbeing scale values within each income category. Among customers with annual incomes below $20,000, just under a quarter have reported financial wellbeing scores that are above the overall median, and just over a quarter have observed financial wellbeing scores that are above the overall median. Among customers with annual incomes at or above $100,000, approximately a quarter have reported and observed financial wellbeing scores that are below the median.

Among the income sources, reported financial wellbeing is highest for customers who draw income from their own business. Customers with steady income, including consistent wages and pensions, also have high levels of reported financial wellbeing. The lowest levels of reported financial wellbeing are for customers with variable or no wage income and for customers with no income at all. Observed financial wellbeing, however, does not vary much across income source, except for consistent wage-earners, who have median observed scale values that are lower than average.

When asked about their other sources of income, customers who receive property and investment income have much higher reported and observed financial wellbeing than others. Bonuses and business income are also associated with better reported financial wellbeing but not with observed financial wellbeing. Customers who report having other sources of non-wage, non-salary income have lower reported and observed financial wellbeing than others; the income in this category may include government assistance.

The bottom panel of Figure 6.3 shows that reported and observed financial wellbeing is highest for retired and semi-retired customers, and lowest for unemployed customers and customers who are not working because of home duties. Observed financial wellbeing is also relatively high for students.

Figure 6.3 Financial Wellbeing and Household Characteristics: Income and Work Status



6.4 Assets and Liabilities

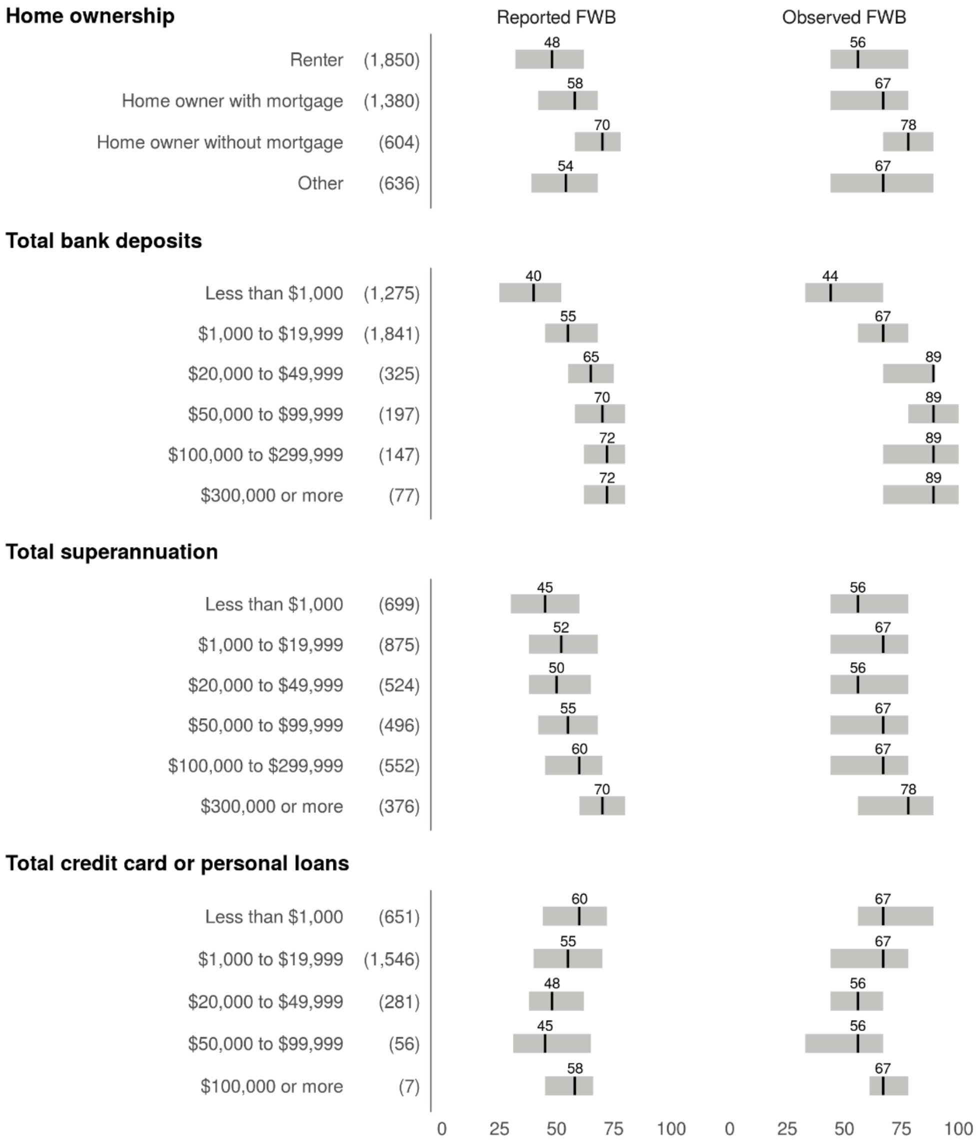
Figure 6.4 shows the distributions of the reported and observed financial wellbeing scales for customers with different assets and liabilities. These are the core elements of what we think of as people's stocks of wealth and obligations.

The first category is home ownership status. Reported financial wellbeing is highest for customers who own their homes outright, lower for home owners still paying their mortgages, and lowest for renters and customers with other home ownership status. Observed financial wellbeing follows a very similar pattern.

Reported and observed financial wellbeing rise with total bank deposits, although at decreasing rates. Median reported financial wellbeing rises 15 points between customers with less than $1,000 in bank deposits and those with $1,000 to $19,999, yet it only rises 10 points between the latter and customers with $20,000 to $49,999. This pattern of increasing financial wellbeing at a decreasing rate is similarly present for observed financial wellbeing. In contrast, reported financial wellbeing rises very mildly with superannuation account values under $100,000 but more rapidly for larger amounts, and observed financial wellbeing follows a similar pattern.

Higher credit card and personal debts are related to steep drops in reported and observed financial wellbeing for debts below $100,000. However, financial wellbeing is actually higher among the few customers with credit card and personal debts above $100,000.

Figure 6.4 Financial Wellbeing and Household Characteristics: Assets and Liabilities



^ and * indicates questions that are not significantly correlated with reported and observed scales respectively.

Figure 6.4 (continued)

^ and * indicates questions that are not significantly correlated with reported and observed scales respectively.

As with personal and credit card debt, reported financial wellbeing falls as mortgage or investment loan balances increase but rises with these balances once they surpass $100,000. Observed financial wellbeing also has a modest U-shaped relationship with mortgage and investment loan balances. The positive relationship between financial wellbeing and loan balances at high balance levels may reflect the incomes required to secure those debts or the value of the homes or securities that are being financed.

The pattern of increasing financial wellbeing at a decreasing rate that we see for bank deposits also appears for mortgage offset accounts. Reported and observed financial wellbeing mostly increase with investment portfolio values, although the increase is modest. Reported and observed financial wellbeing do not systematically vary with the values of customers' life insurance policies.

6.5 Personal Capabilities

Figure 6.5 shows the distributions of reported and observed financial wellbeing for customers with different capabilities. We consider capabilities, including people's levels of education, physical and mental health, and ability to understand financial products, as non-tangible assets that allow them to make better decisions and achieve better financial outcomes.

Reported and financial wellbeing generally rise with the customer's highest level of education, though modestly. Customers with year 9 or below education have median reported financial wellbeing values that are 15 points lower than customers with university degrees. Customers who hold certificates, however, have a lower reported and observed financial wellbeing than customers with year 12 education.

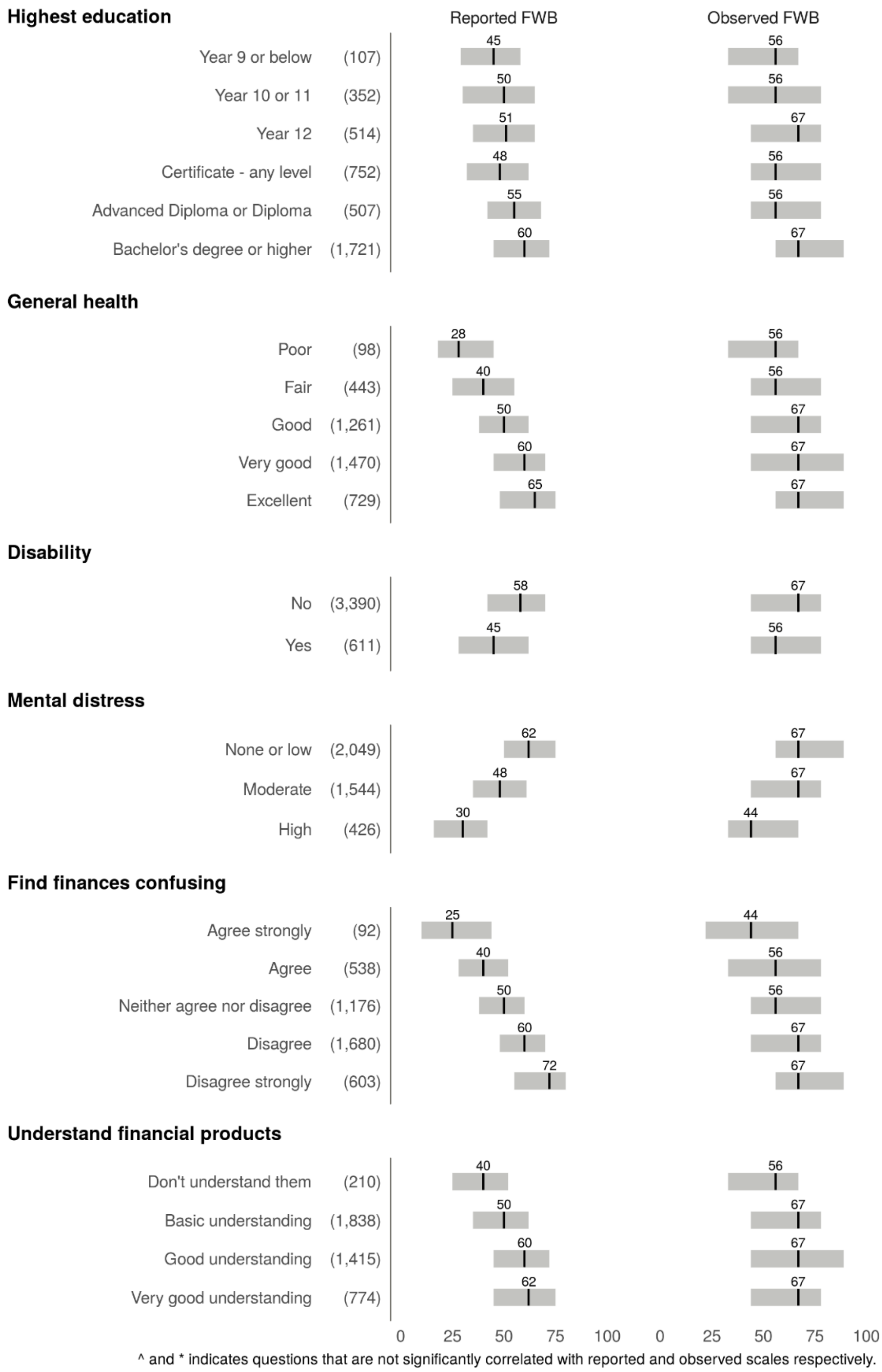
Reported and observed financial wellbeing also increase with customers' general health. Reported financial wellbeing rises quite steeply, from a median of 28 points for customers in poor health to a median of 65 points for those in excellent health. Customers experiencing some form of disability also have distinctly lower median reported (by 13 points) and observed (by 11 points) financial wellbeing than those without a disability.

Mental distress as measured by the Kessler K6 scale is strongly related to reported and observed financial wellbeing.[1] Median reported financial wellbeing for customers with no indications or low levels of distress is 14 points higher than for customers with moderate levels, and 32 points higher than for customers with high levels of distress. Median observed financial wellbeing is the same for customers with no mental distress or low levels, and for customers with moderate mental distress, yet the 25th and 75th percentiles are lower for the former group, indicating that the overall distributions are lower. The median and both percentiles of objective financial wellbeing are markedly worse for customers with high mental distress.

Customers who find finances confusing have much lower reported financial wellbeing than customers who do not. The gap in median reported wellbeing between customers who strongly disagreed and strongly agreed with the statement about finances being confusing is 47 points. Customers who find finances confusing also had lower observed financial wellbeing than customers who do not, though the gradient is more modest. Similarly, a better understanding of financial products is associated with higher reported wellbeing; however, the only difference for observed financial wellbeing is between customers who do not understand finances at all and those with a basic understanding. The distributions of observed financial wellbeing do not vary among customers with a basic or better understanding of finances.

[1] We code the mental distress scale values into low, medium, and high categories using the cut-off values from Prochaska et al. (2012).

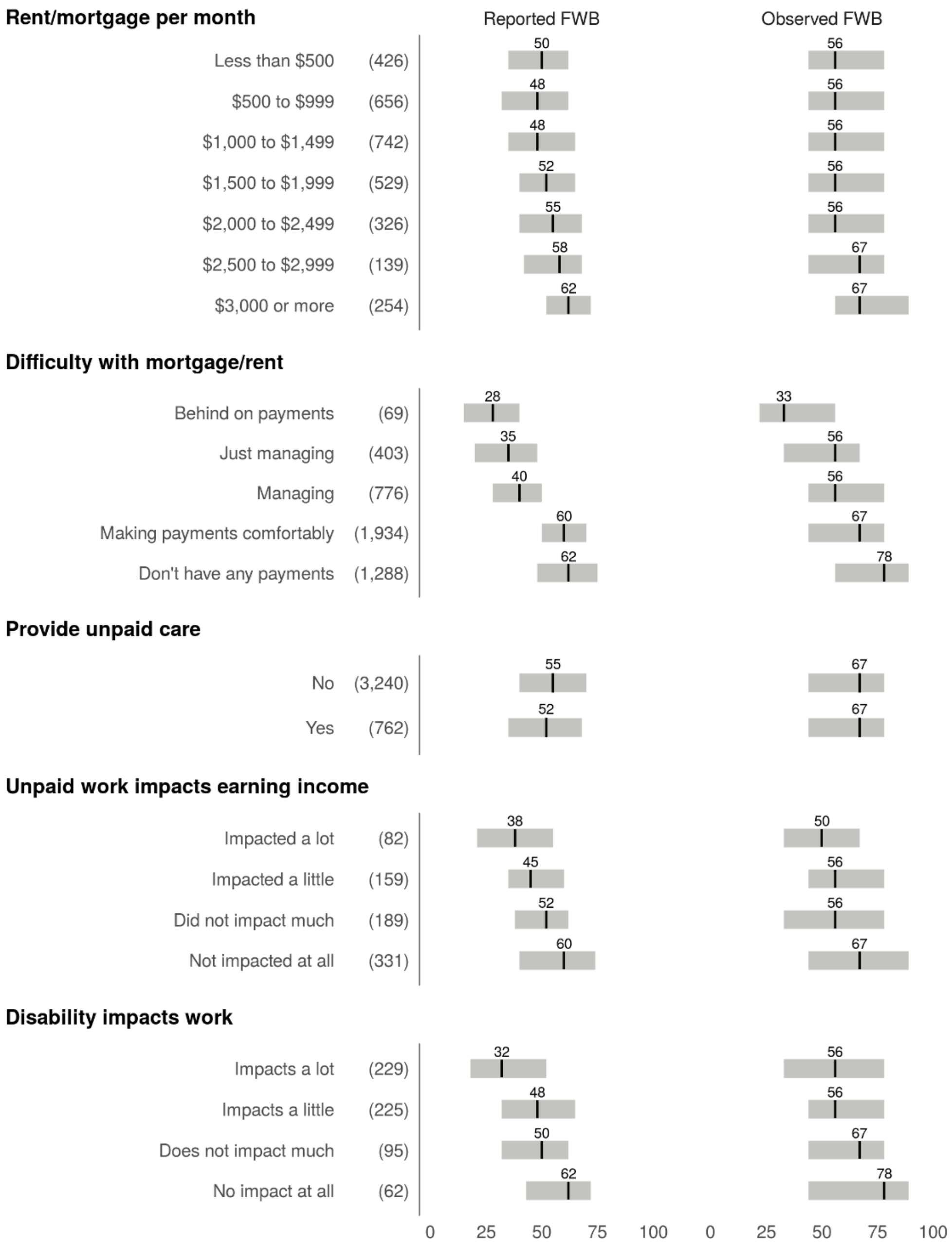
Figure 6.5 Financial Wellbeing and Household Characteristics: Personal Capabilities



6.6 Household Needs

Figure 6.6 shows distributions of the reported and observed financial wellbeing scales calculated for customers with different household needs, as measured by the rent or mortgage they pay each month, whether they need to provide unpaid care to someone, and whether they have a disability that affects their ability to work. Being in need can increase people's expenses and reduce their ability to accumulate assets. However, greater needs may also increase the motivations to save or to insure against negative events.

Figure 6.6 Financial Wellbeing and Household Characteristics: Household Needs



^ and * indicates questions that are not significantly correlated with reported and observed scales respectively.

Customers paying higher rents or mortgages tend to have higher reported financial wellbeing. This unexpected finding may be explained by people paying more for housing also having higher incomes. Observed financial wellbeing also rises with housing payments, though only for amounts over $2,500 a month. Consistent with this interpretation, and in contrast to the results for the absolute amounts of housing payments, reported and observed financial wellbeing sharply increase with customers' assessments of the ease of making those payments.

In general, customers providing unpaid care have a slightly lower reported financial wellbeing than others, and the same distributions of observed financial wellbeing. However, financial wellbeing is much lower among those who report that their care responsibilities affect their ability to earn income. The gap in reported financial wellbeing between customers whose unpaid work responsibilities greatly impact their earnings ability and those who are not affected at all is 22 points. This suggests that providing care largely affects financial wellbeing because it impairs the carer's employment and earnings. Customers who report that their disability affects their work a lot also have lower reported and observed financial wellbeing than others.

6.7 Preferences and Attitudes

Figure 6.7 plots distributions of the reported and observed financial wellbeing scales for customers with different preferences and attitudes regarding their sense of control in life, savings goals, concern with finances, and credit. These are intrinsically personal characteristics which affect the way people feel about the assets they own or owe, and the financial decisions they make.

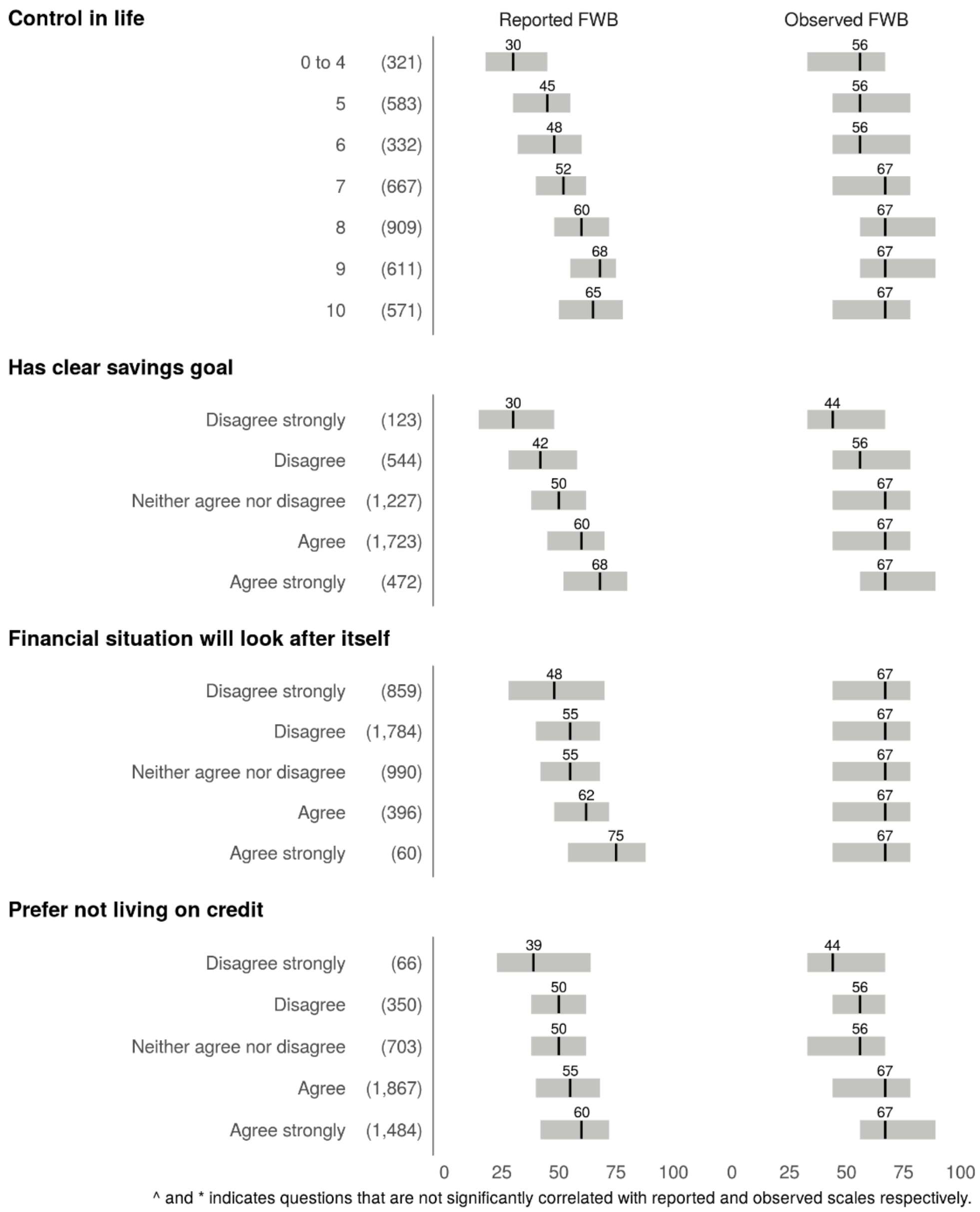
Having a sense of control over one's life is strongly related to reported financial wellbeing. Reported financial wellbeing sharply increases with financial control at first, going from a median 30 for the bottom (0-4) category to a median of 65 for customers who report the highest value (10) in the scale. Observed financial wellbeing has a weaker, mostly positive relationship with sense of control.

Customers who report having a clear savings goal have higher reported and observed financial wellbeing than others. The median of the reported financial wellbeing scale more than doubles between customers who strongly disagree and strongly agree with the statement about clear savings goals. Observed financial wellbeing also increases, although less sharply, for customers who have a clear savings goal.

Customers who agree strongly with the statement that their financial situation will look after itself without them worrying about it have better reported financial wellbeing than those who agree less. However, the distribution of observed financial wellbeing does not vary at all, with identical median, 25^{th}, and 75^{th} percentile values across each of the possible responses to the question.

Customers who prefer not to live on credit have higher reported and observed financial wellbeing than others. The differences are especially pronounced between customers who strongly disagree and disagree with the statement about these preferences.

Figure 6.7 Financial Wellbeing and Household Characteristics: Preferences and Attitudes



7. Analysis of External Conditions

Key findings:

- Employed customers who are happy with their working hours have higher reported financial wellbeing than those who want to work more or fewer hours; however observed wellbeing is similar across these groups
- Financial wellbeing is higher for customers who have experienced financial improvements, married, or retired, and lower for customers who have suffered financial setbacks, job loss, and family dissolution
- Customers who are socially isolated have significantly lower reported and observed financial wellbeing than those with regular or good social contacts

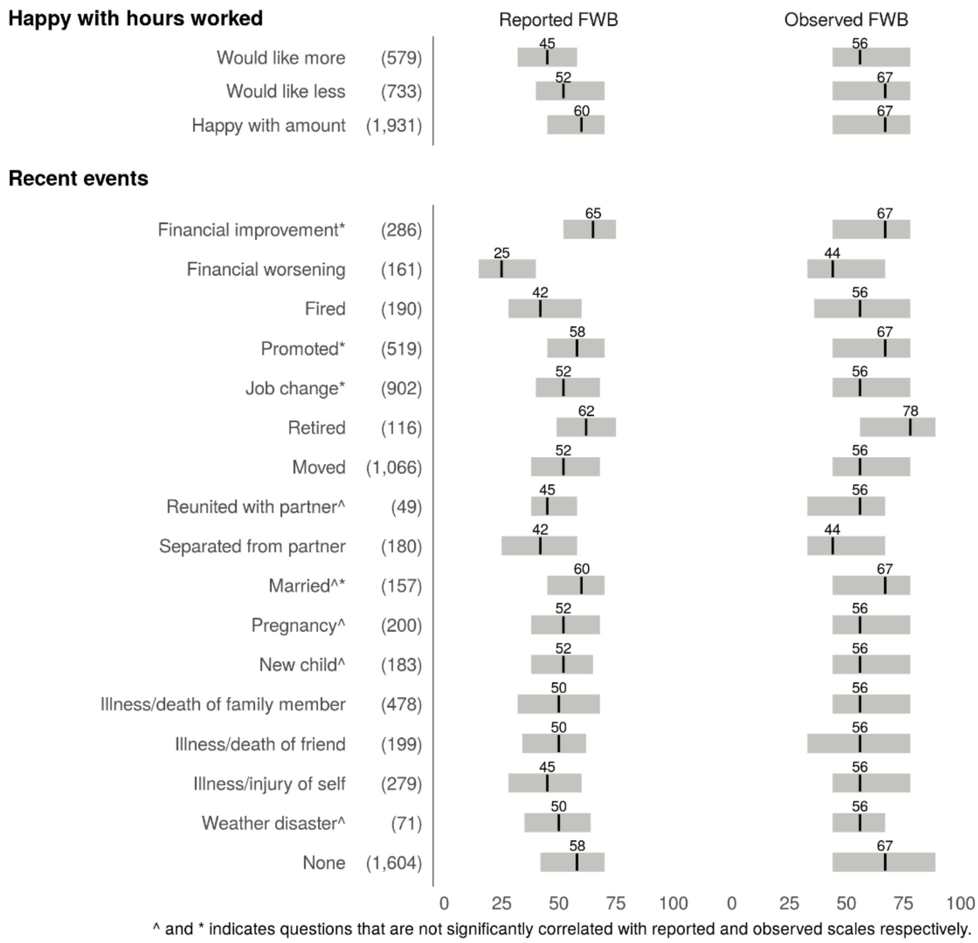
Our conceptual model predicts that conditions that are external to the person and his or her household also contribute to financial wellbeing. Because of limitations on its length, our on-line survey only asked about a few types of external conditions.

7.1 Economic and Life Conditions

Figure 7.1 describes customers' work conditions and recent life events they faced. Employed customers who wanted to work more hours and were possibly constrained at a low number of hours had worse reported and observed financial wellbeing than other employed customers, and customers generally. Employed customers who wanted to work fewer hours and who were possibly constrained at an undesirably high number of hours had median reported and observed financial wellbeing scores near those of other customers generally. Employed customers who were happy with their hours had higher median reported financial wellbeing than customers generally, but the same median observed financial wellbeing.

Customers who recently suffered negative life events including a financial worsening, job loss, separation from a partner, own illness, an illness or death of someone close to them, or a weather disaster had lower distributions of reported and observed financial wellbeing than customers in general. Customers with recent positive life events including financial improvements or promotions had distributions of reported financial wellbeing that were higher than the overall median but distributions of observed financial wellbeing that were near the median. Recent retirements were also associated with higher reported and observed financial wellbeing.

Figure 7.1 Financial Wellbeing and Economic and Life Conditions

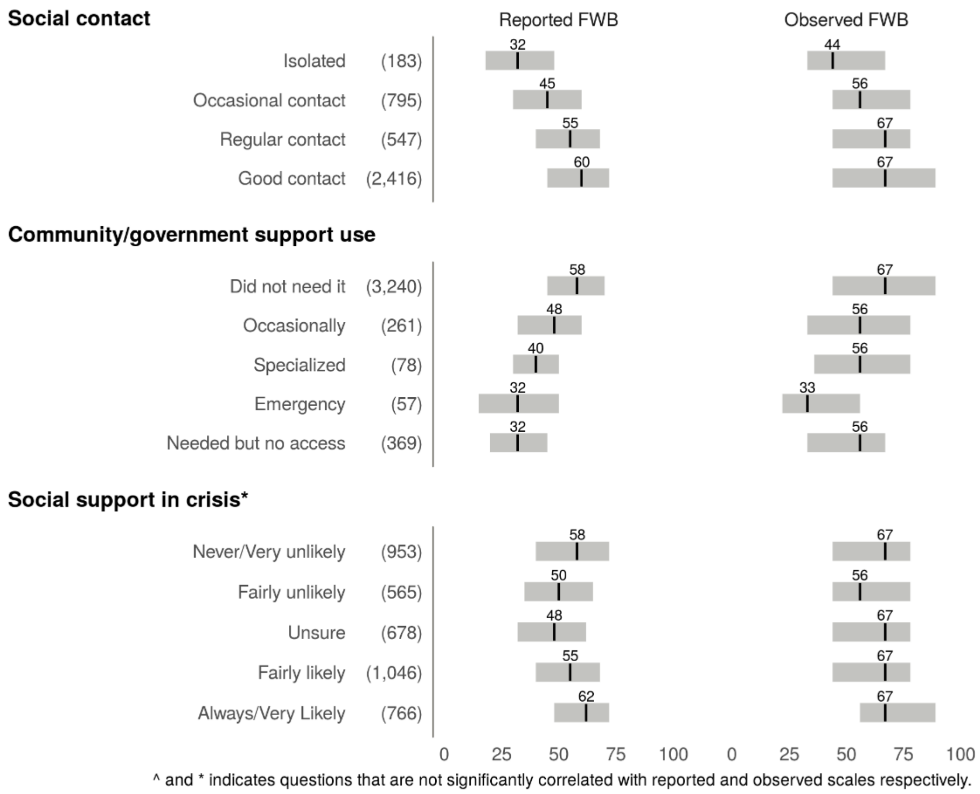


7.2 Social and Public Support

Figure 7.2 shows how the distributions of reported and financial wellbeing vary with social and public support. The distributions of reported and observed financial wellbeing tended to increase with customers' social contacts and decrease with their use of community and government services. Customers who used emergency services had especially low levels of reported and observed financial wellbeing. Customers who needed but could not access government or community services also had low distributions of reported financial wellbeing but near-average distributions of observed financial wellbeing.

Customers who were very sure that they either would or would not get support from their social connections in a crisis had higher median levels of reported financial wellbeing than customers generally, while customers who were unsure about getting support had lower median levels of reported financial wellbeing. The higher levels of wellbeing among customers who were certain of *not* getting support might be explained by those customers also having higher resources. Access to support from social connections was not associated with observed financial wellbeing.

Figure 7.2 Financial Wellbeing and Social and Public Support



8. Analysis of Financial Behaviours

Key findings:

- Customers with good spending habits, savings habits, credit card management, budgeting, and planning have substantially higher reported and observed financial wellbeing than customers without these behaviours
- Financial wellbeing is higher for customers who hold term deposit accounts, annuities outside their superannuation accounts, mortgage offset accounts, and share investment accounts, and lower for customers who hold personal loans
- Financial wellbeing is not strongly associated with the number of banking relationships and only modestly associated with personal control over accounts

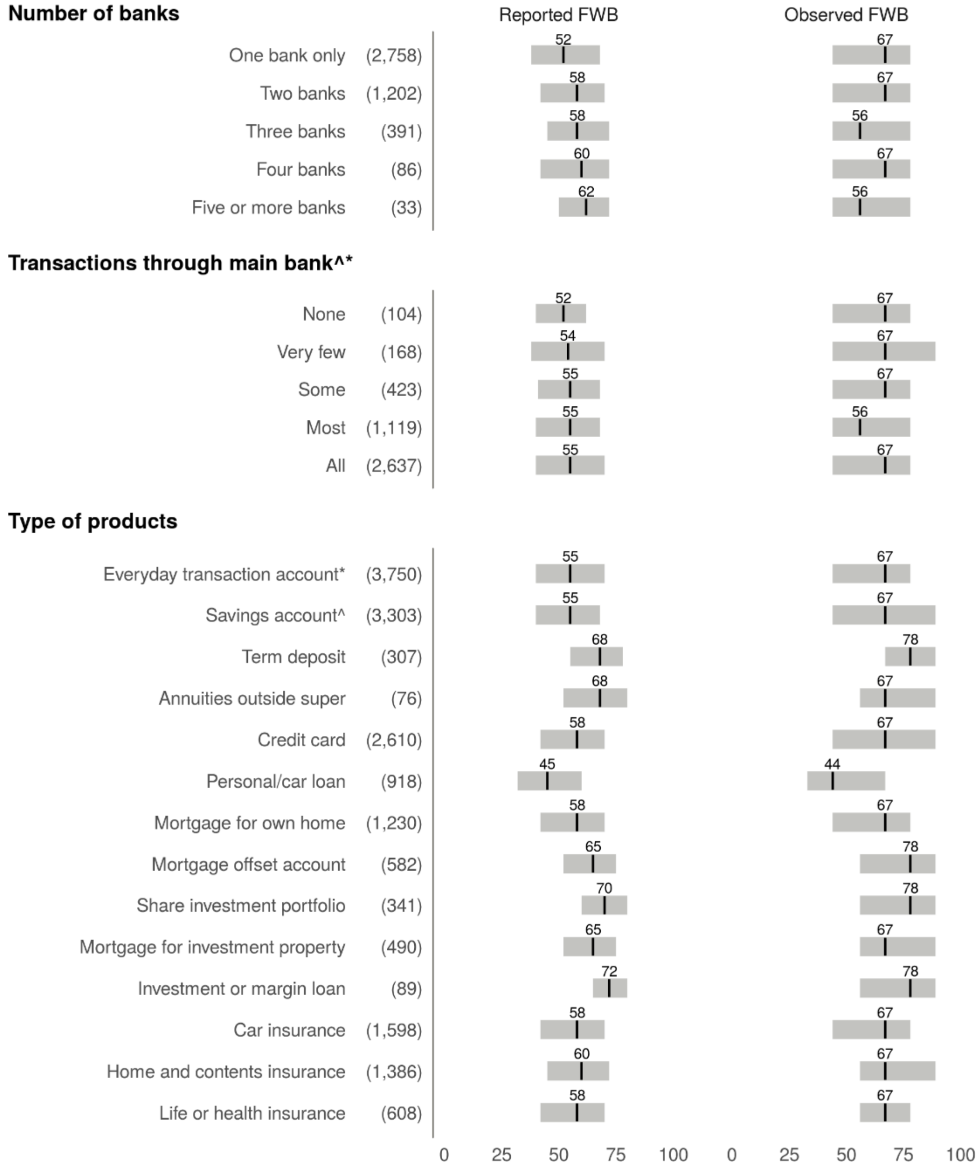
In our conceptual model, people's financial behaviours—how they spend, borrow, save, invest, and insure—are the main ways in which they change their financial wellbeing. In this section we measure the relation between several financial behaviours and customers' reported and observed financial wellbeing. Many of the financial behaviours we consider are influenced by the personal and household characteristics and the external conditions that we separately analyse in Sections 6 and 7. In this section, however, we abstract from the reasons why financial behaviours are undertaken and focus on the associations of behaviours with financial wellbeing.

8.1 Financial Interactions and Products

Figure 8.1 shows how customers' reported and observed financial wellbeing relate to their financial interactions and financial products. Customers who bank with multiple institutions have higher reported financial wellbeing than customers who bank with just one institution. Customers with five or more banks also have a narrower gap between the 25^{th} and 75^{th} percentiles of reported financial wellbeing than customers with fewer banks. This could be driven by differences in financial resources, as it is likely that people with more resources use more banks to manage them, but it could reflect the small number of customers with five or more banking relationships. The number of banks is not systematically related to customers' observed financial wellbeing. Neither reported nor observed financial wellbeing is related to the extent to which customers use their main bank for everyday transactions.

The results for customers' use of financial products closely correspond with the general patterns in Figure 6.4 for assets and liabilities. There are no or few differences in financial wellbeing for customers who hold everyday transaction accounts, savings accounts, credit cards, car insurance, own-home mortgages, or life or health insurance, which is to be expected as these are widely held products. Customers who hold annuities outside their superannuation fund have higher median reported wellbeing, and higher 25^{th} and 75^{th} percentile values in their observed financial wellbeing. Customers with term deposits, mortgage offset accounts, or shares in investment portfolios have higher than median reported and observed financial wellbeing. These relationships may indicate benefits from these products, but they could also result from higher resources among the customers who hold the products. Investment or margin loans and mortgages for investment properties are also associated with greater financial wellbeing. Although these products indicate debts, which should reduce financial wellbeing, they could also indicate underlying assets, which would add to financial wellbeing.

Figure 8.1 Financial Wellbeing and Financial Interactions and Products

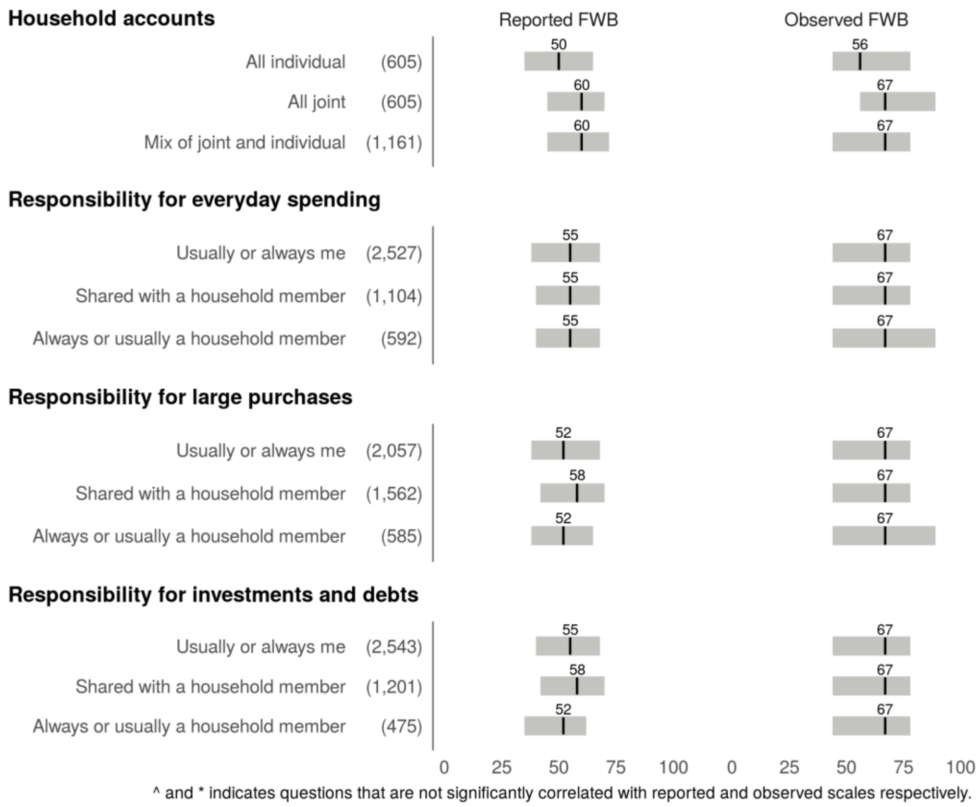


^ and * indicates questions that are not significantly correlated with reported and observed scales respectively.

8.2 Responsibility for Financial Decisions

Figure 8.2 shows how customers' reported and observed financial wellbeing relate to their individual and joint holding of accounts and to their responsibility for making different types of financial decisions. Customers who hold all their accounts individually had lower median reported and observed financial wellbeing than customers who held some or all accounts jointly. Median financial wellbeing is the same between households who held some or all of their accounts jointly, but the 25th and 75th percentile values of observed financial wellbeing are higher for those with all joint accounts. These patterns might reflect higher resources and partnership among joint account holders, rather than control.

Figure 8.2 Financial Wellbeing and Responsibility for Financial Decisions

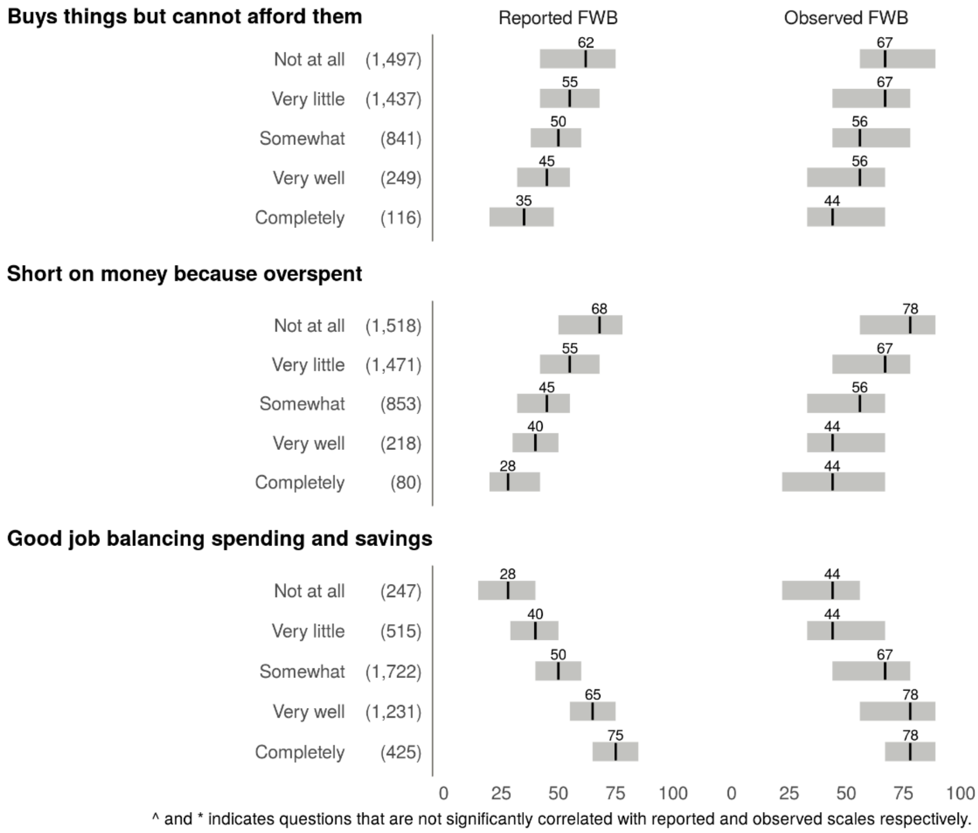


Median financial wellbeing does not differ between customers with different levels of responsibility for day-to-day spending decisions. Reported financial wellbeing is higher for customers who share responsibility for large purchases and for investments and debts; this may reflect a positive result from partnership rather than of financial control. Observed financial wellbeing does not vary with the degree of shared responsibility.

8.3 Spending Habits

Figure 8.3 shows how financial wellbeing varies with customers' spending habits. Customers who say that they are impulsive and buy things that they cannot afford have lower reported and observed financial wellbeing than others, with a 27-point gap in median reported financial wellbeing and a 23-point gap in median observed financial wellbeing between those who completely agree and disagree with this characterisation. These gaps are approximately twice as large as the gaps associated with disability. A similarly large negative relationship appears between financial wellbeing and agreement with the statement about running short on money because of overspending. Reported and observed financial wellbeing are, however, positively related to doing a good job balancing spending and saving. Here the differences in the median values between customers who completely agree and disagree with this characterisation are 47 points for the reported scale and 34 points for the observed scale.

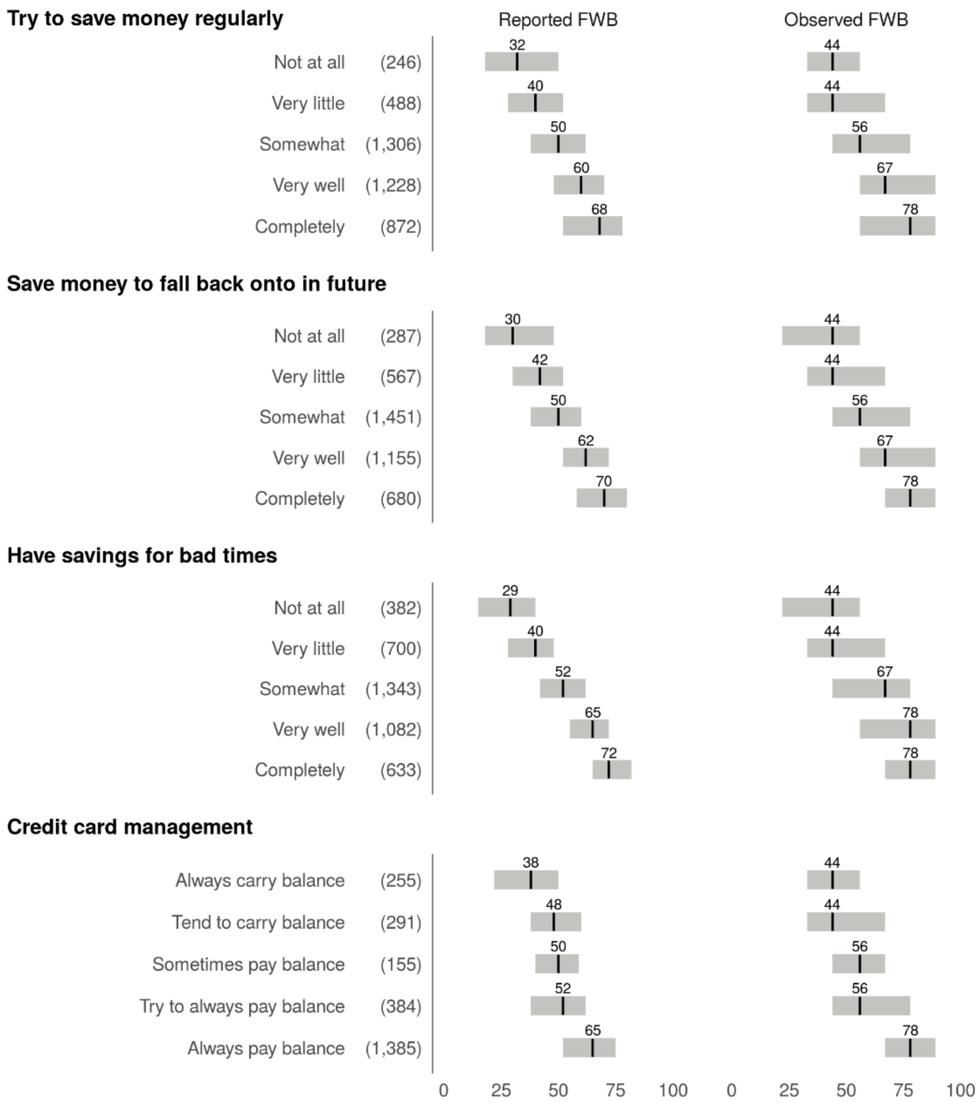
Figure 8.3 Financial Wellbeing and Spending Habits



8.4 Saving and Borrowing Habits

Figure 8.4 shows the relationships between customers' saving and borrowing habits and their financial wellbeing. Financial wellbeing is strongly, positively related to each of the three savings behaviours that we consider: saving regularly even if it is a small amount, saving to have a something to fall back on in the future, and saving to have money for bad times. Of the three behaviours, however, saving for bad times has the strongest association with reported financial wellbeing. The 25th-75th percentile gap in reported financial wellbeing also narrows considerably for strong precautionary savers, consistent with the idea that these customers systematically enjoy higher wellbeing. Observed financial wellbeing is also strongly associated with all three types of saving behaviour, and it increases similarly for each of the behaviours.

Figure 8.4 Financial Wellbeing and Saving and Borrowing Habits



^ and * indicates questions that are not significantly correlated with reported and observed scales respectively.

Credit card management is also associated with higher reported and observed financial wellbeing. Customers who always carry a credit card balance report the lowest financial wellbeing, and those who always pay their balances in full have the highest. There are only modest differences in reported financial wellbeing for customers with different frequencies of sometimes, but not always, carrying balances. Observed financial wellbeing shows a similar pattern, with customers who always or tend to carry credit card balances having the lowest financial wellbeing, and customers who always pay their balances having much higher financial wellbeing. These differences could reflect differences in resources or financial positions between these groups, but they could also be driven the financial satisfaction and security customers feel when they manage their credit well.

8.5 Approaches to Finances

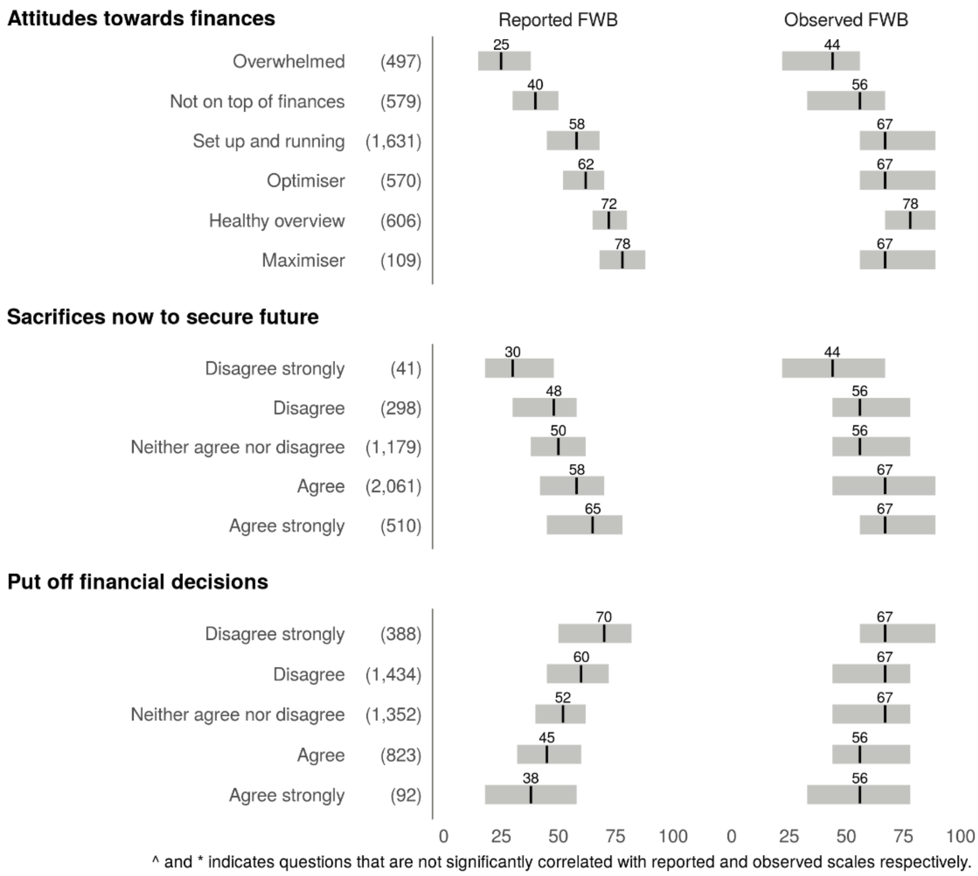
Figure 8.5 shows the reported and observed financial wellbeing of customers who differ in their approaches to addressing their finances. Customers in the survey were presented with six different statements about how they might feel and behave with their finances and were asked to identify the statement that best describes them. We list the statements below (along with short labels in parentheses and italics, which were not shown in the survey).

- I find my finances overwhelming. There's not much left for me to spend after my everyday expenses are paid. I tend to avoid thinking too much about my finances as it worries me. (*Overwhelmed*)
- I'm not really on top of my finances. I tend to spend money when I have it, don't really save or stick to a budget. I don't do much research into financial matters. (*Not on top of finances*)
- My finances are all set up and running, there is probably room to optimise them but I feel that there are more important things in life to worry about. I keep a bit of a budget (usually in my head) and do a little research here and there. (*Set up and running*)
- I'm on top of my finances and enjoy managing them. I'm constantly looking at ways to optimise them and willing to put in the time and effort. I'm quite disciplined and will cut back on spending to achieve a savings goal. I keep a detailed budget and do a lot of research. (*Optimiser*)
- I have a healthy overview of my finances and am happy to get into the detail when I need to. I'm comfortable with my financial position and I have investments working for my future. I always try to have a healthy buffer in place so I can still enjoy the good things in life. (*Healthy overview*)
- I'm on top of my finances and actively maximising my wealth for the future. I manage my own portfolio and investments and it's important for my money to work hard for me. I keep a detailed budget and enjoy engaging with the details of my finances. (*Maximiser*).

Customers who are financially overwhelmed have much lower reported and observed financial wellbeing than those who are financial maximisers. The differences between the median reported financial wellbeing of these two groups is 53 points, which far exceeds the gap between customers earning $20,000 a year or less and those earning more than $100,000. The median value for reported financial wellbeing for the 'maximisers' is just within the threshold of our 'doing great' descriptive category. There are also large differences between these groups in observed financial wellbeing, although the pattern is not as uniform. The patterns are consistent with positive financial behaviours contributing to higher financial wellbeing. However, several of the statements incorporate aspects of high and low wellbeing, such as worrying about finances and being comfortable with the person's financial position.

Customers who indicate that they are willing to make sacrifices now to secure a better future have higher reported and observed financial wellbeing than customers without this willingness. Customers who put off financial decisions have lower reported and observed financial wellbeing than those who address these decisions. The patterns suggest that more disciplined people have higher financial wellbeing.

Figure 8.5 Financial Wellbeing and Approaches to Finances



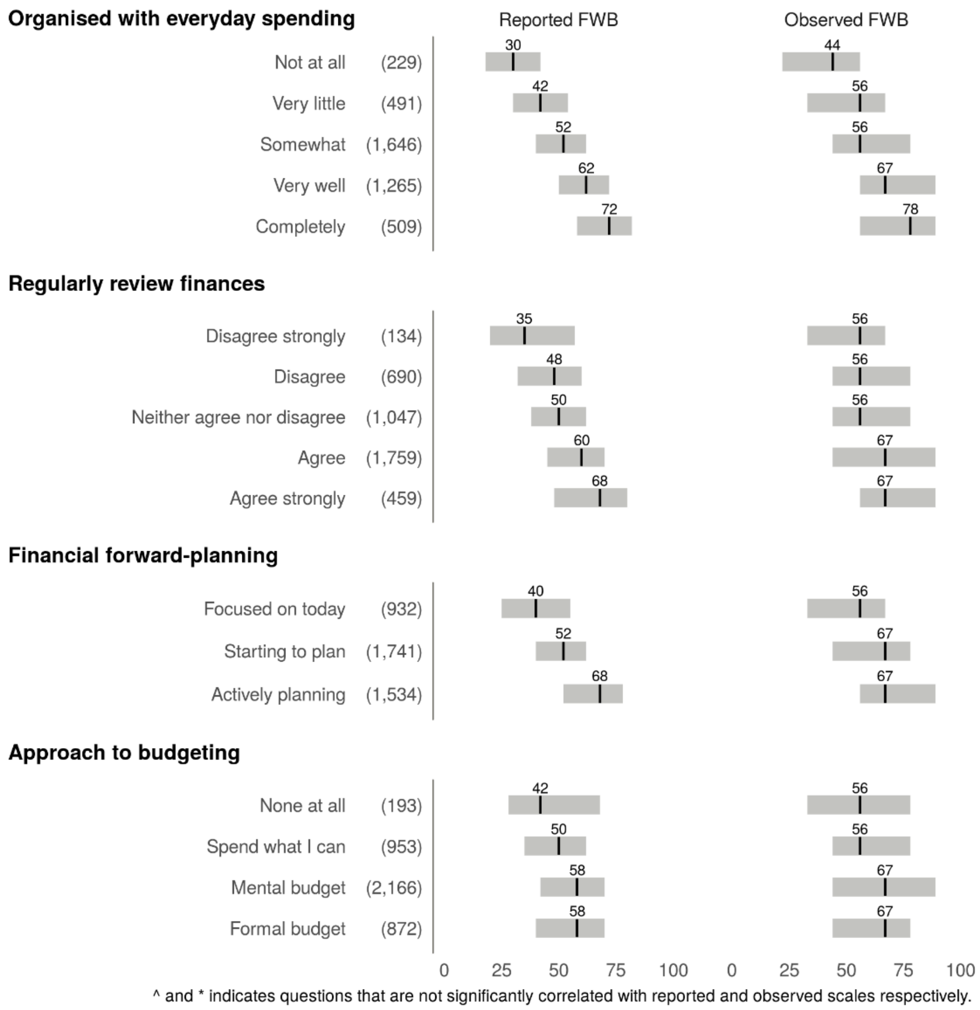
8.6 Planning and Budgeting

Figure 8.6 shows how the distributions of reported and observed financial wellbeing vary for customers with different approaches to financial organisation, planning, and budgeting. More organised spenders have a substantially better reported financial wellbeing, with people categorising themselves as completely organised spenders having a 42-point premium in reported financial wellbeing and a 32-point premium in observed financial wellbeing over those who are not organised at all. These gaps are larger than the differences between our lowest and highest income categories.

Reported and observed financial wellbeing are also higher for customers who regularly review their finances and for those who actively plan for their future. Median reported financial wellbeing is 28 points higher for customers who actively forward-plan than for those who only focus on today. These two groups also differ in their observed financial wellbeing, with higher 25th and 75th percentiles for those who actively forward-plan.

Customers with an unstructured approach to budgeting (those who have no approach at all or who spend what they can) have lower reported financial wellbeing than customers who have mental or formal budgets. Interestingly, there are no differences in median financial wellbeing between those with mental or formal budgets. These results suggest that the act of budgeting contributes to financial wellbeing, while the method may be less important.

Figure 8.6 Financial Wellbeing and Planning and Budgeting



9. Analysis of Characteristics Measured from Bank Records

Key findings:

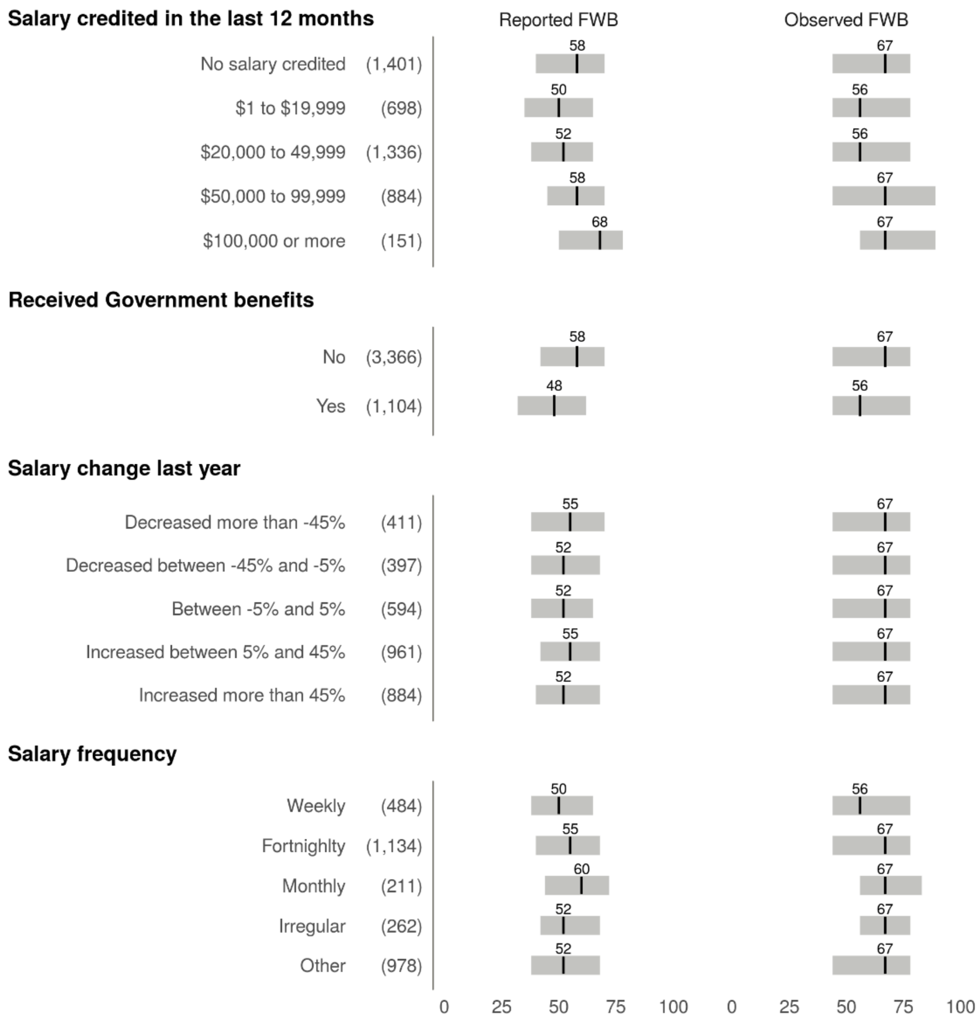
- Financial wellbeing tends to increase with the amount of salary but is not strongly associated with salary changes
- Financial wellbeing is lower among those who receive government benefits
- Financial wellbeing tends to be higher for those who hold offset accounts, home loans, and credit cards and tends to be lower for those who hold personal loans
- Financial wellbeing is lower for customers who are in arrears or have declared hardships
- Financial wellbeing is only slightly lower for customers who gamble
- Financial wellbeing is not strongly associated with the number of financial accounts or with digital, phone, or in-person interactions with the bank

Bank-record data on financial positions, spending, and payments are used to develop the CBA-MI Observed Financial Wellbeing Scale. Our survey data are complemented with additional bank-record data on customers' economic resources, financial products, and financial behaviour.

9.1 Observed Economic Resources

Figure 9.1 shows how reported and observed financial wellbeing differ depending on the amounts and ways that customers received income. Bank transactions data distinguish incoming payments from outgoing payments; they also indicate sources and destinations of payments. Using these and other indicators, we can categorise salary payments separately from other types of payments. For the first panel in the figure, we have summed customers' salary payments over the previous year, and we show the differences in financial wellbeing for customers with different salary amounts.

Figure 9.1 Financial Wellbeing and Observed Economic Resources



Customers with no salary payments—which would include retirees, long-term unemployed customers, and non-working students and carers—have levels of reported and observed financial wellbeing that are close to the overall customer averages. Among the customers who receive salaries, reported and observed financial wellbeing rise with salary amounts, though the relationship is stronger for reported financial wellbeing than for observed financial wellbeing.

The transactions data also distinguish government benefit payments from other types of payments. Although government benefits add to a person's economic resources, they are usually conditioned (means-tested) on the person having limited other resources. The data indicate that customers who receive government benefits have lower reported and observed financial wellbeing than those who do not receive benefits. The relationship likely reflects income conditioning and lower overall resources for benefit recipients.

Among the customers who receive salaries, the bank-record data can tell us whether the salaries increased or decreased over time. We compared customers' salaries from the previous year to their salaries in the year before and categorised whether the salaries fell more than 45 per cent, fell five to 45 per cent, changed less than five per cent, grew five to 45 per cent, or grew more than 45 per cent.[2] We found that salary changes were not associated with reported or observed financial wellbeing. One explanation for these results may be the reasons for changes—for example, salaries would fall if customers retired or had resources that allowed them to work less, and salaries would rise if an income or expense shock led them to re-enter the workforce or work more. The weak relationships might also be a result of the changes occurring because of customers altering where their salaries are deposited rather than the salaries themselves changing.

We also examined whether financial wellbeing varied with the frequency of salary payments. Frequent, regular income payments may be easier for people to manage than less frequent or irregular payments. However, payment frequency is also associated with the type of job and level of salary—many higher paying jobs pay salaries fortnightly or monthly. Customers with weekly salary payments over most of the previous year had lower than average reported and observed financial wellbeing, and customers with monthly payments had higher than average financial wellbeing.

9.2 Observed Financial Products

Figure 9.2 shows how financial wellbeing varies among customers with different types and numbers of financial accounts. The types of accounts that customers hold provide rough indications of whether they have financial resources or responsibilities. For credit cards and loans, account-holding can also indicate credit worthiness or the presence of other assets. The number of accounts can indicate a financial management or discipline strategy—for example, establishing savings accounts for special goals or transactions accounts for particular purposes. However, the number of transactions can also signal complex circumstances or multi-person households.

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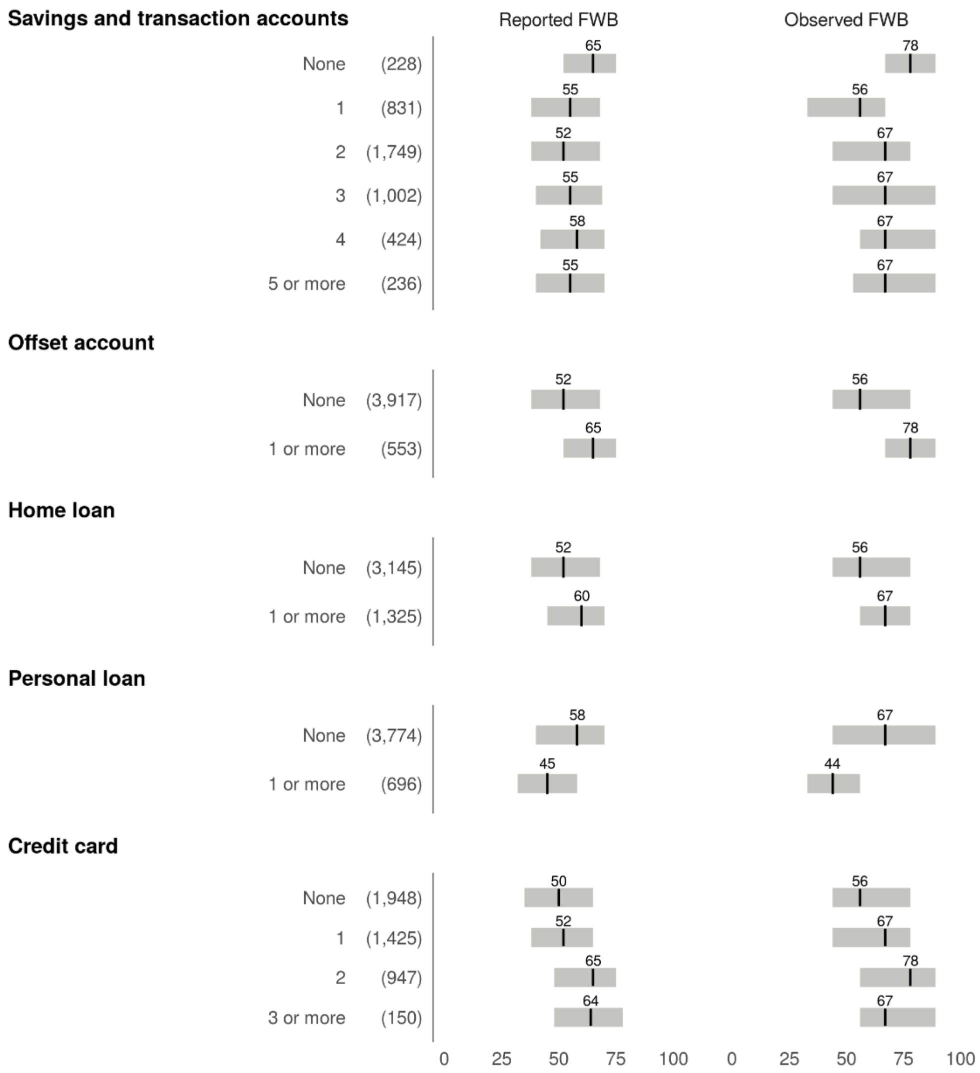
[2] We calculated the rates using a 'symmetric' growth formula based on the salary for the previous year, S_t, minus the salary for the year before, $S_{t\text{-}1}$, divided by their average ($= \frac{S_t - S_{t-1}}{0.5*(S_t + S_{t-1})}$).

Figure 9.2 Financial Wellbeing and Observed Financial Products



In the first panel, customers without transactions or savings accounts have higher reported and observed financial wellbeing than customers on average. As all the people in our sample are CBA customers, the absence of a transactions or savings account necessarily indicates holding an offset, loan, credit card, or other account.[3] Among the customers with transactions and savings accounts, reported financial wellbeing does not vary systematically with the number of accounts, but observed financial wellbeing is higher among multiple account holders.

Customers with offset accounts have substantially better reported and observed financial wellbeing than other customers. Holding an offset account indicates savings, but it also indicates holding a loan and having the discipline or wherewithal to make excess repayments.

[3] A separate analysis indicated that 93 per cent of the sample customers without a savings or transactions account held an offset account.

Home loans, which indicate a possible debt burden but also indicate housing wealth and credit-worthiness, are associated with better reported and observed financial wellbeing. In contrast, personal loans, especially multiple personal loans, are associated with worse financial wellbeing.

Customers without credit cards have lower reported and observed financial wellbeing than card holders. The lower scores could reflect an inability to obtain credit and possibly other financial problems. Multiple card holding is strongly associated with higher reported financial wellbeing but is only modestly associated with observed financial wellbeing.

9.3 Customer Behaviours and Interactions

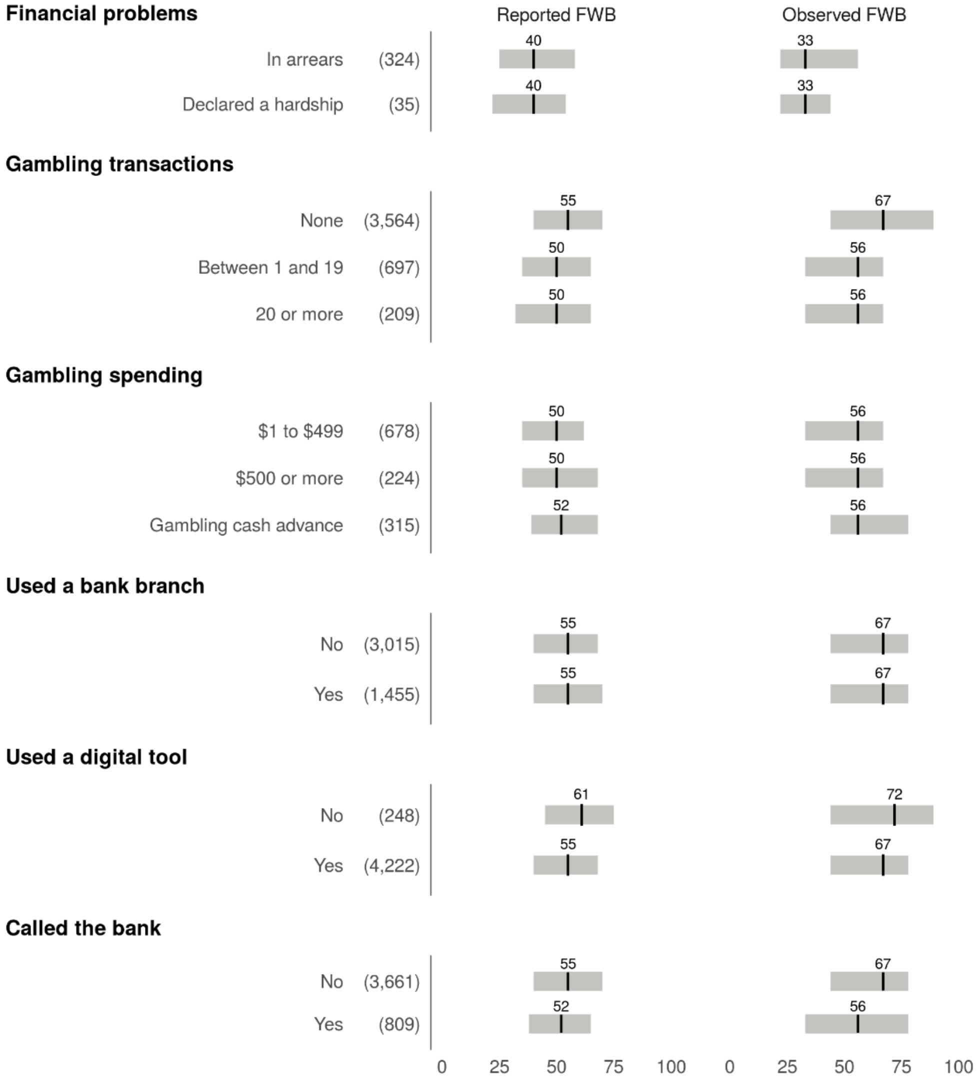
Figure 9.3 shows several types of customer behaviours and interactions. Customers who declare a financial hardship to the bank that reduces their ability to repay debts and customers who fall into arrears in their debt payments each have substantially lower reported and observed financial wellbeing than other customers. The median reported financial wellbeing score for both groups is 40, compared to 55 for customers overall, and the median observed financial wellbeing score for both groups is 33, compared to 67 for customers overall.

Gambling is also associated with modestly lower financial wellbeing. Customers with gambling transactions and customers who take cash advances at gambling venues have lower reported and observed financial wellbeing than non-gambling customers. However, financial wellbeing does not appear to vary with the number of gambling transactions or the amount of gambling spending.

Interactions with the bank are also negatively associated with financial wellbeing. Customers who use CBA’s digital tools and customers who phoned the bank had lower reported and observed financial wellbeing than other customers. The negative associations for these interactions could be a result of customers with problems needing to get in touch with the bank. The associations for on-line interactions could also be influenced by customers’ ages—older customers have better financial wellbeing but are less digitally engaged. Financial wellbeing does not differ between customers who did and did not visit bank branches.

The analyses of survey and bank-record data lead to many similar findings. Financial wellbeing is better for customers with more resources and mortgage-holders and worse for customers with personal loans, financial problems, and credit risks. The associations tend to be stronger for reported financial wellbeing than observed financial wellbeing. The alignment of survey and bank-record findings boosts our confidence in the quality of each data source.

Figure 9.3 Financial Wellbeing and Customer Behaviours and Interactions



10. Dissonance Analysis

The report next examines customers' reported and observed financial wellbeing in combination. As with Figure 5.3, it considers whether customers' Reported and Observed Financial Wellbeing Scale values are in the following categories:

1) both below the median,
2) reported financial wellbeing value below the median and observed financial wellbeing value at or above the median,
3) reported financial wellbeing value at or above the median and observed financial wellbeing value below the median, and
4) both at or above the median.

The first and last categories indicate rough agreement, or concordance, in the two scale values, while the second and third categories indicate divergence. The goal of this analysis is to identify outcomes and characteristics of customers that are associated with high levels of concordance or divergence in the scales.

10.1 Financial Wellbeing Outcomes

We first consider the specific reported and bank-record financial wellbeing outcomes for customers whose Reported and Observed Financial Wellbeing Scale values agree or disagree. From left to right, Figure 10.1 shows the percentages of customers with each reported and bank-record outcome conditional on whether their reported and observed scale values are in the four categories listed above. A focus of this analysis is to see if there are specific conditions associated with the differences between the scales.

Scale Values Both Below the Median or Both Above the Median (panels one and four)

As we would expect, customers whose two scale values are both below the median have noticeably worse reported and bank-record outcomes than average, while customers whose two scale values are each at or above the median have better outcomes than average. The distributions of outcomes for each of these groups look like the distributions for customers in the bottom and top descriptive categories of the individual distributions.

Reported Scale Value Below the Median but Observed Scale Value Above (panel two)

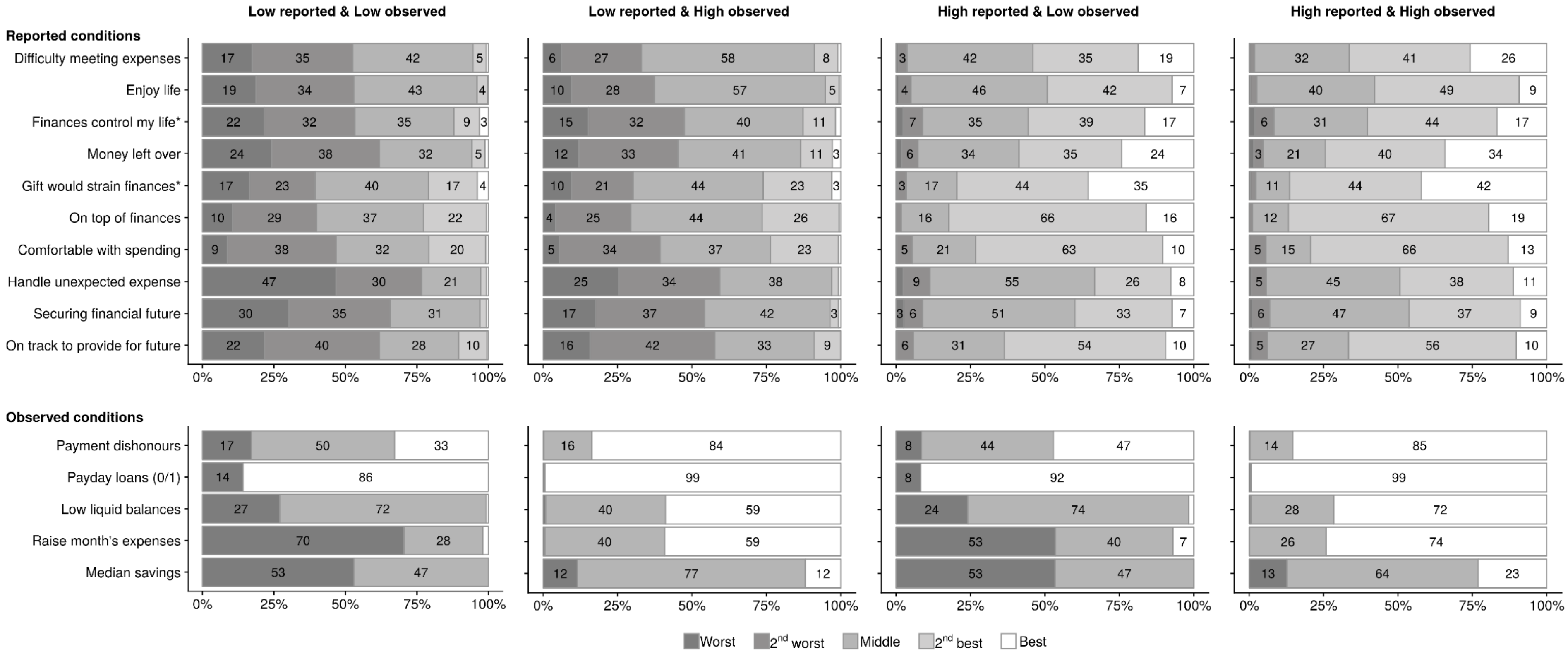
Customers with reported scale values below the median but observed scale values at or above the median (second panel) are more likely than average to have the worst outcomes for every reported condition except meeting necessary expenses and being on top of their finances. The percentages of these customers with the worst outcomes for handling unexpected expenses, being in control of finances, and being on track for future needs are especially high.

These customers also have rates of the second-worst reported problems that are nine to 20 percentage points higher than the average rates. Majorities of these customers report problems with the rainy and one day outcomes of handling unexpected expenses, securing their financial futures, and being on track for their future needs. Few customers with low reported scale values and high observed scale values have the worst bank-record outcomes, but many occasionally have dishonours (16 per cent), sometimes have low liquid balances (40 per cent), and sometimes are unable to raise a month's expenses (40 per cent).

Reported Scale Value Above the Median but Observed Scale Value Below (panel three)

Customers with reported scale values at or above the median but observed scale values below the median (third panel) are less likely than average to give the worst responses for the reported conditions and more likely than average to give the best responses. Majorities experienced positive outcomes for most of the reported conditions; however, minorities indicated experiencing positive outcomes for handling unexpected expenses and securing their financial futures.

Figure 10.1 Reported and Observed Financial Wellbeing Outcomes for Customers with Different Combinations of Reported and Observed Financial Wellbeing Scale Values



These customers have higher than average rates of the worst bank-record outcomes, with majorities being unable to raise a month's expenses for at least three quarters of the year and having low levels of savings. Large fractions also sometimes have dishonours (44 per cent), have low liquid balances for up to three quarters of the year (74 per cent), and are unable to raise a month's expenses for up to three quarters of the year (40 per cent).

10.2 Personal and Household Characteristics

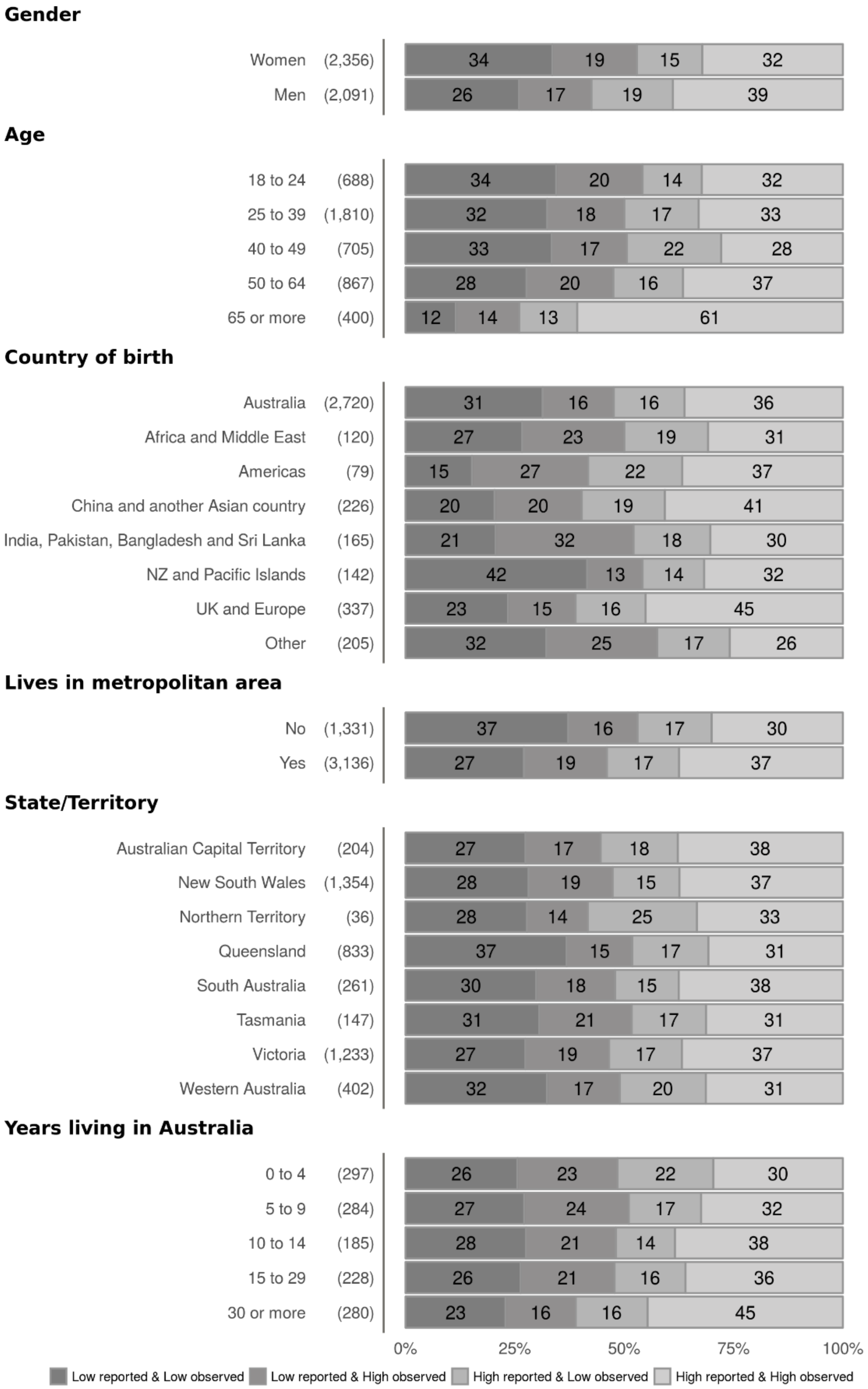
We next consider how the percentages of customers in each combination of the reported and observed categories vary depending on the customers' characteristics. Figure 10.2 undertakes this analysis for the same personal and demographic characteristics that we considered in Figure 6.1.

The top panel shows the differences in men's and women's combined scale outcomes. In the overall sample, just under one third of customers had concordant low values for the two scales; just over one third had concordant high values; and about one sixth had values in each of the other two divergent categories. Consistent with our earlier finding that men tend to have better financial wellbeing than women, men are more likely than women to have both scale values at or above the median and less likely to have both scale values below the median. Men and women do not differ much, however, in their rates of having divergent values.

A slightly different pattern appears when we consider customers' ages. Below age 65, the percentages of customers in each of the combined financial wellbeing outcome categories are similar across age groups and similar to the overall sample distribution. However, customers who are 65 or older are much more likely than other customers to have both scale values be at or above the median and much less likely to have both scale values below the median or to be in either of the divergent categories. The lower rate of divergence, though, is mainly the result of so many older customers (61 per cent) being in the high reported and high observed combined category.

The patterns of concordance and divergence are largely the same as those for gender and age when we consider geography or, more generally, when we consider most of the other characteristics in our sample. For most characteristics, the percentages in the two concordant categories vary depending on whether the group has lower or higher than average financial wellbeing (like the patterns for men and women), but the percentages in the two divergent categories are relatively stable except for cases where an especially large proportion of the group has low or high overall financial wellbeing (like the pattern for customers who are age 65 and older). Accordingly, the discussion for the rest of this section focuses on groups with unusually high levels of concordance or divergence. Results for all the characteristics in our analysis sample are reported in Appendix B.

Figure 10.2 Combined Reported and Observed Financial Wellbeing by Personal Characteristics



The first such group is immigrants from Africa, the Middle East, the Americas, and South Asia, who are more likely than immigrants from most other countries and non-migrants to have scale values that diverge. Immigrants who arrived in Australian in the last nine years are more likely than immigrants who arrived earlier to have divergent scale values. The higher rates of divergence might occur if recent immigrants and immigrants from the listed regions hold bank accounts outside Australia or conduct financial activities outside the banking system—for instance, through family savings pools. The rates might also be explained by cultural differences in financial attitudes, such as strong orientations towards savings or investment, or differences in capabilities, such as less understanding of English or of the Australian financial system.

High levels of divergence between the two scales also appear for customers with some types of incomes, liabilities, and assets. Figure 10.3 shows the combined reported and observed financial wellbeing scale categories for customers who differ in their types of income, levels of bank deposits, amounts of mortgage or investment loans, and mortgage offset balances.

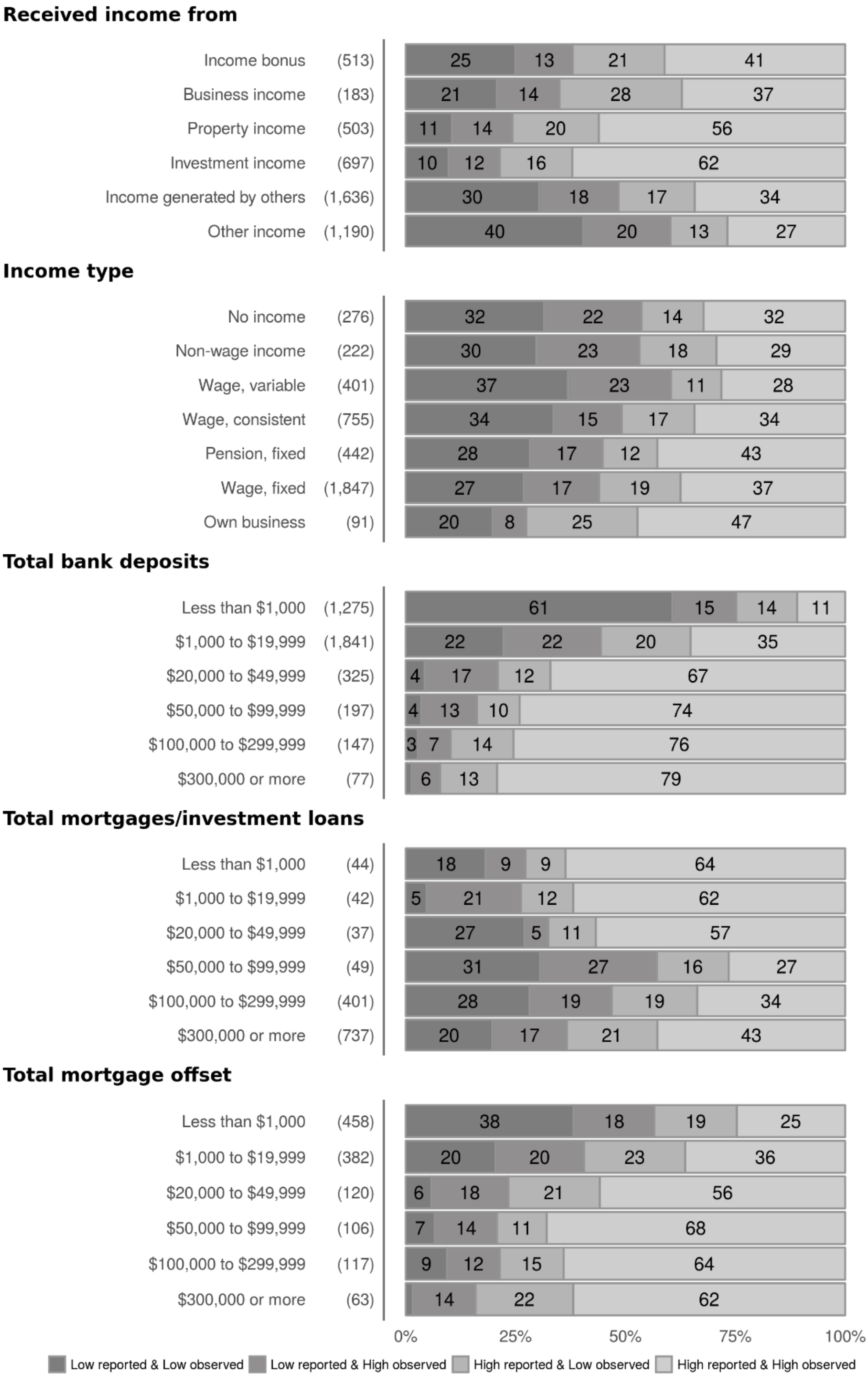
In the first panel, the levels of concordance and divergence are similar across customers with most types of non-wage and non-pension income. However, customers with business income are much more likely than other customers to have reported financial wellbeing scale values that are at or above the median but observed financial wellbeing scale values that are below the median.

In the next panel, which distinguishes customers' main sources of income, customers with non-wage income have higher levels of divergence in their scale values than other customers. Consistent with the previous panel, business owners are also more likely to have reported scale values that are at or above the median but observed scale values that are below the median. The high levels of divergence for customers who receive non-wage and business income may be a result of complex financial arrangements or the use of other non-personal (e.g., commercial) bank accounts.

Customers who indicate having less than $1,000 in their deposit accounts have low overall financial wellbeing but levels of divergence that are comparable to other customers. However, customers with $1,000 to $19,999 in their deposit accounts have overall financial wellbeing that is near the average but divergence in their scale values that is above average. Customers with larger deposit balances have much better overall financial wellbeing and low levels of divergence.

Customers with mortgage or investment loan balances between $50,000 and $99,999 are more likely than other customers to have reported financial wellbeing that is below the median and observed financial wellbeing that is above the median. Customers with higher mortgage and investment loan balances also have somewhat more divergence in their scale values than other customers. Customers with modest or high mortgage balances may face strains meeting their day-to-day financial needs even as they build substantial nest eggs.

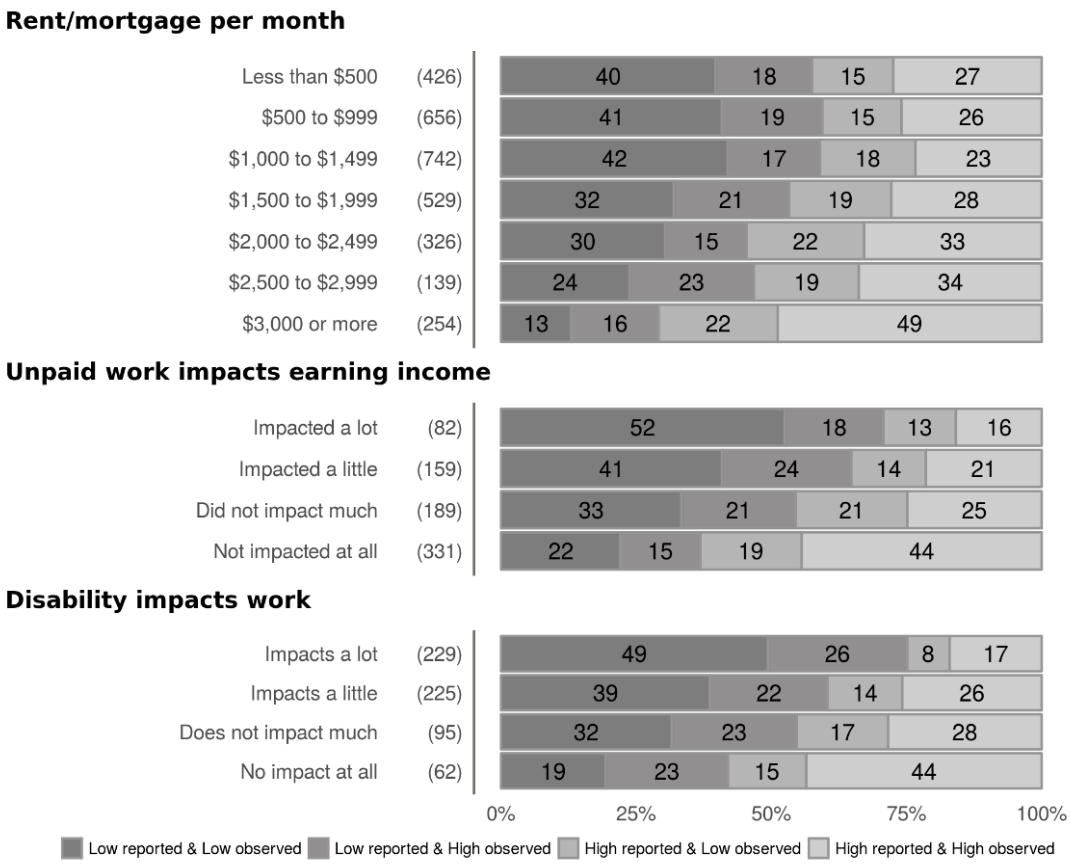
Figure 10.3 Combined Reported and Observed Financial Wellbeing by Resources



In the last panel, customers with mortgage offset accounts that are between $1,000 and $19,999 are more likely to have divergent scale values than other customers. This is the same range of balances that was associated with high levels of divergence for deposit accounts. In this range, customers will sometimes or always have more than a week's liquid balances, and many will sometimes or always be able to raise a month's expenses. However, these customers may be closer than others to the thresholds that were set for these measures for the observed scales.

Figure 10.4 shows how the combined reported and observed financial wellbeing scale outcomes vary with several types of customer needs. The first panel distinguishes among customers with different levels of rent or mortgage payments. Customers whose monthly housing payments are $1,500 or higher are more likely to have divergent scale values than customers whose housing payments are lower. The higher rates of divergence may reflect an interaction between the higher needs and expenses that are associated with larger housing payments and the higher incomes that allow people to qualify for these payments.

Figure 10.4 Combined Reported and Observed Financial Wellbeing by Needs

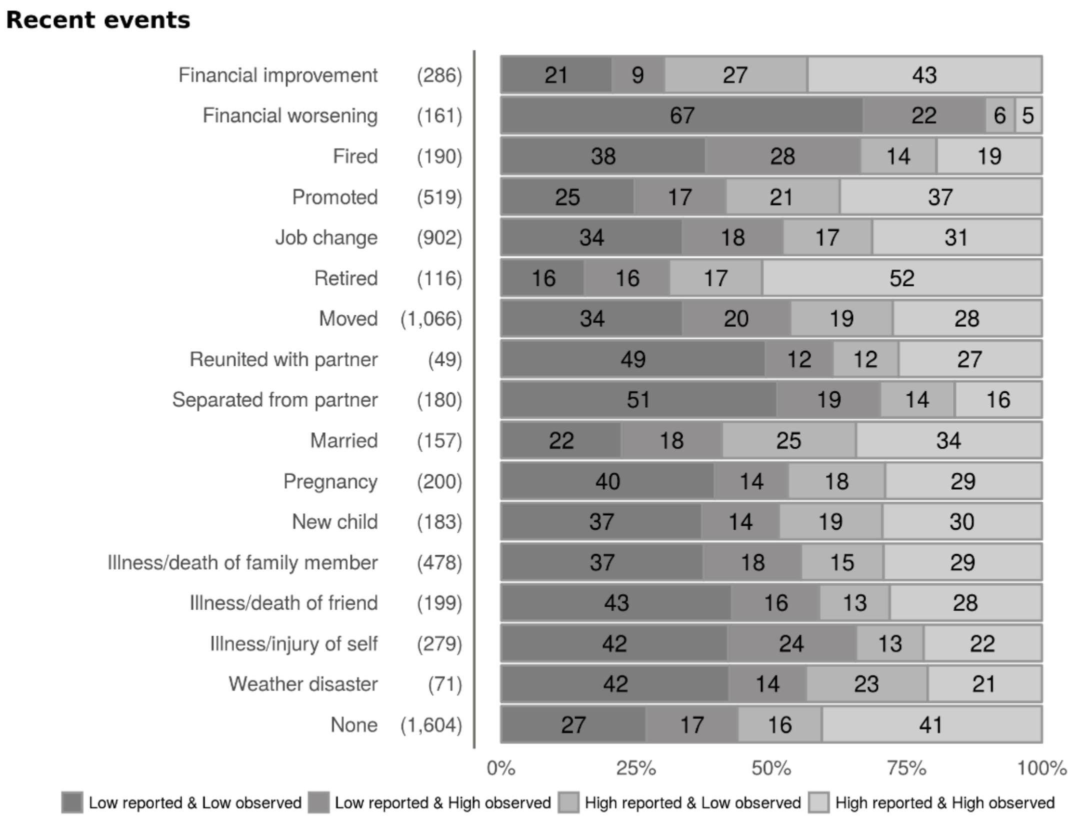


The next two panels distinguish among customers with unpaid work responsibilities and with disabilities who indicate how those conditions impact their ability to do paid work. For both conditions, customers who report that their conditions did not impact their work much are more likely to have divergent scale values than other customers.

10.3 External Conditions

Figure 10.5 shows how the combined reported and observed financial wellbeing scale outcomes vary among customers who recently experienced different major life events. Customers who indicate recently being fired, moving, marrying, and suffering an illness or injury are more likely to have divergent scale values than other customers, while customers who indicate recently reuniting with a partner are more likely to have concordant scale values. The higher rates of divergence may reflect the complex circumstances that are associated with several of these events.

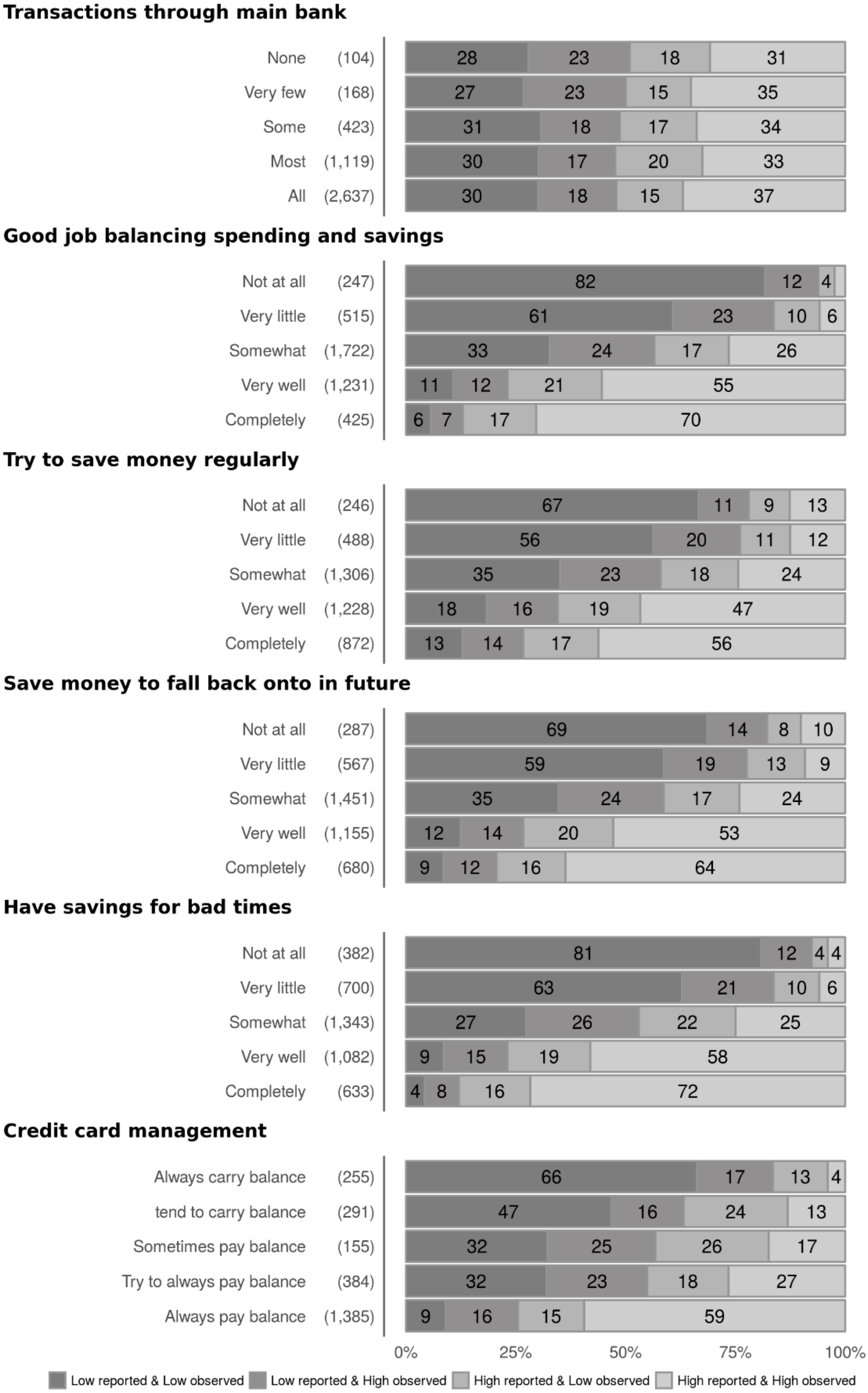
Figure 10.5 Combined Reported and Observed Financial Wellbeing by Recent Events



10.4 Financial Behaviour

Figure 10.6 displays the combined reported and observed financial wellbeing scale outcomes for customers with different financial behaviours. The first panel shows the differences among customers with different transactions intensities with their main bank. All the customers in our sample indicate that CBA was their main financial institution; however, six per cent also report that their *households* conducted no or very few transactions through their main bank. The differences in transactions behaviour and main bank identification could arise through misreporting or a misunderstanding of the word 'transactions', but they could also arise because of differences between personal and household banking behaviour. Customers who report no or very few transactions through their main financial institution are more likely to diverge in their scale scores than other customers.

Figure 10.6 Combined Reported and Observed Financial Wellbeing by Financial Behaviour



The next four panels in Figure 10.6 show differences in combined scale outcomes for customers with different spending and savings behaviour. The interesting pattern for each of these measures is that customers who indicate that the behaviour is ‘somewhat’ applicable to them have higher rates of divergence than other customers. This result could occur because customers who gave this response are close to the median for reported financial wellbeing, but the answers could indicate greater uncertainty (or less reflection) about these financial behaviours.

The last two panels show results for customers with different credit card behaviours. Customers who sometimes pay their credit card balances or who try always to pay their credit card balances are more likely to have divergent scale values than customers who never or frequently carry balances. Customers with three or more credit cards through CBA also are more likely to have divergent scale values.

11. Conclusion

11.1 What Is Financial Wellbeing?

This report examines how two newly-developed scale measures of financial wellbeing vary with CBA customers’ personal and household characteristics, external circumstances, and financial behaviour. We define financial wellbeing as the extent to which people both perceive and have: financial outcomes in which they meet their financial obligations, financial freedom to make choices that allow them to enjoy life, control of their finances, and financial security—now, in the future, and under possible adverse circumstances. This conceptualisation intrinsically considers wellbeing over a long time horizon and facilitates the planning of financial security over many time periods into the future, not just in one moment.

How is Financial Wellbeing Measured?

To analyse financial wellbeing, the report uses responses to an on-line survey of CBA customers that were linked to their bank records. The linked survey and bank-record sample was used previously to develop the scale measures:

- The CBA-MI Reported Financial Wellbeing Scale, which is formed from responses to 10 questions about whether people meet their financial obligations and have financial freedom, control, and security, and
- The CBA-MI Observed Financial Wellbeing Scale, which is formed from five financial-record measures of customers’ financial net positions, spending, and payments.

How Is Financial Wellbeing Distributed?

The report first investigates the general properties of the scales by examining how the scales and their component measures are distributed across the entire analysis sample. This shows that the values of the Reported and Observed Financial Wellbeing Scales each extend across a wide continuum. This range of values is consistent with the definition’s emphasis on the extent of wellbeing, rather than wellbeing as an either/or condition. The analysis also reveals that customers are somewhat more likely, on average, to give positive responses to financial wellbeing questions and have positive outcomes in their bank records than to indicate or have negative outcomes.

The report also provides descriptive categories for ranges of score values based on the logical relationships between the values and the underlying component conditions, recognising the fact that readers may want to place more meaning on the score values. For the Reported Financial Wellbeing Scale, there are four descriptive categories: ‘having trouble’, ‘just coping’, ‘getting by’, and ‘doing great’. The Observed Financial Wellbeing Scale has three categories: ‘having trouble’, ‘doing okay’, and ‘doing great’.

Customers in the ‘having trouble’ categories have scores that imply they have the worst outcome for at least one component of the reported scale or two components of the observed scale. The ‘doing great’ categories comprise customers whose scores imply they have the best outcome for at least one component of the reported scale and four components of the observed scale. The middle categories (‘just coping’, ‘getting by’ and ‘doing okay’) are based on the second-worst, neutral, and second-best answers to the conditions. We do emphasise, however, that the categories should be interpreted as descriptions and not as absolute statements of financial wellbeing.

The Components of Financial Wellbeing

The report also documents a wide distribution in the outcomes for the specific components that make up the scales. Most customers in our sample have neutral or good outcomes, but substantial fractions report problems. For example, 23 per cent reported that it was very difficult or difficult to meet their necessary expenses in the preceding year, and 29 per cent said that finances often or always controlled their lives. Higher percentages of customers indicated that they had problems with conditions that would help them weather adverse circumstances or prepare them to meet their future financial needs, while smaller percentages indicated that they had problems with day-to-day financial issues. The results are similar to findings from previous studies that suggest that people tend to achieve financial wellbeing in their day-to-day (‘every day’) outcomes before achieving financial wellbeing for unexpected (‘rainy day’) or future (‘one day’) outcomes.

To provide a more concrete understanding of what the scales and scale values represent, the report examines the outcomes of specific components for customers across the different descriptive categories. It shows that the worst outcomes occur primarily among customers who are ‘having trouble’ in either the Reported or the Observed Financial Wellbeing Scales. The worst outcomes seldom occur among customers with higher values of the scales.

The best financial wellbeing outcomes are also relatively unusual, and they are concentrated among customers in the ‘doing great’ categories.

Related but Distinct: Divergences in the Two Types of Financial Wellbeing

Another key finding is that reported and observed financial wellbeing are related but distinct. Customers with good reported financial wellbeing also tend to have good observed financial wellbeing and vice versa. However, the two types of financial wellbeing diverge for some customers. The specific outcomes for the customers with disagreements follow patterns that we would expect, with many reports of negative financial wellbeing outcomes for the low score and many reports of positive outcomes for the high score. There are a few systematic patterns in customers having divergent scores. Recent immigrants, customers with business or non-wage incomes, and customers with modest account balances are more likely than others to diverge in their scale values. Divergence is also higher for customers in some complex circumstances, including those who have recently had major life events, customers with large housing payments, and customers who sometimes but do not always pay their credit card balances.

11.2 Who Has High and Low Financial Wellbeing?

Next, the report examines how values of the Reported and Observed Financial Wellbeing Scales differ with customers' characteristics. The goal here is to identify which customers have high and low financial wellbeing. The examination is framed in terms of a conceptual model that considers personal and household characteristics, external conditions, and financial behaviour as key sets of determinants of financial wellbeing.

Financial Behaviours

The analyses reveal that customers' financial behaviours are strongly associated with their financial wellbeing. Customers with good spending habits, savings habits, credit card management, budgeting, and planning have substantially higher reported and observed financial wellbeing than customers without these behaviours. Customers who overspend, put off financial decisions, and fall into arrears have much lower financial wellbeing than other customers. The differences in financial wellbeing between customers at the endpoints of behaviour (e.g., people who indicate most strongly that they make sure they have money saved for bad times versus people who say that behaviour does not apply at all) are among the widest that we observed for any of the characteristics.

Financial Capabilities and Attitudes

Customers' financial capabilities and financial attitudes are also strongly associated with their financial wellbeing. Financial wellbeing is noticeably higher among customers with good financial understanding, clear savings goals, preferences not to live on credit, and willingness to sacrifice for the future, and it is lower among customers who find finances confusing. Other general traits and attitudes are also important. Customers who are conscientious and decisive and those who feel in control of their lives have much higher financial wellbeing than other customers.

Economic Resources

Economic resources are key household characteristics that give people more scope for consumption, enjoyment, and financial decision-making. Consistent with this, financial wellbeing uniformly increases with the incomes that we observe for customers. The relationship between income and financial wellbeing, especially reported financial wellbeing, is very strong. Interestingly, however, this gradient in financial wellbeing is not as steep as the gradient for financial behaviours.

Other types of economic resources, including home ownership, larger bank deposits, larger superannuation balances, and larger offset account balances are associated with much higher financial wellbeing, while economic liabilities in the form of credit card debt, personal loans, and declared hardships are associated with lower financial wellbeing. Financial wellbeing is also higher for customers who receive or hold other types of income, resources, and products, including business income, investments, insurance, and mortgages, but financial wellbeing does not vary systematically with the amounts that are received or held.

Other Personal and Household Characteristics

Financial wellbeing is strongly associated with several other personal and household characteristics but not strongly associated with several more. Financial wellbeing tends to be higher for retirees, customers who are married, and university graduates, and it tends to be lower for customers with disabilities, poor health, mental distress, and caring responsibilities that interfere with work. Aside from marriage, financial wellbeing is only modestly associated with household structure and size, and aside from having a university degree, it is weakly associated with schooling. It also does not vary much with geography and country of origin.

External conditions

The on-line survey only asked about a few external conditions. The data show that financial wellbeing is higher for customers who have strong social contacts and lower for customers whose work hours are constrained and customers who have suffered financial setbacks, job loss, family dissolution, and declared hardships. Financial wellbeing is either weakly or inconsistently associated with several other events and conditions.

The associations in the data are typically stronger for the Reported Financial Wellbeing Scale than for the Observed Financial Wellbeing Scale. This is partly due to the coarseness of the observed scale, which currently takes on 12 values compared to 41 values for the reported scale. It is also partly due to the observed scale distinguishing between several very bad financial outcomes, including the use of payday loans, frequent dishonours, and frequent occurrences of low liquid balances, but fewer very good financial outcomes.

11.3 Implications

The results provide valuable insights on the nature and determinants of financial wellbeing. They also indicate some limitations of the Observed Financial Wellbeing Scale. Although the observed scale has strong statistical properties (its components have been rigorously validated in formal quantitative analyses, have high inter-item reliability, and discriminate across a range of financial wellbeing outcomes), it is, as yet, less refined than the Reported Financial Wellbeing Scale and less strongly correlated with customers' observed characteristics. Further, limits on what we can and cannot see from bank data mean that we can only reliably construct the observed scale for customers who use CBA as their main financial institution, rather than customers generally. Future research by the CBA-MI team will investigate ways to refine the observed scale and broaden its coverage.

Income and Resources Not the Sole Determinants of Financial Wellbeing

Despite these limitations, the results for both scales improve our understanding of financial wellbeing considerably. A key set of results is that financial wellbeing is strongly positively related to income and resources—but that it is also distinct from these characteristics. More resources expand people's sets of available spending, savings, and other financial choices, but people still must manage those resources. High debts, other obligations, careless spending, and failures to save or take financial precautions can lead to low financial wellbeing, even under relatively affluent circumstances. Although most customers with high incomes have high financial wellbeing, there is a range of outcomes, with some customers having only modest financial wellbeing and a few having low financial wellbeing. At the other end of the income distribution, we see the positive result that disciplined financial practices, managed spending, and putting some money aside can improve conditions, even when there are few resources.

Possible Areas for Intervention to Improve Financial Wellbeing

The results also point to possible areas of intervention to improve people's financial wellbeing. The report shows that a host of financial behaviours, capabilities, and attitudes have exceptionally strong associations with financial wellbeing, both reported and observed. Behaviours, capabilities, and attitudes can be changed in positive directions. Spending habits can be altered; better knowledge of financial concepts and practices can be taught; and the future implications of present actions can be highlighted. Although the evidence from the report's analyses is associational and not causal, the strength of the associations indicates important characteristics to investigate further.

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