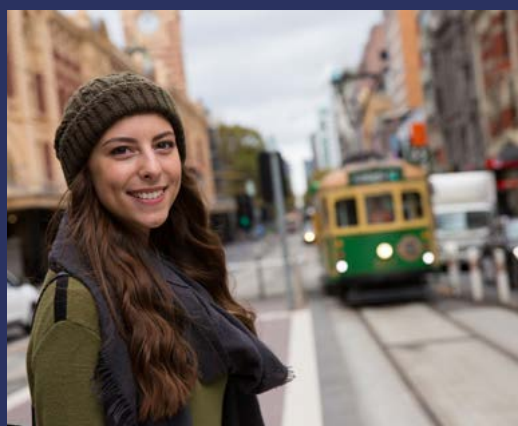


The Household, Income and Labour Dynamics in Australia Survey: Selected Findings from Waves 1 to 22



2024



The Household, Income and Labour Dynamics in Australia (HILDA) Survey
is funded by the Australian Government Department of Social Services

The Household, Income and Labour Dynamics in Australia Survey: Selected Findings from Waves 1 to 22

The 19th Annual Statistical Report of the HILDA Survey

Roger Wilkins, Ferdi Botha, Inga Laß and Kyle Peyton

Melbourne Institute of Applied Economic and Social
Research, The University of Melbourne



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Melbourne Institute of Applied Economic and Social Research
Faculty of Business and Economics
Level 5, 111 Barry Street
FBE Building
The University of Melbourne
Victoria 3010 Australia
Tel: +61 3 8344 2100
Fax: +61 3 8344 2111
melbourneinstitute.unimelb.edu.au/hilda

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1

Introduction

Roger Wilkins

The HILDA project

Commenced in 2001, the Household, Income and Labour Dynamics in Australia (HILDA) Survey is a nationally representative longitudinal study of Australian households. There are now 22 waves (years) of data available to researchers, while this year saw the collection of the 24th wave.

The study is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research at The University of Melbourne. Roy Morgan Research has conducted the fieldwork since Wave 9 (2009), prior to which The Nielsen Company was the fieldwork provider.

The HILDA Survey seeks to provide longitudinal data on the lives of Australian residents. It collects information annually on a wide range of aspects of life in Australia, including household and family relationships, child care, employment, education, income, expenditure, health and wellbeing, attitudes and values on a variety of subjects, and various life events and experiences. Information is also collected at less frequent intervals on various topics, including household wealth, fertility-related behaviour and plans, relationships with non-resident family members and non-resident partners, health-care utilisation, eating habits, cognitive functioning and retirement.

The important distinguishing feature of the HILDA Survey is

that the same households and individuals are interviewed every year, allowing us to see how their lives are changing over time. By design, the study can continue indefinitely, following not only the initial sample members for the remainder of their lives, but also their children and all subsequent descendants.

Household longitudinal data, known as panel data, provide a much more complete picture than cross-sectional data because they document the life-course each person takes. Panel data tell us about *dynamics*—family, health, income and labour dynamics—rather than *statics*. They tell us about *persistence* and recurrence, for example, of poverty, unemployment or welfare reliance.

Perhaps most importantly, panel data can tell us about the antecedents and consequences of life outcomes, such as poverty, unemployment, marital breakdown and poor health, because we can see the paths that individuals' lives took prior to those outcomes and the paths they take subsequently. Indeed, one of the valuable attributes of the HILDA panel is the wealth of information on a variety of life domains that it brings together in one dataset. This allows us to understand the many linkages between these life domains; to give but one example, we can examine how the risk of poor economic outcomes depends on an individual's health.

Panel data are furthermore valuable because, in many cases, they allow causal inferences that are more credible than those



permitted by other types of data. In particular, statistical methods known as ‘fixed-effects’ regression models can be employed to examine the effects of various factors on life outcomes such as earnings, unemployment, income and life satisfaction. These models can control for the effects of stable characteristics of individuals that are typically not observed, such as innate ability, motivation and optimism, that confound estimates of causal effects in cross-sectional settings.

With 22 waves of data now available, the HILDA Survey is also becoming a sufficiently long-running panel to enable very long-term analyses, including studies of intergenerational linkages. For example, it is possible to examine whether children who have poor parents when growing up are themselves more likely to be poor as adults, and to investigate the drivers of any such linkages.

This report

This report presents brief statistical analyses of the first 22 waves of the study, which were conducted between 2001 and 2022. An important theme of this year’s report is how Australians are faring in the wake of the COVID-19 crisis and the sharp rise in the cost of living that has followed it.

This report should be viewed as containing only ‘selected findings’, providing only a cursory indication of the rich potential of the HILDA Survey data. Indeed, a large number of studies on a

diverse range of topics have been undertaken by researchers in Australia and internationally over the years since data from the first wave of the HILDA Survey were released in January 2003. Further details on the publications resulting from these studies are available on the HILDA Survey website at <<https://melbourneinstitute.unimelb.edu.au/hilda/publications>> and at <<https://flosse.dss.gov.au/flossejspui/>>.

Most of the analysis presented in this report consists of graphs and tables of descriptive statistics that are reasonably easy to interpret. However, several tables contain estimates from regression models. These are less easily interpreted than tables of descriptive statistics but are included because they are valuable for better understanding the various topics examined in the report. In particular, a regression model provides a clear description of the statistical relationship between two factors, *holding other factors constant*.

For example, a regression model of the determinants of earnings can show the average difference in earnings between male and female employees, holding constant other factors such as age, educational attainment, hours of work and so on (i.e., the average difference in earnings when males and females do not differ in other characteristics). Moreover, under certain conditions, this statistical association can be interpreted as a causal relationship, showing the effects of the ‘explanatory variable’ on the ‘dependent variable’. Various types of

regression models have been estimated for this report and, while these models are not explained in depth, brief outlines of the intuition for these models and how to interpret the estimates are provided in the Technical Appendix.

The Technical Appendix also provides details on the HILDA Survey sample and the population weights supplied in the data to correct for non-response and attrition. These weights are used in all analysis presented in this report, so that all statistics represent estimates for the Australian population. Note, however, that the HILDA Survey under-represents immigrants arriving in Australia after 2011. These individuals are largely not represented in the HILDA Survey sample and therefore in the analysis presented in this report. Section B of the Technical Appendix further discusses this limitation.¹

Estimates based on the HILDA Survey, like all sample survey estimates, are subject to sampling error. As explained in more detail in the Technical Appendix, for tabulated results of descriptive statistics, we mark with an asterisk (*) estimates based on fewer than 20 observations. For regression model parameter estimates presented in this report, estimates that are not statistically significantly different from 0 at the 10% level are not reported and instead ‘ns’ (not significant) appears in place of the estimate. Estimates that are statistically significant at the 10% level have a probability of *not* being 0 that is greater than 90%.



¹ In 2024, the HILDA Survey began recruiting immigrants who have arrived in Australia since 2011. It is expected that, by Wave 25, recent immigrants will no longer be under-represented in the HILDA Survey sample.

2

Households and family life

Inga Laß

The HILDA Survey collects information on various aspects of family life every year. These aspects comprise family and household structures; how parents cope with parenting responsibilities, including the care arrangements they use; how families spend their time; perceptions of family relationships; and the wellbeing of family members. Collecting this information from the same individuals every year allows us to investigate how and why family circumstances change over time—partnering and marriage, separation and divorce, childbirth, adult children leaving the family home, and any other changes to the composition or nature of family circumstances.

In this chapter, we present analyses for the 2001 to 2022 period on four aspects of family life:

- the changing living arrangements of Australians;
- use and cost of paid child care for children not yet in school;
- the division of labour between men and women, especially within couples; and
- the role of the family situation for people's wellbeing.

Household dynamics, 2001 to 2022

Table 2.1 presents the evolution of household types (as described in Box 2.3, page 8) over the 2001 to 2022 period, with every third year being displayed. It shows the proportion of individuals in each of 11 household types classified according to the nature of the family resident in the household and whether other related and unrelated people reside in the

household (see Boxes 2.1 [below], 2.2 [page 7] and 2.3 [page 8]).

Broadly, the distribution of household types has been relatively stable across the 22 years. A household containing a couple with dependent children (and no one else) has remained the most common household type, with approximately 40 to 41% of individuals living in this household type across the entire period. Households containing a couple (and no children) remain the second most common household type,

Box 2.1: Dependent children

The definition of a dependent child used in this report is based on the Australian Bureau of Statistics' (ABS) approach (see ABS, 1995). According to this definition, a dependent child is: (1) any child under 15 years of age; or (2) a child aged 15 to 24 who is engaged in full-time study, living with one or both parents, not living with a partner, and who does not have a resident child of their own. Note that the definition of a child is based on social rather than biological parenthood, and that, in couple families, it is sufficient to be a child of only one member of the couple to be classified as a dependent child of the couple.

For a child to be classified as a member of the household, the child must reside in the household at least 50% of the time (unless the child resides in a facility such as a boarding school or hall of residence). Dependent children in a 'shared-care' arrangement who reside in the household less than 50% of the time are not treated as members of the household. In the event that a child resides exactly 50% of the time in each parent's household, the child is assigned to the mother's household.



Box 2.2: Single parents

We adopt the Australian Bureau of Statistics' (ABS) definition of a single parent in this report (see ABS, 1995). Based on this definition, a single parent is a person who has no spouse or partner usually resident in the household but who forms a parent-child relationship with at least one (dependent or non-dependent) child usually resident in the household. This does not preclude a single parent having a partner living in another household.

accounting for approximately 20 to 21% of individuals. Single-parent households (with dependent or non-dependent children) are the third most common household type, accounting for about 11 to 12% of individuals. The fourth position in the ranking is for people living alone (the single-person household type), accounting for around 10% of individuals.

Nonetheless, some important trends are evident. The proportion of people living in multiple-family households increased from 2.7% in 2001 to 4.4% in 2022, up by 1.7 percentage points. The peak was in 2019, when the proportion reached 4.6%. Additionally, there was a 1.2 percentage-point increase in single person

households over the 2001 to 2022 period as well as a 1.5 percentage-point increase in single-parent households with non-dependent children, with or without other members.

By contrast, two-generation households with dependent children saw a marked decline. The proportion of couple households with dependent children (and no others) had the largest percentage-point decrease of any household type, declining by 1.9 percentage points between 2001 and 2022. Notably, the 2019 to 2022 period alone accounts for almost half of this decline (0.8 percentage points). Similarly, the share of single parents with dependent children (and no others) declined by 0.8 percentage points



between 2001 and 2022, with most of this decline (0.5 percentage points) occurring between 2019 and 2022. The proportion of group households also saw a considerable decline of 1.8 percentage points.

Table 2.1: Proportion of individuals in each household type, 2001 to 2022 (%)

	2001	2004	2007	2010	2013	2016	2019	2022	Change 2001 to 2022	Change 2019 to 2022
<i>Couple with children</i>	52.4	52.7	53.6	52.7	50.6	50.3	50.1	50.1	-2.2	0.1
Couple with dependent children	41.5	41.5	41.4	40.9	40.3	40.6	40.4	39.6	-1.9	-0.8
Couple with dependent children and others ^a	2.4	1.8	2.0	3.0	2.3	1.7	1.6	1.6	-0.9	0.0
Couple with non-dependent children, with or without others ^a	8.5	9.4	10.2	8.9	8.0	8.0	8.1	9.0	0.5	0.9
<i>Couple without children, with or without others^a</i>	20.4	20.6	20.2	21.0	21.5	21.1	20.6	21.1	0.7	0.6
<i>Single-parent household</i>	11.4	12.1	11.8	11.9	11.5	12.4	12.5	11.5	0.2	-0.9
Single parent with dependent children	6.9	7.2	6.6	6.3	6.7	6.8	6.6	6.1	-0.8	-0.5
Single parent with dependent children and others ^a	1.5	1.4	1.0	1.5	1.4	1.3	1.1	1.0	-0.5	-0.2
Single parent with non-dependent children, with or without others ^a	3.0	3.6	4.2	4.1	3.4	4.4	4.8	4.5	1.5	-0.3
<i>Single person</i>	9.5	9.3	9.3	9.4	9.5	9.7	10.2	10.6	1.2	0.4
<i>Other household type</i>	6.3	5.3	5.2	5.0	7.0	6.5	6.7	6.6	0.2	-0.2
Other family household	1.1	1.3	0.9	1.0	1.4	1.1	1.2	1.5	0.4	0.3
Multiple-family household	2.7	2.6	3.1	2.7	4.3	4.4	4.6	4.4	1.7	-0.2
Group household	2.5	1.4	1.2	1.3	1.3	0.9	1.0	0.7	-1.8	-0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Notes: ^a 'Others' comprises related people and unrelated people. If dependent children are present, the household could (and often will) include non-dependent children. Cells may not add up to column totals due to rounding.

Box 2.3: Classification of household types

The comprehensive information in the HILDA Survey data on the composition of each household and the relationships between all household members allows for complete flexibility in defining household types. In this chapter, the following 11 household types are distinguished:

- (1) Couple with dependent children
- (2) Couple with dependent children and others
- (3) Couple with non-dependent children, with or without others
- (4) Single parent with dependent children
- (5) Single parent with dependent children and others
- (6) Single parent with non-dependent children, with or without others
- (7) Couple, with or without others
- (8) Single person
- (9) Other-family household
- (10) Multiple-family household
- (11) Group household

In interpreting these categories, note the following:

- The classification system is hierarchical, giving primacy to dependent children: a couple or single parent with non-dependent children (categories 3 and 6) will not have any dependent children, whereas a couple or single parent with dependent children and others—categories 2 and 5—may have non-dependent children. Consequently, the definition of ‘others’ (in categories 2, 3, 5, 6 and 7) depends on the household type. For couples with dependent children and single parents with dependent children, ‘others’ can include non-dependent children, other related people of the couple or single parent (including siblings and parents) and unrelated people. For couples with non-dependent children and single parents with non-dependent children, ‘others’ can include other related people and unrelated people (but not dependent children). In a couple household, ‘others’ comprises related people other than children as well as unrelated people.
- A couple comprises a married or de facto married couple, whether opposite sex or same sex.
- A dependent child is as defined in Box 2.1 (page 6). A non-dependent child is any other child who is living with one or both parents. Note, however, that a person will never be classified as a non-dependent child if they are living with a partner or a child of their own. (While a non-dependent child can in principle be of any age from 15 years upwards, 51% are aged 15 to 24, and 87% are aged under 40.)
- An ‘other-family’ household is any other family not captured by categories 1 to 7, such as households with siblings living together (and not living with parents or any of their own children).
- A multiple-family household is one in which there are two or more of the family types itemised (categories 1 to 7 and 9).
- A group household consists of two or more unrelated people (none of whom is residing with a related person).

In some of the analysis presented in this report, individuals are classified according to family type (see Box 3.4, page 37) rather than household type. Family type and household type are in many cases the same but diverge when households contain people who are not all part of the same nuclear family or when non-dependent children live with their parents.

Changes in household structure

While the proportion of households of each type has remained quite stable over the 22-year period, for many individuals, their household structure would have changed at least once during this time. Some may have had household members leave because of a relationship breakdown and some may have had adult children leave the family home. For others, the household structure may have changed due to the death of a household member. It could also have changed as new members joined the household, for example, due to the birth of a baby, the adoption of a child, or a couple moving in together. Every year, the HILDA Survey asks the households about whether members have joined since the last interview and whether members have left, as well as the reasons for this change.¹

The top part of Table 2.2 presents the proportion of people experiencing a change in the composition of their household from one year to the next. It differentiates by whether this arises from the individual moving out themselves or another person entering or leaving that person’s



¹ The questions about joining and departing household members are administered to only one household member.

household. The table shows that, across the entire period, for most people (80.4%) the household composition did not change from one year to the next. This share has increased slightly in recent years. Between 2001 and 2002, 78.5% of individuals saw no change in household composition, whereas this share rose to 83.4% for the period between 2021 and 2022.

Among those who experienced a change in household composition, seeing a household member leave the household was the most prevalent change in most years, experienced by 8.1% of individuals. The second most prevalent change was seeing someone join one's household, which applied to an average of 7.4% of individuals each year. There was also a small share of



Table 2.2: Year-to-year changes in household composition, 2001 to 2022 (% of persons)

	Someone joined person's household	Someone left person's household	Someone joined & someone left person's household	Person left household themselves	No change
<i>Time period</i>					
2001 to 2002	7.5	8.7	1.3	4.1	78.5
2002 to 2003	7.5	9.6	1.3	2.8	78.8
2003 to 2004	6.7	8.8	1.3	2.5	80.7
2004 to 2005	7.4	9.4	1.4	2.5	79.4
2005 to 2006	7.5	10.2	1.4	2.7	78.2
2006 to 2007	7.2	8.0	1.4	2.7	80.8
2007 to 2008	7.7	7.9	1.4	2.8	80.2
2008 to 2009	8.5	7.7	1.2	2.9	79.8
2009 to 2010	8.1	7.8	1.8	3.3	79.0
2010 to 2011	7.2	8.2	1.4	2.6	80.6
2011 to 2012	8.3	7.9	1.7	3.4	78.8
2012 to 2013	8.1	7.3	1.9	3.0	79.7
2013 to 2014	7.0	8.6	1.1	2.9	80.4
2014 to 2015	7.0	8.3	1.2	2.9	80.6
2015 to 2016	7.5	7.6	1.2	2.7	81.0
2016 to 2017	6.8	7.8	1.2	2.3	81.9
2017 to 2018	7.1	7.5	1.3	2.4	81.7
2018 to 2019	7.2	8.5	1.3	2.7	80.4
2019 to 2020	7.0	7.8	1.0	2.4	81.9
2020 to 2021	7.3	7.5	1.0	2.6	81.6
2021 to 2022	7.0	6.7	1.1	1.9	83.4
Average	7.4	8.1	1.3	2.7	80.4
<i>Age category</i>					
Under 15	8.8	6.0	1.1	1.8	82.4
15-24	7.6	11.1	2.4	9.0	70.0
25-34	14.7	7.1	2.1	5.2	71.0
35-44	8.6	6.0	1.1	1.5	82.9
45-54	4.9	12.2	1.3	1.1	80.6
55-64	4.1	12.0	1.1	0.7	82.2
65 and over	1.9	4.4	0.3	0.3	93.2
Average	7.4	8.1	1.3	2.7	80.4

Notes: The shares relate to individuals who were in the HILDA Survey in both the previous and the current year. The categories 'someone joined' and 'someone joined and someone left' include a very small group (less than 0.5% in total) who joined the household themselves (from another HILDA household) rather than seen someone else join the household.



individuals that saw both some members join and other members leave their households in the same year (1.3%). Finally, 2.7% of individuals left their household each year to form a separate household (and may or may not have been joined by others there).

The bottom part of Table 2.2 presents the proportion experiencing one of these changes in household composition in a given year in each of seven age groups. Among the youngest age group (under 15 years) and the 25- to 34-year-olds, it was more common to have someone join the household than to have someone leave it. The 25-34 age group was the most likely to see someone join the household, this occurring for 14.7% of individuals

Table 2.3: Reasons for changes in household composition since previous year by age group, 2001 to 2022 (pooled) (% of persons)

People joining household

	Had someone join	Reasons for joining (% of persons experiencing someone join)						
		Marriage/ live together	New baby/ adopted	Share/ financial	Returned to family household	Moved with family member	Care/ support	Other
Under 15	10.8	14.5	51.8	3.4	19.3	11.0	4.6	2.9
15-24	14.0	34.9	15.1	14.1	22.9	13.3	3.1	5.4
25-34	19.1	26.8	48.2	8.7	8.7	7.0	1.6	2.7
35-44	10.1	18.0	50.6	4.8	14.8	9.1	3.2	3.3
45-54	6.4	23.2	11.9	6.6	40.3	16.0	5.9	5.3
55-64	5.2	19.1	9.0	7.2	47.5	14.3	6.6	5.6
65 and over	2.2	12.0	7.0	6.7	40.3	19.6	13.0	7.1
Total	9.8	23.3	36.0	7.7	20.7	11.0	3.8	3.9

People leaving household

	Had someone leave	Reasons for leaving (% of persons experiencing someone leave)						
		Separation/ divorce	Education/ job	Marriage/ live together	Live independently/ bought home	Live with family	Deceased	Other
Under 15	7.3	21.0	7.8	6.5	37.3	18.2	4.1	9.1
15-24	14.0	9.9	10.8	10.5	46.1	11.4	2.9	9.0
25-34	9.4	14.3	7.7	10.1	42.6	13.2	2.1	10.9
35-44	7.2	14.0	7.0	8.1	41.8	20.6	4.5	9.8
45-54	13.6	6.7	13.8	11.5	50.7	9.4	3.2	6.4
55-64	13.2	3.1	12.2	14.5	53.9	8.3	4.4	7.0
65 and over	4.6	3.6	5.6	9.5	39.0	8.9	26.8	8.8
Total	9.7	10.4	10.0	10.4	45.5	12.5	5.0	8.5

Notes: The shares relate to individuals who were in the HILDA Survey in both the previous and the current year. The category 'had someone join' includes a very small group (about 5%) who joined the household themselves (from another HILDA household) rather than saw someone else join the household.

in this age range. In all other age groups, it was more common to see someone leave than to see someone join. This was particularly true for those aged between 45 and 64 years, where about 12% of individuals saw someone leave the household every year. Having someone both join and leave the household in the same year was rare across all age groups, but most common in the 15–24 and 25–34 age groups, at somewhat over 2%. Finally, leaving one’s current household to set up a new household was most common among young adults between the ages of 15 and 24, at 9%.

Overall, persons between the ages of 15 and 34 lived in households with the least stability; only about 70% experienced no change in household composition each year, compared to about 93% among people aged 65 and over—the group with the greatest stability in household composition.

For each member joining or leaving a household, the HILDA Survey also asks the residing household members about the reasons for their move. Table 2.3 shows how often individuals experience a change in their household composition for a specific reason. Note that these reasons do not necessarily add up to 100% since several household members can join or leave in the same year for different reasons.

The top panel of Table 2.3 presents the reasons why a new member joined the household. Overall, the most common reason was the birth or adoption of a new baby. Among those living in households that saw someone join (9.8% per year), more than one third (36%) saw a new baby arriving. The second most common reason was related to partnering, that is, someone moved to live with their partner, with almost a quarter of new

household arrivals attributed to this reason (23.3%). Someone returning to the family household was almost as frequent (20.7%). Other reasons, such as to share/for financial reasons, moving with a family member, moving for care or support, or other, were reported less frequently.

The table also shows that people in different age groups tended to experience household members joining for different reasons. Children below the age of 15 as well as adults in their family formation years (25 to 44 years) were the most likely to see a new baby arrive. This accounted for about half of all arrivals of new household members. Young adults aged 15 to 24 most frequently saw someone join for partnering reasons (about 35%). By contrast, the groups aged 45 and over were most likely to see a family member return to the family household.

The bottom panel of Table 2.3 presents the reasons given by a remaining household member for

a household member leaving since the previous year, again separately for each age group. Across all age groups, seeing someone leave to live independently or because this person has bought their own home was the most frequent reason. This reason accounted for almost half (45.5%) of all departures. Moving out to live with family (such as returning to the family home, moving in with the other parent or moving in with family members) was the second most common reason. Children under the age of 15 and adults between the ages of 35 and 44 were the most likely to see someone leave for this reason. The third most frequent reason for someone to leave is separation or divorce. Children under the age of 15 were particularly likely to see someone leave for this reason (21% of all departures). Finally, those aged 65 and over were the most likely to lose a household member due to death (26.8% among those with someone leaving).



Paid child care for children not yet in school

For several decades, child care has been a crucial public policy concern, primarily due to the continuous rise in female employment participation since the 1970s. The Australian Government provides substantial subsidies for child care for many families, but it is nonetheless clear that access to affordable and high-quality child care remains a significant concern for many parents with young children.

The HILDA Survey has gathered data on child-care use and access at the household level in every wave for households with children under 15 years of age. However, changes to the questionnaire between Waves 1 and 2 imply that comparable information on child care is only accessible from Wave 2 onwards.²

This section focuses on child-care arrangements for young children who are not yet attending school,³ which is a topic of significant public interest. The

analysis covers both single-parent and couple-parent families but excludes multi-family households that have multiple families with children under five years old, as it is not possible to attribute child-care arrangements to a specific family in such cases.

Use of paid child care

Figure 2.1 examines the use of paid child care for children aged under five over the 2002 to 2022 period. It considers both formal child care (i.e., family day care, long day care and kindergarten/pre-school) and informal paid

child care (i.e., care by a paid sitter or nanny). The figure shows that the share of families using paid child care was relatively stable between 2002 and 2014, ranging between 41% and 45%. However, since 2014, use of paid care has increased considerably. Whereas in 2014, about 44% of families used paid care, by 2022, this share had risen to close to 55%.

Table 2.4 shows the use of paid child care separately for different family types. Two-year periods (and, given the odd number of years, one three-year period) are examined to reduce the number

Figure 2.1: Proportion of families using paid child care for children aged under five

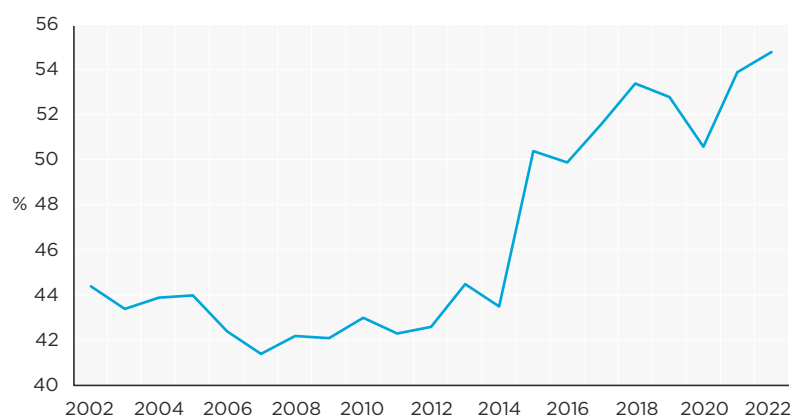


Table 2.4: Proportion of families using paid child care for children aged under five, by family type, 2002 to 2022 (%)

	2002 and 2003	2004 and 2005	2006 and 2007	2008 and 2009	2010 to 2012	2013 and 2014	2015 and 2016	2017 and 2018	2019 and 2020	2021 and 2022	Percentage-point change 2002–2003 to 2021–2022
<i>Parent type</i>											
Couple parents	42.7	44.5	41.3	41.3	42.0	43.7	49.7	54.9	52.9	55.2	12.5
Single parents	49.4	41.7	44.8	46.6	46.5	46.1	52.7	39.0	44.8	49.4	0.0
<i>Age of youngest child</i>											
0 years	27.4	28.4	23.8	24.6	27.3	32.2	26.6	34.6	31.4	34.6	7.2
1 year	38.0	43.3	44.0	38.9	43.6	46.2	55.9	57.4	58.3	58.2	20.2
2 years	54.0	52.7	49.4	56.1	47.4	50.3	63.2	59.4	58.6	64.0	10.0
3 years	59.4	54.7	56.9	61.1	59.5	51.6	60.3	61.8	62.4	63.6	4.2
4 years	57.8	55.3	55.0	53.2	54.3	46.5	60.0	60.7	63.3	64.3	6.5
<i>All parents</i>	43.9	44.0	41.9	42.1	42.6	44.0	50.1	52.5	51.7	54.4	10.5

² Child-care questions are administered to only one household member, who is usually a parent or guardian of the children. All questions concern 'usual' use of child care, with respondents left to decide for themselves what constitutes 'usual'.

³ For some of the analysis presented in this section, it is not known for all children whether they are in school. Where this information is missing, it is assumed that children under the age of five as of 30 June of the survey year are not yet attending school. It should be noted, however, that this assumption will not hold true for all children.

of estimates—for example, the first column presents pooled estimates for 2002 and 2003.

The top panel shows the trend in the use of paid child care for children under five separately for couple and single parents. In 2002–2003, the proportion of families using paid care was greater among single parents than among couple parents, 49.4% compared to 42.7% respectively. However, over the 2002 to 2022 period, this situation reversed as the proportion of couple parents using paid child care increased significantly, by 12.5 percentage points to 55.2%. For single parents, the trend has been more volatile, with the proportion using paid care ranging from as low as 39% in 2017–2018 to as high as 52.7% in 2015–2016. However, in 2021–2022, the proportion of single parents using paid care was the same as it was at the beginning of the period, at 49.4%.

The bottom panel of Table 2.4 provides the share of parents using paid child care by the age of the youngest child in the family. In 2021–2022, use of paid child care was most prevalent in

families with a youngest child aged two, three or four, with almost two-thirds (around 64%) of these families using paid care. By contrast, use of paid care was least common among families with a child aged zero, where only about one third (34.6%) utilised paid care. Use of paid care increased between 2002–2003 and 2021–2022 in all age groups; however, the increase was most marked for families with a youngest child aged one (20.2 percentage points), followed by those with a youngest child aged two (10.0 percentage points).

Table 2.5 presents the shares of parents with children under the age of five who use paid child care, broken down by the parents' employment status. Given the relatively small number of single fathers, the table only provides values for single mothers, while couple fathers and mothers are analysed separately. The data indicate that use of paid child care is strongly associated with the parents' employment status. For instance, 69.5% of couple mothers who worked full-time and 71.5% of those who

worked part-time in 2021–2022 used paid child care, while only 26.1% of couple mothers who were not employed utilised paid care. The difference in child-care use between couple fathers who were employed and those who were not employed was also clearly visible. Whereas 56.6% of fathers who were employed part-time used paid child care, only 19.2% of fathers who were not employed did so. This connection between employment participation and use of paid child care partly explains the observed rise in child-care usage during the survey period: both the overall employment rate and the full-time employment rate of mothers with children under the age of five increased markedly over this period.

Table 2.6 takes a closer look at the use of child care by employment arrangement within couple parents. The proportion of families using paid child care was greatest if one parent worked full-time and the other worked part-time, with about three quarters of these families using paid care. Couple parents where both worked full-time also used paid



Table 2.5: Proportion of parents with children aged under five using paid child care, by parents' labour force status, 2021 and 2022 (pooled) (%)

	Couple parents		Single parents
	Father	Mother	Mother
Employed full-time	56.1	69.5	82.2
Employed part-time	56.6	71.5	81.0
Not employed	19.2	26.1	30.5
All people	54.2	56.9	52.7

Table 2.6: Proportion of couple families with children aged under five using paid child care, by parents' employment arrangement, 2021 and 2022 (pooled) (%)

Father's labour force status	Mother's labour force status			
	Employed full-time	Employed part-time	Not employed	All couple mothers
Employed full-time	70.2	74.9	25.6	58.9
Employed part-time	77.6	48.1	41.7	57.3
Not employed	32.9	31.4	7.7	20.4
All couple fathers	68.4	71.8	25.0	56.7

Table 2.7: Mean weekly hours of paid care per child not yet at school, by family type—Families using paid care, 2006 to 2022

	2006 and 2007	2008 and 2009	2010 to 2012	2013 and 2014	2015 and 2016	2017 and 2018	2019 and 2020	2021 and 2022	Percentage change over the full period
<i>Parent type</i>									
Couple parents	19.4	19.5	19.2	21.0	23.1	23.9	24.0	24.5	26.7
Single parents	19.7	22.6	20.9	24.5	23.9	22.4	23.0	25.8	30.8
<i>Age of youngest child</i>									
0 years	13.9	12.9	13.3	15.9	15.1	17.7	17.4	16.8	20.2
1 year	18.9	19.7	19.3	22.0	22.3	21.4	23.7	22.7	20.5
2 years	21.7	21.3	20.4	23.2	25.8	25.7	24.9	26.0	19.8
3 years	20.0	23.0	21.7	24.6	24.8	26.4	26.3	29.7	48.0
4 years	22.6	23.9	24.1	22.1	26.4	28.5	27.5	28.6	26.7
All families	19.4	20.1	19.5	21.5	23.2	23.7	23.9	24.7	27.1

child care very frequently (70.2%). On the other hand, couple families where no parent was employed were the least likely to use paid child care (only 7.7%).

Table 2.7 examines the number of hours of paid care used per week for each child not yet at school. The table focuses on the period since 2006. Full information on the number of children not yet at school per household is only available from 2005. Since we are combining information every two years, we begin in 2006. The upper panel of the table shows the weekly hours of care per child by family type. For couple parents who used paid care, an average of 19.4 hours per week

was used for each child in 2006–2007, which increased by 26.7% to 24.5 hours in 2021–2022.

Among single parents using paid care, mean hours per child were somewhat higher, at around 20 to 26 hours per week throughout the period. Weekly hours of paid care have also increased for single parents, by 30.8% between 2006–2007 and 2021–2022.

The lower panel of Table 2.7 presents the weekly hours of paid care separately by the age of the youngest child in the family. In 2021–2022, families used the most hours on average for paid care if their youngest child was three years old (29.7 hours), followed by those with a youngest child aged

four years (28.6 hours). With an average of 16.8 hours, families with a youngest child aged zero used the least paid child-care hours.

The average number of hours of paid child care per week has increased in all age groups over the period. However, the increase was strongest among families with a youngest child aged three, where child-care hours almost doubled (48%) compared to 2006–2007. The smallest increase is found for families with a youngest child aged two, where the increase over the period was 19.8%, with families with a youngest child aged zero or one also experiencing increases of about 20%.



Expenditure on child care

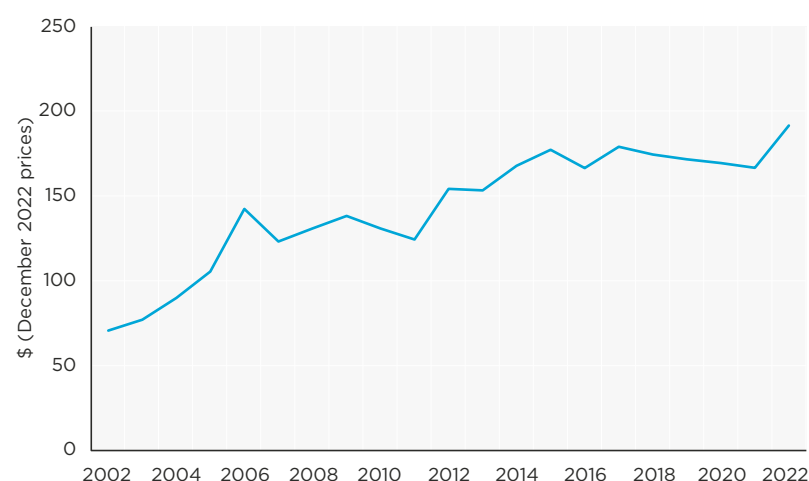
In every wave of the HILDA Survey, households that use child care are asked to report their usual weekly expenditure⁴ on child care for each child 'after any regular child-care benefit you may receive has been deducted'. Figure 2.1 (page 7) shows that, each year, between 41% and 55% of families with children aged under five usually paid for some child care for those children.

For families with expenditure on child care for children not yet at school, Figure 2.2 presents the median weekly child-care expenditure (at December 2022 prices) on these children. Child-care expenditure rose markedly between 2002 and 2017, from a median of \$71 to \$179. After a slight decline over the following years, median expenditure saw another rise between 2021 and 2022, reaching its highest level in 2022 at \$192 per week. However, it should be noted that this period precedes the improvements made to the child-care subsidy (both in terms of eligibility and payment rates) which came into effect in July 2023 and which may be reflected in lower child-care expenditure in subsequent years.

Table 2.8 shows the median weekly child-care expenditure on children not yet at school separately for couple- and single-parent families and by the age of the youngest child. Estimates are presented for pooled two-year intervals over the 2002 to 2022 period.

The first panel in the table shows sustained and substantial rises in median expenditure for child care for children not yet at school over the 2002 to 2022 period for both couple- and single-parent families. In 2002–2003, among

Figure 2.2: Median weekly expenditure on child care for children under five



⁴ Child-care costs mainly arise from formal care (e.g., family day care) and informal paid child care (e.g., by a paid sitter or nanny). However, a minority (around 4%) of parents with child-care costs for children not yet at school report child-care costs incurred by paying relatives, friends or other people for informal child care. This section of the report includes all types of child-care costs.

those with expenditure on child care for children not yet at school, median weekly expenditure on child care was around \$84 for couple-parent

families and around \$52 for single-parent families. In 2021–2022, the corresponding medians were approximately \$192 and \$130, which translates to large

real increases in child-care costs of 128.6% and 151.4%, respectively. The lower part of the top panel presents the trend in weekly child-care expenditure separately

Table 2.8: Expenditure on child care for children under five, by family type—Families with expenditure on child care, 2002 to 2022

	2002 and 2003	2004 and 2005	2006 and 2007	2008 and 2009	2010 to 2012	2013 and 2014	2015 and 2016	2017 and 2018	2019 and 2020	2021 and 2022	Percentage change over the full period
Median weekly expenditure (\$, December 2022 prices)											
<i>Parent type</i>											
Couple parents	83.9	112.0	150.5	150.0	151.8	176.5	183.7	190.0	183.4	191.8	128.6
Single parents	51.8	45.9	74.4	73.4	82.8	95.9	120.8	99.0	90.5	130.2	151.4
<i>Age of youngest child</i>											
0 years	69.1	88.0	133.3	116.5	130.8	124.5	146.9	172.4	160.5	166.9	141.5
1 year	72.6	121.6	142.6	123.8	143.9	186.8	169.1	207.8	197.9	170.5	134.8
2 years	77.2	112.0	135.5	145.6	147.2	191.9	183.7	178.1	171.9	200.3	159.5
3 years	82.9	80.3	126.4	144.0	124.2	153.5	157.0	174.7	154.7	191.8	131.4
4 years	73.8	86.8	125.5	115.8	130.8	140.7	171.5	178.1	152.7	161.4	118.7
<i>All families</i>	73.8	96.6	131.7	131.1	133.8	159.9	171.4	178.1	169.6	189.2	156.4
Median weekly expenditure per child (\$, December 2022 prices)											
<i>Parent type</i>											
Couple parents			112.9	119.4	117.1	137.0	144.9	158.4	155.5	166.9	47.8
Single parents			63.2	67.8	72.0	87.2	98.0	83.1	76.9	111.3	76.1
<i>Age of youngest child</i>											
0 years			75.3	65.5	69.0	70.4	85.8	95.0	103.2	107.6	42.9
1 year			90.3	106.6	107.1	127.9	134.7	147.2	152.7	154.5	71.1
2 years			109.9	120.0	133.8	143.9	146.9	158.4	149.0	169.4	54.1
3 years			124.0	127.1	117.7	149.5	134.7	168.6	147.0	191.8	54.7
4 years			125.5	113.0	130.8	140.7	171.4	174.7	147.0	161.4	28.6
<i>All families</i>			97.6	105.9	107.1	127.9	137.7	147.2	141.4	159.8	63.7
Median expenditure per hour of child care (\$, December 2022 prices)											
<i>Parent type</i>											
Couple parents	5.7	6.6	7.5	8.0	8.0	7.7	7.5	7.4	7.0	7.6	33.3
Single parents	2.7	2.8	3.9	3.5	4.5	4.4	4.9	4.7	3.5	4.4	63.0
<i>Age of youngest child</i>											
0 years	5.9	6.6	7.5	7.3	8.1	7.0	7.3	7.2	6.5	7.7	30.5
1 year	5.2	6.2	7.1	7.9	8.1	7.5	7.3	7.6	6.6	7.4	42.3
2 years	4.3	6.7	6.1	6.6	7.8	7.4	6.9	7.0	6.8	7.1	65.1
3 years	5.3	5.1	7.5	7.1	6.4	7.3	6.7	7.4	6.5	6.9	30.2
4 years	4.5	5.0	6.8	6.2	6.3	7.7	7.7	6.9	5.7	6.7	48.9
<i>All families</i>	5.2	6.1	7.0	7.1	7.3	7.3	7.2	7.3	6.4	7.2	38.5
Median proportion of household disposable income spent on child care (%)											
<i>Tercile (third) of the income distribution</i>											
Bottom third	4.0	3.7	5.6	4.6	5.4	6.6	7.9	6.6	5.7	7.0	75.0
Middle third	4.7	5.6	6.0	6.3	6.4	6.7	7.8	7.2	7.0	7.0	48.9
Top third	5.6	5.8	6.7	6.9	6.5	6.9	6.6	7.4	7.4	7.1	26.8
<i>All families</i>	4.8	5.0	6.2	6.2	6.1	6.7	7.2	7.2	7.0	7.0	45.8

by the age of the youngest child in the family. At most time points, expenditure on child care for children not yet at school was lowest for families with a youngest child aged zero and for those with a youngest child aged four, whereas the middle categories usually had higher child-care costs. For example, in 2021–2022, median weekly expenditure on child care was about \$167 for families with a youngest child aged zero and about \$162 for families with a youngest child aged four. By contrast, those with a youngest child aged two spent about \$200 per week on child care. Child-care costs rose across all age groups over the 2002 to 2022 period.

Theoretically, the increase in total child-care costs per family over the 2002 to 2022 period may be due to several factors. First, it is possible that child-care usage has increased through an increase in the number of children not yet at school in families using child care.

Second, child-care costs will increase if parents use more hours of child care for each child.

As Table 2.7 shows, past years have seen a considerable increase in hours of formal child care per child, particularly among couple parents, who used 26.7% more hours of child care in 2021–2022 than they did in 2006–2007.

Third, child-care prices per hour might have gone up. This might be due to increasing prices for a given type of child care or because parents have shifted their demand from cheaper types of care (such as friends or relatives) to more expensive types of care (such as formal care or sitters). The middle parts of Table 2.8 investigate these different channels by providing child-care expenditure per child as well as expenditure per hour of child care.

The second panel of Table 2.8 breaks down the median weekly expenditure on child care per child under five years of age in order to investigate the extent to which the increase in child-care costs may be due to changes in the number of children in families using child care. While in 2006–2007, couple parents spent an

average of about \$113 per child on child care, single-parent families spent around \$63. Expenditure per child has increased over the period, to almost \$167 per child for couple-parent families and approximately \$111 per child for single-parent families in 2021–2022. This translates to a 47.8% increase for couple parents and a 76.1% increase for single parents.

Comparing the increase in child-care costs per child over the period 2006–2007 to 2021–2022 to the increase in median total expenditure on child care over the same period (which can be calculated from the top panel of Table 2.8) shows that the rise in expenditure per child (63.7% for all families) was greater than the rise in overall expenditure (43.7%). An increase in the number of children in families using paid care does not therefore explain the rise in child-care costs.

Whereas total weekly expenditure on child care was relatively similar regardless of the age of the youngest child, expenditure per



child differs markedly between age groups. For example, in 2021–2022, families with a youngest child aged zero spent the least median amount per child on care (about \$108), compared to about \$192 for families with a youngest child aged three. This is because most families with a youngest child aged zero have several children who are not yet at school, whereas most families in the other age groups only have one child not yet at school.

The third panel divides child-care expenditure by the number of hours for which child care was used, to examine the extent to which increases in the hourly price of child care are responsible

for the increase in overall child-care costs. In 2002–2003, the median expenditure per hour of child care for children not yet at school was \$5.70 for couple parents, and for single parents it was \$2.70. Differences in hourly child-care expenditure by the age of the youngest child were relatively minor.

Median hourly rates increased across the period, but not as fast as overall child-care expenditure. Couple-parent families experienced an increase of 33.3% in hourly child-care prices to \$7.60 per hour in 2021–2022, while single-parent families experienced an increase of 63% to \$4.40 in 2021–2022.

In conclusion, rising child-care costs are a consequence of both the use of more hours of paid child care and an increase in hourly child-care costs. The burden of child-care costs for a household can be better understood by comparing child-care expenditure to the income of the household. This is done in the bottom panel of Table 2.8, which presents the median share of annual household disposable equivalised income spent on child care for children not yet at school. To show how this measure of the burden of child-care costs depends on how well-off the family is, the estimates are presented separately for each third of the income distribution (see Box 3.1, page 35, for an explanation of the measurement of income in the HILDA Survey).

Despite year-to-year volatility, the clearly evident trend is that the share of income families spent on child care for children under five has risen between 2002 and 2022. Furthermore, this increase has been most pronounced for families in the lowest third of the income distribution. Among this group, the median proportion of income spent on child care rose from 4% to 7%, which constitutes a 75% increase. For families in the

middle third, the share rose from 4.7% to 7% (a 48.9% increase) and for those in the top third it rose from 5.6% to 7.1% (a 26.8% increase). In 2002–2003, the income share spent on child care rose visibly with the position in the income distribution: families in the bottom third spent the smallest share of their income on child care and those in the top third spent the highest share. By contrast, in 2021–2022, the shares spent on child care were similar across the three thirds.

Division of paid and unpaid work among couples

With rising female employment participation, the division of labour between men and women has become a topic of high and persistent public and policy interest. The disproportionate involvement of women in unpaid work limits their labour market availability and career options and contributes to a persistent gender pay gap and lower overall retirement incomes.

This section looks at the gender division of labour in Australia. How much time do men and women spend on paid and unpaid work and how has this changed over time? How is this related to the birth of children? Are couples satisfied with their division of labour, and do they think the division is fair?

As the focus is on how the genders divide unpaid as well as paid work, the analysis is restricted to adult persons of working age, that is, persons aged 18 to 64. For the most part, the analysis is furthermore confined to heterosexual couples who live together in the same household. Some analyses, which are specifically focused on the division of the care of children, are additionally restricted to



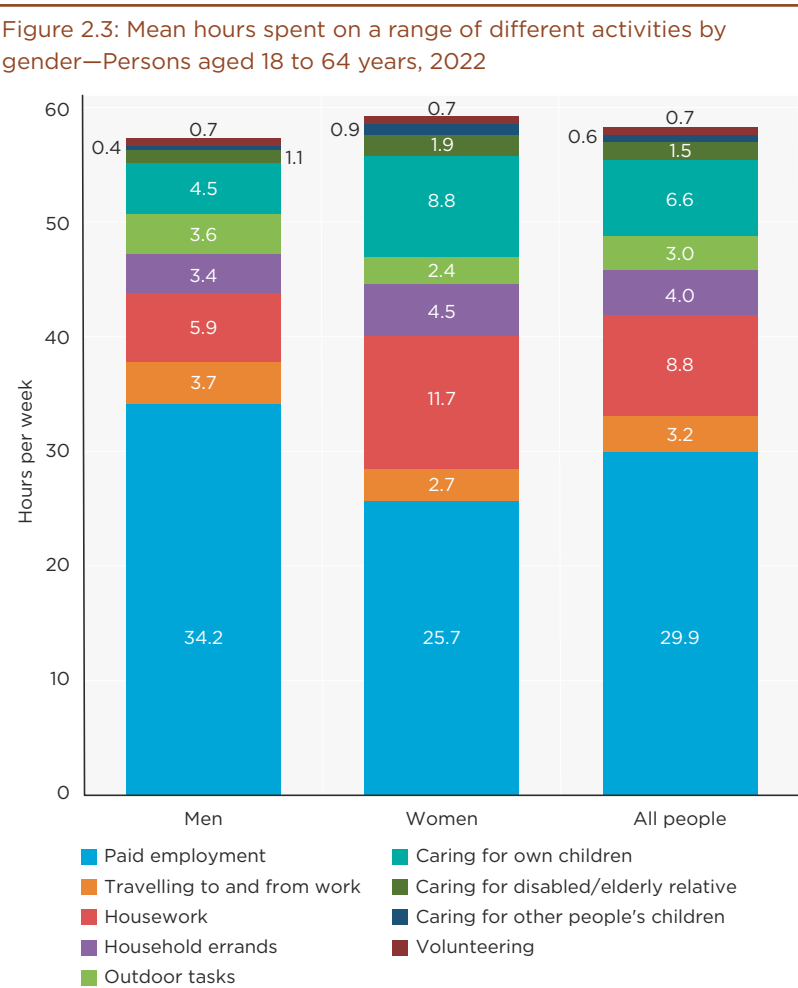
couples with children below the age of 15. The analysis focuses on the 2002 to 2022 period as the reported time use in 2001 is not entirely comparable to that in later waves.

Time spent on paid and unpaid work

Through the self-completion questionnaire (SCQ), the HILDA Survey collects data on the number of hours and minutes spent in a typical week on a variety of activities. Besides paid employment and travelling to and from work, this includes a range of unpaid activities, among them household errands, housework, outdoor tasks, looking after one's children, and caring for a spouse or relative.

Figure 2.3 illustrates how respondents aged 18 to 64 spent their time on nine different activities in the year 2022. Overall, and by far, they dedicated the most time to paid employment, with an average of 29.9 hours per week. Additionally, they spent 3.2 hours per week on commuting, that is, travelling to and from a place of paid employment. Tasks done in and around the home took up another large proportion of people's time. Specifically, they spent 8.8 hours on housework (such as cleaning and cooking), 4.0 hours on household errands, and 3.0 hours on outdoor tasks (such as repairs and gardening). The third important area of time use was caring for other people or society. A considerable time was dedicated to caring for one's own children (averaging 6.6 hours). This is followed by caring for elderly and disabled relatives (1.5 hours), volunteering (0.7 hours) and caring for other people's children (0.6 hours).

Figure 2.3 also highlights marked differences between men and women regarding their use of time in most of these areas. With an average of 34.2 hours, men



Box 2.4: Classification of paid and unpaid work

In the self-completion questionnaire of the HILDA Survey, respondents are asked annually how much time they spend on each of a range of different activities in a typical week. For the analysis in this chapter, seven different activities are condensed into three broader groups of activities: employment; housework; and care. While employment represents all activities related to paid work, housework and care summarise the most important activities of unpaid work in the household and family.

Employment is the sum of time spent on two different activities:

- i) Paid employment
- ii) Travelling to and from the place of paid employment

Housework is the sum of time spent on three different activities:

- i) Household errands, such as shopping, banking, paying bills and keeping financial records (but not driving children to school and other activities)
- ii) Housework, such as preparing meals, washing dishes, cleaning the house, washing clothes, ironing and sewing
- iii) Outdoor tasks, including home maintenance (repairs, improvements, painting, etc.), car maintenance or repairs, and gardening

Care is the sum of time spent on two different activities:

- i) Playing with one's children, helping them with personal care, teaching, coaching or actively supervising them, or getting them to child care, school or other activities
- ii) Caring for a disabled spouse or a disabled adult relative, or caring for elderly parents or parents-in-law

Most of these activities have been included in the HILDA Survey since 2001; however, time spent on paid employment was only added in 2002. Furthermore, the question design was slightly modified from 2001 to 2002: while in 2001, respondents could only give their time use in hours, the possibility to report time use in minutes was added in 2002 and all later waves. As a result, 2001 measures of time use are not entirely comparable with measures in subsequent waves. Therefore, all analyses in this chapter are based on the 2002 to 2022 period.

spent much more time on paid employment than women, who spent an average of 25.7 hours. Men also spent more time on commuting than women, that is, 3.7 hours compared to 2.7 hours. By contrast, women spent more time on most unpaid work tasks, such as household errands, housework, child care, and caring for elderly and disabled relatives. However, men dedicated more time to outdoor tasks than women. Taken together, women spent about 59.3 hours on all of these nine activities, almost two hours more than men, who spent 57.4 hours on them.

In the following, we investigate these gender differences in the distribution of paid and unpaid work tasks more closely. In order to reduce complexity, for the remaining part of this section the different types of paid and unpaid work are combined into three broad activity groups: (i) employment (paid employment

as well as travelling to and from work); (ii) housework (household errands, housework and outdoor tasks); and (iii) care work (caring for one's own children and caring for disabled or elderly family members). (For details, see Box 2.4, page 19.)

Figure 2.4 illustrates how time spent on employment, housework and care by women and men aged 18 to 64 has evolved over the 2002 to 2022 period. With respect to men, the figure shows that mean weekly time spent on employment initially increased, from 37.7 hours in 2002 to 40.4 hours in 2008, and then decreased, with the decline most marked during the COVID-19 year of 2020 (where average time spent on employment dropped to 35.1 hours). Afterwards, men's time in employment rose again to 37.9 hours in 2022.

In contrast, men's engagement in housework has changed little over time. In 2022, men spent an

average of 12.8 hours on housework, which is exactly the same time as 20 years before. However, men now spend more time caring for their children and disabled or elderly relatives, up from an average of 5.0 hours per week in 2002 to an average of 5.5 hours in 2022. However, this has not been a continuous upwards trend; rather, 2022 levels were lower than the peak in 2014 (with 6.1 hours). Overall, among those who provided information on all three activities (employment, housework and care), the total time spent on these tasks has increased for men, from 55.5 hours per week in 2002 to 56.2 hours per week, or 8.0 hours per day, in 2022.

Figure 2.4 also shows very notable changes in women's time use over the period. While in 2002, women, on average, spent more time on housework than on employment (23.8 hours versus 22.2 hours), this pattern reversed

Figure 2.4: Mean hours spent on employment, housework and care by gender—Persons aged 18 to 64 years

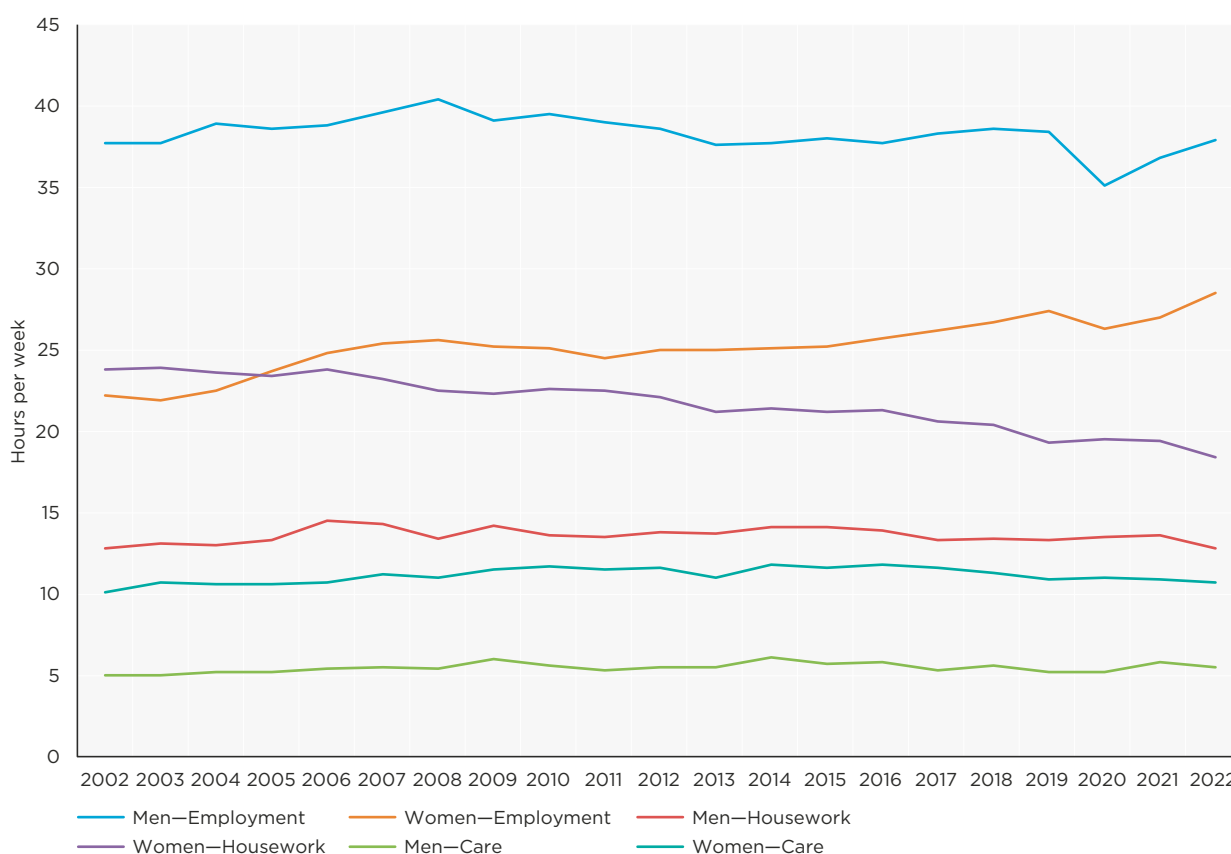


Table 2.9: Mean hours per week spent on employment, housework and care, by gender, relationship status and presence of dependent children—Persons aged 18 to 64, 2022

	Men				Women			
	Employment	Housework	Care	Total	Employment	Housework	Care	Total
<i>No partner in household</i>	30.6	9.9	2.8	43.2	27.9	13.6	6.6	48.0
Without children	30.7	9.7	2.4	42.7	28.8	11.4	2.9	42.8
With children	27.5	17.4	18.6	62.7	24.5	22.7	21.7	69.4
<i>Partner in household</i>	42.7	14.7	7.3	64.7	28.8	21.3	13.1	63.2
Without children	38.9	13.9	2.3	55.0	29.9	19.2	3.1	52.4
With children	45.6	15.4	11.3	72.2	27.9	23.1	21.7	72.8
<i>All people</i>	37.9	12.8	5.5	56.2	28.5	18.4	10.7	57.5
Without children	34.0	11.4	2.3	47.7	29.3	15.2	3.0	47.5
With children	45.1	15.5	11.5	71.9	27.3	23.0	21.7	72.2

in the first half of the 2000s. This is due to a simultaneous increase in time spent on employment and a decrease in time spent on housework. In 2022, women averaged 28.5 hours on employment and 18.4 hours on housework. Women's time spent on care also increased, from 10.1 hours per week in 2002 to 11.8 hours in 2016, but then decreased again to 10.7 hours in 2022. Total time spent on the three areas increased for women over the period, from 56.1 hours per week in 2002 to 57.5 hours per week, or 8.2 hours per day in 2022.

Two important factors that determine how people use their time are their relationship and their parenthood status. Therefore, Table 2.9 compares time spent on employment,

housework and care in 2022 for men and women with and without a partner and with and without dependent children in the household (as defined in Box 2.1, page 6).

A first interesting result is that even without a partner or dependent child in the household (as displayed in the second row of data), men's and women's time-use patterns varied notably. While men spent close to 31 hours on employment, women spent about two hours less, approximately 29 hours. However, women did about 1.7 hours more housework and 0.5 hours more care than men. Moving towards couple relationships without dependent children, these differences become more pronounced as men spent considerably more time on

employment than women, while women spent notably more time on housework and care. Couples without dependent children are older on average than single persons without children and will often have had dependent children living with them in the past.

For both men and women, total time spent on employment, housework and care in 2022 was much larger if they had dependent children than if they did not. For example, among men without a partner in the household, those without children spent an average of 42.7 hours on these activities, while those with children averaged 62.7 hours. Similarly, women without a partner or children in the household spent an average of 42.8 hours on the sum of



employment, housework and care, while their counterparts with children spent an average of 69.4 hours on these activities.

Total hours spent on paid and unpaid work were much higher for parents than for childless persons, but the type of additional working hours that come with children differed for men and women: while men with children spent more time, on average, on all three activities than their counterparts without children, women spent slightly less time on employment and considerably more time on housework and care if they had children.

The HILDA Survey usually interviews all adult members of a household, so it is not only possible to look at women's and men's time use separately, but also to link the reported time use of the two members of each couple to examine intra-couple time-use patterns. To this end, for each co-resident couple, we examine the total time spent by the couple on each activity, and

each partner's share of the couple's total time spent on each activity.⁵ The analysis in the remaining part of this section is restricted to heterosexual couples aged 18 to 64 living in the same household.

Table 2.10 presents the total time per couple spent on employment, housework and care, and the sum of the time spent on all activities in 2022. Furthermore, it provides the intra-couple division of paid and unpaid work by showing the male and female partners' individual times spent on each activity as well as the female partner's share of the total time spent by the couple.⁶ The results are differentiated by whether the couple has dependent children.

Again, the result is confirmed that total time spent on paid and unpaid work is higher when children are present. While couples without children on average spent a total of about 108 hours per week on paid and unpaid work in 2022, their counterparts with children

averaged about 144 hours per week.

Childless couples were very focused on paid work, while time spent on unpaid work (as the sum of housework and care) was relatively low. In couples with children, time spent on employment was only slightly greater than time spent on unpaid work.

With respect to the intra-couple division of labour, couples without children had a more balanced division than those with children. Here, women accounted for about 44% of the total time the couple spent on employment and 56% of the time the couple spent on housework (and both partners hardly invested any time in care). In contrast, couples with children had a more gendered division of labour. Women's share of time spent on paid work was only about 36%, while they accounted for 59% of housework time and 62% of care time. These gender differences in time use across the

Table 2.10: Mean hours per week spent on employment, housework and care, by gender, relationship status and presence of dependent children—Heterosexual couples aged 18 to 64, 2022

	Male partner	Female partner	Total couple time	Female share of total couple time
<i>Couples without children</i>				
Employment	39.7	31.6	71.3	43.9
Housework	13.8	18.6	32.4	55.7
Care	1.6	2.9	4.5	54.1
Total time	55.0	53.2	108.2	49.1
<i>Couples with children</i>				
Employment	45.1	27.9	72.9	35.9
Housework	15.6	23.2	38.8	58.7
Care	11.1	21.5	32.6	61.5
Total time	71.8	72.6	144.4	49.4

Note: For each family type, the means for employment, housework and care do not necessarily sum to the mean of total time. This is because the total is calculated only from persons who provided valid information for all three activities, whereas the mean for each activity is calculated for all persons providing valid information for that activity, irrespective of whether valid information was provided for the other two activities.

⁵ The total time spent per couple on each of the three activities constitutes the sum of the partners' individually reported time spent on this activity. For example, the total couple time spent on care reflects the hours of care reported by the female partner plus the hours of care reported by the male partner. It is likely, however, that some of the individually reported time spent on housework and care is provided by both partners simultaneously, such as when the partners look after the child together.

⁶ The female partner's share of employment, housework and care is calculated by dividing the hours spent on the activity by the female partner by the total hours spent on the activity by the couple, multiplied by 100.

different activities levelled out when looking at the total time spent on paid and unpaid work: in couples with and without children, both partners contributed around 50% of the total time spent on all activities.

In additional analyses, the female partner's share of paid and unpaid work was investigated separately for different employment arrangements within the couple for the year 2022. These analyses showed that women took over a greater share of housework and care in all employment arrangements (except for housework in couples where the female partner was

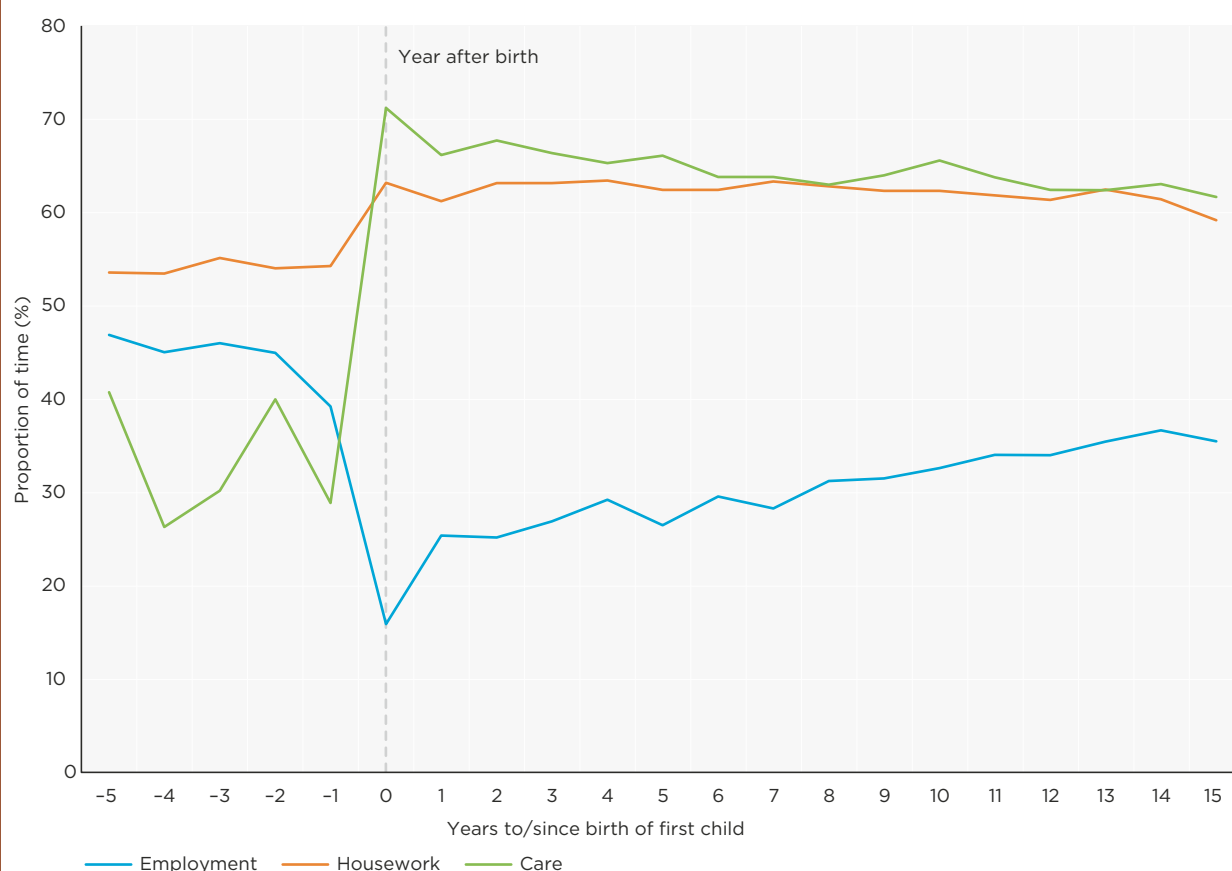
employed but their partner was not). This also held true if both partners were employed full-time. Specifically, in dual full-time working couples, women's share of housework and care time were around 55% and 56%, respectively. However, it should be noted that even in dual full-time working couples, men tend to work longer hours, with women's share of employment time being 48%. Women's share of housework and care was smallest if they were employed but their partner was not. However, even in this arrangement, women did 46% of the housework and 55% of the care work.

The findings from Tables 2.9 and 2.10 suggest that it is primarily the presence of children that leads heterosexual couples to have a specialised division of labour, with fathers engaging more in paid work and mothers engaging more in housework and care. Owing to the longitudinal nature of the HILDA Survey, it is possible to follow individuals and couples over time to see whether the birth of a child indeed triggers a more traditional division of labour.

Figure 2.5 (page 24) illustrates the female partner's share of time spent on paid and unpaid work in relation to the timing of the birth



Figure 2.5: Partnered women's mean share of the couple's time spent on paid and unpaid work, by time to and from first birth



Notes: Pooled data for women who had their first child during the observation period are used. Estimates are calculated only for women in heterosexual couples aged 18 to 64, and only where the total time spent on the activity by the couple is greater than zero. On the horizontal axis, negative numbers denote years prior to the first birth, zero denotes the wave immediately after the first birth, and positive numbers indicate the number of years since the first birth.

of the first child. Negative values on the horizontal axis represent years prior to first childbirth, with -1 denoting the last interview point before childbirth. Year 0 denotes the first interview after childbirth, and the positive values denote years since the first childbirth. This analysis is confined to women who had their first child during the observation period.⁷ However,

their male partner might already have had children from previous relationships.

The figure shows that prior to the birth of the first child, each partner's share of time spent on paid and unpaid work is comparatively equal, with men spending slightly more time on employment (about 53%) and women more time on housework (54%) five years before the birth

of the first child. The (relatively short) time spent on care is done primarily by men. Most likely, this is time spent on care for children from previous relationships.

Around the time of the first birth, women's share of paid work decreases markedly, from 46% three years prior and 39% one year prior,⁸ to 16% in year 0, that is, right after the birth. Meanwhile, women's share of care increases

⁷ This means that estimates close to the time of birth (year 0) are based on births happening across the entire HILDA period, whereas the estimates for years long after the birth are based on births that happened early in the HILDA period. It should be noted that the experiences of women who became mothers in the early years might differ from those of more recent mothers. Indeed, additional analyses suggest that women who recently had their first child experience a smaller drop in their employment share in year 0 and increase their employment share more strongly in years 1 and 2 after the birth than women who had their first child in the earlier years of the HILDA Survey period.

⁸ The fact that women's share of employment already decreases prior to the birth of the first child is a finding that merits further consideration. Additional analyses show that the decrease in women's share in employment prior to the first birth is entirely due to a reduction in women's average time spent on employment, and not an increase in men's time in employment. This might be due to several factors. First, the last interview prior to childbirth might be very close to the due date, when some women are already on maternity leave. Second, some pregnant women need to interrupt employment or reduce their working hours even before maternity leave due to the nature of the job or as a result of health problems.

strongly, to 71% in the year after the birth, and their share in housework, which was already higher than that of men's, increases further, to 63% in the year after the birth. This pattern reflects the fact that in Australia most new mothers take at least several months off from work to focus on full-time caring.

However, this gender-specialised division of labour is not renegotiated as the first child grows older. Women's share of paid work increases only very slowly over time. Five years after the birth of the first child, it still amounts to only 26%, 10 years after to 33%, and even 15 years after to only 35%. This increase is matched by a small decrease in women's share of care time, but women still contribute an average of 66% of the couple's care time 10 years later and 62% 15 years later.

Moreover, women's share of housework persistently remains on a high level, still amounting to 62% 10 years after the first birth and 59% 15 years after. The birth of the first child is thus indeed a turning point in couples' division of labour towards a highly gendered, long-term pattern. However, in part, the persistence of this gendered division is due to the arrival of additional children, which stabilises the established pattern.

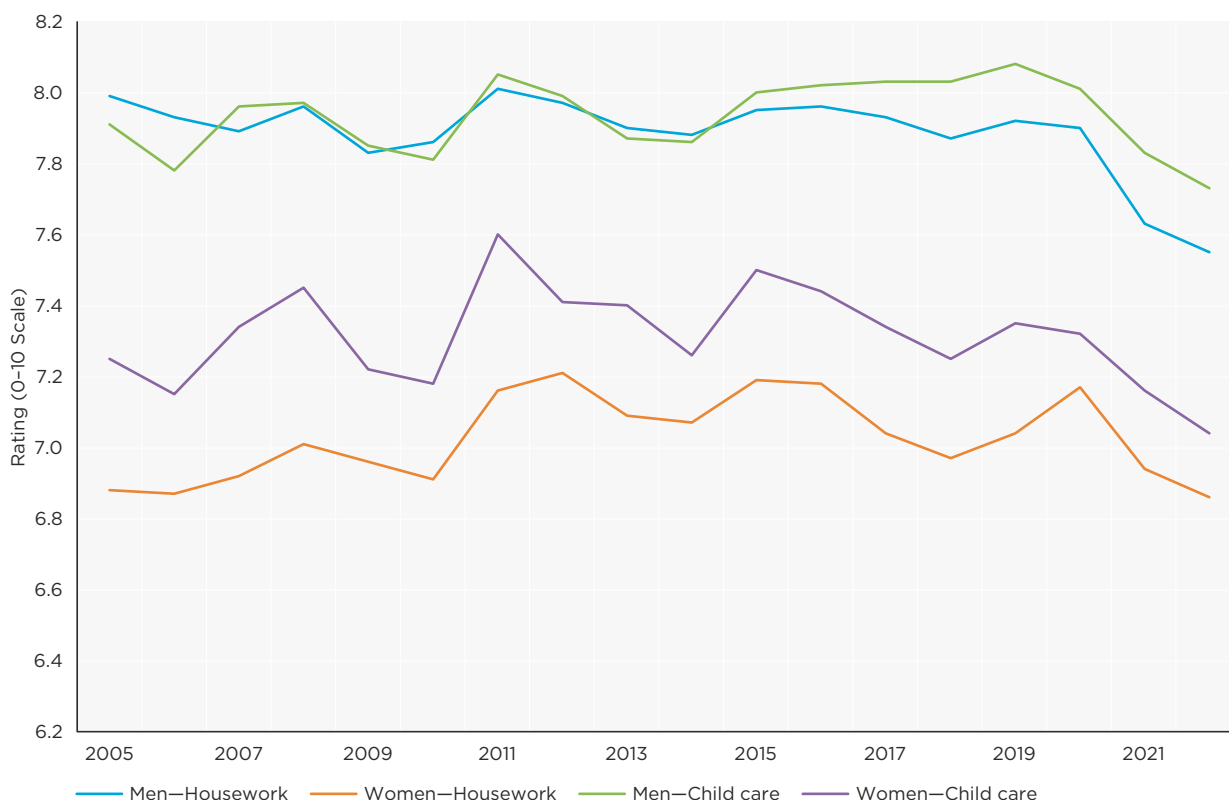
Satisfaction with and perceived fairness of the division of labour

As the previous section has shown, partnered women and men, on average, spend roughly the same amount of time on the sum of paid and unpaid work. However, there are considerable differences in time spent on the individual activities of

employment, housework and care, particularly if there are children present. The question that follows is how couples perceive this division of labour. How satisfied are partnered men and women with their division of labour and how fair do they think this division is?

Since 2005, the HILDA Survey has asked respondents on an annual basis in the SCQ how satisfied they are with the way household and child-care tasks are divided between them and their partners, with the scale ranging from 0 (completely dissatisfied) to 10 (completely satisfied). Figure 2.6 shows how satisfaction with the division of labour regarding housework and child care has evolved over time. As in most of the previous section, the results are restricted to persons aged 18 to 64 living with a partner in the household.

Figure 2.6: Mean satisfaction with the division of household and child-care tasks—Partnered persons aged 18 to 64 years



Notes: Estimates are for heterosexual couples where both partners are aged 18 to 64. Satisfaction with division of child care applies only to persons with children below the age of 15.

Additionally, the ratings of the satisfaction with child care are restricted to couples with children below the age of 15.

The figure shows that men have been more satisfied than women with the division of unpaid work throughout the period. In 2005, men rated their satisfaction with both housework and child-care tasks at an average of 8.0 and 7.9 points, respectively, compared to women who rated their satisfaction with the division of housework at an average of 6.9 points and their satisfaction with the division of child care at an average of 7.3 points. Men's high level of satisfaction has remained on a fairly stable level until 2019. However, with the onset of the COVID-19 pandemic, men's satisfaction with the division of both tasks started to decline and, in 2022, it reached an all-time low of 7.6 points for the division of housework tasks and 7.7 points for the division of child care. Interestingly, women's satisfaction with the division of both tasks was still comparatively high in 2020, before it also underwent a notable decline and reached its lowest point in 2022.

Another interesting finding is that, at least until 2020, men's average levels of satisfaction with child care and housework were very similar across the period, whereas women were consistently more satisfied with the division of child-care tasks than with the division of housework. This is despite the fact that, as shown in Table 2.10 for 2022, women's share of care time was even greater than their share of housework time (61.5% versus 58.7% among women with children). A potential explanation is that caring for and spending time with children is seen as a more enjoyable activity than housework.

Figure 2.5 in the previous section highlights that the birth of the first child has a profound and long-lasting impact on the



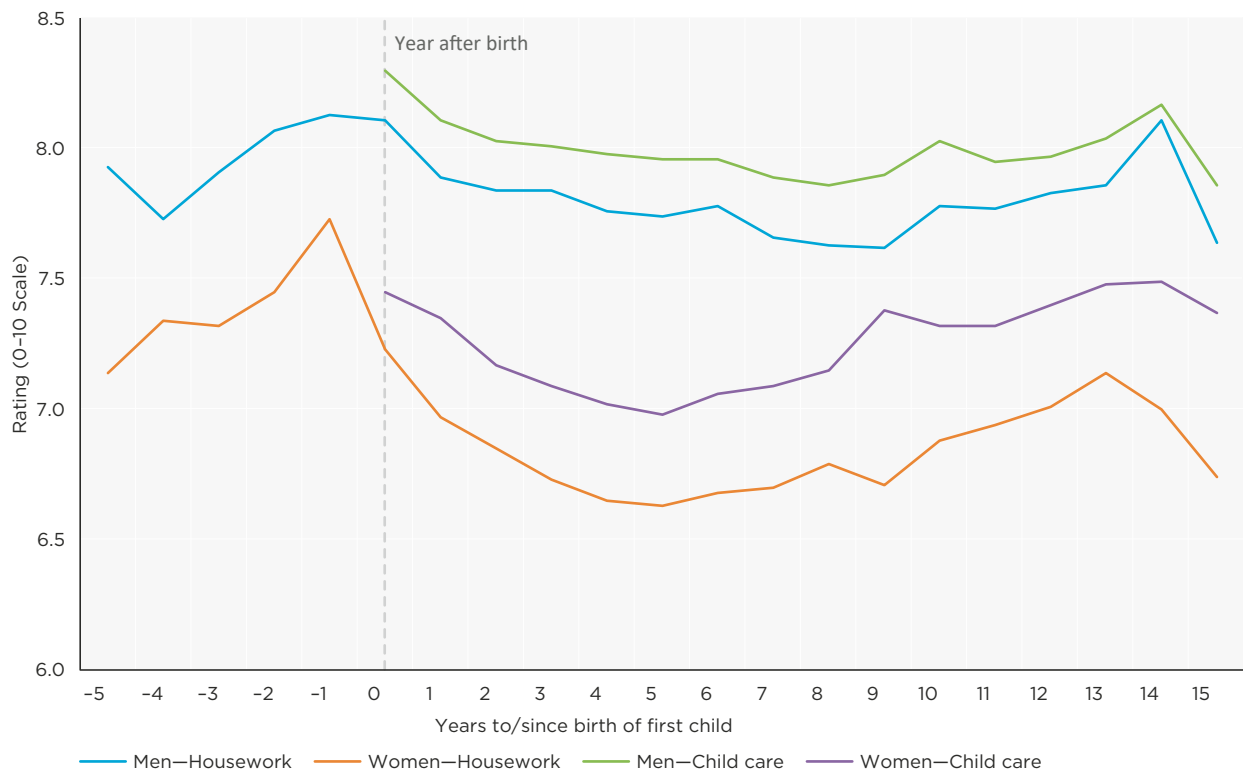
division of labour. In a next step, Figure 2.7 investigates how satisfaction with the division of labour changes around the birth of the first child. Again, only women who had their first child during the observation period were included in this analysis. The figure confirms the result from Figure 2.6 (page 25), namely that men are generally more satisfied with the division of unpaid work than women, and this holds true at any point in time around the birth of the first child. Men's satisfaction with both housework and child care is highest around the time of birth. In year 0, on average, they rated it at 8.1 and 8.3, respectively.

Women's satisfaction with the division of labour varied more strongly around the time of the first birth. In the year immediately prior to the birth, women were the most satisfied with the division of housework, rating it at 7.7 points. Satisfaction with

the division of housework then dropped considerably immediately after the first birth and continued to decline until the child was five years old, when it was only at 6.6 points. Similarly, women's satisfaction with the division of child-care tasks was high in the year of the birth (at 7.5 points) but then declined continuously until the first child was five years old (when it was only 7.0 points). As the first child grew older, women' satisfaction with the division of both housework and child care continuously increased until it reached a peak when the child was 13 years old. But even then, satisfaction with the division of housework did not reach the levels reported before the first birth.

Closely linked to satisfaction with the division of unpaid labour is the perception of the fairness of this arrangement. Since 2001, respondents have been asked in

Figure 2.7: Mean satisfaction with the division of household and child-care tasks—Partnered persons aged 18 to 64 years



Note: Estimates are for heterosexual couples where both partners are aged 18 to 64.

Table 2.11: Perceived fairness of the division of housework and child care by gender and presence of dependent children—Partnered persons aged 18 to 64, 2022 (%)

	Housework				Child care	
	Men		Women		Men	Women
	Without dependent children	With dependent children	Without dependent children	With dependent children	With children below the age of 15	
Much more than my fair share	6.1	6.2	25.5	32.4	4.0	30.9
A bit more than my fair share	10.8	10.7	26.2	30.2	6.6	32.7
My fair share	58.0	55.6	40.7	33.5	65.3	35.2
A bit less than my fair share	21.2	23.0	6.5	3.3	20.5	1.1
Much less than my fair share	3.8	4.5	2.2	0.7	3.6	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Estimates are for heterosexual couples where both partners are aged 18 to 64. Cells may not add up to column totals due to rounding.



every wave in the SCQ whether they think they do their fair share around the house and whether they think they do their fair share of looking after the children. Table 2.11 presents partnered women's and men's perceptions of the fairness of their contribution to housework and child care in 2022. With respect to work around the house, the results are disaggregated by whether the couple has dependent children or not, while the evaluation of the fairness of child care only relates to couples with children below the age of 15.

Regarding men's perceived fairness of their contribution to housework, the table shows that the majority of men, both with and without children, believed they did their fair share around the house. This applied to 58% of childless men and 55.6% of those with dependent children. The second biggest group were men who thought they did a bit less than their fair share, and again the group size was relatively similar among men with and without children, with 21.2% of childless men and 23% of men with dependent children falling into this category. Only very few men (approximately 17%) thought they did a bit more or much more than their fair share.

Women's perception of the fairness of the division of housework was very different from that of men. The majority of women, both with and without dependent children, thought they did a bit more or much more than their fair share. The perceived imbalance was particularly noticeable among women with dependent children: a substantial minority (40.7%) of childless women thought they did exactly their fair share, compared to only 33.5% of women with children. Among the mothers, those who thought they did much more than

their fair share constituted the biggest group, with about one third (32.4%) in this category.

Table 2.11 also shows that the divergence in men's and women's perceptions is even wider when focusing on child care for children under the age of 15. Close to two-thirds (65.3%) of men thought they did their fair share of looking after the children, but only a bit more than one-third (35.2%) of women thought they did exactly their fair share, with two-thirds (63.6%) reporting that they did a bit more or much more than their fair share. Men who felt overly involved in child care were very rare, with roughly 11% of men saying they did a bit more or much more than their fair share of looking after children. This was matched by an even lower share of around 1% of mothers who said

they did a bit less or much less than their fair share looking after the children.

Subjective wellbeing in families

The public health and social measures that were established to contain the spread of the COVID-19 pandemic affected the lives of parents and children. Many families saw schools changing to remote learning, access to child care restricted, and lockdowns limiting social contact and leisure activities.⁹ This section looks at people's psychological wellbeing before, during and after the COVID-19 pandemic and investigates whether the family situation

Box 2.5: HILDA Survey measure of loneliness

In every wave of the HILDA Survey, a question has been included in the self-completion questionnaire asking respondents about the extent of their agreement with the following statement: 'I often feel very lonely'. Response options range from 1 (strongly disagree) to 7 (strongly agree), with a higher score implying higher levels of loneliness. In this chapter, a person is categorised as 'lonely' if they provide a response of 5 or higher (also see Kung et al., 2021).



⁹ It should be noted that the public health and social measures related to the COVID-19 pandemic varied between states and territories.

affects how people cope in terms of wellbeing. The focus is on two different measures: loneliness and mental health.

Loneliness

During the pandemic years of 2020 and 2021, restriction of people's movement, an increase in working from home and changes to remote learning reduced personal contacts outside the household. In this context, Figure 2.8 shows that the pandemic period was accompanied by a rise in loneliness (see Box 2.5, page 28) among young people aged 15 to 24. Although the share of lonely individuals in this age group had been rising for over a decade—from its lowest point of 14.4% in 2008 to 20.2% in 2019, the pandemic period saw an acceleration in this trend, as the prevalence of loneliness increased to 26.6% in 2020. Since then, it has remained at elevated levels, at 25% in 2021 and 24.9% in 2022.

None of the other age groups saw a similar increase in loneliness prevalence during the pandemic. Young adults aged 25 to 34 also exhibited an increase between 2019 and 2020, but it was much smaller, 2.7 percentage points. Older adults even saw a decrease in the share of lonely persons. For example, among those aged 65 and over, the prevalence of loneliness declined from 18.9% in 2019 to 15.2% in 2020. However, since 2020, it has increased again for this group, reaching 18% in 2022.

The marked rise in the level of loneliness among young people during the pandemic and the sustained high levels in 2022 give reason to look more closely into the factors that are associated with changes in loneliness levels among young people over the 2019 to 2022 period. Table 2.12 shows, in the first column of data, the characteristics that are associated with an onset of loneliness during the pandemic,

that is, with the likelihood of being lonely in 2020 or 2021 while not being lonely in the year prior. In the second column, the table shows the factors associated with an exit from loneliness after the onset of the pandemic, that is, the likelihood of no longer being lonely in 2021 or 2022 after being lonely in the year before.

Table 2.12 shows that the living arrangements of young people were of great importance in changes to their loneliness. Compared to people living with their own family (i.e., a partner and/or children), those living alone or with others had an elevated probability of becoming lonely in 2020 or 2021. Additionally, those living alone had a lower probability of exiting loneliness in 2021 or 2022. There was no significant difference between living with one's own family and living with one's parents with respect to the onset of loneliness. However, young

Figure 2.8: Loneliness prevalence, by age group

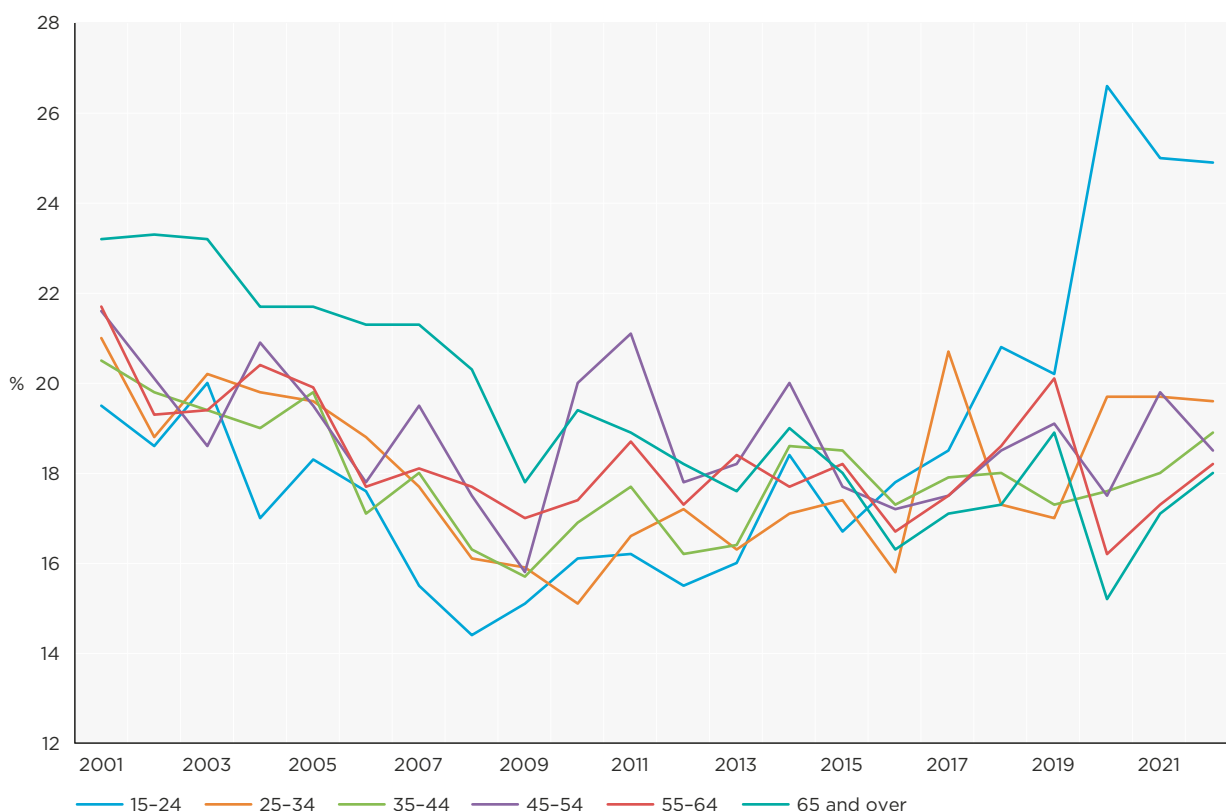


Table 2.12: Factors associated with the onset of and exit from loneliness—Persons aged 15 to 24

	Onset in 2020 or 2021	Exit in 2021 or 2022
Age	<i>ns</i>	<i>ns</i>
Male	–0.048	<i>ns</i>
<i>Living arrangement (Reference category: Living with own partner and/or children)</i>		
Own parents	<i>ns</i>	–0.109
Others	0.106	<i>ns</i>
Alone	0.070	–0.233
<i>Educational attainment (Reference category: Bachelor's degree or higher)</i>		
Year 12, Certificate III or IV, or Diploma	0.067	<i>ns</i>
Year 11 and below	0.102	<i>ns</i>
<i>Activity status (Reference category: Full-time student)</i>		
Employed (and not a full-time student)	<i>ns</i>	<i>ns</i>
Neither full-time student nor employed	0.107	–0.111
<i>Household equivalised annual disposable income (Reference category: Lowest tercile [third])</i>		
Middle tercile	<i>ns</i>	<i>ns</i>
Top tercile	<i>ns</i>	<i>ns</i>
Live in New South Wales, Victoria or the Australian Capital Territory	<i>ns</i>	<i>ns</i>
<i>Immigrant status and First Nations identity (Reference category: Non-First Nations Australian-born)</i>		
First Nations	<i>ns</i>	<i>ns</i>
Immigrant, main English-speaking countries	0.071	<i>ns</i>
Immigrant, other countries	<i>ns</i>	<i>ns</i>
<i>Remoteness area (Reference category: Major cities)</i>		
Inner regional	<i>ns</i>	<i>ns</i>
More remote	<i>ns</i>	0.112
Number of observations	2,465	763

Notes: The table presents mean marginal effects from logit regression models of the determinants of becoming lonely in 2020 or 2021 as well as of the determinants of exiting loneliness in 2021 or 2022. See the Technical Appendix for an explanation of these models. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

people living with their parents were less likely to exit loneliness.

Besides the family, social contacts through work, school or university may also serve as protective factors against loneliness. Table 2.12 shows that young people who were neither employed nor studying full-time had the highest probability of becoming lonely over the course of the pandemic. At the same time, they were significantly less likely to exit loneliness in 2021 or 2022. By contrast, there is no statistical difference between full-time students and employed people.

The table also shows that females were more likely to become lonely than males, and that low- and medium educated people were more likely to become lonely than people with a bachelor's degree or higher. Finally, immigrants from a main English-speaking country were more likely to become lonely during the pandemic compared to non-First Nations Australian-born persons, whereas there is no significant difference between First Nations people, immigrants from other countries, and non-First Nations Australian-born individuals. With respect to exiting loneliness, young people living in relatively remote areas were more likely than those living in major cities areas to exit loneliness.



Mental health

Another important indicator of how individuals and families fared during and after the pandemic is their mental health. Figures 2.9 and 2.10 show the share of female and male individuals with poor mental health (as described in Box 2.6, page 31), separately by whether they have a partner and whether they have children under the age of 15 living with them. Figure 2.9, displaying the results for females, shows that across the 2001 to 2022 period, poor mental health was less frequent among partnered females (with or without children under the age of 15) than among females who did not live with a partner. For example, in 2001, about 13% of partnered females without children under the age of 15 and 14% of partnered mothers had poor mental health. This compares to 18% of single females without children and 23% of single mothers. For partnered females, there was also little change in the prevalence of poor mental health until the COVID-19 pandemic. By contrast, since the

Box 2.6: SF-36 measures of health

The SF-36 Health Survey is a 36-item questionnaire that is intended to measure health outcomes (functioning and wellbeing) from a patient point of view. It was specifically developed as an instrument to be completed by patients or the general public rather than by medical practitioners, and is widely regarded as one of the most valid instruments of its type. See https://www.rand.org/health-care/surveys_tools/mos/36-item-short-form.html for further details.

The SF-36 measures of general and mental health are used in this report. The scores for both measures are constructed as per Ware et al. (2000) and potentially range from 0 to 100. For some analyses in this report, indicator variables are created for poor general health and poor mental health. There are no universally accepted threshold scores for defining poor general and mental health, but for the purposes of this report, poor general health is defined as a score less than or equal to 37, on the basis that the HILDA Survey shows that approximately 10–15% of the population is at or below this threshold across the HILDA Survey period. Similarly, poor mental health is defined as a score less than or equal to 52, on the basis that approximately 10–15% of the population is at or below this threshold across the HILDA Survey period. The 52-point threshold has also been used in previous studies to designate poor mental health (e.g., Roy and Schurer, 2013; Botha et al., 2023).

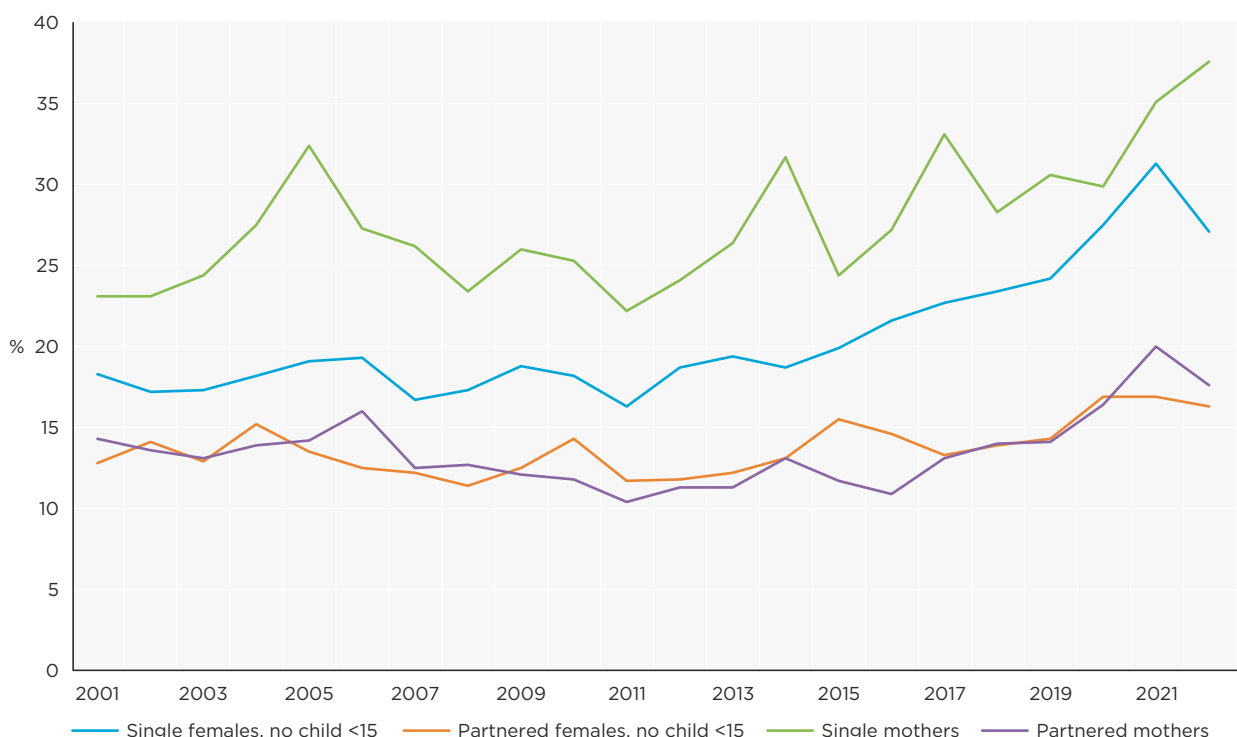
beginning of the 2010s, the prevalence of poor mental health saw a significant rise among single females without children, increasing from 16% in 2011 to 24% in 2019. There was also an increase in the prevalence of poor mental health among single mothers, from 22% in 2011 to 31% in 2019.

All groups saw a rise in poor mental health during the COVID-19 pandemic. However, while this rise was modest among partnered females, it

was particularly marked for single females without children (up from 24% in 2019 to 31% in 2021). In contrast to all other groups, poor mental health continued to increase among single mothers between 2021 and 2022, resulting in a prevalence of 38% in 2022.

Overall, in all four groups of females, poor mental health was more prevalent in 2022 than it was both at the beginning of the period (in 2001) and before the onset of the pandemic (in 2019). However, single mothers

Figure 2.9: Prevalence of poor mental health—Females, by family situation



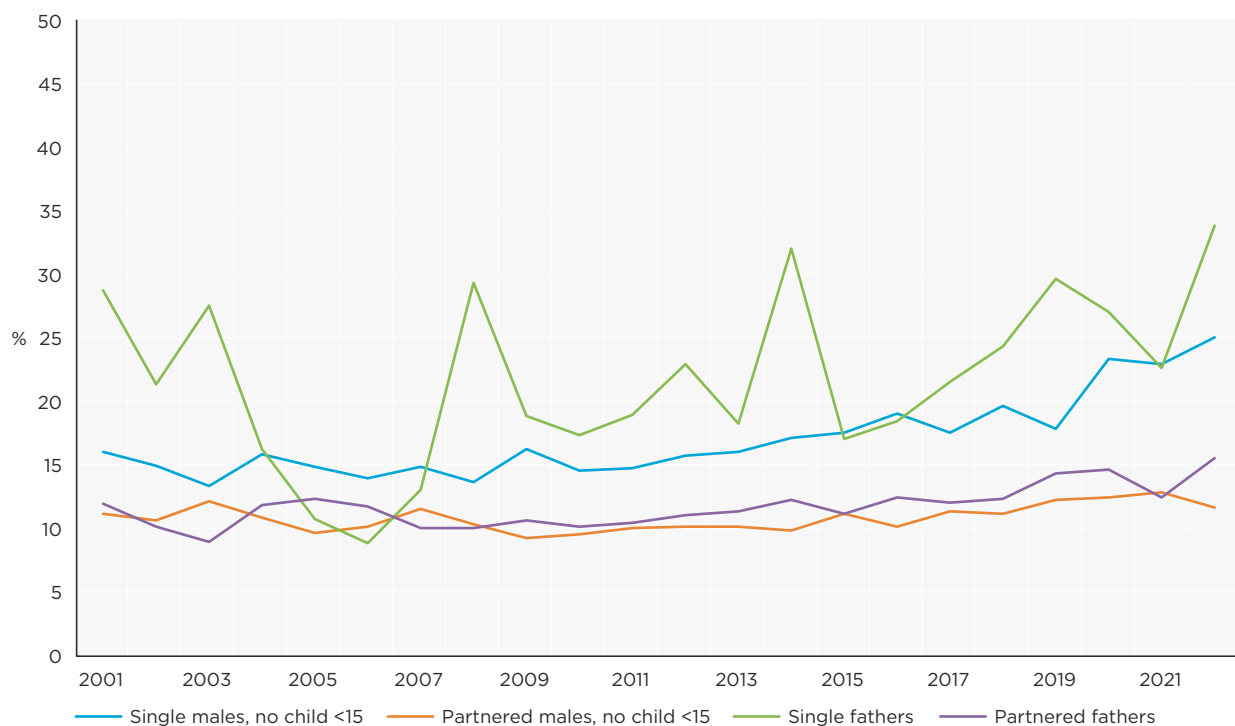
consistently had the highest prevalence of poor mental health across the entire period and additionally experienced the greatest increase in poor mental health between 2001 and 2022, at 15 percentage points.

Figure 2.10 presents the prevalence of poor mental health among males. Similar to females, the proportion of male individuals

in poor mental health is lower among partnered males, and there is little difference between partnered males with and without children. For example, in 2001, 11% of partnered males without children and 12% of those with children had poor mental health. These shares were also lower than those of females in the same family situation. Single males

(with and without children) had a higher prevalence of poor mental health throughout the 2001 to 2022 period than partnered males, with single fathers in most years exhibiting the highest prevalence (but with some visible fluctuations due to the relatively few single fathers in the study). In contrast to females, partnered males (with or without

Figure 2.10: Prevalence of poor mental health—Males, by family situation



children) and single fathers did not see a rise in the prevalence of poor mental health during the COVID-19 period. However, there is a notable increase in poor mental health among single males without children, where the prevalence rose from 18% in 2019 to 23% in 2020 and 25% in 2022.

Overall, poor mental health became more prevalent in many groups during the COVID-19 pandemic, but the rise was most pronounced among single individuals without children and among mothers (both single and partnered). Single mothers have also seen further increases in the prevalence of poor mental health since the pandemic.

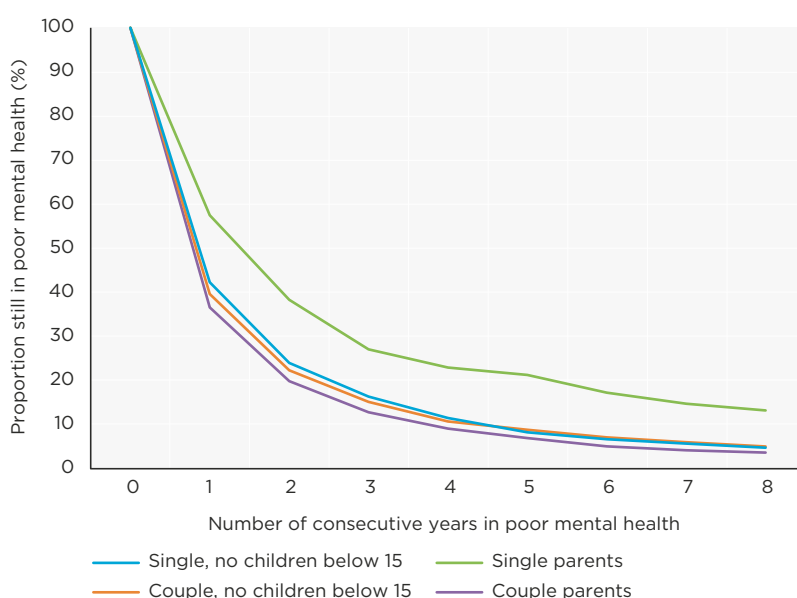
Another question is whether being in poor mental health is a temporary or long-lasting state for most people. This can be evaluated by looking at the 'survival rate', which is an estimate of the proportion of people who are still in poor

mental health at a given number of years after they developed poor mental health. The survival rate for the whole HILDA population shows that, for most people, having poor mental health is a short-lasting state (results not displayed). In the year after developing poor mental health, 40% of individuals were estimated to still be in poor mental health. Three years after the onset of poor mental health, 15% still had poor mental health, and five years after onset, only 8% remained in this state.¹⁰

Figure 2.11 presents survival rates of people in poor mental health separately for the four family types (by whether living with a partner and whether living with children under the age of 15), but for reasons related to sample size, we combine females and males as one group in each family type. The figure shows notable differences in the recovery from

poor mental health by family situation. Partnered individuals recovered faster than single individuals, and particularly single parents. One year after the onset of poor mental health, an estimated 40% of partnered people without children under the age of 15 and 37% of couple parents still had poor mental health. By contrast, this share was 42% among single individuals without children and 58% among single parents. Three years after the onset of poor mental health, an estimated 27% of single parents were still in poor mental health, compared to between 13% and 16% in the other groups. These findings, together with those from Figures 2.9 and 2.10, show that single parents were not only the most likely to have poor mental health over the 2001 to 2022 period, but once they developed poor mental health, their mental health also took longer to recover.

Figure 2.11: Number of years in poor mental health



Note: Estimates from unweighted discrete-time event history models based on pooled data from 2001 to 2022 and controlling for gender, age, age squared, educational level, remoteness area, activity status, immigrant status, First Nations identity and number of prior spells of poor mental health.



¹⁰ The survival rate represents the proportion of people who have *continuously* exhibited poor mental health for a certain length of time. However, it should be noted that it is also common for people exiting poor mental health to re-enter poor mental health at a later point in time. If a person has several spells of poor mental health, all spells are included in the analysis, with the duration starting at zero each time the person enters poor mental health.

3

Household economic wellbeing

Roger Wilkins



The HILDA Survey has, since its inception, placed considerable emphasis on measuring and understanding the drivers of the economic wellbeing of Australians. Most important to this effort has been the annual measurement of household incomes via a detailed set of questions asked of each household member aged 15 and over.

The HILDA Survey also regularly collects data on household expenditure and wealth, which are important complements to income data in obtaining a complete picture of economic wellbeing. Further, information is regularly collected on the experience of financial stress, the ability to raise funds at short notice, experience of material deprivation, perceived adequacy of household income, saving habits, saving horizon, attitudes to financial risk and satisfaction with one's financial situation.

This chapter examines the evolution and dynamics of economic wellbeing in Australia from several perspectives, considering not only household incomes, but also experiences of financial stress, housing stress and material deprivation. The data collected on household expenditure are also examined, with a particular focus on how the rising cost of living in 2022 had an impact on spending patterns.

Income levels and income inequality

Annual income

Cross-sectional estimates of mean and median household annual disposable income (as defined in Box 3.1, page 35) are presented in Table 3.1. For this table, the household is the unit of observation, meaning that each household contributes one 'observation' to the calculation of the mean and the median.

Mean and median household disposable incomes grew very strongly between 2003 and 2009, both increasing by approximately \$3,500 per year at December 2022 prices. Between 2009 and 2018, growth in both the mean and median was much weaker. Over the nine years from 2009 to 2018, the mean household income grew by only \$2,821, or 2.7%, while the median in 2018 was \$1,948 lower than in 2009. Since 2018,

there has been stronger growth in mean and median incomes, with the mean rising by \$9,521 and the median rising by \$5,342. However, while the mean income continued to grow between 2021 and 2022, the median declined by \$1,830, or 1.8%.

Table 3.2 considers the distribution of household income, taking into account potential changes to household composition by examining 'equivalised' income per person (see Box 3.2, page 36, for an explanation of how equivalised income is calculated and Box 3.3, page 36, for an explanation of the statistics presented in the table). The individual is the unit of observation, meaning the statistics presented are for the distribution of equivalised incomes across all individuals in the population, including children.

Patterns in average levels of income between 2001 and 2022 evident for incomes of

households are also evident for equivalised incomes of individuals. This is unsurprising given that changes in household composition of the population between 2001 and 2022 have been relatively modest.

The HILDA Survey indicates that there was little net change in income inequality between 2001 and 2019. For example, the Gini coefficient, a common measure of overall inequality, remained between 0.29 and 0.31 over the entire 19-year period. However, the arrival of the COVID-19 pandemic led to sizeable movements in inequality. In 2020, the first year affected by the COVID-19 pandemic, there was a marked decline in inequality, despite only the last three-and-a-half months of the financial year ending 30 June 2020 potentially affected—that is, mid-March to 30 June 2020. Indeed, the Gini coefficient decreased from 0.305 in 2019 to 0.289 in 2020, the lowest level ever recorded by the HILDA Survey, albeit by a slim margin. The Gini coefficient subsequently increased slightly in 2021 and then increased substantially in 2022, to be at its highest level ever in the HILDA Survey period, at 0.321. This reflected growth in high incomes relative to middle incomes (as reflected by the ratio of the 90th percentile to the median) and declines in low incomes relative to middle incomes (as reflected by the ratio of the median to the 10th percentile).



Box 3.1: Measurement of household income in the HILDA Survey

The main household income measure examined in this report is 'real household annual disposable income'. Household annual disposable income is the combined income of all household members after receipt of government pensions and benefits^a and deduction of income taxes in the financial year ended 30 June of the year of the wave (e.g., 2001 in Wave 1). This is then adjusted for inflation—the rise in the general price level in the economy—using the Australian Bureau of Statistics' (ABS) Consumer Price Index, so that income in all waves is expressed at the price level prevailing in the December quarter of 2022 (referred to as 'December 2022 prices'), to give real income. Since prices tend to rise over time, real incomes are higher than the nominal incomes reported by sample members.

HILDA Survey respondents do not actually report their disposable income; rather, each respondent is asked how much income they received from each of a number of sources, including employment, government benefits, superannuation, investments and any businesses they own. The total gross income of each individual is equal to the sum of these income components. The disposable income of each respondent is then calculated by estimating the income tax payable by the individual and subtracting this from the individual's total gross income. Disposable incomes of all household members are added together to obtain household disposable income. See Wilkins (2014) for details on the construction of gross income and the methods used to calculate disposable income. Note that, consistent with the Canberra Group's recommendations (see United Nations, 2011), large irregular payments received by individuals are excluded from income for the analysis presented in this report—that is, it is regular disposable income that is examined.

^a Following the Australian Bureau of Statistics' (ABS) practice in its Survey of Income and Housing (ABS, 2017), Commonwealth Rent Assistance is included as income, despite being a rental subsidy. Note that this approach is inconsistent with the Canberra Group's recommendation (United Nations, 2011).

Table 3.1: Household annual disposable incomes, 2001 to 2022

	Mean (\$, December 2022 prices)	Median (\$, December 2022 prices)	Number of households	Number of people
2001	82,581	71,304	7,281,363	18,824,376
2002	84,082	73,037	7,357,079	19,039,091
2003	84,082	72,777	7,433,836	19,258,412
2004	86,736	75,006	7,505,562	19,468,325
2005	90,783	80,025	7,589,921	19,714,426
2006	95,344	82,193	7,686,360	20,013,530
2007	100,117	86,132	7,836,760	20,382,461
2008	102,965	88,825	8,009,920	20,809,743
2009	105,269	93,716	8,175,735	21,216,949
2010	105,569	91,015	8,298,873	21,521,080
2011	106,210	89,169	8,413,537	21,834,344
2012	107,589	92,669	8,578,027	22,221,454
2013	108,603	92,966	8,737,151	22,594,836
2014	108,356	91,463	8,882,149	22,929,926
2015	107,662	91,555	9,028,432	23,266,631
2016	107,512	92,513	9,196,869	23,656,159
2017	108,110	91,006	9,379,972	24,046,268
2018	108,090	91,768	9,564,837	24,423,559
2019	111,178	93,696	9,751,890	24,794,547
2020	112,438	96,595	9,873,658	24,993,931
2021	115,307	98,940	9,936,616	25,070,047
2022	117,611	97,110	10,155,519	25,508,507

Box 3.2: Equivalised income

Equivalised income is a measure of material living standards, obtained by adjusting household disposable income for the household's 'needs'. Most obviously, a household of four people will require a higher household income than a single-person household to achieve the same living standard. There are, however, many factors other than household size that could be taken into account in determining need. These include the age and gender of household members, health and disability of household members (since poor health and/or disability increase the costs of achieving a given standard of living), region of residence (since living costs differ across regions) and home-ownership status (since the income measure does not usually include imputed rent for owner-occupiers).

In practice, it is common for adjustment of income to be based only on the number of adult and child household members, achieved by an equivalence scale. In this report, we have primarily used the 'modified OECD' scale (Hagenaars et al., 1994) as applied by the ABS, which divides household income by 1 for the first household member plus 0.5 for each other household member aged 15 or over, plus 0.3 for each child under 15. A family comprising two adults and two children under 15 years of age would therefore have an equivalence scale of 2.1 (1 + 0.5 + 0.3 + 0.3), meaning that the family would need to have an income 2.1 times that of a single-person household in order to achieve the same standard of living. This scale recognises that larger households require more income, but it also recognises that there are economies of scale in consumption (e.g., the rent on a three-bedroom flat is typically less than three times the rent on an otherwise comparable one-bedroom flat) and that children require less than adults. The equivalised income calculated for a household is then assigned to each member of the household, the implicit assumption being that all household members experience the same standard of living (which will, of course, not always be the case—particularly in households containing unrelated people).



Box 3.3: Income distribution statistics

A variety of inequality measures are used in income distribution studies. In this report, estimates are presented for several commonly used measures. Average- and middle-income levels are described by the mean and median, respectively, while inequality in the income distribution is described by the ratio of the 90th percentile to the median, the ratio of the median to the 10th percentile and the Gini coefficient. The 90th percentile is the income of the individual who has 10% of individuals with higher incomes and 90% with lower incomes. The 10th percentile is the income of the individual who has 90% of individuals with higher incomes and 10% with lower incomes. The Gini coefficient is an overall measure of inequality that ranges from 0, where everyone has the same income, to 1, where one individual has all the income. See the Technical Appendix for further explanation of these measures.

Income differences by family type

Figure 3.1 (page 35) compares median equivalised incomes across family types (defined in Box 3.4, page 37).¹ A reasonably consistent ordering by type of family is evident across the 22 years of the survey, ranging from older people at the bottom



¹ The classification of family types does not distinguish single-parent families by whether the parent is male or female. Approximately 85% of single-parent families are headed by a female parent; consequently, sample sizes for male single-parent families are generally too small for statistically reliable separate analysis. Note that median incomes tend to be slightly higher for male-headed single-parent families, but rates of poverty and financial stress are similar to those found for female single-parent families. Rather than exclude male single-parent families from analysis, they are grouped with female single-parent families.

Table 3.2: Distribution of individuals' household equivalised income, 2001 to 2022

	Mean (\$, December 2022 prices)	Median (\$, December 2022 prices)	Ratio of 90th percentile to the median	Ratio of median to the 10th percentile	Gini coefficient
2001	48,844	43,104	1.92	2.10	0.304
2002	49,734	43,894	1.89	2.09	0.300
2003	49,897	44,420	1.86	2.09	0.298
2004	51,169	46,150	1.83	2.11	0.291
2005	53,529	47,742	1.85	2.07	0.296
2006	56,234	49,632	1.91	2.07	0.296
2007	59,491	51,865	1.94	2.13	0.310
2008	60,584	53,075	1.92	2.16	0.307
2009	62,395	56,284	1.82	2.21	0.296
2010	62,144	55,101	1.89	2.14	0.303
2011	62,731	54,444	1.97	2.11	0.311
2012	63,484	55,491	1.92	2.03	0.300
2013	64,050	55,544	1.92	2.03	0.302
2014	63,960	55,629	1.93	1.99	0.301
2015	63,873	55,940	1.92	1.99	0.296
2016	63,796	56,162	1.88	2.01	0.296
2017	64,368	55,786	1.91	2.02	0.304
2018	64,528	56,607	1.90	2.06	0.300
2019	66,613	58,584	1.88	2.10	0.305
2020	67,660	60,322	1.86	2.00	0.289
2021	69,737	62,195	1.84	2.08	0.296
2022	71,335	61,863	1.90	2.22	0.321

to non-elderly couples without dependent children at the top. It also appears that there are three broad 'clusters' of family type: non-elderly couples without dependent children, who have the highest incomes; couples with dependent children and non-elderly single people, who have middle-level incomes; and single-parent families and older people, who have low incomes. All family types have exhibited growth in median incomes between 2001 and 2022, with non-elderly couples without children faring somewhat better than other family types.

Income differences by region

Figure 3.2 (page 39) compares mean equivalised incomes over the 2001 to 2022 period across the five mainland capital cities as well the combined rest of

Box 3.4: Family types

The following eight family types are distinguished in this report: (1) non-elderly couple, defined to be a couple (married or de facto) without dependent children with at least one member of the couple under 65 years of age; (2) couple with at least one dependent child living with them (regardless of the ages of the members of the couple); (3) single parent living with at least one dependent child (again, regardless of the age of the single parent); (4) non-elderly (aged under 65) single male; (5) non-elderly single female; (6) older couple, where both people are over 65 years of age; (7) older (aged 65 and over) single male; and (8) older (aged 65 and over) single female. In some analysis, only four family types are distinguished: (1) couple without dependent children; (2) couple with dependent children; (3) single parent with dependent children; and (4) single person.

Note that some households will contain multiple 'families'. For example, a household containing a non-elderly couple living with a non-dependent son will contain a non-elderly couple family and a non-elderly single male. Both of these families will, of course, have the same household equivalised income. Also note that, to be classified as having dependent children, the children must live with the parent or guardian at least 50% of the time (where children residing in each parent's household exactly 50% of the time are allocated to the mother's household). Consequently, individuals with dependent children who reside with them less than 50% of the time will not be classified as having resident dependent children. See Wilkins (2016) for an analysis of parents in this situation.



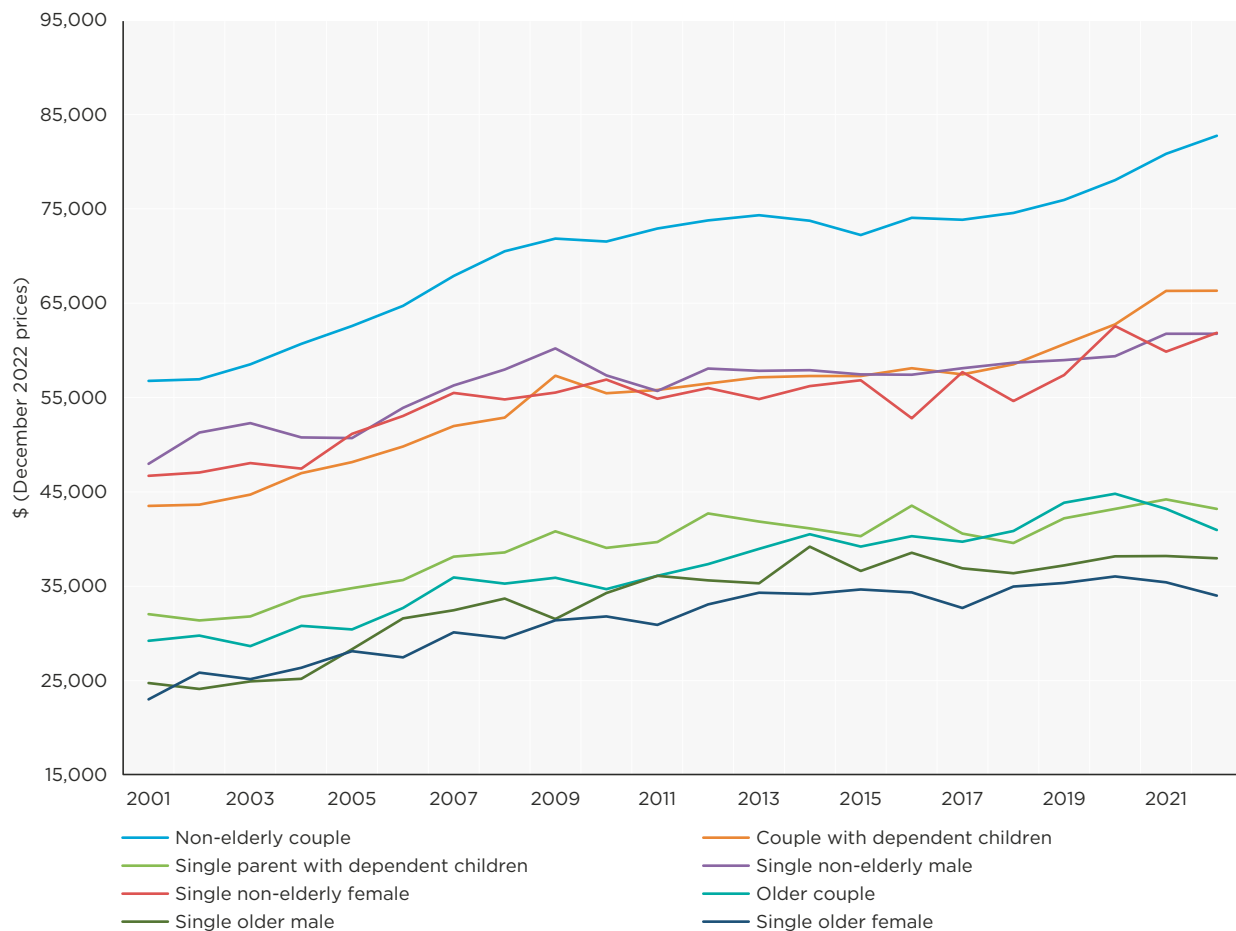
Australia (see Box 3.5, page 38, for explanation of classification of region of residence).

In 2001, the mean income was highest in Sydney, followed by Melbourne, and then Brisbane

and Perth, which had very similar mean incomes. The lowest mean incomes in 2001 were in Adelaide and the combined rest of Australia (which comprises all regions other than the mainland

capital cities). Mean incomes have broadly tended to converge among the mainland capital cities, with the notable exception of Adelaide, which has consistently had a similar mean

Figure 3.1: Median equivalised income, by family type

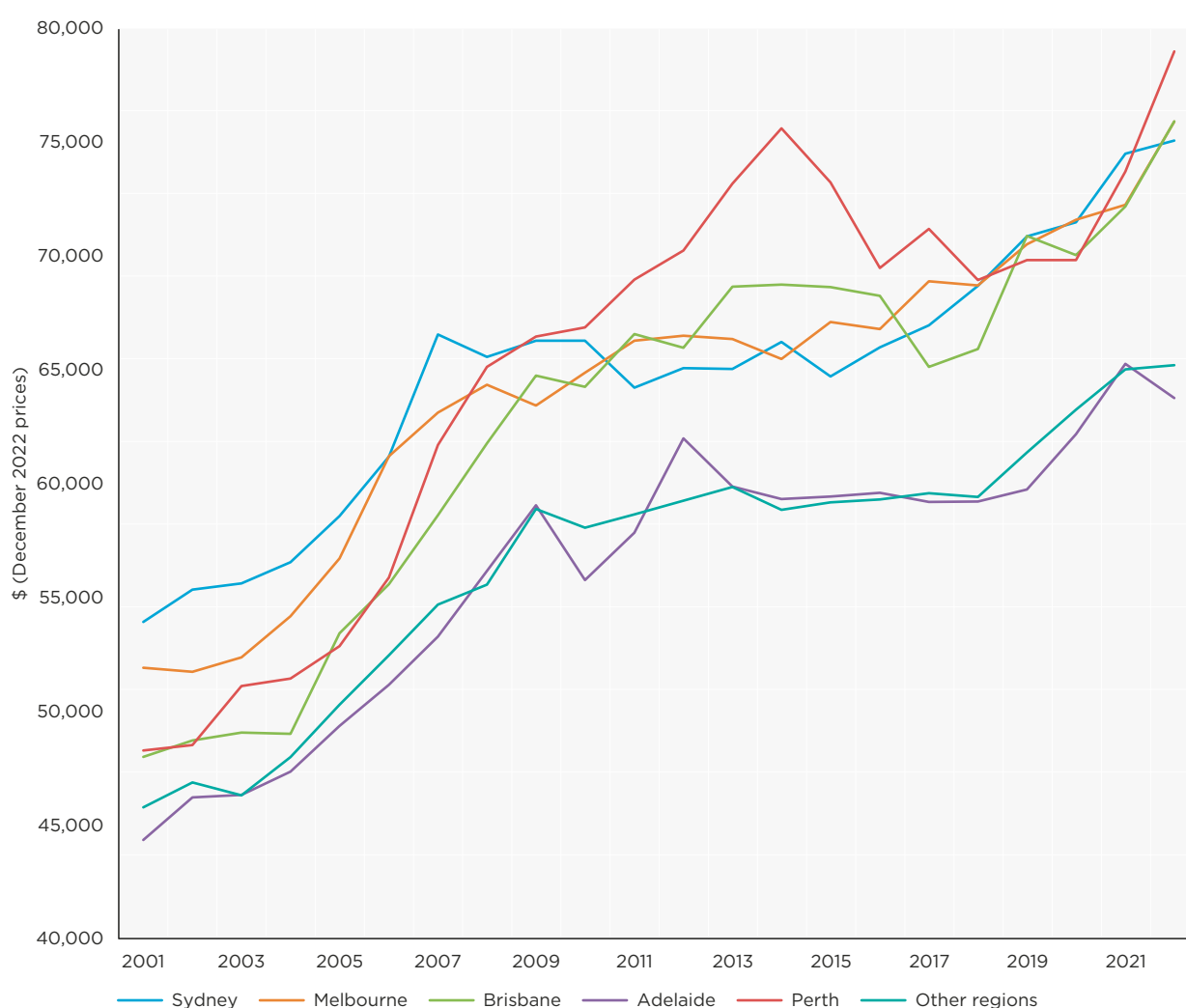


Box 3.5: Classification of region of residence

There are various ways of characterising the region of residence of sample members. In this report, we primarily characterise regions by state or territory of residence or by the region's population density. Based on the Australian Bureau of Statistics' (ABS) Australian Standard Geographical Classification 2011 'Section of State' (ABS, 2011), three levels of population density are distinguished: *major urban* (cities with populations of 100,000 or more); *non-major urban* (towns and cities with populations of 1,000 to 99,999); and *non-urban regions* (towns with populations of less than 1,000, and rural and remote areas). The HILDA Survey data show that, in 2021, approximately 69% of the population resided in major urban areas, 19% resided in other urban areas and 12% resided in non-urban areas.

In more detailed analysis by region, information on state or territory of residence, whether resident of the state's capital city and, for those not residing in the capital city, the population density of their location of residence, are combined to create more disaggregated regions, each of which has a sufficient sample size to support the statistical analyses presented. The most disaggregated classification distinguishes 16 regions: (1) Sydney; (2) other urban New South Wales; (3) non-urban New South Wales; (4) Melbourne; (5) other urban Victoria; (6) non-urban Victoria; (7) Brisbane; (8) other urban Queensland; (9) non-urban Queensland; (10) Adelaide; (11) rest of South Australia; (12) Perth; (13) rest of Western Australia; (14) Tasmania; (15) Northern Territory; and (16) Australian Capital Territory. Additionally, in some analysis, non-urban regions of Australia are distinguished as a single category and urban Northern Territory is combined with other urban South Australia.

Figure 3.2: Mean equivalised income by region



income to the combined rest of Australia. The gap in mean incomes between the mainland capital cities other than Adelaide and the rest of the country has, moreover, tended to grow over the 22-year period. For example, the mean income in Adelaide relative to the mean income in Brisbane has fallen from 92% in 2001 to 84% in 2022.

Also notable in Figure 3.2 are the relatively large fluctuations in the mean income in Perth. The mean surged between 2010 and 2014, giving the city the highest mean income of the mainland capital cities, but then fell between 2014 and 2016, and was similar to that of Sydney, Melbourne and Brisbane between 2018 and 2020. However, by 2022, the mean

income in Perth had again risen above the mean incomes of the other capital cities.

Income mobility and income changes

Table 3.3 takes advantage of the longitudinal information from the HILDA Survey to examine income mobility over the short to medium term. The upper panel examines the mean absolute change in percentile rank, noting that the maximum possible change is 99 (moving from the bottom percentile to the top percentile, or vice versa). The lower panel examines persistence in the bottom quintile, showing

the proportion of people in the bottom quintile who remain in that quintile.

Both mobility measures are examined over three timeframes—two years, five years and 10 years—and for three sub-periods of the 2001 to 2022 period based on the initial year in which income is measured: 2001 to 2007, 2008 to 2014 and 2015 to 2021.

The estimates for the three time periods show that short-term income mobility has reduced slightly this century. The mean absolute change in percentile rank from one year to the next was highest in the 2001 to 2007 period, at 12.5, and lowest in the 2015 to 2021 period, at 11.6. This pattern is evident for medium-

Table 3.3: Movements of individuals in the income distribution

	Initial years		
	2001–2007	2008–2014 ^a	2015–2021 ^b
<i>Mean absolute change in percentile rank</i>			
Over 2 years	12.5	12.0	11.6
Over 5 years	18.2	17.7	17.8
Over 10 years	21.9	21.8	–
<i>Proportion of those in the bottom quintile remaining in the bottom quintile (%)</i>			
For 2 years	67.8	68.2	69.1
For 5 years	39.0	39.4	37.7
For 10 years	22.4	22.2	–

Notes: ^a Ten-year changes are for initial years 2008–2012 only. ^b Five-year changes are for initial years 2015–2017 only.

Table 3.4: Changes in individuals' household equivalised incomes from one year to the next, 2018 to 2022

	Mean change (\$, December 2022 prices)	Median change (\$, December 2022 prices)	Percentage experiencing a decrease in income
2018–2019	1,849	1,658	41.9
2019–2020	409	1,283	44.1
2020–2021	1,763	2,002	41.3
2021–2022	1,477	327	51.2

term (five-year) income mobility comparing 2001 to 2007 with 2008 to 2014, but medium-term mobility was similar in the 2015 to 2021 and 2008 to 2014 periods. For long-term (10-year) income mobility, little change in mobility is evident.

Consistent with the small decline in overall mobility, persistence in the bottom quintile has increased slightly over the two-year window, rising from 67.8% in the 2001 to 2007 period to 69.1% in the 2015 to 2021 period. A slight increase in persistence in the bottom quintile is also evident over the five-year window between the 2001 to 2007 and 2008 to 2014 periods. However, persistence over five years was markedly lower in the 2015 to 2021 period. Persistence over 10 years has remained relatively stable at approximately 22% in



both the 2001 to 2007 and 2008 to 2014 periods.

In Table 3.4, changes in individuals' equivalised incomes from one year to the next are examined since 2018, providing information on the experiences of individuals during the course of the COVID-19 pandemic. The mean change in income was notably smaller between 2019 and 2020 than in the other years. The mean increase was also somewhat weaker between 2021 and 2022 (\$1,477) than between 2020 and 2021 (\$1,763). The median increase, while relatively weak between 2019 and 2020, was smallest between 2021 and 2022, at only \$327.

Consistent with the patterns for median changes, the proportion of people experiencing a decline in real income increased slightly in 2020, but increased

substantially in 2022, when more than half (51.2%) of people experienced a decline.

Longer-term incomes

Figure 3.3 examines inequality of income measured over five years. For each five-year period available in the data (e.g., 2001 to 2005, 2002 to 2006, and so on), five-year income is calculated for each individual as the sum of inflation-adjusted annual equivalised income over the five years—that is, equivalised income is obtained for each of the years and these values are then added together. To the extent that income fluctuates from year to year, distributional statistics for five-year income can provide a clearer sense of longer-term inequality.

The figure shows that inequality in five-year income, as measured by the Gini coefficient, is lower

than inequality in one-year income (Table 3.2). The differences are not large, however, implying there is a high degree of persistence in household incomes.

The Gini coefficient for five-year income increased by approximately 4.5% between 2002–2006 and 2010–2014, then declined slightly to 2015–2019, dropped sharply to 2017–2021 and then rebounded even more sharply in 2018–2022. The fluctuations in inequality of five-year income after 2015–2019 can be attributed to the effects of the COVID-19 pandemic. However, the fluctuations prior to the pandemic stand in contrast to the finding of little change in inequality of one-year income. This reflects the fact that inequality of five-year income is affected by the extent to which people move up and down the income distribution from one year to the next. The greater is mobility in incomes, the lower will be five-year income inequality relative to one-year income inequality.

The distribution of total equivalised income received over the full 22-year history of the HILDA Survey is examined in Table 3.5, which presents the same distributional statistics presented in Table 3.2 for one-year income. The top row examines all people resident in Australia for the entire 22 years, while the bottom two rows focus on two cohorts: those aged 25 to 34 in 2001 (born 1967 to 1976) and those aged 35 to 44 in 2001 (born 1957 to 1966). For both of these cohorts, estimates apply to those living in Australia for the

Figure 3.3: Inequality of five-year income (Gini coefficient)

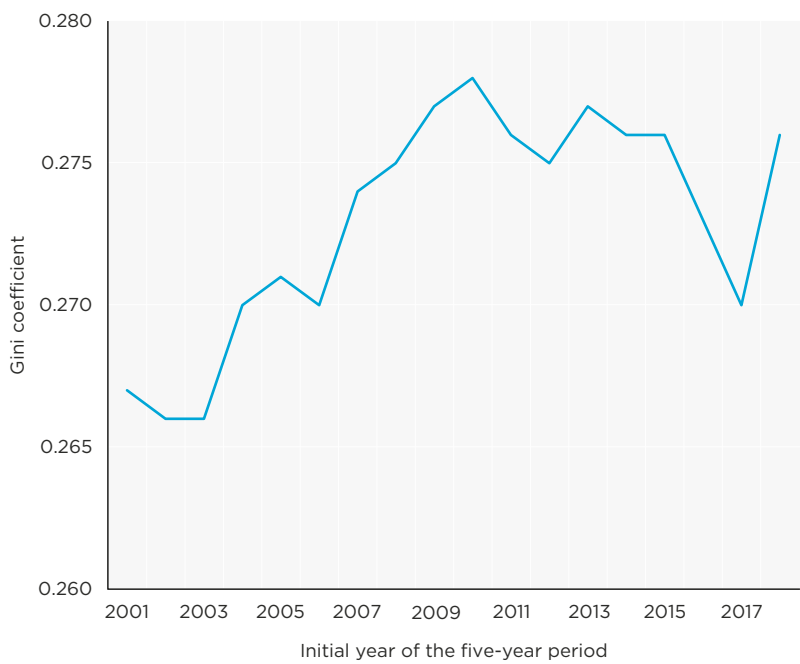


Table 3.5: Distribution of income measured over 22 years

	Mean (\$, December 2022 prices)	Median (\$, December 2022 prices)	Ratio of 90th percentile to the median	Ratio of median to the 10th percentile	Gini coefficient	Average of 1-year Gini coefficient
All people	1,357,510	1,254,807	1.62	1.79	0.236	0.309
People aged 25 to 34 in 2001	1,450,760	1,338,558	1.55	1.60	0.212	0.276
People aged 35 to 44 in 2001	1,487,261	1,391,938	1.60	1.75	0.226	0.286

entire 22-year period. Both of these cohorts were of working age for the entire 22-year period (notwithstanding that those aged 44 in 2001 were aged 66 in 2022).

Overall, the mean equivalised 22-year income is \$1,357,510 (at December 2022 prices), while the median is \$1,254,807. The Gini coefficient is 0.236, compared with the average one-year value of 0.309. For the two birth cohorts, we see higher mean and median incomes, but overall lower inequality within each cohort. Lower inequality is to be expected because inequality attributable to different lifecycle stages is largely eliminated when examining specific birth cohorts. Comparing the two cohorts, the older group has higher mean and median incomes, and also higher inequality than the younger group.

Income poverty

A wide variety of definitions or measures of poverty, or material deprivation, have been employed by economic and social researchers. As in previous volumes of this report, we examine two measures commonly applied to the study of poverty in developed countries, both of which conceive of poverty as *relative* deprivation or socio-economic disadvantage, and which measure deprivation in terms of inadequacy of *income* (see Box 3.6, page 42). Consistent with the approach of the Organisation for Economic Co-operation and Development (OECD) and other international bodies, the first measure defines relative income poverty as having a household income below 50% of median income. The second measure is similarly defined, but relates to income net of housing costs—that is, income after deducting housing costs.

Box 3.6: Relative income poverty

A person is in *relative income poverty* if they are unable to afford the goods and services needed to enjoy a normal or mainstream lifestyle in the country in which they live (OECD, 2019). In this report, we apply two alternative definitions of relative poverty. Under the first definition, a person is in relative income poverty if household equivalised disposable income is less than 50% of the median household equivalised disposable income. The second measure is similarly defined but relates to income net of housing costs—that is, income after deducting housing costs.

The 'after-housing' poverty measure addresses a criticism of the measure based on total income—that it does not take into account the potentially large variation in housing costs across people, leading some people with low housing costs to be classified as poor, when they are not, and others with high housing costs to be classified as not poor, when in fact they have very little left over after paying for their housing. Most important in this regard is that many home owners (particularly those with little or no mortgage debt) have low housing costs, while renters often have high housing costs. An approach for addressing this criticism is to examine income net of housing costs—that is, income after deducting mortgage or rent payments on the home. For example, this is the approach favoured by the Australian Council of Social Service and the Social Policy Research Centre at the University of New South Wales in their two-yearly poverty report (Davidson et al., 2020).

Note that, while the after-housing measure addresses the issue of variation in housing costs across people, it has its own problems. First, housing costs are, like expenditures on all goods and services, the outcome of *choices* made by individuals. To the extent that some people choose to have high housing costs, we may classify people as poor who are not in fact poor—that is, some people may choose to spend a lot on housing, despite having available lower-cost (but still adequate) housing. Indeed, part of the amenity associated with higher expenditure on housing may be lower expenditure requirements for other items, such as transport.

A second problem is that the OECD equivalence scale used to adjust household incomes for household composition (see Box 3.2, page 36) is intended to apply to *total* income, not income after deduction of housing costs. A significant part of the economies of scale of households that underpin the OECD scale derive from sharing housing costs among household members. It is therefore likely that poverty is relatively overestimated among smaller households and underestimated among larger households when examining after-housing poverty—that is, the downward adjustment of the incomes of larger households is too small when applying the OECD scale to after-housing income. For this reason, as per last year's report, poverty estimates for after-housing income are also produced using an equivalence scale that reduces the economies of scale. Essentially, the assumed economies of scale are reduced by 50% for people aged 15 and over, while the income 'burden' of children aged under 15 is maintained at 60% of a person aged 15 and over. This means that total household income is divided by 1 plus 0.75 (instead of 0.5) for each person aged 15 and over after the first person, plus 0.45 (instead of 0.3) for each child aged under 15.

This alternative equivalence scale provides an indication of how inferences are affected by taking into account the lower economies of scale available for after-housing-costs income, but note that further research is required to determine the appropriate scale for this income measure. Nonetheless, it is notable that the poverty measure that uses this equivalence scale produces results consistent with other indicators of financial resources, such as the measure of financial stress also examined in this chapter.



Cross-sectional poverty rates

Figure 3.4 presents relative income poverty rates in each year covered by the HILDA Survey.

Our income measure is equivalised income; thus, the relative poverty lines presented in Table 3.6 can be interpreted as the minimum annual income after taxes and government benefits (and after deduction of housing costs in the case of the measure based on income net of housing costs) that a single-person

household would require to avoid relative income poverty. Poverty rates refer to the proportion of people (not households) living in poverty.

As with last year's report, the after-housing poverty measure is also implemented using a different equivalence scale (see Box 3.6, page 42). This scale, recognising that much of the economies of scale underpinning the OECD scale stem from the sharing of housing costs, reduces the economies of scale by

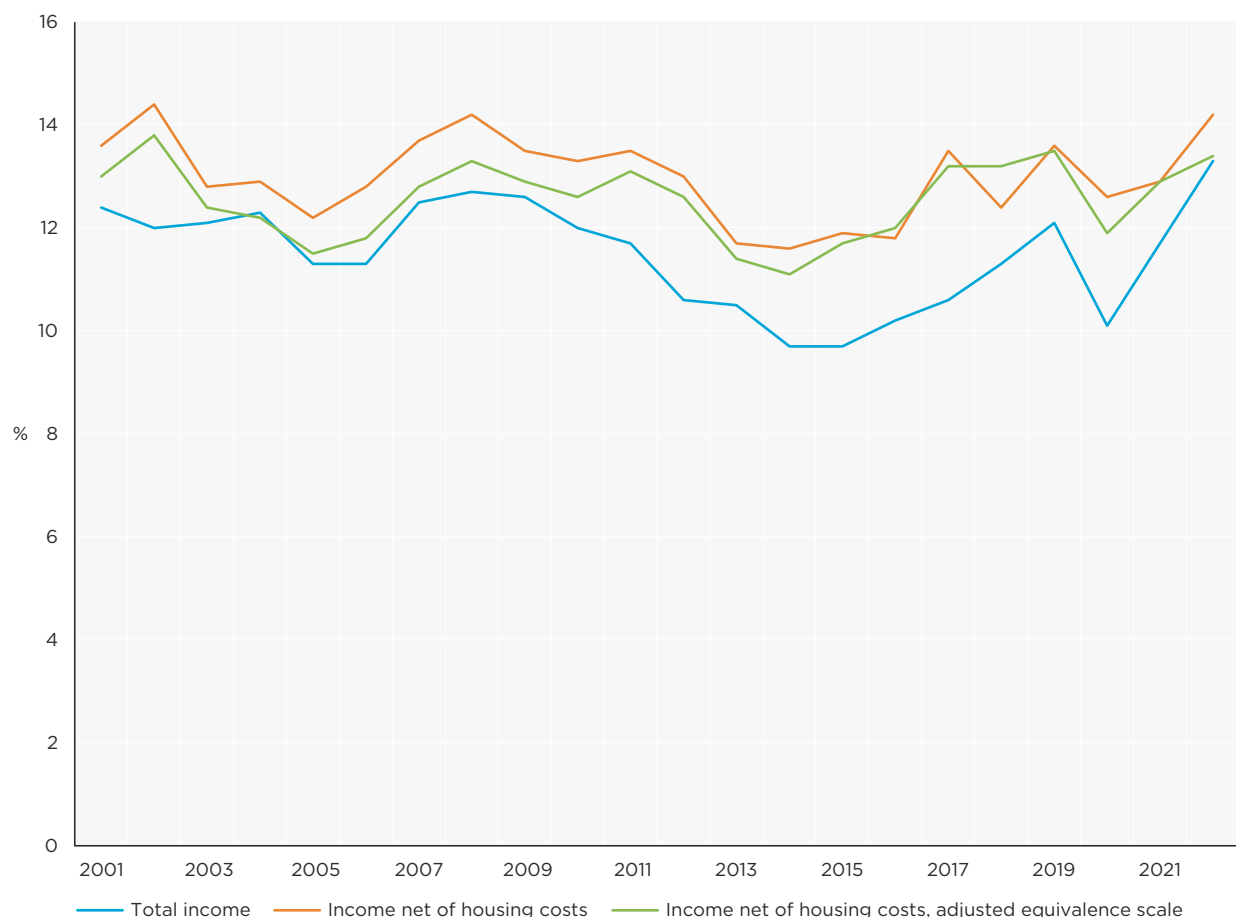
dividing household income by 1 plus 0.75 for each person aged 15 and over after the first person, plus 0.45 for each child aged under 15.

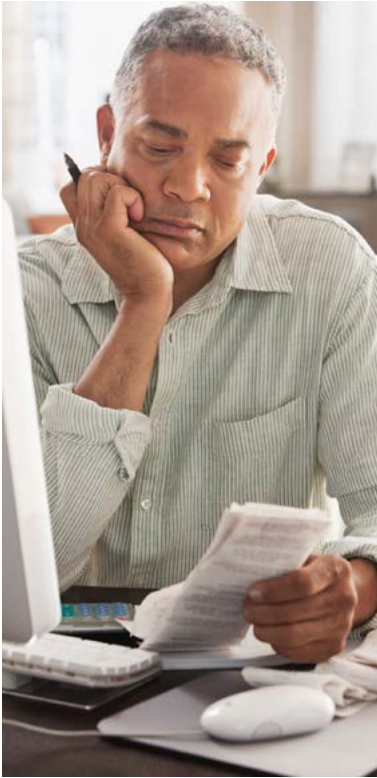
The estimated poverty rate is approximately 1 to 2 percentage points higher for income net of housing costs than for total disposable income when using the standard OECD equivalence scale. From around 2011 to 2021, this is also true for the after-housing measure using the adjusted equivalence scale.

Table 3.6: Poverty lines for selected household types, 2001 and 2022 (\$, December 2022 prices)

	Total income		Income net of housing costs		Income net of housing costs, adjusted equivalence scale	
	2001	2022	2001	2022	2001	2022
Single person	21,552	30,932	18,354	26,103	16,082	22,881
Couple	32,328	46,398	27,531	39,154	26,536	37,753
Single parent with 2 children	34,483	49,491	29,367	41,765	32,969	46,905
Couple with 2 children	45,259	64,957	38,544	54,816	39,402	56,057

Figure 3.4: Percentage of the population in relative income poverty





However, in the first decade of this century, and in 2022, this poverty measure produced a poverty rate that was mostly between the two other poverty measures.

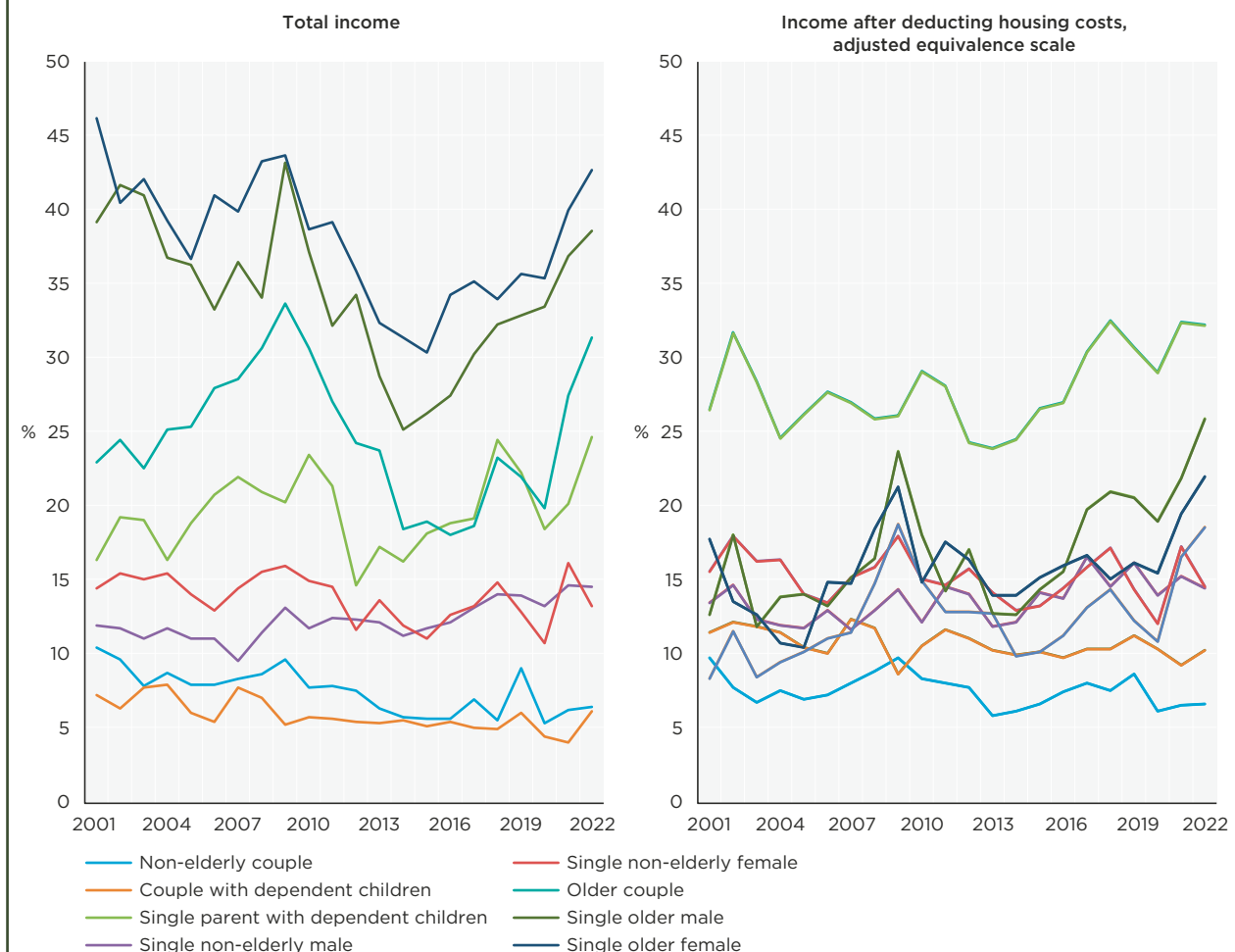
For all three measures, the proportion of the population below the relative poverty line has fluctuated over time, ranging between 9.7% and 13.4% for total income, 11.6% and 14.4% for after-housing income using the OECD equivalence scale, and 11.1% and 13.8% for after-housing income using the adjusted equivalence scale. All measures trended downwards between 2007 and 2014, but then trended upward up until 2019. Poverty fell sharply in 2020, reflecting the early effects of the income supports introduced in March and April of 2020, but rebounded in 2021 and continued to rise in 2022. Indeed,

the poverty rate for total income reached 13.3% in 2022, its highest level of the 22-year period. For the other two poverty measures, only in 2002 was the poverty rate higher.

Poverty by family type

Figure 3.5 shows that relative poverty rates vary substantially by family type (see Box 3.4, page 37), although there is greater variation for total income than for income net of housing costs. Particularly notable is that poverty rates for older people are considerably reduced in moving from a poverty measure based on total income to a poverty measure based on income net of housing costs. This reflects the low housing costs of many older people. Indeed, only single-parent families stand out as having a

Figure 3.5: Relative poverty rates by family type



high poverty rate once the adjusted equivalence scale is used. That said, older people have experienced the sharpest rises in poverty in recent years, irrespective of the poverty measure. Non-elderly couples without dependent children have consistently low poverty rates, irrespective of the year or poverty measure.

Child poverty

Child poverty is a particular concern for policy-makers because of the damage poverty may cause to children’s future productive capacity and life prospects more generally. Figure 3.6 presents child relative poverty

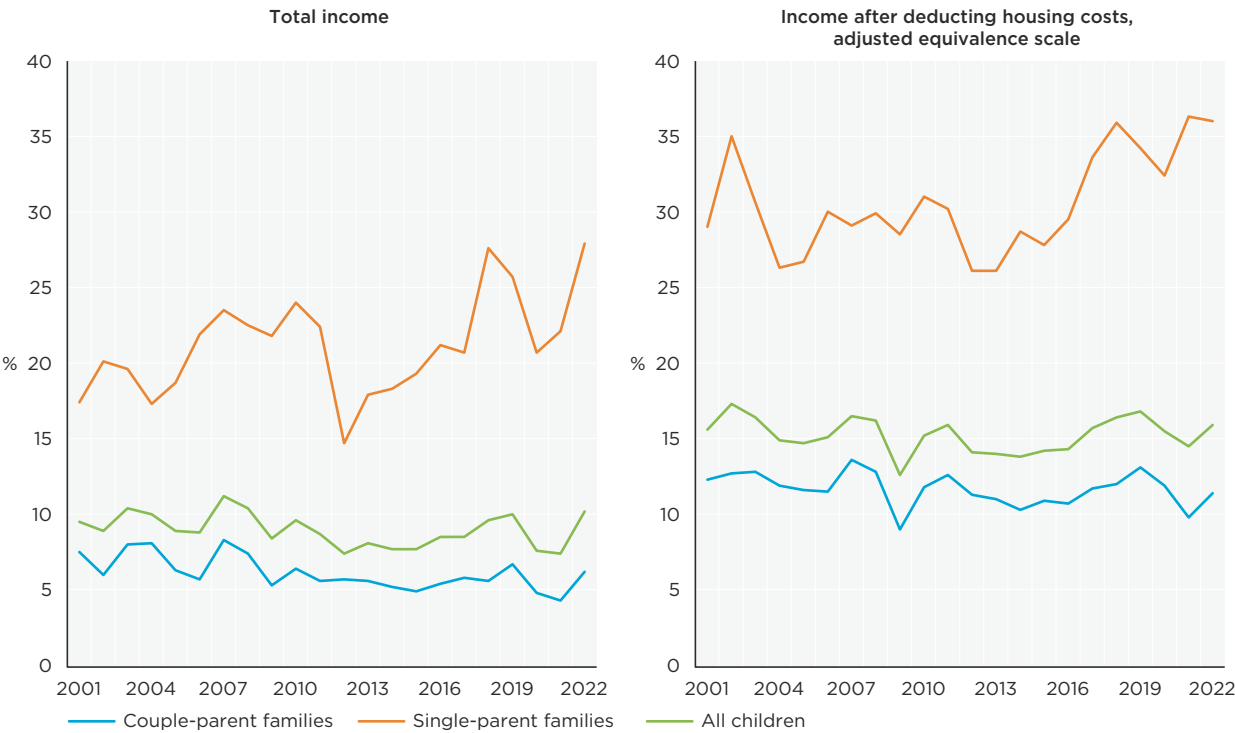
rates for dependent children aged under 18, in total and separately for children in couple-parent families and children in single-parent families.

The overall child poverty rate for total income is consistently below the community-wide poverty rate, in most years below 10%. However, the poverty rate for income after deducting housing costs is slightly higher than the community-wide rate, indicating that housing costs tend to be larger for families with children.

Consistent with the evidence in Figure 3.5, poverty is considerably more prevalent among children in single-parent families than among children in

couple-parent families. In most years, the poverty rate for children in single-parent families is over twice the poverty rate for children in couple-parent families. The poverty rate is also more volatile from one year to the next for single-parent families. This is largely because many single-parent families have incomes placing them just under or just above the poverty line, so that relatively small changes in income can produce relatively large changes in poverty rates. That said, over the entire 22 years to 2022, the poverty rate has hovered around 20% for total income and around 30% for income after housing costs (using the adjusted equivalence scale).

Figure 3.6: Child poverty rates by family type—Dependent children aged under 18





Long-term poverty

While poverty experienced for a short period of time is undesirable, there is a great deal more public policy concern attached to long-term or entrenched poverty. Table 3.7 considers the amount of time people spend in poverty over a 10-year period. Poverty measures based on both total income and income net of housing costs (with the adjusted equivalence scale) are examined, and separate estimates are produced for men and women in each of two age

Table 3.7: Experience of poverty over a 10-year period (%)

	Number of years in poverty					Total
	0	1 or 2	3 or 4	5 or 6	7 or more	
People aged 18-55 at the start of the 10-year period						
Total income						
2001-2010						
Men	73.6	16.8	4.9	2.2	2.6	100.0
Women	68.4	19.5	5.4	3.6	2.9	100.0
2013-2022						
Men	75.5	15.6	4.2	2.1	2.6	100.0
Women	72.5	17.4	5.3	2.0	2.8	100.0
Income net of housing costs						
2001-2010						
Men	64.6	22.9	6.9	2.7	3.0	100.0
Women	59.2	24.9	8.3	4.3	3.3	100.0
2013-2022						
Men	65.1	22.4	6.3	3.3	2.8	100.0
Women	62.2	22.2	7.6	4.1	3.8	100.0
People aged 65 and over at the start of the 10-year period						
Total income						
2001-2010						
Men	29.3	24.7	13.0	10.5	22.5	100.0
Women	23.4	22.5	17.6	7.7	28.8	100.0
2013-2022						
Men	37.8	29.2	12.4	7.0	13.6	100.0
Women	28.2	29.5	13.7	10.1	18.4	100.0
Income net of housing costs						
2001-2010						
Men	49.3	31.2	9.9	3.8	5.8	100.0
Women	45.3	38.3	7.6	3.0	5.7	100.0
2013-2022						
Men	52.5	28.9	10.5	3.3	4.8	100.0
Women	47.8	32.7	10.0	4.0	5.5	100.0

Notes: Income net of housing costs is equivalised using the adjusted equivalence scale (Box 3.6, page 42). Cells may not add up to row totals due to rounding.

groups (18 to 55 at the start of the period and 65 and over at the start of the period) and in each of two 10-year periods (2001 to 2010 and 2013 to 2022). The first age group broadly corresponds to people who were 'working-age' adults for the entire period (aged 27 to 64 at the end of the period) and the second age group broadly corresponds to people who were of 'retirement age' for the entire period.

Considering first the younger age group, for the poverty measure based on total income, approximately 74% of men and 68% of women aged 18 to 55 in 2001 did not experience income poverty in that year or in any of the subsequent nine years, necessarily implying that approximately 26% of men and

32% of women did experience poverty in at least one of those years. For 16.8% of men and 19.5% of women, poverty was experienced in only one or two years, and a further 4.9% of men and 5.4% of women experienced poverty in three or four of the 10 years. Highly persistent or recurrent poverty was confined to the 4.8% of men and 6.5% of women who were in poverty in at least five of the 10 years.

The 10 years from 2013 to 2022 saw slightly lower proportions of working-age people experience poverty at any stage over the 10-year period. For the measure of poverty based on income net of housing costs, higher proportions of both men and women of working age experienced poverty in at least one of the 10 years, but

patterns are otherwise similar to those found for the total-income poverty measure. The main exception is that, comparing the 2001 to 2010 period with the 2013 to 2022 period, the proportion of women experiencing poverty in seven or more years increased slightly for the net-of-housing-costs measure, whereas it did not for the total-income measure.

For people aged 65 and over at the start of the 10-year period, poverty is both more prevalent and more persistent. Indeed, for women, it was more common to be in poverty (based on total income) in seven or more of the 10 years from 2001 to 2010 than it was to avoid poverty in all 10 years—28.8% were in poverty in seven or more years, whereas only 23.4% were never in poverty.

Table 3.8: Experience of poverty in the first 10 years of life (%)

	Number of years in poverty					Total
	0	1 or 2	3 or 4	5 or 6	7 or more	
<i>Before-housing costs poverty measure</i>						
Born 1 July 2000 to 30 June 2005	67.6	20.2	7.2	3.6	1.5	100.0
Born 1 July 2008 to 30 June 2013	72.4	15.3	6.5	3.7	2.1	100.0
<i>After-housing costs poverty measure</i>						
Born 1 July 2000 to 30 June 2005	48.5	28.9	9.3	7.1	6.1	100.0
Born 1 July 2008 to 30 June 2013	55.3	21.2	8.5	8.5	6.5	100.0

Notes: Income net of housing costs is equivalised using the adjusted equivalence scale (Box 3.6, page 42). Cells may not add up to row totals due to rounding.



Similar to what is found when examining total disposable income for working-age people, older men are less likely to experience poverty, and less likely to experience entrenched poverty, than older women. The decline in experience of poverty between the 2001 to 2010 period and the 2013 to 2022 period evident for ‘working-age’ people is also evident for older people. Moreover, a substantial decline in entrenched poverty among older people is evident. The proportion experiencing poverty in seven or more years fell from 22.5% to 13.6% for men, and from 28.8% to 18.4% for women.

In contrast to working-age adults, the proportion of older people experiencing poverty at some stage of the 10-year period is lower for income net of housing costs than for total income. This is unsurprising given their high rate of outright home ownership. As with the total-income poverty measure, the proportion experiencing poverty over 10 years based on income net of housing costs was lower in the later decade. However, in contrast to the total-income poverty measure, the proportion of older women in poverty for five or more of the 10 years based on income net of housing costs actually rose from 8.7% in the first decade to 9.5% in the later decade.



Long-term poverty experiences of children are considered in Table 3.8 by examining the number of years children were in poverty in the first 10 years of their lives. This requires identification of poverty status in each of the first 10 years of each child’s life, and as such the table examines children born in the period from 1 July 2000 to 30 June 2013. Two birth cohorts are compared: those born between 1 July 2000 and 30 June 2005, and those born between 1 July 2008 and 30 June 2013.

The upper panel of the table, examining poverty based on total income, shows that 67.6% of children born between 1 July 2000 and 30 June 2005 were not living in poverty in any of their first 10 years of life, while this increased to 72.4% for those born between 1 July 2008 and 30 June 2013. For the earlier cohort, 20.2% were in poverty for one or two years, 7.2% were in poverty for three or four years, 3.6% were in poverty for five or six years, and 1.5% were in poverty for seven or more of the 10 years. For the more recent cohort, there were lower proportions in poverty in one to four years, but a higher proportion in poverty in five or more of the 10 years.

For the poverty measure based on income net of housing costs, there was similarly a lower rate of

experience of any poverty in the first 10 years of life for the more recent cohort, accompanied by a higher rate of highly persistent poverty, with the proportion in poverty in seven or more years 6.1% for the earlier cohort and 6.5% for the more recent cohort.

Financial stress

While income approaches remain the most widely used basis for defining and measuring inadequacy in material living standards, other measures potentially provide useful—and even superior—information on individuals’ economic wellbeing. Measures of ‘financial stress’ provide one such piece of alternative information.

Experience of financial stress refers to an inability to meet basic financial commitments because of a shortage of money. Measures of financial stress therefore provide direct evidence of the adequacy of economic resources of individuals and households. In each wave, the self-completion questionnaire (SCQ) contains a question on whether, *because of a shortage of money*, the respondent had experienced each of seven events, such as not paying the rent or mortgage on time or going without meals, which

Box 3.7: HILDA Survey measure of financial stress

In each wave, the self-completion questionnaire contains the following question: *Since January [survey year] did any of the following happen to you because of a shortage of money?*

- a. Could not pay electricity, gas or telephone bills on time
- b. Could not pay the mortgage or rent on time
- c. Pawned or sold something
- d. Went without meals
- e. Was unable to heat home
- f. Asked for financial help from friends or family
- g. Asked for help from welfare/community organisations

Respondents are asked to indicate which of the seven events had occurred.

Experience of any one of these events can be considered an experience of financial stress, although some events, such as going without meals, probably indicate more severe stress than other events, such as inability to pay bills on time. In this report, no distinction is made between the indicators, but the condition is imposed that two or more of the indicators must be experienced for a person to be classified as in financial stress.



facilitates the construction of measures of financial stress. (Box 3.7, page 48, itemises all seven events.)

Figure 3.7 (page 46) shows the prevalence of each of these seven indicators of financial stress among people aged 15 and over between 2001 and 2022.² Inability to pay electricity, gas or telephone bills on time and asking for financial help from friends or family are the most commonly occurring of the seven indicators, followed by inability to pay the rent or mortgage on time. In most years, inability to heat the home is the least-common indicator.

Prevalence rates tended to decline for all indicators up until around 2008, and then increased up to 2011. Between 2011 and 2017, the prevalence of each indicator tended to remain steady or steadily decline. Between 2019 and 2020, there was a significant drop in the proportion of people reporting asking for financial help from friends or family, but upticks in the proportion asking for help from welfare or community organisations and the proportion unable to pay the mortgage or rent on time.

Between 2020 and 2022, there were slight increases in rates of asking for help from family or friends, pawning or selling

Box 3.8: Timing of the recent rise in the cost of living

Figures B3.1 and B3.2 below show how key measures of the cost of living have evolved since the December quarter of 2019. While the Consumer Price Index increased considerably in the first three quarters of 2022 (prior to when most interviews were conducted in Wave 22), much of the total surge in consumer prices occurred in subsequent quarters. Moreover, rent price increases have mostly occurred after the Wave 22 interviews were conducted.

The Reserve Bank of Australia's (RBA) 'cash rate target' is the primary determinant of mortgage interest rates in Australia. It increased considerably in the months leading up to the Wave 22 interviews although, similar to the Consumer Price Index, nearly half the total increase has occurred since then.

Note that increases in the cash rate can take several months to translate to increased minimum mortgage repayments, so that even for the rate rises prior to the Wave 22 interviews, the effects for those with variable interest rate loans will not have been fully felt by the time of the Wave 22 interviews. Also important in evaluating the effects of the increases in the cash rate is the share of home debt subject to a fixed interest rate. Fixed interest rates on mortgages were generally considerably lower than variable interest rates in the second half of 2022. The RBA (2023) reported that the proportion of outstanding home debt subject to a fixed interest rate peaked at approximately 37% in early 2022 and was still at approximately 30% at the end of 2022. (By comparison, in the lead-up to the arrival of the COVID-19 pandemic, less than 20% of home loan debt was subject to a fixed interest rate.) Consequently, in 2022, a significant proportion of households were insulated from the interest rate increases that occurred that year.

Figure B3.1: Cumulative increase in prices since the December quarter 2019

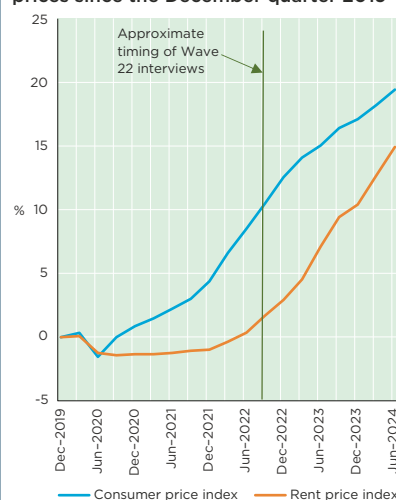
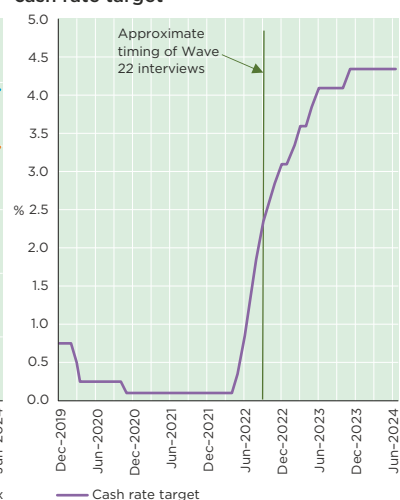


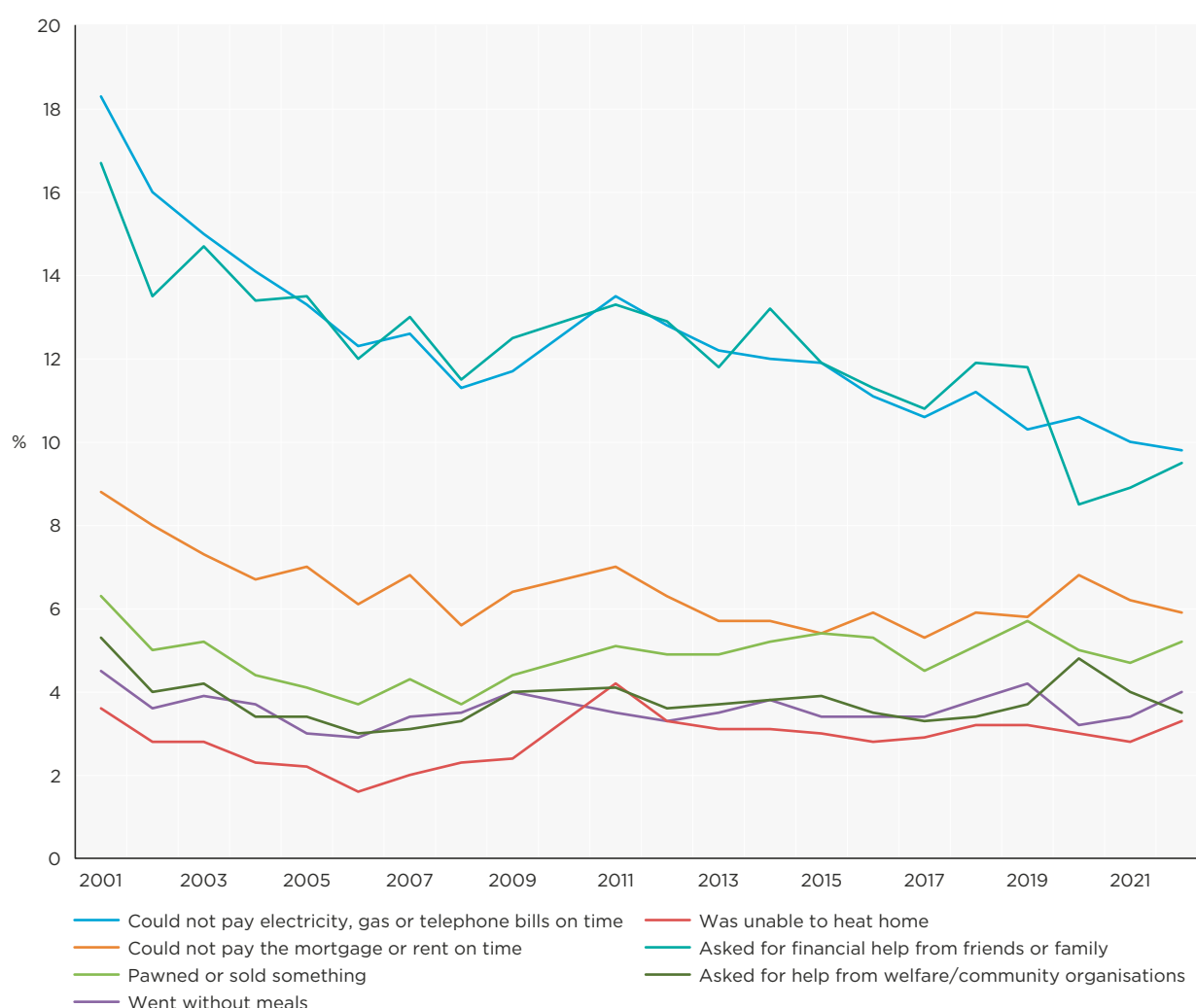
Figure B3.2: Reserve Bank of Australia cash rate target



Sources: Australian Bureau of Statistics (ABS) (2024) and <<https://www.rba.gov.au/statistics/cash-rate/>>.

² Estimates are not available for 2010.

Figure 3.7: Proportion of people experiencing each indicator of financial stress



something, going without meals and inability to heat the home, and slight decreases in rates of inability to pay electricity, gas or telephone bills on time, inability to pay the mortgage or rent on time, and seeking help from welfare or community organisations.

In the context of rising cost-of-living pressures, it is perhaps surprising that there has been little rise in indicators of financial stress. However, while inflation and interest rate increases were substantial in 2022 (see Box 3.8, page 49), the August to October period of 2022, in which most interviews were conducted, was still relatively early in the cost-of-living surge that continued into 2024. Moreover, household saving increased considerably during

2020 and 2021, creating 'savings buffers' that would have increased the capacity for households to absorb the early increases in the cost of living.

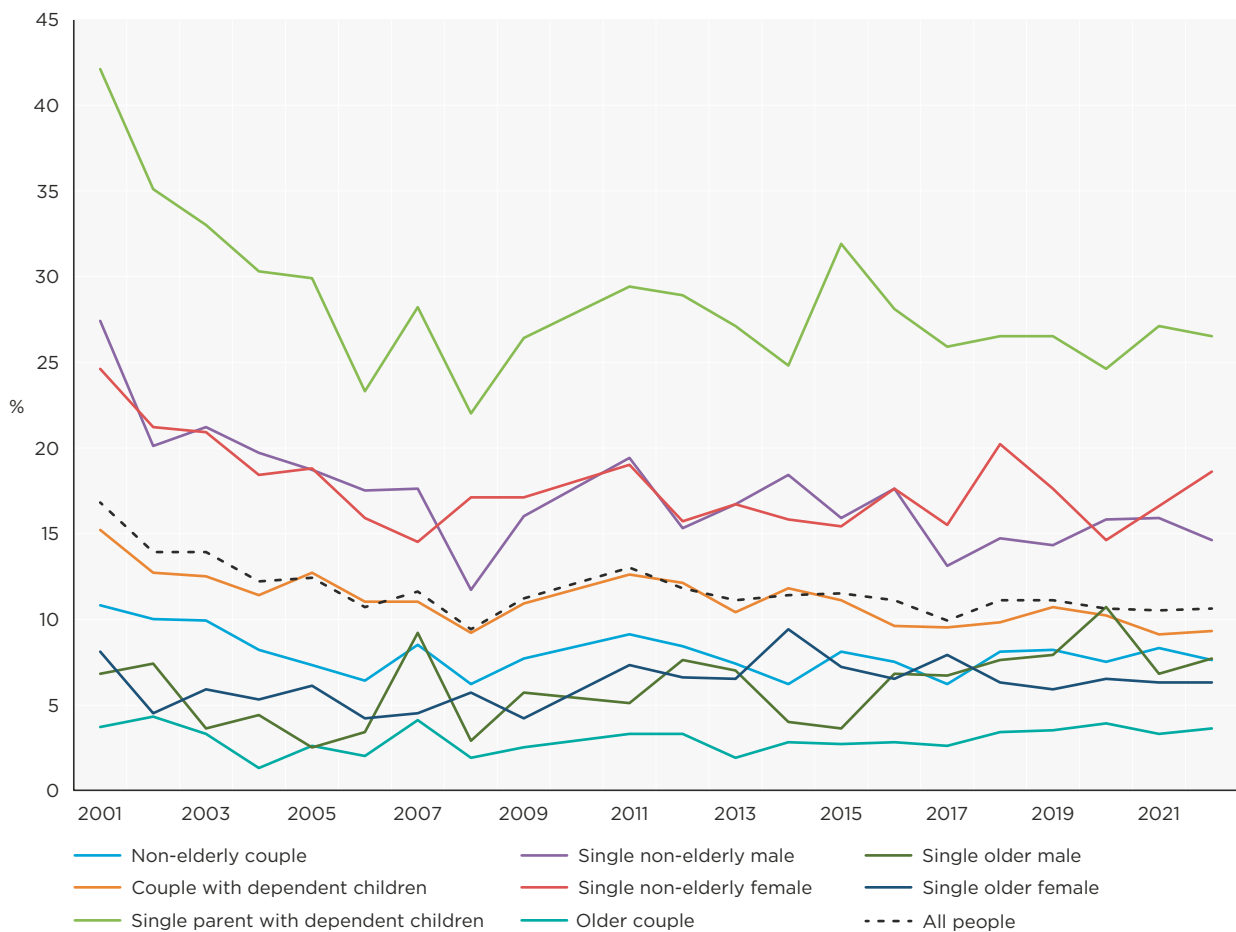
Figure 3.8 (page 51) examines the proportion of people aged 15 and over in a household experiencing a measure of financial stress—specifically, experiencing two or more of the seven indicators shown in Figure 3.7 (page 46). The figure presents estimates for all people and for each of eight family types (see Box 3.4, page 37, for an explanation of the family types).

The trend in financial stress over time is quite similar across most family types, tending to decrease in prevalence up until 2008, increasing between 2008 and

2011, and thereafter remaining relatively stable. However, levels of prevalence of financial stress are very different across family types. Single-parent families stand out as particularly prone to financial stress, while non-elderly single people also have relatively high prevalence rates.

Similar to the finding on poverty rates when examining income net of housing costs with the equivalence scale adjusted for reduced economies of scale (Figure 3.5, page 44), older people have very low rates of financial stress. This may reflect not only their low housing costs, but also their relatively high wealth beyond housing (see Wilkins et al., 2020) and their lower expenditure needs (the

Figure 3.8: Proportion of people experiencing two or more indicators of financial stress, by family type



latter partly a reflection of government in-kind assistance and subsidies targeted to older people).

Housing stress

A further indicator of low economic wellbeing is housing stress, a situation where a family with a modest income faces housing costs that are very high relative to income. A widely accepted definition of housing stress (see Box 3.9, page 51) is a situation in which housing costs are more than 30% of household income, and the household is in the bottom 40% of the income distribution. The main housing costs are rent and mortgage repayments, but in principle there are other housing costs, such as council rates, body corporate or owners' corporation fees, repairs and maintenance costs, and

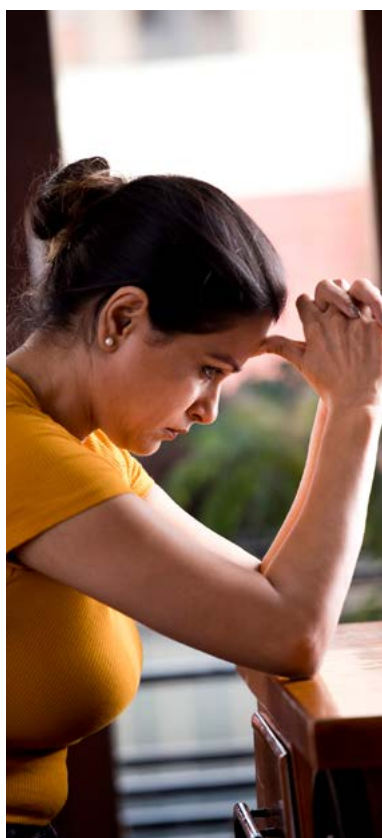
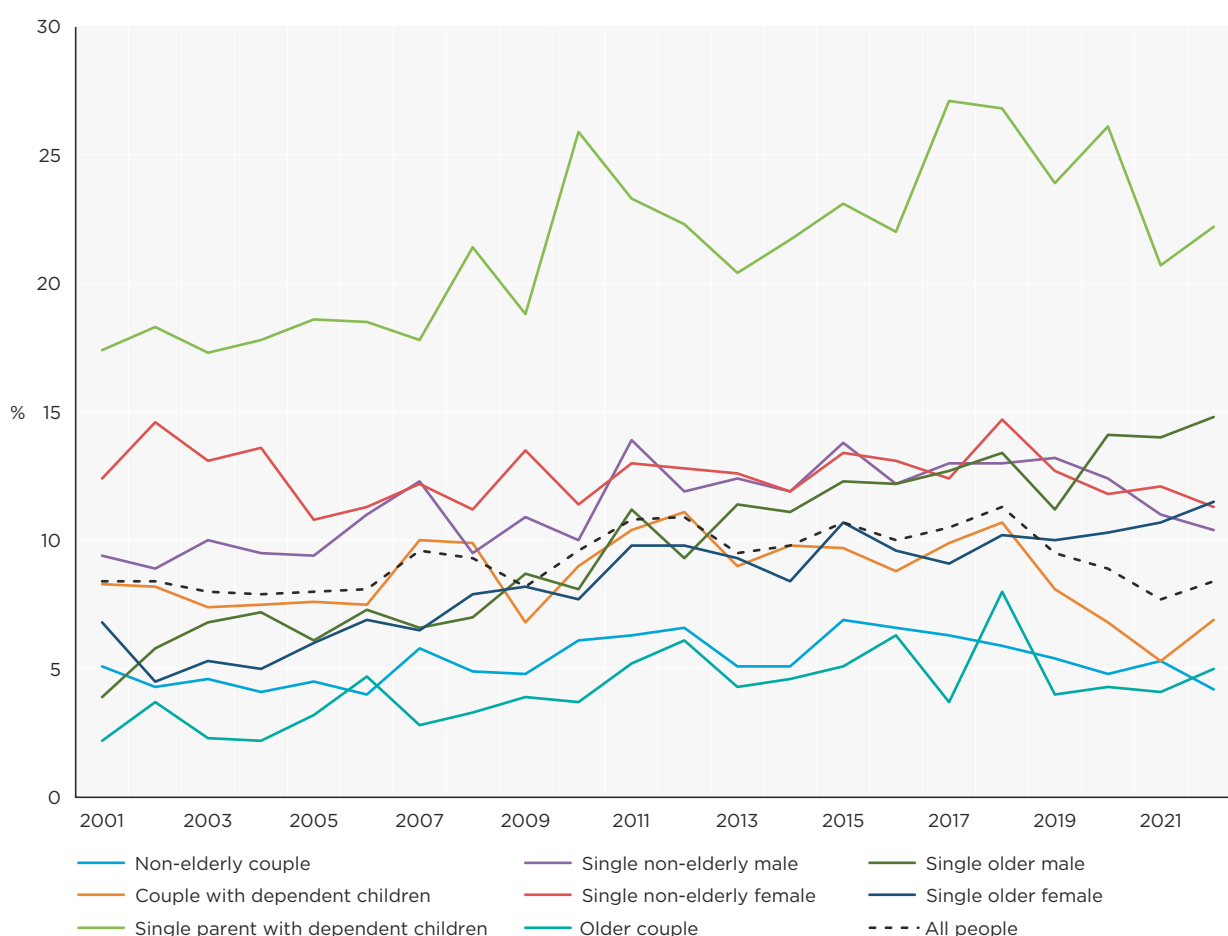


Box 3.9: Housing stress

Various measures of housing stress have been proposed, but a common measure (e.g., Rowley and Ong, 2012) is the so-called '30-40' rule: a household is in housing stress if housing costs are more than 30% of income and household income places the household in the bottom 40% of the income distribution.

A point of contention in the implementation of the 30-40 rule is whether to use gross (pre-tax) or disposable (post-tax) income, particularly for the determination of the ratio of housing costs to income. However, given that disposable income is more relevant to a household's living standard than gross income, and that different households with the same gross income will have different disposable incomes (e.g., a single parent with the same gross income as a couple who each earn half the household's income will have a lower disposable income), the disposable income criterion is employed in this report.

Figure 3.9: Proportion of people experiencing housing stress, by family type



home building insurance, that arguably should be included. However, studies of housing stress typically do not include maintenance, repair and insurance costs, while the HILDA Survey did not collect data on expenditure on council rates and body corporate fees until Wave 22. These additional housing costs are therefore not included in the housing costs measure employed in this report.

Figure 3.9 presents the proportion experiencing housing stress each year, in total and disaggregated by family type. Among all people, housing stress was highest in 2018, when 11.3% of the population was in housing stress. Between 2018 and 2021, there was a marked decline in housing stress, reaching an all-time low of 7.7% in 2021. However, housing stress increased in 2022 due to rising rents and interest rates, and

is likely to have continued to rise in 2023 and 2024 given further interest rate rises and continued strong growth in housing rents (see Box 3.8, page 49).

In common with the findings for financial stress (and indeed for poverty), single-parent families have the highest rates of housing stress. They experienced particularly large increases in housing stress prevalence between 2009 and 2010 and between 2016 and 2017. Since 2010, the rate of housing stress among single-parent families has remained considerably above the 2009 rate, despite the substantial fall between 2017 and 2021. Non-elderly single people also tend to have relatively high rates of housing stress, although the gap to the population as a whole is not large, and has declined since 2018. Single older men and women had relatively low rates of housing

stress at the start of this century, but have both experienced rising rates of housing stress since then. In 2022, single older men and women had the highest rates of housing stress after single parents.

Couples without children, both elderly and non-elderly, have the lowest levels of housing stress. Couples with dependent children have also had relatively low rates of housing stress in recent years, although there was a substantial rise in 2022.

Material deprivation

Material deprivation exists when people do not have and cannot afford to buy items or undertake

activities that are widely regarded in society as things that everyone should have (Townsend, 1979; Mack and Lansley, 1985). It is now widely used to provide an insight into the nature and extent of poverty that is based on the acceptability of people's actual living standards rather than on how much income they have. Although it can thus be regarded as an alternative to conventional poverty line studies, the deprivation approach can also be combined with income studies to produce poverty measures that reflect both the level of resources available to people and the living standards that they are able to achieve from those resources.

A suite of questions allowing construction of deprivation

measures was included in the household questionnaire of the HILDA Survey for the first time in Wave 14 and was again included in Waves 18 and 22. Administered to one member of each responding household, the questions establish, for each of 26 items in 2014 and 25 items in 2018 and 2022, whether the item is regarded as 'necessary or essential for all Australians—something that no-one in Australia should have to go without today', whether the respondent's household has the item and, if not, whether this is because they cannot afford it.

Items that are regarded as essential by a majority in the community are classified as the essentials of life and it is this

Table 3.9: Items regarded as essential, 2014, 2018 and 2022 (%)

	2014	2018	2022
1. Getting together with friends or relatives for a drink or meal at least once a month	79.5	77.1	80.2
2. Medical treatment when needed	99.7	99.1	99.6
3. Furniture in reasonable condition	82.8	82.2	88.6
4. A decent and secure home	96.9	97.2	98.5
5. Medicines when prescribed by a doctor	99.0	98.7	99.4
6. Warm clothes and bedding, if it's cold	99.6	98.9	99.7
7. A television	43.5	–	–
8. A substantial meal at least once a day	99.3	98.7	99.5
9. A week's holiday away from home each year	43.6	41.4	46.0
10. A roof and gutters that do not leak	86.0	86.4	91.9
11. A telephone (landline or mobile) ^a	84.3	85.1	76.7
12. Home contents insurance	61.6	57.0	64.1
13. A washing machine	79.1	77.9	82.3
14. Access to the internet at home	47.5	55.2	74.0
15. A motor vehicle	55.8	49.7	56.6
16. Comprehensive motor vehicle insurance	59.0	54.2	58.8
17. At least \$500 in savings for an emergency	79.4	78.4	84.3
18. A home with doors and windows that are secure	94.5	94.3	97.1
19. Dental treatment when needed	97.4	96.9	98.3
20. Buying presents for immediate family or close friends at least once a year	48.6	43.4	48.8
21. When it is cold, able to keep at least one room of the house adequately warm	95.2	94.9	96.7
22. A separate bed for each child	79.8	76.4	81.5
23. A yearly dental check-up for each child	94.4	93.7	95.6
24. A hobby or a regular leisure activity for children	84.2	82.4	85.3
25. New school clothes for school-age children every year	57.4	54.5	61.5
26. Children being able to participate in school trips and school events that cost money	82.3	82.1	87.0

Notes: The item 'a television' was not included in Waves 18 and 22. ^a Changed to 'A mobile phone' in Wave 22.

subset of items that is used to identify deprivation. A household is defined to be deprived of an item only if it does not have the item and this is because it cannot afford it.

Table 3.9 presents the proportion of people believing each deprivation item is essential. Responses are similar across the three years the questions have been administered. In all three years, two items were not regarded as essential by a majority of respondents: buying presents for immediate family or close friends at least once a year; and a week's holiday away from home each year. A television was also not regarded as essential in 2014 and was excluded from the list in 2018 and 2022 (and is therefore implicitly treated as not essential in any of the three years). In 2014, access to the internet was not regarded as essential by a majority of people,

but it was regarded as essential by 55.2% in 2018 and by 74% in 2022. The only other item for which there is not majority support in all three years is a motor vehicle: only 49.7% of people regarded this as essential in 2018, whereas it was regarded as essential by 55.8% in 2014 and by 56.6% in 2022.

Extent of material deprivation

A measure of the extent of an individual's overall level of deprivation can be constructed as simply the number of essential items of which the individual is deprived—that is, the number of essential items the individual's household does not have because it cannot afford them. Based on this 'deprivation score', the first two columns of Table 3.10 present estimates of the overall extent of material deprivation in Australia in 2014,

2018 and 2022, for all people and disaggregated by family type (see Box 3.4, page 37).³

Over the population as a whole, the mean deprivation score was 0.49 in 2014, 0.45 in 2018 and 0.35 in 2022. Single-parent families have the highest mean deprivation score, followed by single non-elderly males and females. Couples with children have a higher mean deprivation score than other non-elderly couples, in part because there are more deprivation items that apply to households with children. Older couples have the lowest deprivation rate.

In terms of changes between 2014 and 2022, the overall decline in the mean deprivation score is evident for all family types other than single older males, who experienced a marked increase between 2014 and 2018 that was only partially reversed between 2018 and 2022. Couples with dependent children experienced the largest decline in the mean deprivation score.

It is common for deprivation studies to set a threshold (equivalent to a poverty line) to estimate the incidence of deprivation (synonymous with the poverty rate examined earlier in this chapter) that provides a useful summary measure of overall severity. Although it can



Table 3.10: Material deprivation in Australia by family type, 2014, 2018 and 2022

	Mean deprivation score			Percentage deprived of 2 or more items		
	2014	2018	2022	2014	2018	2022
Non-elderly couple	0.28	0.26	0.19	7.1	6.4	4.4
Couple with dependent children	0.45	0.38	0.26	10.9	8.3	6.0
Single parent with dependent children	1.27	1.27	1.23	30.0	29.3	28.5
Single non-elderly male	0.65	0.58	0.49	15.8	14.7	11.8
Single non-elderly female	0.64	0.66	0.51	15.6	17.4	13.3
Older couple	0.13	0.18	0.11	2.7	5.3	2.2
Single older male	0.31	0.47	0.42	7.4	10.6	9.2
Single older female	0.39	0.33	0.32	9.4	8.9	8.4
All people	0.49	0.45	0.35	11.8	10.7	8.2

³ When the items specific to children are excluded, the mean deprivation score for couples with children falls to 0.35 in 2014, 0.31 in 2018 and 0.23 in 2022, while for single parents it falls to 1.06 in both years.

be argued that an inability to afford any one of the identified 'essentials of life' is indicative of deprivation, a harsher threshold is normally used to allow for response errors and other factors that might cause deprivation to be exaggerated. The results in Table 3.10 indicate that the proportion of Australians deprived of at least two essential items was 11.8% in 2014, 10.7% in 2018 and 8.2% in 2022. Deprivation rates across the family types examined in the

table are ordered in the same way as mean deprivation scores.

Persistence of material deprivation

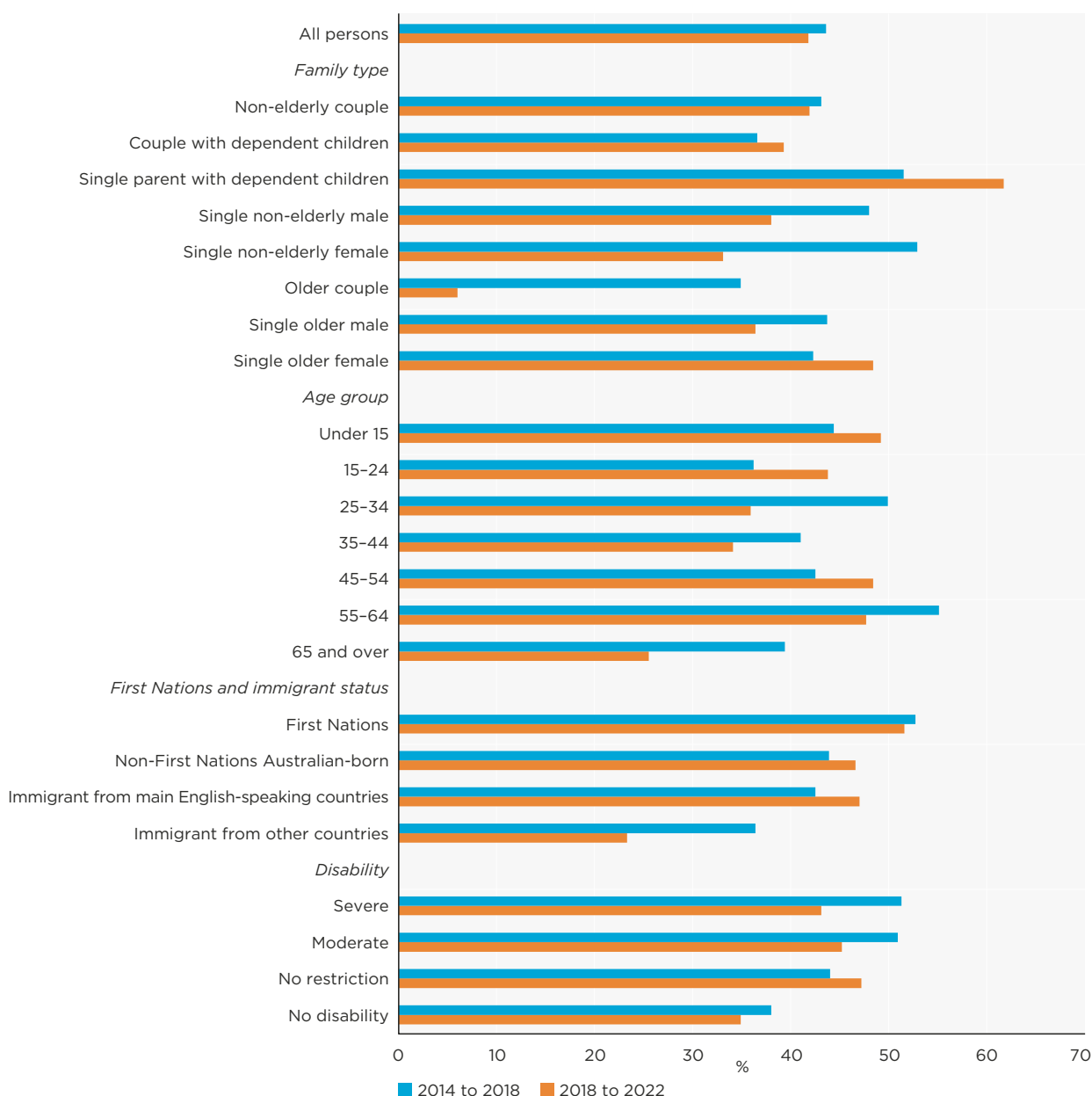
Figure 3.10 presents evidence on the persistence of material deprivation between 2014 and 2018 and between 2018 and 2022. For those who were deprived of two or more items in the initial year (2014 or 2018), it presents the proportion who were also deprived of two or more items four years later, in total and for

various demographic groups (defined by their characteristics in the initial year).

Among all people deprived in 2014, 43.6% were also deprived in 2018, indicating a high degree of persistence in material deprivation. Persistence declined slightly in the 2018 to 2022 period, with 41.8% of those deprived in 2018 also deprived in 2022.

Comparing across family types, in the 2014 to 2018 period, single-

Figure 3.10: Persistence of material deprivation over four years—Proportion of those deprived of two or more items who were also deprived of two or more items four years later



parent families and non-elderly single people exhibited the greatest persistence in material deprivation. However, persistence declined considerably for non-elderly single people in the 2018 to 2022 period, whereas it increased substantially for single-parent families. Older couples have the lowest persistence in material deprivation, particularly in the latter period: only 6% of older couples who were deprived in 2018 were still deprived in 2022.

Differences in persistence across age groups are also evident. In the 2014 to 2018 period, persistence was lowest for the 15 to 24 age group and highest for the 55 to 64 age group. However, in the 2018 to 2022 period, persistence increased for those aged 15 to 24 and decreased for those aged 55 to 64. Persistence also decreased substantially for those aged 65 and over, who had the lowest persistence of the age groups between 2018 and 2022.

First Nations people had very high persistence in material deprivation in both periods, while immigrants from countries other than the main English-speaking countries had low persistence, particularly between 2018 and 2022. People with a disability (see Box 6.4, page 114) have higher persistence in material

deprivation than people without disability, although there is no consistent relationship between the severity of the disability and persistence.

Receipt of Australian Government cash benefits

Reliance on Commonwealth Government income support payments (often received in conjunction with non-income support payments) remains a significant concern for policy-makers in Australia (see Box 3.10, below, for a brief explanation of the Australian social security system). It is associated with significant demands on government budgets and

reduced economy-wide market output. Moreover, reliance on income support payments is often associated with long-term poverty, social exclusion and other adverse outcomes for recipients and their children.

That said, the social security system provides an important 'safety net'. Indeed, it may be important in assisting people to 'bounce back' from adverse shocks and could conceivably be beneficial to both economic output and the government budget over the longer term. In any case, it is clear that policy concern should be greatest for long-term or entrenched reliance on benefits.

The HILDA Survey is an important data source for understanding income support receipt, since the longitudinal nature of the data enables the study of the duration,

Box 3.10: The Australian social security system

The Australian social security system contains two broad categories of cash benefits. In the first category are benefits known as *income support payments*, which are intended to represent the primary source of income of recipients. Income support payments comprise the Age Pension, Disability Support Pension, Carer Payment, Parenting Payment (Single and Partnered), JobSeeker Payment (a consolidation of the previous Newstart Allowance and several other payments from 20 March 2020 on), Youth Allowance and Department of Veterans' Affairs Service Pension, as well as several other less common payment types. In the second category are *supplementary government benefits* (non-income support payments), which include Family Tax Benefit (Parts A and B) and Carer Allowance. Studies of reliance on government benefits in Australia typically focus on receipt of income support payments but include non-income support payments in assessments of the extent of reliance on government cash benefits of income support payment recipients.



intensity and dynamics of benefit receipt. Importantly, it is possible to identify entrenched reliance and the factors associated with it. The HILDA Survey is therefore a key data source for policy-makers seeking to address long-term reliance.

Income support receipt and reliance on Australian Government cash benefits over a one-year timeframe

Figures 3.11 and 3.12 respectively present cross-sectional estimates of income support receipt and benefit reliance for 'working-age' people, defined here as people aged 18 to 64. In the financial year ending 30 June 2022, 26.9% of individuals aged 18 to 64 were living in a household that received income support at some stage of the year. This is substantially lower than in the previous year, when the COVID-19 pandemic had led to 31.5% living in a household that received income support at some stage of the year. It is also considerably lower than at the start of the HILDA Survey in 2001, when 38.8% of people were living in a household that had received income support.

Figure 3.12 presents estimates of benefit reliance for two definitions (as explained in Box 3.11, page 58): more than 50% of annual household income comes from benefits; and more than 90% of annual household income comes from benefits. As would be expected, the proportion of the population classified as benefit-reliant is higher for the 50% threshold than for the 90% threshold. In terms of trends over time, both of the two measures show a sharp decline in reliance between 2004 and 2007, but since then there has been a slow trend decline in the proportion receiving more than 50% of household income from benefits,

Figure 3.11: Receipt of income support payments by persons aged 18–64

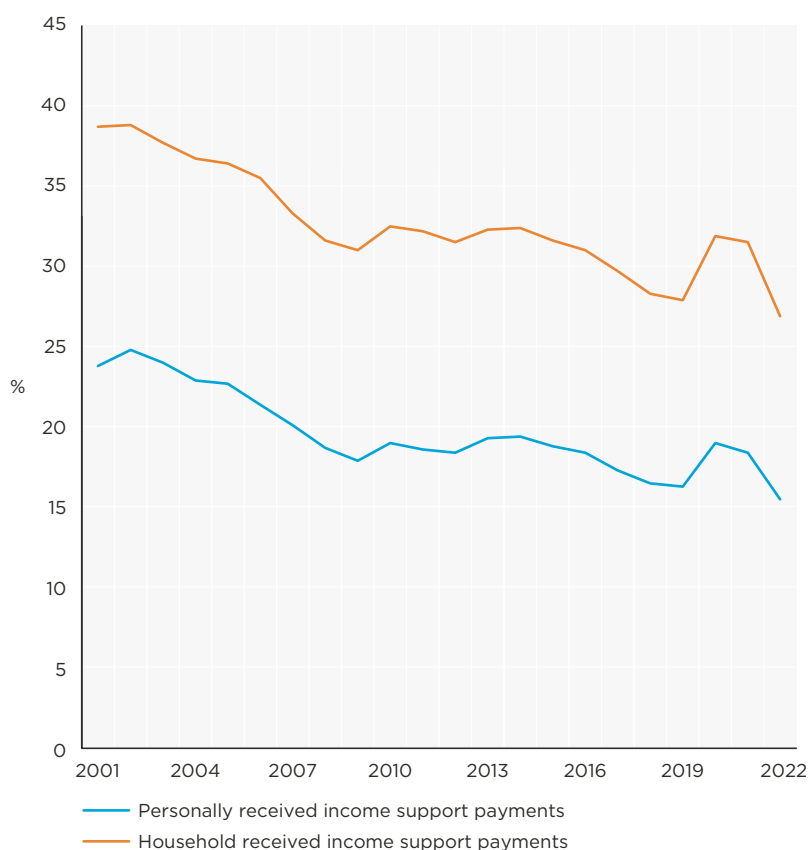
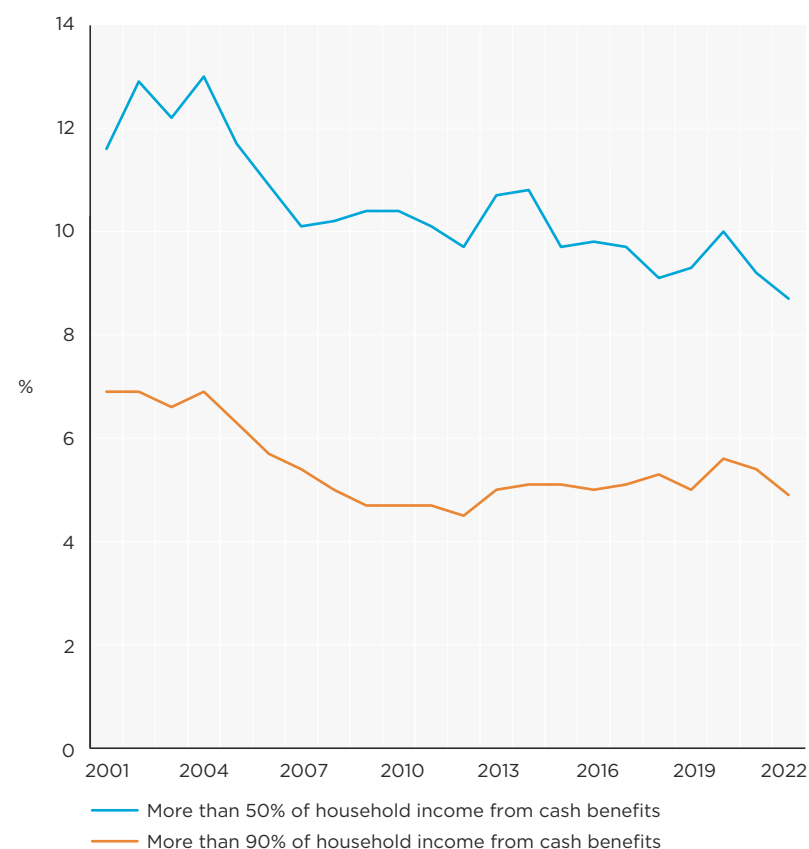


Figure 3.12: Reliance on Australian Government cash benefits among persons aged 18–64

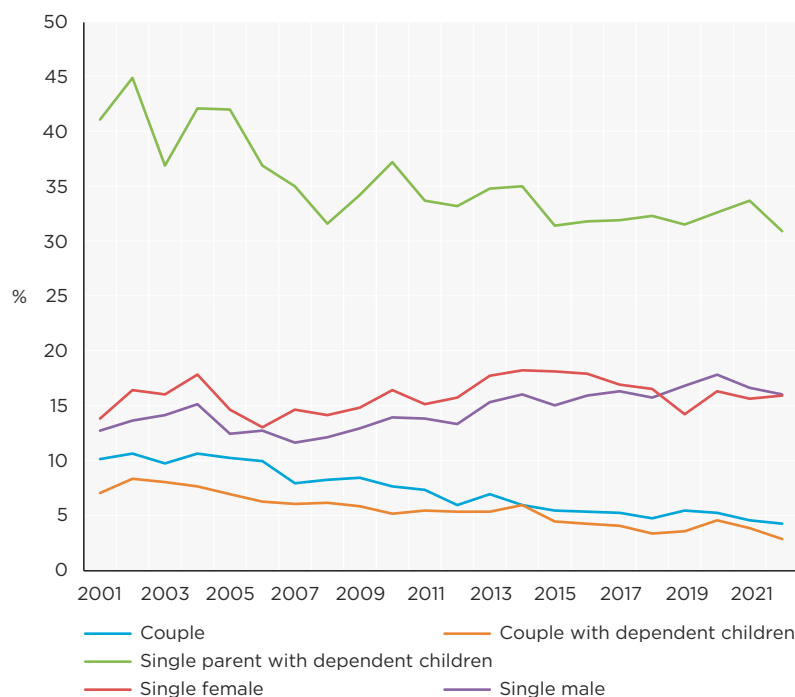


Box 3.11: Definitions of reliance on Australian Government cash benefits

Reliance on government benefits is usually conceived of as a situation in which the payments—in Australia often referred to as social security payments—represent the primary or main source of income for a household. In this report, two alternative specific definitions of benefit reliance are adopted:

- (1) The household receives income support payments and more than 50% of household income comes from income support and non-income support payments.
- (2) The household receives income support payments and more than 90% of household income comes from income support and non-income support payments.

Figure 3.13: Reliance on Australian Government cash benefits of people aged 18 to 64 years, by family type



Note: A person is defined to be benefit-reliant if more than 50% of their household annual income comes from Australian Government benefits.

while the proportion receiving more than 90% of household income from benefits has remained broadly unchanged. Both measures, however, show a sizeable decline in reliance in 2021 and 2022 following the spike in 2020.

Figure 3.13, examining family types (see Box 3.4, page 37), shows that benefit reliance among working-age people is very much associated with living in single-parent families. For each year from 2001 to 2022, the figure presents the proportion of individuals in each family type obtaining more than 50% of financial-year household income from government benefits. Single-parent families have considerably higher rates of benefit reliance than other family types, although there was some decline in single-parent-family benefit reliance between 2002 and 2008, falling from 45% to 31.7%. After 2008, however, benefit reliance among single-parent families remained essentially unchanged.

Individuals in couple families, with or without dependent children, have the lowest rates of benefit reliance, and have also exhibited declines in benefit reliance over most of the two-decade period to 2022. Overall, the proportion of people who



were benefit-reliant fell from 8.4% in 2002 to 2.9% in 2022 for couples with dependent children, and from 10.7% in 2002 to 4.3% in 2022 for couples without dependent children.

Single men and women have benefit-reliance rates somewhat higher than couples and have exhibited a slight trend increase in benefit reliance since 2006. In 2022, benefit reliance among both single men and single women was 16%, up from 13.1% in 2006. Overall, the gap between couples (with or without dependent children) and single people (without dependent children) has risen over the HILDA Survey period.

Income support receipt and reliance on Australian Government cash benefits over 10 years

Drawing on the longitudinal nature of the HILDA Survey data provides significant insights into long-term contact with the

income support system. Table 3.11 examines contact with the system over a 10-year period, presenting the proportion of people who at some stage in the 10-year period personally received an income support payment (personal contact), and the proportion who at some stage were living in a household in which at least one member received an income support payment (household contact).

The population examined is restricted to people who were aged 18 to 64 for the entire 10-year period (and therefore aged 18 to 55 at the start of the 10-year period and aged 27 to 64 at the end of the period). Estimates are disaggregated by gender and age group and, as in the analysis of poverty presented in Table 3.7, two 10-year periods are examined: 2001 to 2010 and 2013 to 2022.

The bottom-right cell of the top panel of the table shows that 63.8% of the working-age

population had direct (personal) or indirect (household) contact with the income support payment system at some stage between 2001 and 2010. Moreover, 40.8% of this cohort *personally* received income support payments at some stage between 2001 and 2010. Given that approximately 20% of working-age individuals received income support in any given year of this period (see Figure 3.10, page 55), this indicates that the income support system was indeed providing temporary rather than long-term support for many recipients and was potentially playing a very important safety-net role. Contact with the income support system was lower over the 10 years from 2013 to 2022 (lower panel of Table 3.11), but still substantial, with 55.7% having household contact and 33.8% having personal contact.

Rates of household contact with the income support system are high across all age groups.

Table 3.11: Income support receipt over 10 years, by gender and age group at the start of the 10-year period (%)

	Age group at the start of the 10-year period				All aged 18–55 in initial year
	18–24	25–34	35–44	45–55	
2001–2010					
Men					
Personal receipt	46.9	26.9	30.1	35.4	33.2
Household receipt	78.2	58.2	60.8	59.7	62.4
Women					
Personal receipt	61.1	50.8	46.7	41.4	48.2
Household receipt	75.3	60.2	63.8	66.5	65.2
People					
Personal receipt	53.8	38.7	38.6	38.5	40.8
Household receipt	76.8	59.2	62.3	63.3	63.8
2013–2022					
Men					
Personal receipt	49.1	23.8	23.7	27.5	29.2
Household receipt	71.0	48.7	45.0	55.8	53.6
Women					
Personal receipt	58.6	38.0	32.6	32.7	38.3
Household receipt	74.0	48.7	52.3	62.7	57.9
People					
Personal receipt	53.8	31.0	28.3	30.2	33.8
Household receipt	72.5	48.7	48.8	59.3	55.7

Table 3.12: Receipt of Australian Government cash benefits over 10 years—People aged 18 to 55 at the beginning of the 10-year period (%)

	2001-2010		2013-2022	
	Men	Women	Men	Women
Number of years of household income support receipt				
0	37.5	34.7	46.4	42.1
1-3	32.0	28.3	27.3	26.6
4-6	12.9	14.5	9.6	11.0
7-9	8.3	11.0	6.8	8.8
10	9.3	11.5	9.9	11.5
Total	100.0	100.0	100.0	100.0
Mean proportion of household income from government benefits—All people	11.4	15.1	10.1	12.6
Proportion obtaining more than 50% of 10-year household income from government benefits	6.7	10.5	6.4	8.8

Note: Cells may not add up to column totals due to rounding.

Personal contact with the income support system varies more by gender, age group and indeed time period than does household contact.

For men, over the 2001 to 2010 period, personal contact was highest for those initially (in 2001) aged 18 to 24 and lowest among those initially aged 25 to 34. The rate of personal contact then increases as we move up the age distribution, rising from 26.9% of the 25 to 34 age group to 35.4% of the 45 to 55 age group. In the 2013 to 2022 period, rates of personal contact show a similar pattern by age, the exception being that the 25 to 34 and 35 to 44 age groups have similar rates of personal contact in this period. Also notable is that, at odds with the broader decline in contact with the income support system, males initially aged 18 to 24 had a higher rate of contact in the more recent period than males initially aged 18 to 24 in the earlier period.

In both of the 10-year periods, rates of personal contact with the income support system are higher for women than men in all age groups, but particularly among those aged under 45. This is at least partly due to women being a high proportion of single parents. That said, the gap between men and women in the 25 to 44 age range was



considerably smaller in the 2013 to 2022 period than in the earlier period due to greater declines in women's personal contact with the income support system.

The *extent* of working-age individuals' contact with, and reliance on, the income support system over a 10-year period is examined in Table 3.12. The upper panel of the table shows the distribution of the number of years in which the individual's household received income support. Measuring the extent of contact with the system by the number of years in which one's household received income support payments, it is evident that the majority of working-age people have either no or only temporary contact with the

system. Over the 2001 to 2010 period, 69.5% of men and 63% of women had contact with the system in three or fewer of the 10 years, while over the 2013 to 2022 period, 73.7% of men and 68.7% of women had contact with the system in three or fewer of the 10 years.

The bottom panel of Table 3.12 examines the extent of benefit reliance over a 10-year period, presenting the mean proportion of household income deriving from cash benefits over the 10 years for all people and the proportion of the population who were reliant on benefits over the 10-year period as a whole (defined as obtaining more than 50% of household income over the 10 years from benefits). On

average, working-age men derived 11.4% of household income from benefit payments between 2001 and 2010, while working-age women on average derived 15.1% of household income from benefits. These figures dropped to 10.1% and 12.6%, respectively, in the 2013 to 2022 period. Comparing the same two 10-year periods, the proportion who were benefit-reliant over the 10-year period as a whole fell from 10.5% to 8.8% for women, and from 6.7% to 6.4% for men.

Income support receipt and reliance on cash benefits among people aged 65 and over

While many people continue to work in paid employment beyond 65 years of age (and the Age Pension age increased to 67 as of 1 July 2023), as shown in Figure 3.13 (page 58), even in recent years most people aged 65 and over were retired. We would correspondingly expect reliance on Australian Government cash benefits to be relatively high among this age group.

Figures 3.14 and 3.15 show that income support receipt and benefit reliance is, as expected, considerably higher among people aged 65 and over than among people aged 18 to 64 (Figures 3.11 and 3.12, page 57). There has, however, been a substantial decline in income support receipt, particularly since 2014, while benefit reliance has also declined. In 2014, 81% of people aged 65 and over received an income support payment; by 2022, this had dropped to 65.2%.

Using the 50% threshold, reliance on cash benefits of people aged 65 and over has tended to decline more steadily over most of the HILDA Survey period. In 2003, 59.4% of this age group relied on welfare for more than 50% of their income; by 2022, this figure had fallen to 44.7%. Later retirement and increases in

Figure 3.14: Rates of retirement and personal income support receipt of persons aged 65 and over

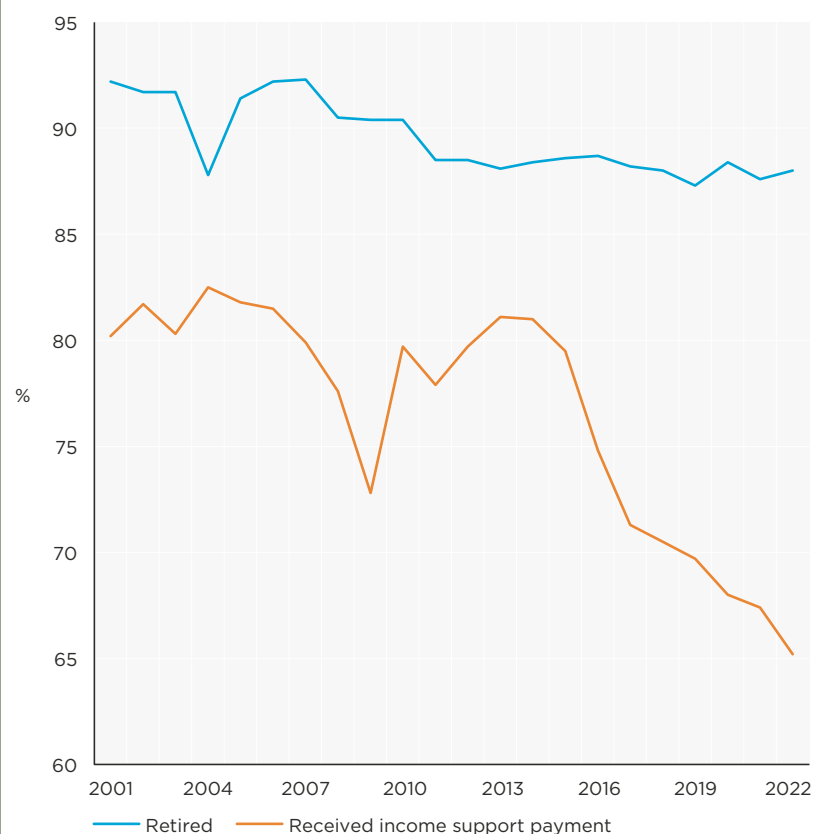
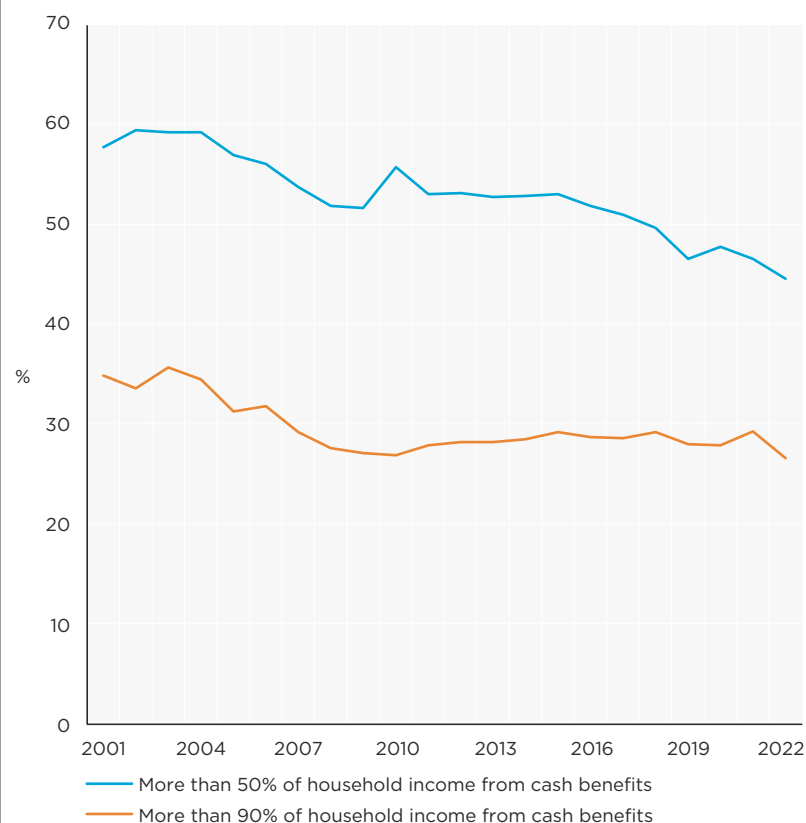


Figure 3.15: Reliance on Australian Government cash benefits among persons aged 65 and over



superannuation holdings are likely to be important contributors to this decline. Also evident is a decline in reliance using the 90% threshold, but all of the decline occurred between 2003 and 2010. Since 2010, the proportion reliant based on this measure has remained between approximately 27% and 29%.

Household expenditure

The HILDA Survey has, from its inception, collected information on household expenditure. Most of the information is collected in the SCQ. The items measured have changed over

time, but in all waves since 2006 they have included expenditure on: groceries; alcohol; tobacco; meals eaten out; taxis and public transport; motor vehicle fuel; motor vehicle repairs and maintenance; clothing; telephone and internet services; health insurance; other insurance; fees paid to health practitioners; medicines; electricity and gas bills; education fees; child care; home repairs, renovations and maintenance; rent on primary residence; and mortgage repayments.

As long as this list is, the HILDA Survey does not attempt to measure all components of household expenditure, and therefore does not provide a

comprehensive picture of household expenditure decisions. Expenditure on entertainment and sport, personal and household services such as haircuts and cleaning, health and beauty products, cars, computers and related devices, home audio-visual equipment, household appliances and household furniture are among the items not captured.⁴

These limitations notwithstanding, it is likely the household expenditure data collected by the HILDA Survey can provide insights into economic circumstances and behaviour, particularly in the context of substantial changes in the cost of living (first downward,

Table 3.13: Mean household expenditure on various items, 2006 to 2022 (\$, December 2022 prices)

	2006	2019	2020	2021	2022	Change 2006 to 2022 (%)	Change 2021 to 2022 (%)
Groceries	12,367	11,008	11,467	11,384	11,066	-10.5	-2.8
Alcohol	1,964	1,751	1,852	1,845	1,717	-12.6	-6.9
Tobacco products	1,008	1,028	1,181	1,166	982	-2.6	-15.8
Public transport, taxis and ride-sharing services	532	762	560	506	587	10.3	16.0
Meals eaten out	3,250	3,932	3,474	3,675	3,922	20.7	6.7
Motor vehicle fuel	3,512	2,450	2,156	2,214	2,658	-24.3	20.1
Men's clothing and footwear	733	574	548	494	513	-30.0	3.8
Women's clothing and footwear	1,167	892	876	848	836	-28.4	-1.4
Children's clothing and footwear	557	411	380	391	379	-32.0	-3.1
Telephone and internet charges	2,602	2,410	2,322	2,150	2,039	-21.6	-5.2
Private health insurance	1,177	1,752	1,669	1,698	1,647	39.9	-3.0
Other insurance	1,652	1,984	1,960	1,985	1,950	18.0	-1.8
Fees paid to health practitioners	1,108	1,040	937	1,055	1,035	-6.6	-1.9
Medicines	612	523	501	490	499	-18.5	1.8
Electricity, gas and other heating fuels	1,762	1,980	1,924	1,813	1,782	1.1	-1.7
Home repairs, renovations and maintenance	3,328	3,365	3,122	3,498	3,751	12.7	7.2
Motor vehicle repairs and maintenance	1,282	1,076	1,045	1,034	988	-22.9	-4.4
Education fees	1,214	1,861	1,620	1,697	1,539	26.8	-9.3
Home rent	4,456	6,601	6,433	6,436	6,325	41.9	-1.7
Home mortgage repayments	9,460	10,600	10,372	9,975	11,290	19.3	13.2
Child care	444	712	724	772	760	71.2	-1.6
All expenditure items	54,187	56,712	55,123	55,126	56,265	3.8	2.1

⁴ Expenditure on infrequently purchased items, such as motor vehicles, holidays and consumer durables, is not amenable to accurate measurement via an annual SCQ. Wilkins and Sun (2010) show that, when the HILDA Survey attempted to measure some of these expenditure items (between 2006 and 2010), it produced considerable underestimates of expenditure compared with the Australian Bureau of Statistics' (ABS) Household Expenditure Survey. Expenditure on entertainment was also found to be under-reported. In 2022, the HILDA Survey began collecting expenditure on council rates and owners' corporation/body corporate fees.

and then sharply upward; see Box 3.8, page 49) since the arrival of the COVID-19 pandemic.

Table 3.13 presents mean household expenditure on each of 21 expenditure items in 2006, 2019, 2020, 2021 and 2022. The average for each item is measured across all households, including those households with no expenditure on the item. Note also that all values are expressed at December 2022 prices, which means that Table 3.13 does not show the increases in nominal (dollar) expenditures deriving from the recent surge in inflation—the price level increased by 6.1% in the year to 30 June 2022, and

increased by 7.8% over the course of 2022 (i.e., in the year to 31 December 2022). Rather, the table shows how real expenditure has changed—for example, identifying whether cost-of-living pressures have caused people to reduce their consumption of some items.

Over the 2006 to 2022 period as a whole, there were substantial real increases in expenditure on child care (+71.2%), rent (+41.9%), private health insurance (+39.9%), education fees (+26.8%), meals eaten out (+20.7%), home mortgage repayments (+19.3%), insurance other than private health insurance (+18%), home repairs, renovations and

maintenance (+12.7%), and public transport, taxis and ride-sharing services (+10.3%). There were substantial decreases in expenditure on clothing and footwear (approximately –30%), motor vehicle fuel (–24.3%), motor vehicle repairs and maintenance (–22.9%), telephone and internet charges (–21.6%), medicines (–18.5%), alcohol (–12.6%) and groceries (–10.5%). Only expenditure on tobacco products, health practitioners, and electricity, gas and other heating fuels saw little real change between 2006 and 2022.

Over the first two years of the pandemic (2020 and 2021), the

Table 3.14: Median share of household income spent on non-discretionary items by household type

All non-discretionary items							Change 2006 to 2021	Change 2021 to 2022
	2006	2013	2019	2020	2021	2022		
Non-elderly couple	47.7	43.0	41.3	40.5	39.0	37.6	–8.7	–1.4
Couple with dependent children	50.9	49.5	48.4	44.3	43.1	43.1	–7.8	0.0
Single parent with dependent children	55.2	52.1	52.5	51.4	48.1	50.7	–7.1	2.6
Single non-elderly person	65.8	62.7	60.6	57.0	55.0	57.3	–10.8	2.3
Older couple	47.6	47.9	45.1	45.4	46.3	48.5	–1.3	2.2
Single older person	61.0	57.2	58.5	57.9	58.8	60.7	–2.2	1.9
Other household type	39.2	38.8	36.0	34.1	34.8	34.8	–4.4	0.0
All households	52.6	50.0	49.6	47.0	45.3	46.2	–7.3	0.9
Food eaten at home							Change 2005 to 2021	Change 2021 to 2022
	2005	2013	2019	2020	2021	2022		
Non-elderly couple	8.6	7.1	6.4	6.8	6.4	6.2	–2.2	–0.2
Couple with dependent children	10.9	9.2	8.1	8.0	7.9	7.7	–3.0	–0.2
Single parent with dependent children	12.7	11.1	9.8	10.3	10.3	10.2	–2.4	–0.1
Single non-elderly person	9.8	8.6	8.7	8.9	8.3	8.4	–1.5	0.1
Older couple	17.0	14.0	12.3	12.2	12.6	13.8	–4.4	1.2
Single older person	16.6	14.1	13.3	13.7	13.6	13.7	–3.0	0.1
Other household type	8.8	8.8	8.2	7.9	7.0	8.1	–1.8	1.1
All households	11.0	9.5	8.7	8.9	8.6	8.6	–2.4	0.0



Box 3.12: Household types

The following seven household types are distinguished in this chapter: (1) non-elderly couple, defined to be a couple (married or de facto) without dependent children with at least one member of the couple under 65 years of age; (2) couple with at least one dependent child living with them (regardless of the ages of the members of the couple, and regardless of the presence of other household members); (3) single parent living with at least one dependent child (again, regardless of the age of the single parent and the presence of other household members); (4) single non-elderly (aged under 65) person; (5) older couple, where both people are over 65 years of age; (6) single older (aged 65 and over) person; and (7) other household type, which includes multiple-family and group households. See also Box 2.3, page 8, for explanation of how household types are determined in the HILDA Survey.



data show that average expenditure on groceries and alcohol rose, while expenditure on meals eaten out and transport declined. Expenditure on both mortgage repayments and rent also declined during the first two years of the pandemic.

Considering the potential effects of cost-of-living pressures in 2022 on expenditure patterns, we see large increases in mean expenditure on motor vehicle fuel (+20.1% to \$2,658) and mortgage repayments (+13.2% to \$11,290), consistent with growth in fuel

prices and interest rates in 2022. The items that had the biggest declines in mean expenditure in 2022 are tobacco products (-15.8%), education fees (-9.3%), alcohol (-6.9%), telephone and internet charges (-5.2%), motor vehicle repairs and maintenance (-4.4%), children's clothing and footwear (-3.1%), private health insurance (-3%), groceries (-2.8%), other insurance (-1.8%) and fees paid to health practitioners (-1.9%). Note, however, that these changes will also reflect the effects of the

opening up of society in 2022 following the vaccine roll-out in 2021. For example, the decline in grocery expenditure is likely to be in part because of increased meals eaten out (+6.7%), while expenditure on motor vehicle fuel will in part have increased due to increased motor vehicle use.

Tables 3.14 and 3.15 consider the share of household income spent on 'non-discretionary' items and on food eaten at home (excluding take-away food). Non-discretionary items are defined to be all items in Table 3.13 other than alcohol, tobacco and meals eaten out (thus, food expenditure is a subset of non-discretionary expenditure). These non-discretionary items account for approximately 95% of the expenditure measured by the HILDA Survey, but it should be noted that many of the expenditure items not captured by the HILDA Survey are 'discretionary' in nature. Expenditure on food eaten at home is not separately identified from non-food groceries in the SCQ, but it is measured in the household questionnaire (with the exception of the 2006 to 2010 period). The analysis of food expenditure therefore draws on the information collected in the household questionnaire.

Table 3.15: Median share of household income spent on non-discretionary items by income quintile

All non-discretionary items	2006	2013	2019	2020	2021	2022	Change 2006 to 2021	Change 2021 to 2022
Bottom quintile	75.0	75.1	72.2	69.2	68.4	71.1	-6.6	2.7
Second quintile	58.1	54.9	53.4	52.0	49.1	51.3	-9.0	2.2
Middle quintile	52.2	49.2	50.1	46.0	45.2	45.8	-7.0	0.6
Fourth quintile	47.3	45.1	42.8	40.7	38.8	39.5	-8.5	0.7
Top quintile	37.1	35.2	34.5	33.6	31.8	31.5	-5.3	-0.3
Food eaten at home	2005	2013	2019	2020	2021	2022	Change 2005 to 2021	Change 2021 to 2022
Bottom quintile	20.9	18.3	17.1	16.6	16.9	17.9	-4.0	1.0
Second quintile	13.7	11.6	10.8	10.9	10.8	10.9	-2.9	0.1
Middle quintile	10.9	9.5	8.6	8.7	8.3	8.3	-2.6	0.0
Fourth quintile	8.7	7.8	6.8	7.0	6.6	6.6	-2.1	0.0
Top quintile	6.2	5.2	4.9	5.1	4.8	4.6	-1.4	-0.2

Across all households, the share of household income spent on non-discretionary items decreased by 7.3% between 2006 and 2021. This is consistent with rising incomes facilitating growth in the proportion of expenditure on discretionary items. However, the rise in the cost of living in 2022 saw the share of income spent on non-discretionary items rise by 0.9% compared with 2021. This increase is all the more striking in the context of the greater freedom of movement and ability to travel in 2022 compared with 2021, which might have been expected to increase expenditure on recreational activities such as entertainment and travel.

Expenditure on food eaten at home (excluding take-away) likewise decreased as a share of income between 2005 and 2021, by 2.4%. However, there was no increase in 2022, possibly reflecting the effects of the opening up of the economy on

dining out outweighing the effects of the cost-of-living increases.

Comparing across household types in Table 3.14 (see Box 3.12, page 63), the share of income spent on non-discretionary items is consistently highest for single people (in both age groups) and is also relatively high for single-parent households. Patterns of change over time are similar across household types, although older households experienced a smaller decline in the share of income spent on non-discretionary items between 2006 and 2021. The food expenditure share of income is higher for older households across the entire 2005 to 2022 period, but changes between 2005 and 2021 and between 2021 and 2022 are broadly similar across household types.

Table 3.15 compares changes in the share of income spent on non-discretionary items and on food across household income

quintiles. Unsurprisingly, the income shares are highest for the bottom income quintile and lowest for the top quintile. However, the decline in the share of income spent on food between 2005 and 2021 is greatest for the bottom quintile and smallest for the top quintile. The change in the income share of non-discretionary expenditures is not clearly ordered by income quintile, but it is nonetheless notable that the top income quintile had the smallest decline between 2006 and 2021.

Between 2021 and 2022, the bottom quintile, followed by the second quintile, had the largest increases in the share of income spent on non-discretionary items, and these were also the only two quintiles to experience an increase in the share of income spent on food. These patterns are consistent with (the early stages of) the cost-of-living 'crisis' biting hardest for lower-income households.



4

The labour market

Roger Wilkins



A major focus of the HILDA Survey is the labour market activity of household members. In each wave, detailed information is obtained from respondents to ascertain their labour force status, earnings, hours worked, type of work undertaken, employer characteristics and other work-related information. Perceptions and attitudes on a range of labour market issues, such as preferred hours of work, satisfaction with the current main job and likelihood of retaining the current job, are also collected every year. Periodically, additional information is gathered on retirement intentions, attitudes to work and experience of job-related discrimination.

Such an emphasis on the labour market reflects the pivotal role employment plays in determining economic and social wellbeing. Not only is it the key determinant of the majority of households' incomes, for many people it is key to participation in society, both economically and socially. Understanding individuals' labour market outcomes, and the causes and consequences of those outcomes, is correspondingly core to the purpose of the HILDA Survey.

In this chapter, we examine labour force status and earnings levels and dynamics, and then turn to how job separations and perceptions of job security have evolved over time and, in particular, have changed over the course of the COVID-19 pandemic and its aftermath. Analysis is then presented of working from home and working on the weekend.

Labour force status

Standard statistical summaries of the labour force, such as those produced by the Australian Bureau of Statistics (ABS) in its monthly labour force statistics, divide the population aged 15 and over into 'employed', 'unemployed' and 'not in the labour force' (see Box 4.1, page 67). The HILDA Survey collects information from respondents each year enabling classification of all respondents into one of these three categories. This allows us to produce cross-sectional labour statistics of the same kind as those produced by the ABS but, more importantly, it facilitates longitudinal analysis of many aspects of labour force status mobility—that is, movements over time across different labour force states

Table 4.1 presents cross-sectional HILDA Survey estimates of the labour force status of the population aged 18 to 64 for each year over the 2001 to 2022 period. From 2001 until 2008, employment steadily rose and unemployment fell. Following the onset of the Global Financial Crisis (GFC) in late 2008, the labour market was subsequently more mixed.

For women, the employment rate was relatively stagnant, at approximately 69% to 70%, between 2009 and 2016, but then grew strongly, reaching 74.2% in 2019. For men, however, the proportion employed remained below the 2008 peak of 83.6% between 2009 and 2019, fluctuating between 81% and 83.2%, while the proportion of men unemployed remained above the 2008 trough.

Box 4.1: Labour force status

In this report, insofar as is possible, we follow international and Australian Bureau of Statistics (ABS) conventions in determining an individual's labour force status. In particular:

- A person is classified as *employed* if that person had a job, business or farm in the week leading up to the interview, and had either worked in the last four weeks or had not worked but: had been in paid work for any part of the last four weeks; or had been on worker's compensation and expected to return to work for the same employer; or had not worked because of a strike or lock-out.
- An employed person is classified as *employed part-time* if their usual weekly hours of work in all jobs total less than 35. Otherwise, an employed person is classified as *employed full-time*.^a A person employed part-time who would prefer to work more hours and is available to work additional hours is additionally classified as *underemployed*.
- A non-employed person is classified as *unemployed* if that person had actively looked for work at any time in the four weeks preceding the interview and was available to start work in the week preceding the interview; or if that person was waiting to start a new job within four weeks from the date of interview and could have started in the week preceding the interview if the job had been available.
- A non-employed person who is not unemployed is classified as *not in the labour force*. Among people not in the labour force, several distinctions are often made based on the degree of 'attachment' to the labour market. This includes identifying the **marginally attached**—people who want to work and are either available to start work but are not currently looking, or are looking for work but are not currently available.

Several key statistics are commonly produced based on these definitions of labour force status, including the *participation rate* (the proportion of the population in the labour force) and the *unemployment rate* (the proportion of those in the labour force who are unemployed).

^a The definition of part-time employment adopted in this report differs from the definition the ABS uses in its Labour Force Survey. The ABS definition requires both usual and current actual weekly hours to be less than 35; otherwise, a person is classified as employed full-time.



With the onset of the COVID-19 pandemic in early 2020, employment of men and women fell sharply, to 78.5% for men and 71.6% for women. The proportion unemployed rose from 4.1% to 6.2% for men and from 2.9% to 4.1% for women. Significantly, the 2020 employment rate for men was the lowest observed this century and the proportion unemployed was the highest observed this century. However, employment recovered strongly in 2021 and 2022 for both men and women. In 2022, the male employment rate was 83.3%, the highest it had been since 2008 (and second only to 2008 this century). For women, the employment rate reached 76.3% in 2022, the highest it has ever been.

The proportion of men aged 18 to 64 employed part-time trended upwards between 2008 and 2015, but was edging lower up until 2019, before rising sharply to 15.8% in 2020, its highest level in

the HILDA Survey period. The rate of part-time employment among men fell again in the subsequent two years, down to 13.2% in 2022. The proportion of men employed full-time peaked at 73.4% in 2008, then trended downwards until 2016 before bouncing back to 68.2% in 2017, where it approximately remained until 2019. Full-time employment of men aged 18 to 64 plummeted to 62.5% in 2020, before recovering to 67.5% in 2021 and 70% in 2022.

For women aged 18 to 64, the proportion employed full-time peaked at 40.4% in 2019 before falling back to 38.4% in 2020 and then surging over the next two years to a record high of 43.9% in 2022. Part-time employment of women trended upwards until 2019, when it reached 33.7%, but since then has steadily declined, to 32.4% in 2022.

Figure 4.1 (page 68) examines one-year transitions between employment and non-employment

of people aged 18 to 64 over the 2001 to 2022 period. The figure shows the proportion of non-employed individuals moving into employment from one year to the next, and the proportion of employed individuals moving into non-employment from one year to the next.

Compared with women, men generally have lower transition rates out of employment, in large part because of the effects of childrearing on women's employment participation. Dramatic effects in the two years after the onset of the COVID-19 pandemic are evident, with a very large rise in the entry rate for both men and women in 2021 and 2022.

Figure 4.2 (page 70) probes more deeply into labour market transitions by distinguishing between full-time and part-time employment. As in Figure 4.1 (page 69), large effects of the COVID-19 pandemic are evident.

Table 4.1: Labour force status of the population aged 18 to 64, 2001 to 2022 (%)

	Employed	Unemployed	Not in the labour force	Total	Employed full-time	Employed part-time
Men						
2001	79.7	5.8	14.5	100.0	68.7	11.0
2002	80.3	4.9	14.8	100.0	69.3	11.0
2003	80.6	4.0	15.4	100.0	69.2	11.4
2004	82.0	3.3	14.6	100.0	70.4	11.7
2005	82.3	3.6	14.1	100.0	71.4	10.9
2006	82.5	3.2	14.3	100.0	70.6	11.8
2007	83.0	2.9	14.2	100.0	71.7	11.3
2008	83.6	3.0	13.4	100.0	73.4	10.2
2009	81.7	4.7	13.6	100.0	70.2	11.5
2010	83.2	3.8	13.1	100.0	71.8	11.3
2011	83.1	3.6	13.3	100.0	69.9	13.2
2012	82.5	4.3	13.2	100.0	68.8	13.7
2013	81.4	4.2	14.4	100.0	67.6	13.7
2014	81.6	4.8	13.6	100.0	67.0	14.6
2015	82.1	4.7	13.2	100.0	67.3	14.7
2016	81.1	4.4	14.6	100.0	66.9	14.2
2017	81.9	4.2	13.9	100.0	68.2	13.7
2018	82.3	3.9	13.8	100.0	68.3	14.0
2019	81.5	4.1	14.4	100.0	68.3	13.3
2020	78.5	6.2	15.3	100.0	62.6	15.8
2021	81.0	3.7	15.2	100.0	67.5	13.5
2022	83.3	3.3	13.5	100.0	70.0	13.2
Women						
2001	64.3	3.7	32.0	100.0	35.3	28.9
2002	64.0	3.7	32.3	100.0	34.6	29.4
2003	64.4	3.0	32.6	100.0	34.7	29.8
2004	65.5	3.4	31.0	100.0	35.1	30.4
2005	66.7	3.1	30.2	100.0	35.6	31.1
2006	68.7	2.6	28.7	100.0	37.9	30.8
2007	69.8	2.8	27.5	100.0	39.0	30.8
2008	70.3	3.1	26.7	100.0	39.9	30.4
2009	69.8	3.0	27.3	100.0	38.1	31.6
2010	69.5	3.1	27.4	100.0	38.5	31.0
2011	68.5	3.8	27.8	100.0	37.0	31.5
2012	68.5	3.2	28.4	100.0	36.4	32.0
2013	68.6	3.9	27.5	100.0	37.1	31.5
2014	68.6	3.9	27.5	100.0	36.8	31.8
2015	70.0	3.9	26.1	100.0	37.6	32.4
2016	69.6	3.7	26.7	100.0	38.3	31.2
2017	71.3	3.6	25.1	100.0	39.1	32.2
2018	72.5	3.1	24.5	100.0	39.2	33.2
2019	74.2	2.9	22.9	100.0	40.4	33.7
2020	71.6	4.1	24.4	100.0	38.5	33.1
2021	72.9	3.3	23.8	100.0	40.3	32.6
2022	76.3	1.8	21.9	100.0	43.9	32.4

Note: Cells may not add up to row totals due to rounding.

Figure 4.1: Annual rates of movement into and out of employment—People aged 18 to 64



Notes: Years on the horizontal axis refer to the second year of the two-year transition period. For example, 2002 refers to transitions between 2001 and 2002. The rate of movement into employment is the proportion of those not employed in the first year who are employed in the second year. The rate of movement out of employment is the proportion of those employed in the first year who are not employed in the second year.

The top panel of Figure 4.2 (page 70) presents transitions from non-employment, showing that men have higher rates of transition to full-time employment, while, in most years, women have a higher rate of transition into part-time employment. Between 2009 and 2014, there was a large increase in the male rate of transition from non-employment to part-time employment. However, it subsequently declined, reaching its lowest observed level of 7.9% in 2019 before surging strongly in 2020 and 2021.

While there is considerable volatility in the proportion of non-employed men moving into full-time employment from one year to the next, there was a trend decline in this transition rate between 2001 and 2020. However, the proportion of non-employed men moving into full-time employment rose sharply to 17.2% in 2021 and moved even slightly higher, to 17.4%, in 2022. There was also a surge in men moving from non-employment to part-time

employment in 2021 that was sustained into 2022.

For women, the top panel of Figure 4.2 (page 70) shows a trend rise in the rates of movement from non-employment to both part-time and full-time employment up until 2018. Rates of movement then declined in 2019 and 2020 before increasing sharply in 2021. The increase in

the female rate of movement from non-employment to part-time employment was especially large, reaching a record high of 21.7% in 2022.

The second panel of Figure 4.2 examines transitions from part-time employment. Men are much more likely than women to move from part-time employment to full-time employment, while men



Figure 4.2: Rates of movement between non-employment, part-time employment and full-time employment from one year to the next—People aged 18 to 64



Note: Years on the horizontal axis refer to the second year of the two-year transition period. For example, 2002 refers to transitions between 2001 and 2002.

and women generally have similar rates of movement from part-time employment to non-employment.

For both men and women, the rate of transition from part-time employment to non-employment increased in 2020 and decreased in 2021, and the rate of transition from part-time employment to full-time employment decreased in 2020 and increased in 2021. The magnitudes of these changes were considerably larger for men, particularly for movements into full-time employment: in 2020 the rate fell to a record low of 18.7% and in 2021 it rose to a record high of 38.9%, and was still at 36.8% in 2022.

The bottom panel of Figure 4.2 (page 70) examines transitions out of full-time employment. Women have higher rates of transition out of full-time employment, to both non-employment and part-time employment. In 2020, for both men and women, there was a large increase in the rate of movement from full-time to part-time employment as well as an increase in the rate of movement into non-employment. These increases were reversed in 2021 and rates of movement out of full-time employment remained low in 2022. Indeed, for women, the rate of movement from full-time employment to non-employment fell to a record low of 3.6% in 2022.

Labour market earnings

Earnings levels and distribution

Earnings represent a key dimension of labour market outcomes. A worker's earnings per hour measures the rate at which their labour is rewarded in the labour market, and thus provides a measure of the market value of that worker's labour. Earnings are also an important contributor to an individual's economic wellbeing, being the main income source for most working-age people.

Figures 4.3 to 4.5 (pages 72 and 73) provide an overall picture of earnings outcomes and changes over the period spanned by the HILDA Survey. They present graphs of summary measures of the male and female real earnings distributions over the 2001 to 2022 period, plotting the mean,

median and Gini coefficient.

Figure 4.3 (page 72) examines weekly earnings in the main job of full-time employees, Figure 4.4 (page 72) examines weekly earnings in all jobs of all employees and Figure 4.5 (page 73) examines hourly earnings in all jobs of all employees.¹

Over the full 2001 to 2022 period, the figures show that mean weekly earnings of full-time employees (expressed at December-quarter 2022 prices) increased from \$1,635 to \$2,010 (a 22.9% increase) for males and from \$1,291 to \$1,679 (a 30% increase) for females. The Gini coefficient, which provides a measure of inequality of earnings among employees (see Box 3.3, page 36), increased by 0.7% for males and 10.5% for females. The Gini coefficient for males actually increased by 6.8% between 2001 and 2011, but has since been trending downwards, falling from 0.298 in 2011 to 0.281 in 2021. For

Box 4.2: HILDA Survey measures of labour market earnings

The HILDA Survey does not ask respondents to report their hourly wage; rather, usual weekly (typically gross) earnings and usual weekly hours of work are obtained from everyone who is employed. Hourly rates of pay can then be calculated from this information. The hourly rate of pay so obtained is 'current usual earnings per hour worked'. While the hourly wage rate is the appropriate focus when interest is in the rate at which labour is rewarded, one concern that arises in hourly wage rate analysis is that additional measurement error is introduced by dividing reported weekly earnings by reported weekly hours of work. This provides one rationale for examining weekly earnings, at least as an augmentation to the study of hourly earnings. Another reason for examining weekly earnings is that, for full-time employees who are paid a salary, the notion of an hourly wage is less relevant. For example, a full-time employee may report working more than 38 hours per week but may implicitly only be paid for 38 hours.



¹ See Box 4.2 for an explanation of the earnings measures. Note further that Figures 4.3 to 4.5 are for earnings of employees and therefore exclude earnings of the self-employed and employers, whose earnings are often confounded with returns on capital invested in the business, either because reported earnings include a return on capital, or because reported capital income includes a component that is actually a return on labour.

female full-time employees, the Gini coefficient peaked at 0.259 in 2019, fell in 2020 and 2021, and then rose again in 2022 to be just below its 2019 level.

While there is considerable growth in mean and median weekly earnings of male full-time employees over the period as a whole, the rate of growth has varied over time. For mean earnings, there was strong

growth between 2002 and 2012 and between 2018 and 2020, but there was no net increase between 2012 and 2018, and there were sizeable drops in mean earnings in both 2021 and 2022. Between 2020 and 2022, mean earnings of male full-time employees fell by 3.4%. Median earnings of male full-time employees have followed a similar pattern.

In contrast to males, there was sustained growth in mean and median earnings of female full-time employees up until 2021. However, female full-time employees did experience very large declines in mean and median earnings in 2022, the mean declining by 4.8% and the median declining by 6.8%. These declines, and those experienced by males, are likely

Figure 4.3: Weekly earnings in main job of full-time employees



Note: Weekly earnings less than \$100 at December 2022 prices have been excluded.

Figure 4.4: Weekly earnings in all jobs of all employees



to in part reflect withdrawal of the JobKeeper program in March 2021.

Collectively, the recent movements in both average levels and inequality of male and female full-time employee earnings distributions imply that there has been some convergence between full-time employee male and female earnings distributions in recent years. That said, earnings of females declined relative to males in 2022, and both wage levels and wage inequality remain considerably higher among male full-time employees.

Figure 4.4 (page 72) provides a sense of the total distribution of weekly earnings among all employees—that is, how much total wage and salary income each employee receives, irrespective of part-time or full-time status. This perhaps gives a better indication of how, on average, employees are faring, and of the extent of inequality in the labour market.

The growth in mean weekly earnings between 2001 and 2022 is 21.6% for males (rising from \$1,470 to \$1,788) and 35.1% for females (rising from \$972 to \$1,313). As with earnings of full-



time employees, mean earnings fell in 2022—by 2.6% for males and by 4.4% for females.

The Gini coefficient for weekly earnings of all male employees rose sharply between 2007 and 2011, remained elevated between 2011 and 2016, trended downward until 2020, and then rose in both 2021 and 2022. The Gini coefficient for female employees remained relatively unchanged at approximately 0.35 until 2019, but then declined sharply in 2020 and has remained at approximately 0.33 since.

Figure 4.5 provides an overall picture of hourly rates of pay of all employees. Both males and

females sustained consistent growth in mean hourly wages until 2020. However, after a sharp rise in 2020, in 2022, hourly earnings declined sharply for both male and female employees.

Inequality in hourly earnings has been broadly unchanged for female employees, notwithstanding considerable volatility from year to year. For males, there was a substantial increase in inequality in hourly earnings between 2007 and 2009, following which there was a trend decline sustained until 2020. Between 2020 and 2022, the Gini coefficient for male hourly earnings grew from 0.278 to 0.285.

Figure 4.5: Hourly earnings in all jobs of all employees



Employment participation of people aged 65 and over

Analysis of employment participation presented in this report each year focuses on people aged 18 to 64, which corresponds to a notion of 'working age'.² However, people aged 15 to 17 and 65 and over may also be employed. In particular, with the age of eligibility for the Age Pension progressively increased from 65 to 67 between 1 July 2017 and 1 July 2023, it is likely we will see increased employment participation among people aged over 65.

Figure 4.6 presents employment rates of people aged 65 and over, disaggregated by gender and age group. It shows that employment participation has increased considerably over the course of this century, particularly among

those aged 65 to 69. For men aged 65 to 69, the increase occurred between 2005 and 2013, when the employment rate rose from 19.6% to 32.7%. Between 2013 and 2022 there was, in fact, a slight downward trend in employment participation of men aged 65 to 69. For women aged 65 to 69, most of the increase in employment participation has occurred since 2009, the employment rate rising from 11.5% in 2009 to 24.3% in 2022.

Employment participation of both men and women aged 70 to 74 has risen, albeit unevenly. Employment participation of men aged 75 and over has increased slightly, while employment participation of women aged 75 and over has remained broadly unchanged. In all age categories, men continue to have considerably higher employment participation than women, but the gap has narrowed for the 65 to 69 and 70 to 74 age groups. For the 65 to 69 age group, in 2001, the employment rate for

men was approximately 21%, compared with 10.6% for women; in 2022 the respective rates were 28.2% and 24.3%. For the 70 to 74 age group, in 2001, the employment rate for men was 10.5%, compared with 3% for women; in 2022 the respective rates were 15.3% and 10.6%.

Job separations

Integral to understanding labour market dynamics is knowledge of the extent and nature of job separations and job changes, including how often people separate from jobs, why they leave jobs and, for those who move into another job, how their new job compares with the job they left. By its nature, the HILDA Survey is well placed to contribute useful insights into this aspect of the labour market. Separations from jobs can occur for a wide variety of reasons, but it is useful to distinguish between those initiated by the employer

Figure 4.6: Proportion of people aged 65 and over employed



² Note, however, that the analysis of employee earnings in the preceding section includes all employees, regardless of age.

Box 4.3: Classification of job separations

In each year, individuals who had left the job they were employed in at the time of the last interview are asked the main reason for leaving the job or business. For employees, responses are assigned to one of the following categories:

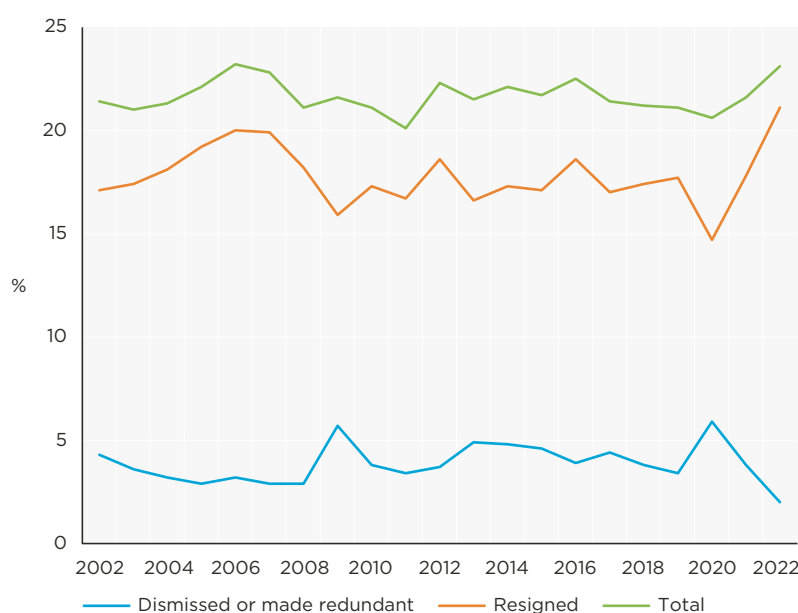
1. Job was temporary or seasonal
2. Holiday job
3. Got laid off/No work available/Retrenched/Made redundant/Employer went out of business/Dismissed, etc.
4. Not satisfied with job (e.g., unhappy with hours, pay, working conditions, boss, other workers)
5. To obtain a better job/Just wanted a change/To start a new business
6. Retired/Did not want to work any longer
7. Own sickness, disability or injury
8. Pregnancy/To have children
9. To stay at home to look after children, house or someone else
10. Travel/Have a holiday
11. Returned to study/Started study/Needed more time to study
12. Spouse/partner transferred
13. Too much travel time/Too far from public transport
14. Migrated to a new country
15. Change of lifestyle
16. Other reason

In this report, these reasons are classified into two categories:

1. Dismissed or made redundant (Category 3)
2. Quit (all other categories)



Figure 4.7: Annual rates of job separations—Employees



Note: Figure refers only to separation from the job held at the time of the previous-wave interview. It does not include any separations from jobs obtained after the previous-wave interview (i.e., jobs obtained and left within the approximately one year between interviews).

and those initiated by the employee (see Box 4.3).

Figure 4.7 shows the proportion of employees separating from their job each year in total and for each of the two reasons. In total, approximately 20–23% of employees experience a job separation each year. There has been some fluctuation in the rate of job separations over the period to 2022, but the composition has fluctuated considerably more. Around the time of the GFC, dismissals spiked from 2.9% in 2008 to 5.7% in 2009, but this was largely offset by the decline in quits from 18.2% to 15.9%.

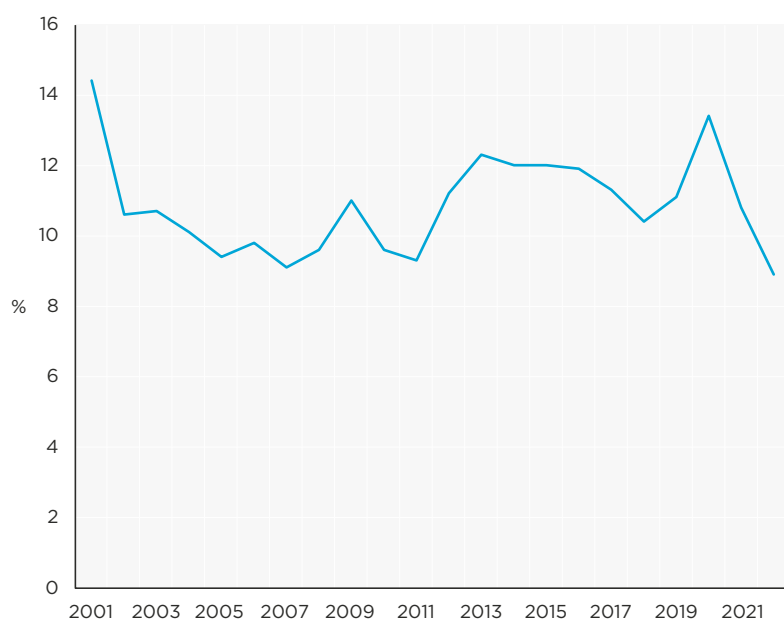
Similarly, the arrival of the COVID-19 pandemic in 2020 saw the rate of job dismissal rise from 3.4% in 2019 to 5.9% in 2020, while job quits declined from 17.7% to 14.7%, meaning job separations actually declined by 0.4 percentage points between 2019 and 2020.

In 2021, the rate of job dismissals fell back to 3.8%, and fell further again in 2022 to 2%, the lowest level ever this century. The rate of job quits correspondingly increased in both 2021 and 2022. Indeed, 21.1% of employees quit their job between Waves 21 and 22, the highest rate observed this century. Such was the magnitude of the increase in the quit rate between 2020 and 2022, the annual rate of total job separations increased from 20.6% to 23.1%, despite the decline in job dismissals.

Perceptions of job security

Each year, the HILDA Survey asks employees the percentage chance they will lose their current job (by being retrenched, fired or not having their contract renewed) over the next 12 months. Figure 4.8 (page 76) shows how the average response of employees to this question has evolved

Figure 4.8: Employees' mean perceived probability of job loss over the next 12 months



between 2001 and 2022. Based on this measure, job insecurity increased considerably in 2020, the mean perceived probability of dismissal rising from 11.1% in 2019 to 13.4% in 2020. This represented the sharpest one-year increase in this measure observed over the life of the study. However, 2021 saw an even larger decline in job fears with the mean perceived probability of dismissal falling to 10.8%. In 2022, this fell further to 8.9%, surpassing 2007 as the lowest level ever in the HILDA Survey period. This is consistent with the decline in actual job dismissals shown in Figure 4.7 (page 75).

Box 4.4: Australian Bureau of Statistics' classification of occupations and industries

Occupation variables in this report are based on the first (2006) edition of the Australian Bureau of Statistics' (ABS) ANZSCO classification system. ANZSCO stands for the Australian and New Zealand Standard Classification of Occupations. It is based on a conception of types of tasks and skill-level requirements. It has six 'levels', with eight occupation groups distinguished at the highest level of aggregation, known as the 1-digit level; 54 groups distinguished at the next (2-digit) level of aggregation, and so on. In this report, only the 1-digit level classification is used, which distinguishes the following categories: managers; professionals; technicians and trades workers; community and personal service workers; clerical and administrative workers; sales workers; machinery operators and drivers; and labourers. The largest occupation group is professionals, accounting for approximately 25% of employed people. See ABS (2006) for details.

Industry variables in this report are based on the ABS Australia and New Zealand Standard Industrial Classification (ANZSIC) classification system. ANZSIC classifies the economic activity of firms and other employers, and has a structure comprising categories at four levels: 'divisions' (the broadest level); 'subdivisions'; 'groups'; and 'classes' (the finest level). These levels are commonly referred to as '1-digit', '2-digit', '3-digit' and '4-digit', reflecting the number of digits used in the code to describe each category. At the 1-digit level, which is used in this report, 19 industry categories are distinguished: agriculture, forestry and fishing; mining; manufacturing; electricity, gas, water and waste services; construction; wholesale trade; retail trade; accommodation and food services; transport, postal and warehousing; information media and telecommunications; financial and insurance services; rental, hiring and real estate services; professional, scientific and technical services; administrative and support services; public administration and safety; education and training; health care and social assistance; arts and recreation services; and other services (such as hair and beauty services, funeral services, religious services, and repair and maintenance of equipment and machinery). The largest industry by employment is health care and social assistance, followed by education and training and retail trade. See ABS (2008) for details.

Working from home

As shown in previous reports, the COVID-19 pandemic saw a substantial rise in employed people working from home. In this year's report, we examine the extent to which this persisted into 2022. Table 4.2 considers the amount of time workers work from home (see Box 4.5, page 77), focusing on the 2019 to 2022 period. In 2019, 25.2% of employed people did some work from home. This rose to 34.7% in 2020 and again rose in 2021 to 37.3%. The proportion reporting any time spent working from home fell to 34.2% in 2022, but this was still well above the pre-COVID level.

Mean weekly hours worked at home increased from 11.4 in 2019 to 22.8 in 2020 and 24.4 in 2021, before falling back to 18.9 in 2022, again still well above the 2019 level. Only 3.5% of people worked entirely from home in 2019, whereas 17.7% worked entirely from home in 2021. In 2022, this fell to 7.5%. Similarly, 6.5% of people worked at least 50% of the time from home in 2019, compared with 24.2% in 2021 and 16.9% in 2022. The final



row of Table 4.2 further shows that the proportion of full-time workers working at least 20% of the time from home—the equivalent of at least one day per week—rose from 13.6% in 2019 to 35.2% in 2021, and remained at 31.1% in 2022.

Comparisons across the states and territories presented in Table 4.3 show, unsurprisingly, that growth in working from home was strongest in locations and time periods of lockdowns. Victoria had strong growth between 2020 and 2021 and maintained a high rate of working from home in 2021, while New South Wales had growth in both 2020 and 2021. Notable, however, is that the Australian Capital Territory had the strongest growth in working from home, and this mostly occurred between 2019 and 2020, despite lockdowns in the Australian Capital Territory mostly occurring in 2021. This probably reflects the composition of employment, with a higher proportion of jobs amenable to working from home

Box 4.5: Measuring working from home in the HILDA Survey

In the HILDA Survey all employed people are asked how many hours they usually work in a week, both in their main job and in all jobs. This same group is subsequently asked whether, in their main job, any of their usual hours are worked at home, and if yes, how many.

From this we construct measures of the proportions of employed people that, in their main job, worked any hours at home, most hours at home (defined as 50% or more of their usual weekly work hours) and all hours at home. People reporting working from home but who then do not provide the number of hours worked from home are treated as missing and excluded from the analysis.



Table 4.2: Working from home, 2019 to 2022—Employed people

	2019	2020	2021	2022
<i>All employed people</i>				
Any work from home (%)	25.2	34.7	37.3	34.2
Mean weekly hours worked at home	11.4	22.8	24.4	18.9
Work entirely from home (%)	3.5	16.2	17.6	7.5
Work at least 50% of the time from home (%)	6.5	23.0	24.2	16.9
<i>Full-time employed people</i>				
Work the equivalent of at least one day per week from home (%)	13.6	31.1	35.2	31.1

Table 4.3: Proportion of employed people working at home by state and territory, 2019 to 2022 (%)

	Worked from home				Worked only from home			
	2019	2020	2021	2022	2019	2020	2021	2022
New South Wales	27.6	37.8	44.6	36.7	3.9	16.7	27.3	8.3
Victoria	26.0	40.3	42.5	36.9	3.2	30.0	24.5	9.7
Queensland	21.5	29.2	28.9	30.5	3.7	7.8	5.8	5.2
South Australia	26.2	27.3	27.2	29.3	2.5	6.9	4.6	6.2
Western Australia	23.7	27.9	26.8	28.8	3.7	6.7	4.8	5.1
Tasmania	19.2	21.2	21.7	24.0	2.3	2.7	2.4	4.9
Northern Territory	21.5	13.4	18.2	30.9	1.7	2.3	5.9	1.4
Australian Capital Territory	23.6	52.9	54.0	55.2	2.2	18.7	30.2	9.0

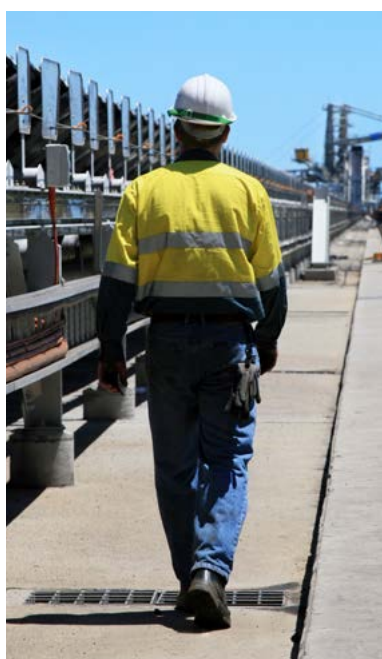
Table 4.4: Working from home, by industry and occupation

	2019	2020	2021	2022
Industry				
Agriculture, Forestry and Fishing	48.3	42.2	49.8	35.9
Mining	18.8	30.1	27.3	24.7
Manufacturing	18.8	27.2	25.7	24.2
Electricity, Gas, Water and Waste Services	19.4	34.2	43.9	45.4
Construction	23.9	29.8	33.4	26.5
Wholesale Trade	28.3	36.8	48.4	36.0
Retail Trade	10.2	14.6	13.4	11.9
Accommodation and Food Services	8.5	9.5	9.8	8.3
Transport, Postal and Warehousing	18.5	13.1	13.4	16.0
Information Media and Telecommunications	45.2	71.7	62.2	72.8
Financial and Insurance Services	40.1	75.8	85.5	84.6
Rental, Hiring and Real Estate Services	48.9	48.8	56.3	44.3
Professional, Scientific and Technical Services	46.2	68.3	72.6	72.2
Administrative and Support Services	32.4	35.5	40.8	40.5
Public Administration and Safety	20.2	46.8	50.1	51.3
Education and Training	44.0	51.0	57.3	45.1
Health Care and Social Assistance	13.6	21.1	23.0	22.0
Arts and Recreation Services	18.3	30.3	31.2	23.5
Other Services	27.1	34.7	34.0	31.8
Occupation				
Managers	50.0	58.7	63.1	60.6
Professionals	41.3	57.3	60.0	56.0
Technicians and Trades Workers	17.0	22.5	23.6	19.9
Community and Personal Service Workers	9.8	14.7	17.2	11.6
Clerical and Administrative Workers	18.5	39.1	47.4	42.2
Sales Workers	11.0	13.2	13.5	11.0
Machinery Operators and Drivers	5.4	3.4	5.0	5.1
Labourers	9.0	8.3	9.7	7.0

in the Australian capital than in other regions.

In 2022, there was some degree of convergence in rates of working from home across states and territories, reflecting changing work arrangements that were not primarily being driven by social distancing measures. Thus, while rates of working from home declined somewhat in 2022 in New South Wales and Victoria, they increased in Queensland, South Australia, Western Australia, Tasmania and the Northern Territory.

Comparisons in rates of working from across industries and across occupations are presented in Table 4.4. Among industries, rates are highest in financial and insurance services, professional, scientific and technical services, and information media and telecommunications. These are industries that had relatively high rates of working from home pre-COVID-19, but they experienced large increases during the pandemic and have had no reduction in the proportion reporting working from home (at least some of the time) in 2022. Significantly, rental, hiring and real estate services and education and training had relatively high



Box 4.6: Classification of type of employment contract

Three types of employment contract are distinguished in this report:

- Fixed-term contracts*, defined as employment contracts that end at a specified date or upon completion of a specific task.
- Casual employment*, which has long been recognised in industrial awards, despite ambiguity about the legal definition of casual employment up until 22 March 2021, when an amendment to the *Fair Work Act 2009* was passed providing a statutory definition. The amendment essentially gave legal standing to what casual employment was commonly understood to be (e.g., Creighton and Stewart, 2010), defining it as employment with no firm advance commitment from the employer to continuing and indefinite work according to an agreed pattern of work for the employee. However, casual employment is often identified on the basis of the absence of entitlement to paid leave and/or payment of a casual 'loading', which are common features of casual employment (e.g., ABS, 2018a). From an employee perspective, the payment of a casual loading, the absence of paid leave entitlements and/or irregularity of hours are all indicators of employment on a casual basis. In the HILDA Survey, casual employment status is determined based on employee self-reports of employment contract type. In 2021, the HILDA Survey data show that 96% of people who identified as being employed on a casual basis did not have paid leave entitlements, while 85% of those without paid leave entitlements identified as being employed on a casual basis.
- Permanent/ongoing employment*, whereby permanent employees typically have leave and other entitlements, and usually have a guaranteed minimum number of hours per week.

proportions of workers reporting working from home in 2019 (44% or higher), but had only small increases in 2020 and 2021 and were essentially back at the 2019 level in 2022. This likely reflects the fact that these industries have always had high proportions doing some of their work at home after hours, but their jobs typically also require physical attendance in the workplace.

Comparing across occupations, managers consistently have the highest proportion working from home, but this again is likely to mostly reflect undertaking additional after-hours work. There was only a small increase in the rate of working from home by managers over the course of the pandemic. Professionals and clerical and administrative workers, by contrast, had substantial increases in rates of working from home between 2019 and 2020 and have maintained high rates since then. Very little change in rates of working from home is evident over the 2019 to 2022 period for the other occupation groups.

Working on the weekend

Since 2004, the HILDA Survey has identified whether employed people undertake any of their paid work on the weekends. In 2017, additional questions were included allowing identification of which weekend days they worked and how many hours they worked on those days. Figure 4.9 shows the proportion of employed people who usually work on the weekend in each year from 2004 to 2022, as well as the proportion working on Saturday and the proportion working on Sunday in each year from 2017 to 2022.

The figure shows that approximately one-third of employed people usually work on



Figure 4.9: Proportion of employed people who usually work on the weekend

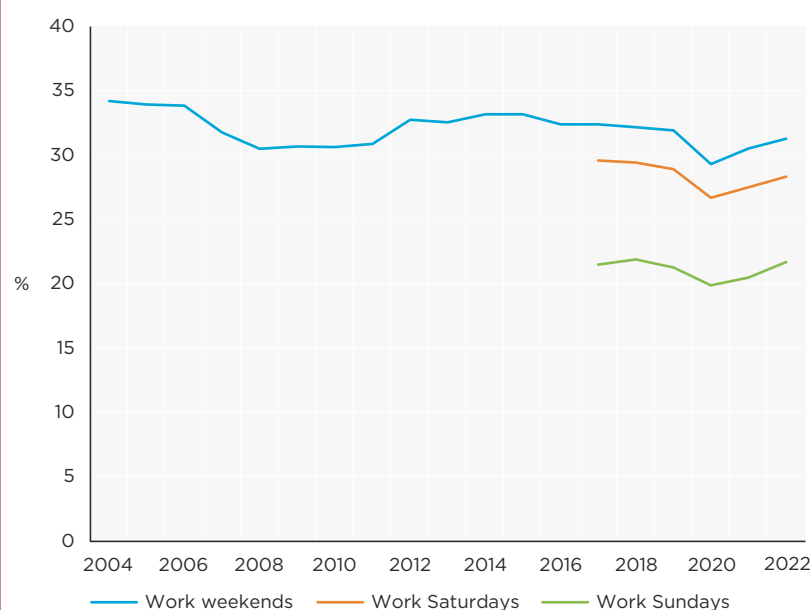


Table 4.5: Mean weekly hours worked on the weekend by those working on the weekend, 2017 to 2022

	Weekend	Saturday	Sunday
2017	10.9	6.9	7.0
2018	10.9	6.8	6.9
2019	10.9	6.8	7.0
2020	11.0	6.9	7.0
2021	11.1	7.1	7.0
2022	11.4	7.1	7.1

Note: Estimates for each day of the weekend are restricted to people who actually work on that day—for example, the middle column shows mean hours worked on Saturday by those who work on Saturdays.

the weekend. There has been some fluctuation over the 2004 to 2022 period. Between 2004 and 2006, approximately 34% of employed people worked on the weekend. There was then a decline to approximately 31% between 2006 and 2008, then a rise to approximately 33% in 2012. There was a very slight trend decline in weekend work up until 2019, and then a fall to 29% in 2020 followed by increases in 2021 and 2022.

The breakdown by day of the weekend available since 2017 shows that in 2017 approximately 30% of employed people worked on Saturdays and 22% worked on Sundays. Changes in the proportion working on each day between 2017 and 2022 follow the same pattern as for total weekend work.

Mean weekly hours worked on the weekend by those who work on the weekend are presented in Table 4.5 for the 2017 to 2022 period that this information has been collected. On average, weekend workers undertake approximately 11 hours of work on the weekend. Among those who

work on Saturday, mean Saturday working hours are approximately 7 and among those who usually work on Sunday, mean Sunday working hours are likewise approximately 7. There is evidence of a slight increase in mean weekend working hours by those working on the weekend between 2017 and 2022. For the weekend as a whole, mean working hours increased from 10.9 to 11.4. For those working on Saturdays, mean hours on that day increased from 6.9 to 7.1, while for those working on Sundays, mean hours worked on that day increased for 7.0 to 7.1.

The personal and job characteristics associated with working on the weekend are examined in Table 4.6, which presents 'mean marginal effects' estimates from Probit models of the probability of working on the weekend. (See the Technical Appendix for further explanation of these models.)

The first column presents estimates from a specification that includes only personal characteristics. It shows that, other personal characteristics

held constant, males have a 2.6 percentage-point higher probability of working on the weekend than females. The estimates for the age variables show weekend work is most likely for workers aged 15 to 24, followed by workers aged 55 and over, and least likely for workers aged 35 to 44.

Compared with a worker without post-school educational qualifications, a worker with a university degree on average has an 11.3 percentage-point lower probability of working on the weekend, other factors held constant. However, a worker with a non-university post-school qualification has a 0.7 percentage-point higher probability of working on the weekend than a worker without post-school qualifications. Comparing across regions, workers living in non-urban regions are the most likely to work on weekends, followed by workers living in non-major urban areas. Workers living in major urban areas are the least likely to work on weekends, other personal characteristics held constant. Unsurprisingly, we also



Table 4.6: Personal and employment characteristics associated with working on the weekend, 2004 to 2022

	Personal characteristics	Personal and employment characteristics
Male	0.026	0.019
<i>Age group (Reference category: 35–44)</i>		
15–24	0.094	0.025
25–34	0.026	0.012
45–54	0.009	0.008
55 and over	0.033	0.011
<i>Educational attainment (Reference category: No post-school qualifications)</i>		
University degree	–0.113	–0.020
Other post-school qualification	0.007	0.009
<i>Region of residence (Reference category: Major urban)</i>		
Other urban	0.053	0.006
Other region	0.096	0.009
Full-time student	0.224	0.084
Employee		ns
Employed full-time		0.024
<i>Type of employment contract of employees (Reference category: Ongoing)</i>		
Casual employee		0.023
Fixed-term employee		ns
<i>Work schedule (Reference category: Regular daytime schedule)</i>		
Regular night-time schedule		0.171
Split shift		0.389
Irregular schedule		0.266
Other work schedule		0.211
<i>Industry (Reference category: Agriculture, Forestry and Fishing)</i>		
Mining		0.031
Manufacturing		–0.145
Electricity, Gas, Water and Waste Services		–0.048
Construction		–0.072
Wholesale Trade		–0.143
Retail Trade		0.084
Accommodation and Food Services		0.093
Transport, Postal and Warehousing		–0.051
Information Media and Telecommunications		–0.152
Financial and Insurance Services		–0.183
Rental, Hiring and Real Estate Services		ns
Professional, Scientific and Technical Services		–0.202
Administrative and Support Services		–0.150
Public Administration and Safety		–0.161
Education and Training		–0.200
Health Care and Social Assistance		–0.038
Arts and Recreation Services		0.028
Other Services		ns
<i>Occupation (Reference category: Managers)</i>		
Professionals		–0.019
Technicians and Trades Workers		0.029
Community and Personal Service Workers		0.091
Clerical and Administrative Workers		–0.080
Sales Workers		0.097
Machinery Operators and Drivers		0.039
Labourers		0.027
<i>Year (Reference category: 2004 to 2007)</i>		
2008 to 2010	–0.024	–0.014
2011 to 2013	ns	ns
2014 to 2016	ns	ns
2017 to 2019	ns	ns
2020 to 2021	–0.018	–0.011
2022	ns	ns
Number of observations	187,450	157,578

Notes: The table presents mean marginal effects estimates from Probit models of the probability of working on the weekend. See the Technical Appendix for further explanation of these models. The sample comprises all employed persons, ns indicates the estimate is not significantly different from 0 at the 10% level.

Table 4.7: Mean satisfaction with various aspects of work and life, by whether work on the weekend or not and age group—Employed persons, 2022 (0–10 scale)

	All employed		15–24		25–34		35–54		55 and over	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Job overall	7.9	7.8	8.0	7.7	7.8	7.6	7.9	7.8	8.0	8.0
Total pay	7.5	7.4	7.5	7.5	7.4	7.3	7.5	7.5	7.6	7.3
Job security	8.3	8.3	8.6	8.3	8.4	8.3	8.3	8.3	8.3	8.1
Hours worked	7.7	7.3	7.6	7.2	7.6	7.1	7.7	7.4	7.8	7.5
Flexibility available to balance work and non-work commitments	7.8	7.5	7.8	7.8	7.7	7.2	7.9	7.3	8.0	7.6
Life overall	8.0	7.9	8.1	8.0	8.0	7.9	7.9	7.8	8.1	8.0
Employment opportunities	8.0	8.0	8.2	8.1	8.0	8.0	8.0	7.9	7.8	7.8
Financial situation	7.3	7.1	7.2	7.3	7.2	6.9	7.3	7.1	7.5	7.3
Amount of free time	6.5	6.4	6.8	6.9	6.3	5.9	6.3	6.1	7.1	7.0
Relationship with partner	8.1	8.1	8.4	8.5	8.5	8.5	8.0	7.8	8.0	8.2

Note: No—does not work on weekend; Yes—does work on weekend.

see that workers who are full-time students have a 22.4 percentage-point higher probability of working on the weekend than other workers, other characteristics held constant.

Additionally considering employment characteristics (second column of Table 4.6, page 81) reduces the magnitudes of the associations between personal characteristics and likelihood of weekend work. This is unsurprising given that differences by personal characteristics will largely reflect the different nature of the jobs in which they work. Nonetheless, it is notable that estimates for personal characteristics are still statistically significant and qualitatively the same even after accounting for employment factors.

Full-time employment is associated with a 2.4 percentage-point higher probability of weekend work than part-time employment. Of course, this could derive from full-time workers who mostly work Monday to Friday but undertake additional after-hours work on the weekend. Unsurprisingly, casual employees on average have a 2.3 percentage-point higher probability of weekend work than other workers, other factors held constant.

Work schedules other than a regular daytime schedule are associated with greater likelihood of weekend work, which is again unsurprising. Comparing across industries, accommodation and food services and retail trade have the highest rates of weekend work, other factors held constant, while professional, scientific and technical services, education and training, and financial and insurance services have the lowest rates of weekend work. Perhaps surprising is that workers in retail trade have a relatively low probability of working on the weekend, all else equal.

The occupations with the highest rates of weekend work, holding other factors constant, are sales workers, and community and personal service workers. Clerical and administrative workers and professionals are the least likely to work weekends, other factors held constant. Reflecting the trends shown in Figure 4.9 (page 79), weekend work is relatively less likely in the 2008 to 2010 and 2020 to 2021 periods.

Table 4.7 compares average levels of satisfaction with various aspects of work and life of employed people by whether they work on the weekend. Comparisons are made for all

employed people and disaggregated by age group. The table shows that people who work on the weekend are generally less satisfied than workers who do not work on the weekend, although the differences are generally small. Satisfaction with hours worked and with flexibility available to balance work and non-work commitments stand out as the domains with the biggest differences between the two groups of workers. Overall, average satisfaction with hours worked is 7.3 on the 0 to 10 scale for workers who work on the weekend and 7.7 for other workers. Average satisfaction with flexibility available to balance work and non-work commitments is 7.5 for workers who work on the weekend, compared with 7.8 for other workers.

Notable exceptions to the finding that those who work on the weekend have lower average levels of satisfaction are evident for the 15 to 24 age group, for whom average satisfaction with their financial situation, amount of free time and (for those with a partner) their relationship with their partner is slightly higher than for those who work only on weekdays.

5

Household wealth

Roger Wilkins



Household wealth data have been collected every four years since 2002. Household wealth is an important determinant of economic wellbeing, affecting the ability of individuals to maintain living standards in the face of adverse events such as job loss, and particularly important to the living standards of people in retirement. Wealth also affects households' incomes, either through financial returns such as dividends, or through 'in-kind' benefits such as those provided by owner-occupied housing. An individual's household wealth is also potentially an important determinant of many economic and social decisions, including the timing of retirement.

In this chapter, the overall distribution of wealth, its composition and its dynamics over the 2002 to 2022 period is examined. In addition, we present analysis on inheritances and other gifts received, which can have important impacts on household wealth. As in earlier chapters of this report, monetary values are converted to December 2022 prices to remove the effects of inflation. In practical terms, this involves increasing the wealth figures reported by respondents by 69% for the 2002 data, by 50.9% for the 2006 data, by 35.3% for the 2010 data, by 22.8% for the 2014 data, by 14.9% for the 2018 data and by 0.9% for the 2022 data.

The distribution of wealth

Table 5.1 presents summary statistics of the distribution of household net wealth in Australia in each year in which wealth data have been collected. Over the full 2002 to 2022 period, there have been large gains in the wealth of Australian households. Mean wealth of households increased by 83.8% in real terms to \$1,254,763 in 2022, while median wealth increased by 97.7%, to \$728,795. However, it has not been a constantly upward trajectory. Mean wealth declined between 2006 and 2014, and median wealth declined between 2010 and 2014. Most of the growth in the mean and median occurred between 2002 and 2006 and between 2014 and 2022. Between 2006 and 2014, the mean decreased by 1.6% and the median was approximately unchanged.

Between 2002 and 2006, when mean wealth grew strongly,

wealth inequality (as measured by the Gini coefficient) also grew, largely because the very wealthiest became much richer. This is indicated by the 99th percentile—the household with net wealth higher than 99% of households and lower than 1% of households—which increased by 21% between 2002 and 2006. However, between 2006 and 2018, the Gini coefficient declined slightly, and between 2018 and 2022 it declined considerably, from 0.626 to 0.605. The decline in the Gini coefficient between 2018 and 2022 reflects growth in wealth ordered by location in the wealth distribution: the 10th percentile grew by 54.9%, the median (50th percentile) grew by 28%, the 90th percentile grew by 18.6% and the 99th percentile grew by 9.4%.

Table 5.1 also presents estimates of the total value of household wealth (exclusive of household contents) in each of the five waves in which wealth data have

Box 5.1: Measurement of household wealth in the HILDA Survey

The HILDA Survey obtains a measure of household wealth by asking a detailed set of questions on most financial assets, non-financial assets and debts. Total wealth—or net wealth—is equal to total financial and non-financial assets of all members of the household, minus total debts of all members of the household.

The questions employed to measure wealth have remained very similar across the five waves that have specifically collected wealth data, ensuring a high degree of comparability of wealth estimates. In all five waves, the following financial asset components were measured: bank accounts; superannuation; cash investments; equity investments (shares); trust funds; and the cash-in value of life insurance policies. In respect of non-financial assets, wealth data were sought for: the home; other property; business assets; collectables; and vehicles. In Wave 2, the debt components measured comprised: home debt; other property debt; unpaid credit card debt; HECS debt; other personal debt (including car loans, investment loans, hire purchase agreements, and loans from friends or relatives not living in the household); and business debt. Very similar information on debts was collected in 2006, 2010, 2014 and 2018, but in these four waves, the value of overdue household bills was also collected, and 'other personal debt' was disaggregated into six components: car loans; hire-purchase loans or agreements; investment loans; other personal loans from financial institutions; loans from other types of lenders such as solicitors, pawn brokers and welfare agencies; and loans from friends and relatives not living in the household.

The only significant component omitted from the HILDA Survey measure of household wealth is 'dwelling contents' (other than collectables), such as furniture and appliances. Estimates from the Australian Bureau of Statistics' (ABS) Survey of Income and Housing presented in ABS (2019) indicate that the mean value of household contents, including collectables, was \$70,512 in 2017–2018 (at December 2018 prices). The mean value of collectables in Wave 18 of the HILDA Survey was \$4,189, implying dwelling contents not measured by the HILDA Survey in 2018 averaged \$66,323 across all households.



been collected. This is estimated to have been \$12.7 trillion in 2022, up from \$10.2 trillion in 2018 and \$5.0 trillion in 2002 (all expressed at December 2022 prices). Aggregate household wealth experienced sustained growth between 2002 and 2022, with population growth more than offsetting the decline in mean wealth between 2006 and 2014.

Table 5.2 examines the composition of household wealth, presenting statistics for eight asset components and six debt components of household net wealth. For each component, it shows the proportion of households holding the component, and the mean value of the component across all households.

The family home is clearly the most important asset component, and debt on the family home is clearly the most important debt component. Approximately two-thirds of households are home-owner households, although this proportion declined between 2002 and 2018 before increasing slightly between 2018 and 2022. The mean value of owner-occupied housing, evaluated over all households, was \$348,131 in 2002 and \$659,010 in 2022. It bears noting that, had the proportion of home-owning households not declined, the mean value of home assets would have grown more strongly. For example, holding constant the mean home value among

Table 5.1: Distribution of net wealth across households, 2002 to 2022 (December 2022 prices)

	Mean (\$)	10th percentile (\$)	Median (\$)	90th percentile (\$)	99th percentile (\$)	Gini coefficient	Aggregate wealth (\$ billion)
2002	682,681	6,800	368,572	1,553,715	9,054,249	0.629	5,023
2006	924,191	11,443	498,072	2,068,410	10,953,384	0.632	7,104
2010	919,102	11,823	524,147	2,048,569	10,761,563	0.624	7,628
2014	909,365	12,650	499,865	2,191,127	10,481,791	0.627	8,077
2018	1,065,393	15,632	569,233	2,568,309	10,827,173	0.626	10,190
2022	1,254,763	24,214	728,795	3,046,399	11,843,104	0.605	12,743
Percentage change 2002 to 2022	83.8	256.1	97.7	96.1	30.8	-3.7	153.7
Percentage change 2018 to 2022	17.8	54.9	28.0	18.6	9.4	-3.3	25.0

home-owning households at its 2022 level (\$1,016,991), if the 2002 home-ownership rate of 68.3% applied in 2022 (instead of 64.8%), the mean value of home assets across all households would have been \$694,605.¹

Despite the fall in home ownership, mean home debt among all households rose in a sustained fashion between 2002 and 2018, reaching \$139,742 in 2018, well over double its 2002 level. However, between 2018 and 2022, despite the slight rise in

home ownership, mean debt actually fell slightly to \$138,726. The increase in inflation in 2022 is likely to be the main driver of this decline (since real debt will decrease even if nominal debt does not change), but it may also in part be due to low interest rates in 2020 and 2021, which would make paying down debt easier.

Superannuation is the second-most important asset class in households' wealth portfolios. In 2022, 86.6% of households held superannuation, with the mean

balance across all households equal to \$300,652. This represents an increase of 115% from 2002, when the mean balance was \$139,832.

The importance of housing in household wealth is further reinforced by the large share of household wealth accounted for by investment housing and holiday homes. The proportion of households holding other property grew strongly between 2002 and 2006, rising from 16.6% to 20.6%, since when it has

Table 5.2: Composition of household wealth, 2002 to 2022

Assets									
	Home	Other property	Super-annuation	Equities	Bank accounts	Business	Vehicles	Other assets	All assets
Proportion of households with each asset type (%)									
2002	68.3	16.6	76.7	41.1	97.6	12.7	87.7	26.7	99.8
2006	67.7	20.6	80.5	38.1	97.7	13.0	90.1	24.2	99.7
2010	66.5	20.8	83.6	34.9	98.0	12.4	90.5	22.4	99.8
2014	64.3	20.8	84.3	30.5	98.1	10.2	91.7	22.5	99.7
2018	64.2	20.8	85.1	29.1	98.2	9.9	92.4	23.1	99.8
2022	64.8	20.5	86.6	31.1	98.5	10.4	92.1	27.8	99.9
Mean value of each asset type across all households (\$, December 2022 prices)									
2002	348,131	83,973	139,832	53,541	40,099	72,840	32,060	29,121	799,598
2006	466,857	196,260	183,668	69,248	44,975	71,928	35,275	32,913	1,101,125
2010	507,117	170,188	203,999	51,167	54,881	67,058	35,181	39,897	1,129,487
2014	480,461	169,700	228,926	53,228	63,241	48,847	32,844	43,018	1,120,266
2018	582,957	182,053	273,812	51,280	79,363	48,294	35,242	41,388	1,294,389
2022	659,010	220,563	300,652	55,652	90,425	56,318	42,986	54,287	1,482,232
Debts									
	Home	Other property	Business	Credit cards	HECS / HELP	Other	All debts		
Proportion of households with each debt type (%)									
2002	33.8	7.7	5.0	31.4	14.2	32.1	66.2		
2006	35.8	10.0	4.6	29.6	14.2	35.8	69.9		
2010	37.5	10.2	4.1	28.9	16.4	35.5	70.9		
2014	35.9	10.7	2.8	24.1	19.2	33.8	69.3		
2018	36.2	10.9	2.4	20.3	21.3	32.5	68.8		
2022	35.8	11.0	2.3	13.0	22.7	30.6	66.5		
Mean value of each debt type across all households (\$, December 2022 prices)									
2002	65,469	20,739	13,331	1,805	2,616	12,957	116,917		
2006	97,169	39,387	13,473	2,316	2,872	21,614	176,934		
2010	120,860	47,476	12,185	2,811	3,879	23,015	210,384		
2014	123,197	50,743	9,804	2,007	5,350	19,652	210,901		
2018	139,742	57,417	8,315	1,641	6,944	14,769	228,995		
2022	138,726	57,398	8,092	645	7,375	15,153	227,469		

¹ The mean value of home assets among home-owner households in 2018 was \$1,016,991 (\$659,0228/0.648). If the home-ownership rate was instead 68.3%, while the mean value among home-owner households remained unchanged at \$1,016,991, then the mean value of home assets across all households would have been $0.683 \times \$1,016,991 = \$694,605$.

Table 5.3: Median household wealth by personal characteristics, 2002 to 2022 (\$, December 2022 prices)

	2002	2006	2010	2014	2018	2022	Percentage change 2002 to 2022
All people	424,390	581,473	596,627	561,682	644,345	822,042	93.7
<i>Family type</i>							
Non-elderly couple	596,543	771,328	761,670	731,218	768,707	1,007,937	69.0
Couple with dependent children	489,481	644,194	657,720	604,106	750,260	958,998	95.9
Single parent	96,664	148,628	133,243	114,157	109,026	152,979	58.3
Single non-elderly male	180,940	232,421	214,221	244,818	244,819	313,108	73.0
Single non-elderly female	168,992	263,260	237,455	231,510	298,052	337,093	99.5
Older couple	523,876	756,588	873,804	926,248	1,176,528	1,347,371	157.2
Single older male	403,547	521,239	546,732	529,587	579,085	615,821	52.6
Single older female	391,197	482,768	554,581	548,175	643,656	754,926	93.0
<i>Age group</i>							
18-34	138,574	158,343	160,964	144,556	160,363	238,942	72.4
35-44	415,552	540,405	552,786	444,904	546,943	702,243	69.0
45-54	707,155	821,460	796,162	749,494	845,947	1,083,642	53.2
55-64	754,381	981,439	1,062,483	1,000,344	1,186,165	1,334,397	76.9
65-74	561,899	753,572	868,407	968,835	1,080,882	1,264,474	125.0
75 and over	424,390	582,339	632,493	659,591	814,224	976,963	130.2
<i>Region of residence</i>							
Sydney	608,948	648,720	643,789	601,840	756,640	924,179	51.8
Other urban New South Wales	442,844	578,945	516,572	590,263	629,931	849,259	91.8
Melbourne	517,564	591,089	714,192	616,602	886,348	1,004,465	94.1
Other urban Victoria	285,489	396,851	417,885	443,179	470,732	673,681	136.0
Brisbane	368,910	508,764	626,598	508,953	543,331	672,419	82.3
Other urban Queensland	288,980	471,307	469,065	381,961	386,823	578,255	100.1
Adelaide	301,989	404,318	495,667	495,725	503,402	673,681	123.1
Other urban South Australia	152,600	310,480	287,745	259,560	186,633	349,223	128.8
Perth	393,414	785,253	699,719	664,684	677,961	737,668	87.5
Other urban Western Australia	302,555	718,931	535,171	496,995	470,501	679,534	124.6
Urban Tasmania	160,543	283,617	340,878	374,592	390,935	678,625	322.7
Urban Northern Territory and Australian Capital Territory	665,121	748,095	786,649	639,630	846,522	1,102,111	65.7
Non-urban Australia	481,628	656,716	698,772	668,124	770,433	1,048,093	117.6

Notes: The population examined comprises all people aged 30 years and over, plus people aged 18 to 29 not living with a parent or guardian. The proportion of people aged 18 to 29 not living with a parent or guardian was 59% in 2002, 55% in 2006, 55% in 2010, 52% in 2014, 53% in 2018 and 52% in 2022.



remained relatively stable, albeit with a slight decline from 20.8% to 20.5% between 2018 and 2022. The mean value of other housing across all households rose dramatically between 2002 and 2006, from \$83,973 to \$196,260, but declined between 2006 and 2014, since when there has been strong growth to \$220,563 in 2022. In common with home debt, debt on other housing rose in a sustained fashion between 2002 and 2018, with mean debt across all households rising from \$20,739 in 2002 to \$57,417 in 2018. Also in common with home debt, debt on other housing declined slightly between 2018 and 2022.

Equity investments (shares) are also a sizeable component of assets, but the proportion of households directly holding equities steadily declined between 2002 and 2018, falling from 41.1% in 2002 to 29.1% in 2018. There was a slight recovery between 2018 and 2022 to 31.1%. In part, the decline may reflect a shift from directly holding equities to holding them in superannuation funds.

Notwithstanding the trend decline in direct ownership of equities, changes in the mean value of equities across all households to a significant extent reflect movements in share prices. The mean peaked in 2006 at \$69,248, declined to \$51,167 in 2010, rose again to \$53,228 in 2014, fell again to \$51,280 in 2018 and then rose to \$55,652 in 2022.

The HILDA Survey data show that the share of wealth in bank accounts has risen since 2002. In 2002, bank accounts accounted for 5.9% of net wealth, and in 2022 they accounted for 7.2% of net wealth. This may in part reflect growth in use of mortgage offset accounts, balances in which are included in the HILDA Survey measure of bank account balances. Ownership of businesses declined between



2006 and 2018, with 13% of households owning businesses in 2006 and 9.9% owning businesses in 2018. In 2022, there was a slight recovery in business ownership to 10.4%. Reflecting the changes in business ownership rates, the mean value of business wealth declined from \$71,928 in 2006 to \$48,294 in 2018 and then increased to \$56,318 in 2022. The mean value of business debt steadily declined between 2006 and 2022 from \$13,473 to \$8,092.

Over the full period between 2002 and 2022, the total value of household debt has risen at a faster rate than the value of household assets. The mean value of assets grew by 85.4% over this period, while the mean value of

debt grew by 94.6%. However, the relative growth in debt in fact only occurred between 2002 and 2018: between 2018 and 2002, the mean value of assets grew strongly, while the mean value of debt declined slightly.

Table 5.3 examines differences in median household net wealth by family type and by age group. For this analysis, the population examined comprises all people aged 30 and over plus people aged 18 to 29 who are not living with their parents.

Large differences in median wealth are evident across family types. Single parents have the lowest average wealth levels, at \$96,664 in 2002 and \$152,979 in 2022. Single non-elderly men and women also have comparatively

low median wealth. In 2002 and 2006, non-elderly couples without dependent children had the highest median wealth of the family types, but older couples have experienced very strong growth in median wealth, and since 2010 have had the highest median wealth of all the family types. Indeed, over the full 2002 to 2022 period, the median wealth of older couples grew by 157.2%. Single older men and single parents experienced the weakest growth in median wealth between 2002 and 2022.

Wealth typically accumulates over the lifecycle (at least up until retirement), so it is unsurprising that there are large differences in median wealth by age group. In all six years in which wealth data have been collected, median wealth is lowest for the youngest age group, and increases in age up to the 55 to 64 age group. Prior to 2010, the median wealth of people aged 65 to 74 was less than that of those aged 45 to 54, but by 2010 the median wealth of the 65 to 74 age group had overtaken the median wealth of those aged 45 to 54. This reflects the very strong growth in median wealth between 2002 and 2022 for the 65 to 74 age group, with

the median increasing by 125%. Growth was even stronger for the oldest age group, increasing by 130.2% between 2002 and 2022, although median wealth for this age group remained below that of the 45 to 54 age group throughout the 2002 to 2022 period.

Median wealth by region of residence is examined in the bottom panel of Table 5.3. It shows that the combined region of urban Northern Territory and the Australian Capital Territory had the highest median wealth level in 2022, followed by non-urban Australia and then Melbourne. Median wealth was lowest in urban South Australia outside of Adelaide. Between 2002 and 2022, urban Tasmania experienced dramatic growth in

median wealth of 322.7%, while Sydney had the lowest growth of all regions examined in Table 5.3.

Wealth accumulation over time

While Tables 5.1 to 5.3 present cross-sectional information on the distribution of household wealth, the unique contribution of the HILDA Survey data on Australian household wealth is that it permits examination of changes over time—or dynamics—of individuals' household wealth.

Table 5.4 examines the distribution of *changes* in individuals' household wealth

Table 5.4: Distribution of individual changes in household net wealth (December 2022 prices)

	Net wealth increased (%)	Mean change (\$)	Median change (\$)	10th percentile change (\$)	90th percentile change (\$)
2002 to 2006	73.2	288,123	122,338	-223,757	859,506
2006 to 2010	59.2	58,576	36,588	-523,066	656,833
2010 to 2014	59.1	71,124	33,544	-434,480	656,753
2014 to 2018	69.4	233,254	104,199	-318,321	927,659
2018 to 2022	71.0	274,874	157,464	-378,738	1,149,640

Note: Population comprises all people who in the initial year were aged 30 and over or aged 18 to 29 and not living with a parent.



over each four-year period between wealth collection waves. For this analysis, the individual is the 'unit of analysis', meaning that, while we are examining *household* wealth, we 'follow' *individuals*. This is more natural than attempting to follow households. If we take, for example, the case of a married couple who separate, a household-based analysis would either have to follow only one member of the couple, or treat the household as having 'died'; an individual-based analysis, on the other hand, allows us to follow both members of the couple—although the household wealth of each member would, naturally, change as a result of the separation. As in Table 5.3, the population examined comprises all people aged 30 and over plus people aged 18 to 29 who are not living with their parents.

Consistent with the evidence presented in Tables 5.1 to 5.3, mean and median changes in household wealth were relatively high between 2002 and 2006 and between 2018 and 2022, and were relatively low between 2006 and 2010 and between 2010 and 2014.

There is considerable variation across individuals in the changes in household wealth. Even when wealth grew very strongly (between 2002 and 2006 and between 2018 and 2022), the proportion of people experiencing a real increase in household wealth did not exceed 73.2%, implying that at least 26.8% experienced a decline in real wealth. Indeed, over all five periods, the 10th percentile of changes was a decrease of at least \$223,757, while the 90th percentile of changes was an increase in excess of \$650,000.

Table 5.5 compares median net wealth changes across age groups and across groups defined by partner status in the start and end years. Median wealth growth between 2002 and 2022 was highest for those aged 35 to 44 in 2002, although the median growth of those aged 18 to 34 in 2002 was not far behind. Growth was lowest for those aged 65 to 74 in 2002, and was also relatively low for those aged 55 to 64 in 2002, but was still positive for both age groups.²

This is perhaps somewhat surprising, particularly for those



Table 5.5: Median household net wealth changes by initial age group and by partner status (\$, December 2022 prices)

	2002 to 2006	2006 to 2010	2010 to 2014	2014 to 2018	2018 to 2022	2002 to 2022
<i>Age group in base year</i>						
18–34	79,004	51,196	52,256	91,193	156,147	785,508
35–44	155,125	74,389	57,737	169,627	232,400	823,541
45–54	169,832	75,312	62,514	188,784	265,561	578,637
55–64	149,538	816	4,068	121,704	128,685	194,984
65–74	72,510	–19,961	–10,232	11,021	40,242	20,312
75 and over	61,373	3,278	–6,848	137	3,651	—
<i>Partner status</i>						
Single in both start and end years	33,438	9,777	6,378	35,195	36,489	308,649
Partnered in both start and end years	184,116	66,332	56,755	167,494	247,018	696,131
Single in start year and partnered in end year	151,974	86,575	95,283	131,517	104,157	890,816
Partnered in start year and single in end year	16,202	–46,348	–62,460	–14,560	–74,442	239,415

Note: Population comprises people who, in the initial year, were aged 30 and over or were aged 18 to 29 and not living with a parent.

² The median change in net wealth over the 2002 to 2022 period is not shown for those aged 75 and over in 2002 because most people in this group died between 2002 and 2022.

Box 5.2: HILDA Survey measures of savings habits and savings horizon

In Waves 1 to 4 and in every second wave since Wave 6, the self-completion questionnaire has included questions on savings habits and savings horizon. The question on savings habits is as follows.

Which of the following statements comes closest to describing your (and your family's) savings habits?

- a. *Don't save: usually spend more than income*
- b. *Don't save: usually spend about as much as income*
- c. *Save whatever is left over at the end of the month—no regular plan*
- d. *Spend regular income, save other income*
- e. *Save regularly by putting money aside each month*

In this report, these response options are combined together to produce three categories of savings habits: Don't save (options a and b); Save, but no regular plan (options c and d); and Save regularly (option e).

The question on savings horizon is as follows:

In planning your saving and spending, which of the following time periods is most important to you?

- a. *The next week*
- b. *The next few months*
- c. *The next year*
- d. *The next 2 to 4 years*
- e. *The next 5 to 10 years*
- f. *More than 10 years ahead*

In this report, these response options are combined to produce three categories of savings horizon: Next few months or less (options a and b); Next 1 to 4 years (options c and d); and Next 5 years or more (options e and f).

Box 5.3: HILDA Survey measure of preparedness to take financial risks

In all waves other than Waves 5, 7 and 9, the self-completion questionnaire has contained the following question on attitudes to financial risk:

Which of the following statements comes closest to describing the amount of financial risk that you are willing to take with your spare cash? That is, cash used for savings or investment.

- a. *I take substantial financial risks expecting to earn substantial returns*
- b. *I take above-average financial risks expecting to earn above-average returns*
- c. *I take average financial risks expecting to earn average returns*
- d. *I am not willing to take any financial risks*
- e. *I never have any spare cash*

Those who choose response option e. are subsequently asked:

Assume you had some spare cash that could be used for savings or investment. Which of the following statements comes closest to describing the amount of financial risk that you would be willing to take with this money?

- a. *I would take substantial financial risks expecting to earn substantial returns*
- b. *I would take above-average financial risks expecting to earn above-average returns*
- c. *I would take average financial risks expecting to earn average returns*
- d. *I would not be willing to take any financial risks*

In this report, respondents are classified as 'Prepared to take substantial or above-average financial risks' if they select options a. or b. for either of these questions.

aged 65 to 74 in 2002, since most were retired over the entire 2002 to 2022 period and might have been expected to be 'running down' their wealth.

The lower panel of Table 5.5 shows that partner status is clearly important to wealth changes. Being partnered in both the start and end years, or being initially single and becoming partnered, are associated with the largest increases in wealth. The median increase is relatively small for people who were single in both the start and end years, while the median change for partnered people who became single is negative, except when the period examined is the full 2002 to 2022 period.

The association between characteristics and wealth changes over four years is examined in greater depth in Table 5.6. The table presents estimates from OLS regressions of the change in net wealth over four years (expressed in units of \$10,000 at December 2022 prices) as a function of characteristics (evaluated in the initial year of the four-year period) and—in Specification (2)—selected life events experienced over the four-year period. All of the explanatory variables are indicator variables that take a value of zero or one. Consequently, coefficient estimates represent the effects on net wealth (in \$10,000) of the presence of the characteristic or event. For example, the interpretation of the estimate of 6.99 for the 25 to 34 age variable is that, compared with being aged 18 to 24 in the initial year, being aged 25 to 34 in the initial year is associated with a \$69,900 greater increase in net wealth over the four-year period.

No significant difference between men and women is evident, holding other factors constant. Comparing across age groups, growth is greatest for the 45 to



Table 5.6: Association between characteristics and change in net wealth over four years (in \$10,000, December 2022 prices)

	Specification (1)	Specification (2)
Male	ns	ns
<i>Age group (Reference category: 18 to 24)</i>		
25–34	6.99	5.83
35–44	14.19	13.21
45–54	24.13	21.68
55–64	20.45	17.03
65–74	15.22	11.58
75 and over	15.35	10.48
<i>Family type (Reference category: Non-elderly couple)</i>		
Couple with dependent children	12.31	13.15
Single parent	–9.06	ns
Single non-elderly male	–10.23	–5.00
Single non-elderly female	–8.97	–5.04
Older couple	ns	ns
Single older male	ns	ns
Single older female	ns	ns
First Nations people	–3.46	ns
<i>Immigrant status (Reference category: Australian-born)</i>		
Born in main English-speaking countries	ns	ns
Born in other countries	ns	ns
<i>Region of residence (Reference category: Non-urban)</i>		
Major urban	–5.73	–5.52
Other urban	–12.84	–13.39
<i>Educational attainment (Reference category: No post-school qualifications)</i>		
University degree	14.31	11.74
Other post-school qualification	ns	ns
<i>Labour force status (Reference category: Not employed)</i>		
Employed full-time	7.16	6.99
Employed part-time	6.19	5.15
<i>Wealth quintile (Reference category: Middle quintile)</i>		
Bottom	7.76	15.43
Second	ns	3.73
Fourth	–2.31	–3.47
Top	–24.64	–27.42
<i>Income quintile (Reference category: Middle quintile)</i>		
Bottom	–6.69	–5.75
Second	–6.54	–6.20
Fourth	ns	ns
Top	18.71	17.44
<i>Savings habits (Reference category: Don't save)</i>		
Save, but no regular plan		5.42
Save regularly		6.58
<i>Saving horizon (Reference category: Next few months or less)</i>		
Next 1 to 4 years		6.63
Next 5 years or more		12.96
Prepared to take substantial or above-average financial risks		5.96
Smoker		–9.04
Drink alcohol regularly		ns
<i>Life events in the four-year period</i>		
Partnered		ns
Became separated		–23.32
Moved house		–7.15
<i>Year (Reference category: 2002)</i>		
2006	–24.27	–27.58
2010	–22.92	–24.54
2014	–8.41	–10.69
2018	–3.29	–7.37
Constant	15.15	15.46
Number of observations	53,923	46,865

Notes: The table presents coefficient estimates from OLS regression models of the determinants of the change in net wealth over four years. Specifications (1) and (2) are identical but for the inclusion of additional explanatory variables in Specification (2). See the Technical Appendix for further explanation of these models. Sample comprises all persons aged 30 and over plus persons aged 18 to 29 not living with their parents. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

54 age group, followed by the 55 to 64 age group, and is lowest for the 18 to 24 age group, followed by the 25 to 34 age group. Across family types, growth is strongest for couples with dependent children and lowest for non-elderly single people.

Specification (1) shows that, other factors being equal, the four-year change in wealth is \$34,600 lower for First Nations people. No statistically significant effect is found in Specification (2), implying this lower wealth growth at least partially reflects differences in the additional factors considered in Specification (2), such as risk preferences and health behaviours. No significant differences in wealth accumulation by immigrant status are evident.

People living in non-urban areas have the largest increases in wealth, other factors held constant, while people living in non-major urban areas have the lowest increases. People with university qualifications have much greater wealth growth than other people, with no significant differences between holders of other post-school qualifications and those with

no post-school qualifications. Being employed in the initial year of the four-year period is associated with substantially greater wealth accumulation, although differences between those employed full-time and those employed part-time are relatively small.

Greater initial wealth might be expected to be associated with greater gains in wealth (in dollar terms, if not in percentage terms), especially after controlling for age. However, the estimates in Table 5.6 show the dollar change in wealth is greatest for the bottom quintile and smallest for the top quintile. Estimates of differences by income quintile are more consistent with expectations, with growth lowest for those in the bottom income quintile and highest for those in the top quintile. This may explain the findings for initial wealth: those with high wealth but low income will tend to run down their wealth to fund their consumption.

Specification (2) considers additional factors. It shows that regular savings habits (see Box 5.2, page 90), a longer savings

horizon (also see Box 5.2) and greater preparedness to take financial risks (see Box 5.3, page 90) are all associated with greater wealth accumulation. Additionally, being a smoker reduces four-year wealth accumulation by \$90,400, other factors held constant. Regular consumption of alcohol (drinking on five or more days per week) is not associated with significant effects on wealth accumulation.

In terms of major life events over the four-year period, no significant effects of partnering are evident, perhaps suggesting that other factors correlated with partnering drive the positive association found in Table 5.5, or that positive effects take more time to materialise than the maximum four years considered in Table 5.6. Strong negative effects of separating from one's partner are evident, however. Moving housing is also associated with a substantial (\$70,000) drop in wealth, possibly in part reflecting the substantial transactions costs involved—especially stamp duty and real estate fees if the move involves selling one home and buying another.



Housing wealth

As shown in Table 5.2, the single most important asset component in household wealth portfolios is the family home, accounting for 44% of the value of household assets in 2022. Further reinforcing the importance of housing is that holdings of investment properties and holiday homes accounted for 15% of the value of assets, taking the total share of housing to 59%. Understanding the distribution and dynamics of housing wealth is therefore important to understanding household wealth more generally.

Home ownership

Table 5.7 presents alternative measures of home-ownership rates over the 2002 to 2022 period. The first column reports the percentage of households living in owner-occupied housing. It shows a slow but steady decline in the proportion of households that are home-owner

Table 5.7: Home-ownership rates, 2002 to 2022 (%)

	Proportion of households	Proportion of individuals aged 18 and over
2002	68.1	56.8
2006	67.5	55.8
2010	66.1	54.2
2014	63.9	51.7
2018	63.8	51.8
2022	64.4	52.3
Change 2002 to 2022	-3.7	-4.5

households up until 2018. In 2002, 68.1% of households were owner-occupied, while in 2018 63.8% of households were owner-occupied, a fall of 4.3 percentage points. Between 2018 and 2022, there was a slight recovery in the proportion of households that were owner-occupied to 64.4%.

The second column of Table 5.7 presents estimates of the proportion of individuals aged 18 and over who are *legal* home owners. The household members who are legal owners of the home are explicitly identified in wealth collection years, allowing accurate measurement of the



Table 5.8: Home ownership of birth cohorts at each age (%)

	25-28	29-32	33-36	37-40	41-44	45-48	49-52	53-56	57-60	61-64	65-68	69-72
1930-1933												78.3
1934-1937											76.7	78.6
1938-1941										80.6	80.5	80.0
1942-1945									75.0	73.0	72.5	71.9
1946-1949								73.2	76.2	75.1	75.2	75.2
1950-1953							76.8	77.7	75.9	75.5	76.1	78.4
1954-1957						74.1	71.6	72.2	71.8	69.3	75.4	
1958-1961					66.1	67.3	68.1	69.6	69.3	69.1		
1962-1965				61.2	65.9	68.0	67.2	73.4	72.6			
1966-1969			54.5	62.1	63.7	67.0	67.7	64.7				
1970-1973		40.4	50.7	54.5	56.3	61.6	64.6					
1974-1977	26.5	40.6	51.3	53.2	60.4	61.4						
1978-1981	23.8	41.3	43.8	51.9	55.6							
1982-1985	24.7	33.8	48.1	54.5								
1986-1989	18.4	33.5	48.4									
1990-1993	17.9	32.7										
1994-1997	18.0											
Difference ^a	8.5	7.7	6.1	6.7	10.5	12.7	12.2	8.5	2.4	11.5	1.3	-0.1

Notes: The table shows the proportion of people who are legal owners of the home in which they live. ^a Difference between the home-ownership rate of the oldest and youngest birth cohorts observed in the age group (i.e., the difference between the uppermost estimate in the column and the bottom estimate in the column).

Table 5.9: Rates of home ownership by region—People aged 18 and over, 2002 to 2022 (%)

	2002	2006	2010	2014	2018	2022	Change 2002 to 2022
Sydney	48.2	48.2	48.6	41.7	43.8	45.9	–2.3
Melbourne	61.1	57.9	56.0	55.9	55.8	53.7	–7.4
Brisbane	58.2	54.5	52.6	49.1	50.6	50.1	–8.1
Adelaide	61.0	61.0	57.6	56.7	55.1	53.3	–7.7
Perth	53.6	53.4	54.5	53.0	50.5	51.3	–2.3
Other urban New South Wales	54.9	54.4	54.8	48.7	48.6	51.6	–3.3
Other urban Victoria	59.5	56.0	53.5	55.7	55.7	55.7	–3.8
Other urban Queensland	51.8	56.1	50.5	49.8	54.5	58.3	6.5
Other urban South Australia	60.9	58.4	58.1	56.3	58.3	55.4	–5.5
Other urban Western Australia	52.2	61.0	55.5	54.8	52.6	56.5	4.3
Urban Tasmania	55.4	57.4	54.1	57.2	52.8	53.4	–2.0
Urban Northern Territory and Australian Capital Territory	59.4	53.5	53.7	59.8	57.3	59.1	–0.3
Non-urban Australia	65.9	67.6	63.0	62.7	61.1	62.2	–3.7

proportion of the adult population that are home owners. In 2002, 56.8% of adults were home owners, and this proportion fell by 5.1 percentage points by 2014, to 51.7%. Between 2014 and 2018, there was a slight increase in home ownership to 51.8%, and between 2018 and 2022 there was a further increase to 52.3%. Table 5.8 presents home-ownership rates of birth cohorts in each year in which wealth data have been collected. Reading across the table, we see how

home ownership changes as the cohort ages, while reading down the table, we see how home ownership differs across birth cohorts when at the same age. For example, the table shows that, for the cohort born between 1970 and 1973, 40.4% were home owners when they were aged 29 to 32 (in 2002), while 64.6% were home owners when they were aged 49 to 52 (in 2022). We can also see that when the cohort born between 1990 and 1993 was aged 29 to 32 (in 2022), 32.7%

were home owners, which was 7.7 percentage points lower than the home-ownership rate the 1970 to 1973 birth cohort had when they were in the same age group.

The table shows considerable decline in home-ownership rates across birth cohorts, summarised in the bottom row of the table, which presents the difference in home-ownership rates between the earliest and most recent cohorts observed in the age group. For all but one of the 12 age groups—69 to 72—the rate of home ownership is markedly lower for the cohorts born more recently.

Differences across regions in rates of home ownership are examined in Table 5.9. Rates of home ownership have tended to decline in most parts of Australia, but the extent of decline varies and some regions have seen net increases. The declines were greatest in Brisbane (8.1 percentage points), Adelaide (7.7 percentage points) and Melbourne (7.4 percentage points). Sydney has experienced only a small decline in home ownership, but nonetheless maintained the lowest rate of home ownership of all regions across the entire 2002 to 2022 period.





Home wealth

Table 5.10 examines the distribution of home values and home equity of home-owner households over the 2002 to 2022 period. Expressed at December 2022 prices, the mean home value increased rapidly between 2002 and 2010, reaching \$762,281 in 2010. Between 2010 and 2014, the mean declined to \$747,134, but then rose strongly again to \$908,642 in 2018 and \$1,017,647 in 2022. The median home value has followed a similar path. Over the full 2002 to 2022 period, the mean increased by 99.7% and the median increased by 91.1%.

The 10th and 90th percentiles presented in Table 5.10 provide an indication of the distribution of home values in each year. In 2022, the 90th percentile was just over \$1.8 million, while the

10th percentile was \$383,519. Interestingly, both the 10th percentile and the 90th percentile grew more strongly between 2002 and 2022 than the median, the 10th percentile rising by 126.9% and the 90th percentile rising by 104.8%. This means that house prices have become more 'compressed' at the lower end of the housing market, but more dispersed at the upper end of the market. Importantly, the growth at the 10th percentile indicates that it has become harder to find 'affordable' housing for first-home buyers.

A household's net home wealth, otherwise known as home equity, is the difference between the value of the home and the debt owed on the home. This is examined in the lower panel of Table 5.10. Naturally, the mean of

home equity is lower than the mean of home value. In 2022, mean home equity was \$803,462, compared with the mean home value of \$1,017,647. Thus, mean home debt in 2022 was \$214,185.

Between 2002 and 2022, the growth in mean home equity was slightly lower than growth in the mean home value. Mean home equity grew by 94.2%, whereas the mean home value grew by 99.7%. However, it is notable that, between 2018 and 2022, mean home equity grew by slightly more than the mean home value (\$112,634 versus \$109,005), meaning home debt decreased slightly. Correspondingly, the period between 2018 and 2022 saw a decline in the proportion of people with negative home equity (home debt exceeding the value of the home) from 2.4% to 1.5%.

Table 5.10: Distribution of home values and home equity among home-owner households, 2002 to 2022 (\$, December 2022 prices)

	2002	2006	2010	2014	2018	2022	Percentage change 2002 to 2022
<i>Home value</i>							
Mean	509,538	689,818	762,281	747,134	908,642	1,017,647	99.7
10th percentile	168,992	301,730	338,159	330,377	344,815	383,519	126.9
Median	422,481	573,287	635,739	614,085	747,100	807,407	91.1
90th percentile	887,209	1,186,851	1,285,005	1,228,169	1,724,077	1,816,667	104.8
<i>Home equity</i>							
Mean	413,715	546,243	580,608	555,558	690,828	803,462	94.2
10th percentile	84,327	120,692	114,974	92,113	114,938	166,528	97.5
Median	321,085	452,595	473,423	448,282	517,223	610,602	90.2
90th percentile	811,163	1,056,055	1,082,110	1,105,352	1,436,731	1,614,815	99.1
Proportion with negative equity (%)	1.3	1.7	2.2	2.6	2.4	1.5	15.4

Ownership of investment properties and holiday homes

Ownership of residential investment properties has been the subject of a great deal of public discussion in recent years, with much debate about the tax treatment of these properties and the characteristics of the

owners of these properties. The HILDA Survey is well placed to shed light on this topic, in each wealth year collecting information on the number of properties held, their value, the debt owed on them, and the income derived from them.

Table 5.11 presents descriptive statistics on ownership of

non-home housing—that is, housing which is not the primary residence of the owner—in each of the wealth years since 2006.³ The top row shows the proportion of households owning non-home housing. A slight but steady rise in the proportion of households owning non-home housing between 2006 and 2022

Table 5.11: Ownership of non-home housing, 2006 to 2022

	2006	2010	2014	2018	2022	Percentage change 2006 to 2022
Household owns any non-home housing (%)	16.8	17.1	17.7	17.8	17.9	6.5
<i>Owners of non-home housing</i>						
Own one property (%)	64.3	66.0	65.1	64.6	61.0	-5.1
Own more than one property ^a (%)	35.7	34.0	34.9	35.4	39.0	9.2
Mean value of non-home property ^a (\$)	962,523	860,787	843,414	920,185	1,127,972	17.2
Mean value of debt on non-home property ^a (\$)	201,907	253,272	266,838	302,859	297,961	47.6

Note: ^a May include non-housing property such as farms and commercial premises.



Table 5.12: Characteristics of owners of non-home housing (%)

	2006	2010	2014	2018	2022
<i>Age group</i>					
18-34	17.0	16.5	16.7	15.1	15.1
35-44	24.9	22.6	21.2	22.8	20.7
45-54	27.2	27.7	25.1	23.4	23.6
55-64	20.4	21.3	21.7	23.5	22.4
65 and over	10.5	12.0	15.3	15.1	18.2
Total	100.0	100.0	100.0	100.0	100.0
<i>Income quintile</i>					
Bottom	7.4	8.1	7.4	7.0	8.4
Second	12.9	11.5	9.8	9.3	13.1
Middle	15.0	15.8	16.2	17.6	17.1
Fourth	23.4	22.9	26.0	26.3	25.6
Top	41.4	41.7	40.6	39.8	35.8
Total	100.0	100.0	100.0	100.0	100.0
<i>Wealth quintile</i>					
Bottom	1.1	2.3	2.0	1.9	1.2
Second	7.6	8.3	8.4	7.1	7.1
Middle	12.3	14.5	14.6	15.2	13.8
Fourth	27.0	24.5	25.4	24.8	23.5
Top	51.9	50.4	49.6	51.0	54.4
Total	100.0	100.0	100.0	100.0	100.0

Notes: Rental losses are excluded from income in constructing income quintiles and identifying the income quintile to which an individual belongs. Population comprises all people in households that own non-home property who are aged 30 and over or are aged 18 to 29 and not living with a parent. Cells may not add up to column totals due to rounding.

³ Information on non-home property holdings was also collected in 2002, but this did not separately identify housing from commercial property held.

is evident, with the majority of the increase occurring between 2010 and 2014. The proportion owning non-home housing was 16.8% in 2006 and 17.9% in 2022. This is consistent with the finding in Table 5.7 of a decline in home-owner households—and hence an increase in renting.

The remaining rows of Table 5.11 focus on households with non-home housing, presenting the proportion with one property and the proportion with more than one property, the mean value of non-home properties and the mean debt on those properties.

The proportion of households with non-home housing owning more than one property was 35.7% in 2006, 34% in 2010, 34.9% in 2014 and 35.4% in 2018, before increasing sharply to 39% in 2022. Remarkably, prior to 2022, the mean value of non-home property among owners of non-home housing was at its highest in 2006, when it was \$962,523. The mean value of non-home property declined between 2006 and 2014, and then partially recovered in the period to 2018 before rising to \$1,127,972 in 2022. Mean debt on non-home property, by contrast, steadily increased over the 2006 to 2018 period before decreasing slightly in 2022.

The age, income and wealth of owners of residential investment properties are examined in Table 5.12. The table shows owners are mostly in the 35 to 64 age range and are relatively evenly distributed across the 35 to 44, 45 to 54 and 55 to 64 age groups. There has, however, been a discernible ageing of owners between 2006 and 2022, with the

proportion aged 65 and over increasing from 10.5% to 18.2%, the proportion aged 55 to 64 increasing from 20.4% to 22.4%, the proportion aged 45 to 54 declining from 27.2% to 23.6%, the proportion aged 35 to 44 declining from 24.9% to 20.7%, and the proportion aged 18 to 34 declining from 17% to 15.1%.

The second panel of Table 5.12 shows that owners of non-home housing are predominately in the top two income quintiles (where, for the purposes of this analysis, income is equivalised disposable income exclusive of rental losses). In 2006, 64.8% of owners were in the top two quintiles and a further 15% were in the middle quintile. In 2022, 61.4% were in the top two income quintiles and 17.1% were in the middle quintile.

The bottom panel of the table shows the locations of owners in the wealth distribution. Here we see that they are very heavily concentrated at the upper end of the distribution. Approximately 50% of owners are in the top wealth quintile, and over three-quarters are in the top two quintiles. Thus, the evidence from the HILDA Survey is that owners

of investment housing are relatively affluent from both an income and a wealth perspective.

Superannuation balances of males and females

As shown in Table 5.2, superannuation is becoming an increasingly important asset in households' wealth portfolios. This reflects the increases in the minimum contribution rate since the introduction of the Superannuation Guarantee in 1992, which started at 3% of earnings, and has increased in a number of steps since to reach its current level of 11.5%.⁴ It also reflects maturation of the system—increasingly more people have been contributing to superannuation funds for much of their working lives—as well as periodic policy changes, such as the Howard Government's decision in 2006 to exempt from income tax all superannuation earnings and drawdowns in the retirement phase, thereby increasing incentives to increase superannuation holdings.⁵



⁴ The Superannuation Guarantee was initially (from 1992) 4% for employers with a payroll in excess of \$1 million. It increased to 4% for other employers in 1994 and then increased for all employers to 5% in 1995, 6% in 1996, 7% in 1998, 8% in 2000, 9% in 2002, 9.25% in 2013, 9.5% in 2014, 10% in 2021, 10.5% in 2022, 11% in 2023 and 11.5% in 2024, and is scheduled to increase to 12% in 2025. (All changes have taken effect on 1 July of the relevant year.)

⁵ Note, however, that a number of policy changes have also acted to reduce superannuation savings, particular by high-income or high-wealth individuals. These include reductions in annual caps on pre-tax (concessional) contributions (from 2009), the introduction of the 'Division 293' additional 15% tax on contributions by high-income earners (from 2012) and the introduction of a cap on transfers into (tax-exempt) retirement-phase superannuation accounts (from 2017).

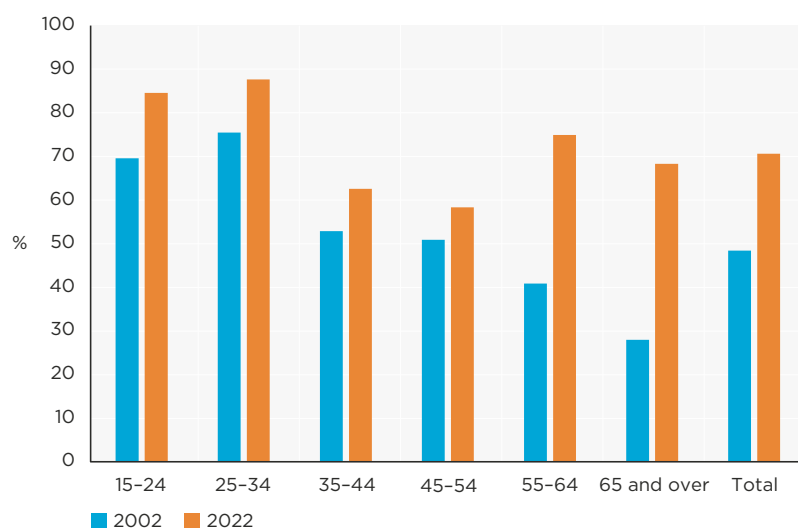
Table 5.13: Mean superannuation balances by gender and age, 2002 to 2022 (\$, December 2022 prices)

	2002	2006	2010	2014	2018	2022	Percentage change 2002 to 2022
<i>Males</i>							
15–24	7,318	9,285	5,895	4,835	5,660	5,878	–19.7
25–34	38,074	54,168	41,683	40,369	45,540	45,086	18.4
35–44	93,834	98,690	107,521	113,991	140,769	149,430	59.2
45–54	177,825	194,591	202,502	209,741	235,715	286,473	61.1
55–64	209,482	288,301	331,950	301,301	355,680	350,223	67.2
65 and over	73,387	121,516	148,759	209,899	241,723	255,101	247.6
Total	74,333	96,173	105,670	111,753	131,444	143,382	92.9
<i>Females</i>							
15–24	5,092	4,916	5,017	4,442	5,005	4,971	–2.4
25–34	28,730	29,739	29,448	28,994	44,215	39,526	37.6
35–44	49,601	60,170	62,985	67,775	81,933	93,490	88.5
45–54	90,496	106,216	97,218	126,898	148,982	167,042	84.6
55–64	85,550	149,671	174,379	187,607	227,163	262,339	206.6
65 and over	20,500	42,574	64,830	115,575	161,043	174,181	749.7
Total	35,987	50,637	56,337	70,012	89,833	101,279	181.4



A key feature of the superannuation system (when mature) is that balances at retirement will be largely a reflection of lifetime earnings. This has raised concerns about the implications of the system for gender equity in the context of the gender wage gap and the propensity for women to reduce the extent of their employment participation once they have children. This can make women more vulnerable in retirement, particularly in the event of marriage dissolution prior to retirement.

Figure 5.1: Mean superannuation balance of females as a percentage of the mean superannuation balance of males



In this section, we consider how males and females are faring in respect of superannuation and the extent to which the gap in superannuation wealth has narrowed (if at all) since 2002. Table 5.13 presents, for males and females respectively, mean superannuation balances by age group in each year in which wealth data have been collected in the HILDA Survey.

For all age groups over 35 years of age, there has been considerable increase in the mean superannuation balance between



2002 and 2022, for both males and females. However, for males and females aged under 35, there has been very little change in the mean superannuation balance. Indeed, between 2018 and 2022, the mean superannuation balance of those aged 25 to 34 actually decreased for both males and females. This is likely a result of the COVID-19 superannuation early access scheme implemented in 2020—an issue that is addressed further below.

In all age groups, males have higher mean superannuation balances than females in all years. However, the two figures suggest the gap between males and females has closed somewhat between 2002 and 2022, with females experiencing stronger growth in superannuation balances than males.

The reduction in the gender gap in superannuation balances is confirmed by Figure 5.1 (page 84), which shows the mean superannuation balance of females as a proportion of the mean balance of males in 2002 and 2022 for each age group. The figure shows that, while there is still a substantial gender superannuation gap in 2022, it has reduced considerably since 2002 in all age groups. Overall, the ratio of the average female superannuation to the average male superannuation balance has increased from 48% in 2002 to 71% in 2022.

As shown in last year's report, the superannuation early access scheme introduced during the COVID-19 pandemic was accessed by 12.7% of people aged 18 to 64, each of whom on average

withdrew \$13,218. The effects of this scheme on superannuation balances is considered in Table 5.14, which compares superannuation balances in 2018 and changes in superannuation balances between 2018 and 2022 of those who accessed the scheme with those who did not access the scheme.

Individuals who accessed the scheme tended to have lower superannuation balances than those who did not—the average balance in 2018 was \$74,208 for those who accessed the scheme and \$137,822 for those who did not access the scheme.

Unsurprisingly, growth in superannuation between 2018 and 2022 was lower for those who accessed the scheme. Indeed, 37.2% of those who accessed the scheme experienced a decline in their superannuation balance between 2018 and 2022, compared with 20.7% of those who did not access the scheme.

Comparing males and females, somewhat surprisingly, given the higher initial mean balance of males, the mean change in superannuation between 2018 and 2022 was considerably lower for males who accessed the scheme than for females who

Table 5.14: Superannuation balances in 2018 and 2022, by whether the early release scheme was accessed—Persons aged 18 to 64 (December 2022 prices)

	Mean superannuation balance 2018 (\$)	Mean change in superannuation balance 2018 to 2022 (\$)	Superannuation balance declined (%)
Did not access scheme	137,822	38,722	20.7
Accessed scheme			
All persons	74,208	9,870	37.2
Males	92,369	6,130	35.7
Females	53,707	14,093	38.9

accessed the scheme. That said, a higher proportion of females experienced a decline in their superannuation balance.

Inheritances and gifts from members of other households

The role of inheritances and other gifts in determining household wealth, and household economic wellbeing more generally, is not well understood. In every year since its inception, the HILDA Survey has collected data on cash receipts of inheritances as well as cash gifts from non-household members (e.g., parents living elsewhere). This provides a valuable source of information on the role played by these transfers, especially because it is possible to examine total receipts of these transfers over many years combined.

Table 5.15 summarises data on personal receipt of cash inheritances and other gifts. The upper panel of the table looks at

annual rates and levels of receipt in each of three four-year time periods: 2001 to 2004, 2010 to 2013 and 2019 to 2022. It shows that in the 2001 to 2004 period, on average 1% of individuals personally received an inheritance each year, with an average value of \$98,650 at December 2022 prices. This rose to 1.3% and \$123,789 in the 2010 to 2013 period, and to 1.7% and \$188,249 in the 2019 to 2022 period. Inheritances have therefore clearly grown in importance over the course of the 21st century.

Cash gifts from non-resident parents have also grown in importance. In 2001 to 2004, the annual rate of receipt of these gifts was 5.2% with an average value of \$6,519. In the 2019 to 2022 period, the annual rate of receipt had risen to 7.2% and the average value of these parental gifts for those receiving them had risen to \$9,149. Cash gifts from other people who reside elsewhere are also significant, although there is no clear trend for these gifts. Comparing the first and last periods examined in the table, the annual rate of

receipt rose from 0.7% to 1%, but the average value of the gifts among those receiving them fell from \$8,321 to \$6,989.

In total, the annual rate of personal receipt of cash inheritances or other gifts rose from 6.8% in the 2001 to 2004 period to 9.3% in the 2019 to 2022 period, while the average total value of these gifts among those receiving them rose from \$14,733 to \$33,311.

The lower panel of Table 5.15 draws on the longitudinal structure of the HILDA Survey to examine individuals' receipt of cash inheritances and gifts over five-year periods. It examines rates and levels of receipt for the five years to 2005, the five years to 2015 and the five years to 2022. While rates and levels of receipt are higher, patterns are similar to those found for annual rates and levels. For example, the proportion receiving an inheritance at least once over a five-year period was 4.8% in 2001 to 2005, 6.1% in 2011 to 2015 and 7.2% in 2018 to 2022. Among those receiving at least one inheritance, the mean value was \$119,956 in 2001 to 2005,

Table 5.15: Inheritances and other cash gifts received by persons aged 15 and over

Annual receipt	2001-2004	2010-2013	2019-2022
Received an inheritance (%)	1.0	1.3	1.7
Mean inheritance (\$)	98,650	123,789	188,249
Received cash gift from parents (%)	5.2	6.7	7.2
Mean cash gift from parents (\$)	6,519	8,995	9,149
Received cash gift from person other than parent (%)	0.7	0.6	1.0
Mean cash gift from person other than parent (\$)	8,321	10,954	6,989
Received an inheritance or cash gift (%)	6.8	8.3	9.3
Mean total inheritances and cash gifts (\$)	14,733	19,187	33,311
Receipt over 5 years	2001-2005	2011-2015	2018-2022
Received an inheritance (%)	4.8	6.1	7.2
Mean inheritance (\$)	119,956	153,824	212,096
Received cash gift from parents (%)	10.5	13.5	15.8
Mean cash gift from parents (\$)	13,549	21,349	19,800
Received cash gift from person other than parent (%)	2.9	2.5	3.2
Mean cash gift from person other than parent (\$)	12,493	15,485	10,273
Received an inheritance or cash gift (%)	16.5	19.8	23.1
Mean total inheritances and cash gifts (\$)	48,203	63,892	81,991

\$153,824 in 2011 to 2015, and \$212,096 in 2018 to 2022.

In total, 16.5% of individuals received a cash inheritance or gift over the five years to 2005, compared with 19.8% in the five years to 2015 and 23.1% over the five years to 2022. The average amount received by those receiving an inheritance or gift was \$48,203 in the five years to 2005, \$63,892 in the five years to 2015 and \$81,991 in the five years to 2022.

Table 5.16 examines how annual receipt of inheritances and parental gifts differs across age groups. Inheritances are most commonly received by people over the age of 55, followed by people aged 35 to 54. The mean size of inheritances is also largest for those aged 55 and over, followed by those aged 35 to 54. In the 2019 to 2022 period, on average, 2.3% of people aged 55 and over received an inheritance each year, with an average inheritance of \$275,619. This compares with 1.6% and \$156,663 for the 25 to 54 age group, 1.5% and \$50,508 for the 25 to 34 age group, and 0.7% and \$51,625 for the 15 to 24 age group.

In contrast to inheritances, cash gifts from (non-resident) parents are most commonly received by people aged 15 to 24: in the 2019 to 2022 period, an average of 29.6% of people in this age group received a cash gift from a parent each year. However, the average value of parental cash gifts received by those aged 15 to 24, at \$2,735 in 2019 to 2022, is quite small. Indeed, while older age groups are much less likely to receive a cash gift from a parent, when they do it is typically much larger in value. For example, an average of only 0.5% of those aged 55 and over received a cash gift from a parent each year in the 2019 to 2022 period, but the mean value among those receiving a parental cash gift was \$31,924.

Table 5.16: Personal annual receipt of inheritances and gifts from parents by age group, 2001 to 2022

	2001-2004	2010-2013	2019-2022
15-24			
Received an inheritance (%)	0.3	0.6	0.7
Mean inheritance (\$)	27,824	57,923	51,625
Received cash gift from parents (%)	23.9	28.0	29.6
Mean parental gift (\$)	3,692	4,390	2,735
25-34			
Received an inheritance (%)	0.7	1.1	1.5
Mean inheritance (\$)	48,740	34,944	50,508
Received cash gift from parents (%)	3.1	6.1	7.8
Mean parental gift (\$)	12,445	20,636	17,105
35-54			
Received an inheritance (%)	1.3	1.4	1.6
Mean inheritance (\$)	101,602	119,817	156,663
Received cash gift from parents (%)	1.2	2.0	3.0
Mean parental gift (\$)	18,376	19,871	24,378
55 and over			
Received an inheritance (%)	1.4	1.8	2.3
Mean inheritance (\$)	121,916	172,646	275,619
Received cash gift from parents (%)	0.2	0.3	0.5
Mean parental gift (\$)	71,302	26,671	31,924

Notes: Mean values are evaluated over people with a positive value only (i.e., people who received the inheritance/gift). All dollar values are expressed at December 2022 prices.



Focusing on people in the 25 to 54 age range, Table 5.17 considers how cash inheritances and gifts received differ by level of household income. For this analysis, the total annual receipt (and value) of all inheritances and gifts combined is examined. In all income quintiles, there has been growth in the annual rate of receipt and in the mean value of inheritances and bequests over the 2001 to 2022 period. There is evidence that the rate of receipt and the mean value both tend to be higher for people in the higher-income quintiles, but the differences are relatively modest and not always strictly ordered by income quintile. For example, in the 2019 to 2022 period, the annual rate of receipt was 5.6% for the bottom quintile, 6.4% for the second quintile, 6.1% for the middle quintile, 6.7% for the fourth quintile and 7.4% for the top quintile. For those in receipt of inheritances or gifts, the mean value was \$37,790 for the bottom quintile, \$33,520 for the second quintile, \$46,629 for the middle quintile, \$40,135 for

the fourth quintile and \$54,765 for the top quintile.

In 2022, for the first time, the HILDA Survey collected data on receipt of non-cash inheritances and gifts, such as housing, motor vehicles, holidays, appliances or computers, education, private health insurance and company shares. Table 5.18 shows that 0.7% of individuals aged 15 and over received a non-cash inheritance in 2022, while 2.4% received a non-cash gift. The mean non-cash inheritance, at \$182,258, is substantial. The mean non-cash gift, at \$9,046, is also relatively large compared with cash gifts.

In contrast with cash inheritances, non-cash inheritances were most frequently received in 2022 by those aged 15 to 24. However, in common with cash inheritances, the mean value of non-cash inheritances is relatively low for the 15 to 24 age group, while it is much higher for the 35 to 44 age group and much higher again for the 55 and over age group.

Non-cash gifts are, like cash gifts, relatively more common among

younger age groups. However, for those aged 55 and over who do receive a non-cash gift, the mean value of the gift is considerably higher than for the younger age groups.

The bottom two rows of Table 5.18 examine total combined receipt of cash and non-cash inheritances and gifts. In 2022, 12% of people aged 15 and over received some kind of inheritance or gift, with a mean value of \$36,065. The rate of receipt of inheritances and gifts is strongly ordered by age group, ranging from 34.6% for those aged 15 to 24 to 4.6% for those aged 55 and over. However, the mean value of these inheritances and gifts is also strongly ordered by age group, ranging from \$2,448 for the 15 to 24 age group to \$200,157 for those aged 55 and over. The net effect of these two orderings is that the average total value of inheritances and gifts received (across all members of the age group) is lowest for the youngest age group (\$847) and highest for the oldest age group (\$9,207).

Table 5.17: Personal annual receipt of cash inheritances and gifts by income quintile—Persons aged 25 to 54

	Percentage received inheritance or gift			Mean amount received by recipients (\$, December 2022 prices)		
	2001–2004	2010–2013	2019–2022	2001–2004	2010–2013	2019–2022
Bottom quintile	3.1	5.4	5.6	27,344	29,977	37,790
Second quintile	3.4	5.2	6.4	28,533	20,775	33,520
Middle quintile	3.2	4.7	6.1	39,786	41,916	46,629
Fourth quintile	3.1	4.8	6.7	38,337	44,478	40,135
Top quintile	3.9	5.2	7.4	52,722	55,143	54,765

Notes: Mean values are evaluated over people with a positive value only (i.e., people who received the inheritance/gift). All dollar values are expressed at December 2022 prices.

Table 5.18: Personal receipt of non-cash and cash inheritances and gifts by age group, 2022

	15–24	25–34	35–54	55 and over	Total
Received a non-cash inheritance (%)	1.2	0.5	0.7	0.5	0.7
Mean non-cash inheritance (\$)	9,421	8,907	216,932	430,541	182,258
Received a non-cash gift (%)	4.2	3.9	2.0	1.1	2.4
Mean non-cash gift (\$)	6,333	7,674	7,009	21,638	9,046
Received any cash or non-cash inheritance or gift (%)	34.6	14.7	7.5	4.6	12.0
Mean total cash and non-cash inheritances and gifts (\$)	2,448	7,670	39,065	200,157	36,065

Notes: Mean values are evaluated over people with a positive value only (i.e., people who received the inheritance/gift). All dollar values are expressed at December 2022 prices.

6

COVID-19: Behaviours, perceptions and symptoms

Ferdi Botha



The COVID-19 pandemic was responsible for widespread changes in the way we live, and the effects of the pandemic are likely to be visible for many years. Although the pandemic has officially ended, it remains important to understand the behaviours, perceptions and fears of Australians with respect to the pandemic and its corresponding public health measures. Inclusion of information on the duration of COVID-19 symptoms also now makes it possible to obtain estimates of how many Australians are living with long COVID, a potentially debilitating condition where the symptoms from an initial COVID-19 infection last for more than four weeks.

This chapter summarises how the behaviour of Australians has changed in relation to the wearing of masks, leaving the home only to do essential tasks and social distancing. The chapter also reports on how and to what extent the pandemic had an impact on life and explores how fears or anxiety related to COVID-19 differ for several groups of Australians. Finally, the duration of COVID-19 symptoms is reported, in addition to estimates of long COVID.

The findings in this chapter must be read within the context of the changing nature of the pandemic at the time, including the various COVID-19 waves (Australian Institute of Health and Welfare (AIHW), 2024a) and public health restrictions and requirements (such as rules around mask wearing, social distancing and being able to leave the home), which differed substantially between states and territories (AIHW, 2024b). The first wave of COVID-19 occurred between March and May 2020. The second COVID-19 wave occurred between June and November 2020, mainly in Victoria. The vaccine rollout began in early 2021, and by October 2022 most public health restrictions had been lifted.

Box 6.1: HILDA Survey information on mask wearing and social distancing

To measure the frequency of wearing masks, in the person questionnaire in Waves 21 and 22 respondents were asked:

Thinking about the past four weeks, when out in public in an indoor space, such as shopping in a supermarket, how often do you wear a mask or other face covering? Is it 'all of the time', 'most of the time', 'some of the time', 'a little of the time' or 'none of the time'?

Questions related to staying at home and social distancing were included in the person questionnaire in Waves 20 to 22. The questions were as follows:

I am now going to read out two statements, and I want you to indicate how well they describe you during the past four weeks.

'You stayed at home and only went out for the essentials, such as shopping for food, to go to work, to go to medical appointments, or to exercise'. Do you think this is 'not true at all', 'rarely true', 'sometimes true', 'often true' or 'true nearly all the time'?

'When out in public, you tried to keep a distance of at least 1.5 metres from other persons who are not in your household'. (Again, and still thinking of the past four weeks, do you think this is 'not true at all', 'rarely true', 'sometimes true', 'often true' or 'true nearly all the time'?).

The questions on mask wearing, staying at home and social distancing were asked in the same battery of questions as other COVID-related questions, but they do not specifically mention the pandemic or public health restrictions. The questions will therefore capture mask wearing and social distancing whether the behaviour is due to public health requirements or personal choice.



Wearing of face masks

Figure 6.1 shows how often all Australians report wearing masks in indoor public spaces and how this changed between 2021 and 2022. In 2021, 17.1% never wore a mask, whereas 10% and 66.5% wore a mask most of the time or all of the time, respectively. In 2022, however, when the pandemic restrictions were mostly lifted, mask-wearing behaviours in indoor public spaces changed substantially.

Only 5.3% of Australians always wore a mask in 2022 and 55.7% never wore a mask. However, wearing of masks a little of the time or some of the time was higher in 2022 than in 2021.

Reported frequency of mask wearing in 2021 and 2022 by age group is shown in Table 6.1. The extent of wearing masks is relatively evenly spread across age groups in 2021 with, for instance, 71.6% and 69.3% of individuals aged 55 to 64 and 25 to 34, respectively, always wearing a mask.

In 2022, when most pandemic restrictions were removed, mask wearing declined substantially, with many individuals never wearing a mask or only occasionally wearing a mask when out in public. The prevalence of mask wearing was also greater among older age groups, who are arguably most vulnerable to COVID-19. For example, whereas 28.4% of respondents 65 and over wore a mask in public all of the time, only 5.3% of 15- to 24-year-olds reported doing so.

Table 6.2 breaks down reports of mask wearing in public for states

Figure 6.1: Frequency of mask wearing in indoor public spaces by people aged 15 and over

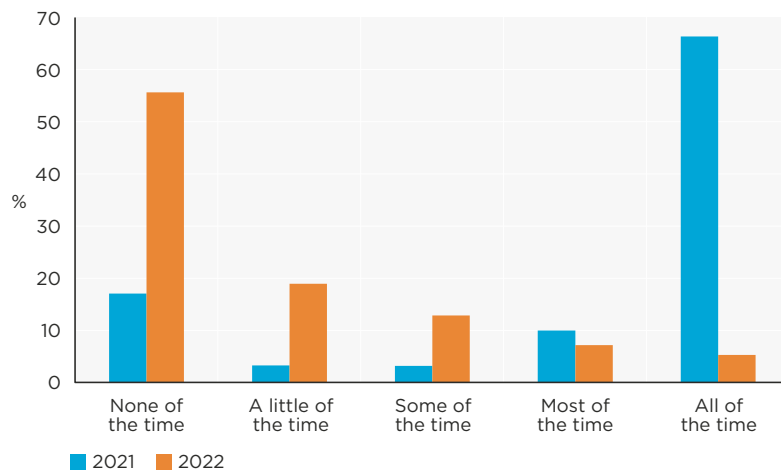


Table 6.1: Frequency of mask wearing in indoor public spaces (%), by age group, 2021 and 2022

	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Total
2021						
15-24	17.1	2.3	3.2	10.0	66.5	100.0
25-34	15.3	2.9	4.4	8.0	69.3	100.0
35-44	13.9	3.2	3.1	5.5	74.4	100.0
45-54	18.2	2.7	3.9	5.8	69.4	100.0
55-64	16.3	3.6	3.3	5.2	71.6	100.0
65 and over	17.6	3.5	2.8	4.7	71.4	100.0
2022						
15-24	55.7	18.9	12.9	7.2	5.3	100.0
25-34	53.5	18.3	14.4	7.4	6.5	100.0
35-44	50.8	15.1	15.8	8.6	9.7	100.0
45-54	46.0	15.8	18.1	9.8	10.3	100.0
55-64	39.3	15.5	17.9	10.8	16.5	100.0
65 and over	24.1	13.6	18.5	15.4	28.4	100.0

Note: Cells may not add up to row totals due to rounding.

Table 6.2: Frequency of mask wearing in indoor public spaces, by states and territories, 2021 and 2022 (%)

	None of the time	A little of the time	Some of the time	Most of the time	All of the time	Total
2021						
New South Wales	1.1	*0.3	1.0	5.0	92.6	100.0
Victoria	1.6	0.7	1.6	7.3	88.8	100.0
Queensland	19.4	8.0	7.8	8.9	55.9	100.0
South Australia	*0.5	*0.7	2.0	11.2	85.7	100.0
Western Australia	85.6	6.1	4.0	0.9	3.5	100.0
Tasmania	76.8	12.6	*6.5	*2.6	*1.6	100.0
Northern Territory	54.0	*18.9	*18.0	*5.1	*4.0	100.0
Australian Capital Territory	7.5	*7.4	15.7	*8.8	60.6	100.0
2022						
New South Wales	37.8	15.3	18.6	10.9	17.5	100.0
Victoria	45.1	13.0	16.8	11.6	13.6	100.0
Queensland	53.7	19.1	13.2	6.3	7.7	100.0
South Australia	33.0	19.6	18.0	13.9	15.6	100.0
Western Australia	48.4	17.3	13.6	8.4	12.4	100.0
Tasmania	43.4	19.3	14.6	11.3	11.6	100.0
Northern Territory	66.5	*13.1	*7.9	6.2	*6.4	100.0
Australian Capital Territory	*32.9	14.7	23.6	*15.1	13.7	100.0

Notes: Cells may not add up to row totals due to rounding. * Estimate not reliable.

and territories. In 2021, a high proportion of respondents from New South Wales (92.6%), Victoria (88.8%) and South Australia (85.7%) wore masks all the time, which is not surprising given that those states had high infection numbers at the time. In contrast, 85.6% of respondents in Western Australia and 76.8% of

Tasmanian respondents reported never wearing a mask in 2021.

Mask wearing changed significantly in 2022. There was a notable increase in the proportion of individuals wearing a mask in public at least a little of the time. The proportion of individuals always wearing a mask declined

substantially in most regions. The Northern Territory had the highest proportion of respondents who never wore masks in public, at 66.5%. These state and territory differences in levels of and changes in mask wearing in part reflect differences in mask mandates between states and territories.



Staying at home and social distancing

This section examines the extent to which Australians reported leaving their homes only for essentials like groceries or medical appointments, as well as the extent to which Australians practised social distancing by staying at least 1.5 metres away from non-household members when out in public.

Figure 6.2 shows the proportion of all Australians who stayed home except when going out for essentials. In 2020 and 2021, this was true nearly all of the time for 51% and 61.4%, respectively. In 2022, however, 18.5% nearly always left their homes only for essentials, whereas for 48.2% leaving the home only for essentials was not true at all and these individuals arguably left



Figure 6.2: 'Stayed at home and only went out for the essentials'

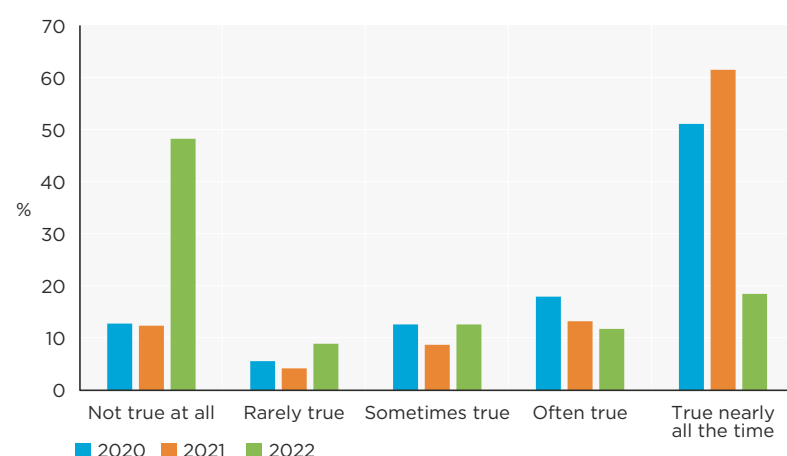


Table 6.3: 'Stayed at home and only went out for the essentials', by age group, 2020 to 2022 (%)

	Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time	Total
2020						
15-24	15.4	6.7	16.3	21.3	40.4	100.0
25-34	12.4	6.7	14.2	20.7	46.0	100.0
35-44	13.9	5.1	13.4	19.5	48.1	100.0
45-54	15.3	6.8	10.6	17.4	51.0	100.0
55-64	12.1	4.8	10.9	15.8	56.3	100.0
65 and over	9.7	3.8	10.8	13.8	61.9	100.0
2021						
15-24	13.4	5.2	11.5	16.4	53.6	100.0
25-34	12.7	5.4	10.4	15.4	56.0	100.0
35-44	12.7	3.7	7.7	14.3	61.6	100.0
45-54	13.9	4.0	7.7	12.7	61.7	100.0
55-64	11.6	3.8	7.8	12.0	64.7	100.0
65 and over	10.6	3.3	7.7	9.7	68.7	100.0
2022						
15-24	56.6	10.9	12.7	10.3	9.6	100.0
25-34	53.9	8.4	14.6	10.7	12.4	100.0
35-44	56.1	8.7	10.0	11.7	13.6	100.0
45-54	49.8	8.3	12.1	11.0	18.9	100.0
55-64	45.1	8.2	12.4	12.1	22.3	100.0
65 and over	32.3	9.1	13.8	14.2	30.6	100.0

Note: Cells may not add up to row totals due to rounding.

Table 6.4: 'Stayed at home and only went out for the essentials', by state and territory, 2020 to 2022 (%)

	Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time	Total
2020						
New South Wales	8.1	5.6	15.8	23.9	46.6	100.0
Victoria	1.4	0.6	4.3	8.3	85.4	100.0
Queensland	18.4	10.2	13.8	22.2	35.4	100.0
South Australia	23.5	6.3	17.4	17.2	35.6	100.0
Western Australia	34.4	7.9	17.0	14.1	26.6	100.0
Tasmania	19.9	5.5	15.9	22.7	36.0	100.0
Northern Territory	*29.2	16.3	*20.4	14.2	19.9	100.0
Australian Capital Territory	13.2	*5.8	13.3	27.8	40.0	100.0
2021						
New South Wales	1.8	2.6	4.5	8.9	13.4	100.0
Victoria	3.0	0.8	5.4	12.3	78.4	100.0
Queensland	13.0	7.8	14.2	19.7	45.4	100.0
South Australia	14.6	12.4	18.9	23.2	30.9	100.0
Western Australia	57.0	5.3	8.5	9.0	20.3	100.0
Tasmania	32.1	14.2	14.7	19.3	19.7	100.0
Northern Territory	28.5	*8.5	28.2	*5.7	29.1	100.0
Australian Capital Territory	*9.6	*0.9	11.9	8.5	69.1	100.0
2022						
New South Wales	46.3	8.8	12.1	13.4	19.4	100.0
Victoria	54.5	7.4	13.1	9.9	15.1	100.0
Queensland	47.5	10.6	11.1	12.2	18.5	100.0
South Australia	37.8	14.3	17.3	10.6	20.1	100.0
Western Australia	49.2	6.4	11.9	10.8	21.7	100.0
Tasmania	40.9	10.1	14.8	14.4	19.8	100.0
Northern Territory	61.4	*2.7	*1.5	*16.3	18.1	100.0
Australian Capital Territory	41.0	*9.1	18.7	10.0	21.3	100.0

Notes: Cells may not add up to row totals due to rounding. * Estimate not reliable.

their homes for any reason. These trends are consistent with the pandemic restrictions during 2020 and 2021, and subsequent relaxing of such restrictions in 2022.

Table 6.3 shows the extent of staying at home for each age group. The percentage of individuals nearly always leaving their homes only for essentials increases with age, although across all age groups the proportion nearly always staying home is higher in 2020 and 2021 compared to 2022. In 2020, about 13.9% of 35- to 44-year-olds responded that they left the house for reasons other than for essentials, and in 2022 56.1% in



Figure 6.3: 'When out in public, tried to keep a distance of at least 1.5 metres from other persons'

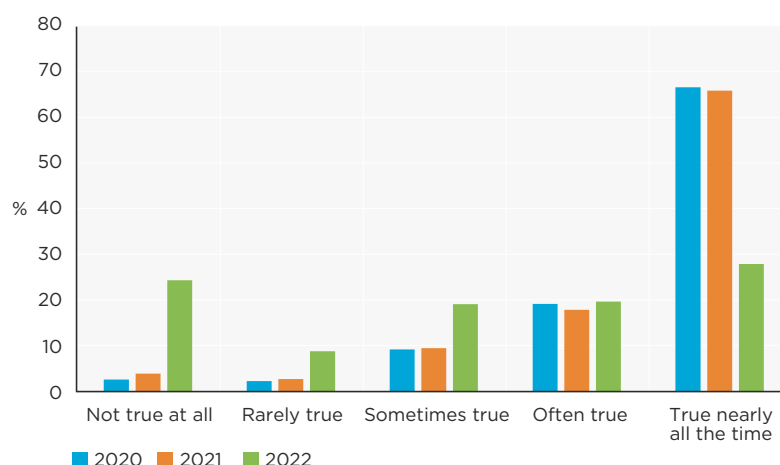


Table 6.5: 'When out in public, tried to keep a distance of at least 1.5 metres from other persons', by age group, 2020 to 2022 (%)

	Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time	Total
2020						
15-24	5.3	4.6	15.5	23.7	51.0	100.0
25-34	3.0	3.0	10.6	22.0	61.4	100.0
35-44	2.6	*3.1	10.3	20.2	63.8	100.0
45-54	2.9	1.7	8.3	19.3	67.7	100.0
55-64	1.4	*0.7	6.9	17.3	73.7	100.0
65 and over	1.1	0.9	5.1	13.7	79.2	100.0
2021						
15-24	6.1	4.9	13.7	21.1	54.1	100.0
25-34	4.5	3.4	11.0	21.0	60.0	100.0
35-44	3.7	2.4	8.9	18.8	66.3	100.0
45-54	3.7	2.4	10.1	17.5	66.3	100.0
55-64	2.7	1.9	7.2	15.9	72.4	100.0
65 and over	3.2	1.7	7.4	14.1	73.9	100.0
2022						
15-24	35.1	14.3	21.8	14.9	13.9	100.0
25-34	29.5	9.8	21.3	18.1	21.4	100.0
35-44	28.6	8.5	19.3	20.6	23.1	100.0
45-54	24.1	7.3	18.8	19.4	30.5	100.0
55-64	19.4	7.2	18.1	19.2	36.1	100.0
65 and over	13.0	6.8	16.6	24.3	39.4	100.0

Notes: Cells may not add up to row totals due to rounding. * Estimate not reliable.



this age group responded in this way. Moreover, while in 2020 9.7% of Australians aged 65 and over responded that they left the house for reasons other than essentials, 32.3% responded in this way in 2022.

Staying at home prevalence is shown for states and territories in Table 6.4 (page 107). In 2020 and 2021, respectively, 85.4% and 78.4% of Victorians only left home for essentials, which is not surprising given that most of Victoria was subject to pandemic restrictions at the time. In 2022, however, only 15.1% of Victorians always left home only for essentials. In general, across all states and territories individuals were less likely in 2022 to stay at home than in 2020 and 2021.

Figure 6.3 (page 107) reports the percentage of Australians who practised social distancing from 2020 to 2022 by staying

Table 6.6: 'When out in public, tried to keep a distance of at least 1.5 metres from other persons', by state and territory, 2020 to 2022 (%)

	Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time	Total
2020						
New South Wales	1.6	1.6	9.3	19.8	67.7	100.0
Victoria	0.4	*0.4	3.7	10.8	84.6	100.0
Queensland	2.7	4.1	10.5	24.5	58.3	100.0
South Australia	2.9	3.5	9.8	19.8	64.1	100.0
Western Australia	10.0	3.9	18.4	24.8	43.0	100.0
Tasmania	*4.3	3.7	11.7	30.7	49.5	100.0
Northern Territory	12.2	5.4	22.2	19.3	40.8	100.0
Australian Capital Territory	*1.7	*2.5	10.8	22.5	62.4	100.0
2021						
New South Wales	*0.6	1.1	3.5	13.9	81.0	100.0
Victoria	1.3	1.6	6.6	16.5	74.0	100.0
Queensland	4.3	3.5	11.2	21.5	59.4	100.0
South Australia	*2.4	4.0	14.8	25.6	53.3	100.0
Western Australia	18.7	7.3	25.3	18.0	30.7	100.0
Tasmania	7.5	5.3	18.9	36.6	31.7	100.0
Northern Territory	*15.8	*6.6	18.9	11.1	47.6	100.0
Australian Capital Territory	*1.8	*0.6	*4.0	12.8	80.9	100.0
2022						
New South Wales	23.9	8.1	18.5	21.0	28.5	100.0
Victoria	26.9	9.3	21.9	17.0	24.9	100.0
Queensland	24.0	9.9	16.1	20.7	29.3	100.0
South Australia	17.2	9.8	18.7	20.2	34.2	100.0
Western Australia	28.1	7.6	20.8	19.4	24.1	100.0
Tasmania	18.4	9.9	22.5	25.0	24.1	100.0
Northern Territory	28.7	*7.9	18.3	13.6	31.5	100.0
Australian Capital Territory	13.3	*4.9	*16.3	20.5	45.1	100.0

Notes: Cells may not add up to row totals due to rounding. * Estimate not reliable.

1.5 metres away from other (non-household) individuals while out in public. Whereas in 2020 and 2021 roughly 67% always practised social distancing in accordance with public health measures aimed at limiting the spread of COVID-19, in 2022 this fell to 27.9% and a quarter of Australians reported never observing social distancing, following the abolishment of most pandemic restrictions.

Table 6.5 breaks down social distancing for the different age groups. These patterns largely reflect those observed for staying at home (see Table 6.3). The prevalence of social distancing

for all age groups was higher in 2020 and 2021 than in 2022, and older age groups were more likely to practise social distancing than younger age groups. For example, 51% of those in the 15 to 24 age group practised social distancing in 2020 compared to 79.2% of those aged 65 and over. In 2022, only 13.9% of 15- to 24-year-olds practised social distancing compared to 39.4% of those aged 65 and over. Just over 35% of individuals in the 15 to 24 age group did not practise social distancing in 2022.

Finally, the extent of social distancing is shown for states and territories in Table 6.6. There are

some large differences in social distancing that reflect the different pandemic restrictions and infection rates across regions, though it is also likely that for some respondents social distancing was an active choice. In 2020, 95.4% of Victorians often or always practised social distancing, and this share was just less than half in 2022. In 2021, social distancing was often or always adhered to by 94.9% of New South Wales residents, 90.5% of Victorians and 93.7% of Australian Capital Territory residents. Rates of social distancing were much lower in 2022 for all regions.

Perceptions about how the pandemic impacted on life

Respondents were asked a set of questions related to their perceptions of whether the pandemic affected their lives and, if it did affect their lives, the nature of that effect (see Box 6.2, page 110).

Figure 6.4 shows that, in all years, most Australians felt that their lives changed at least a little due to the pandemic. Life changed to a moderate extent for 37.3% in 2020, 34.2% in 2021 and 29.9% in 2022. Just over 35% of Australians in 2021 believed their lives changed 'to a great extent', whereas in 2022 19.3% felt their lives did not change at all.

For respondents who stated the pandemic changed their lives at least a little, Table 6.7 shows the extent to which this change is perceived to have been a positive, negative or neutral change. Among individuals who thought the pandemic had an impact on their life 'a little', most thought this change was neither better nor worse. Those who said the

Box 6.2: HILDA Survey information on the perceived impact of the pandemic on people's lives

To obtain information on Australians' perceptions of whether and how the COVID-19 pandemic changed their lives, in the person questionnaire in Waves 20, 21 and 22 respondents were asked the following question:

Thinking about your life today, how much has your life changed because of the coronavirus pandemic? Would you say 'to a great extent', 'to a moderate extent', 'a little' or 'not at all'?

For respondents who answered 'a little', 'to a moderate extent' or 'to a great extent', a follow-up question was asked:

And has that change been for 'better', 'worse' or 'neither better nor worse'?



Figure 6.4: How much life changed because of the pandemic

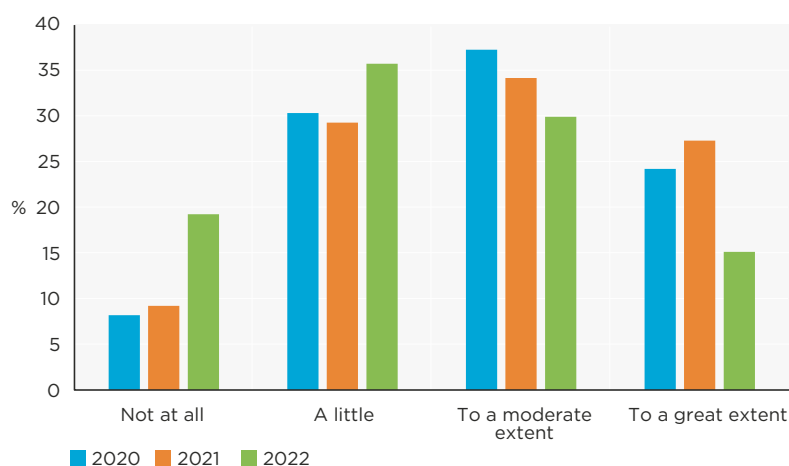


Table 6.7: Degree of perceived impact among people reporting their life changed due to the pandemic, 2020 to 2022 (%)

2020 to 2022 (%)		How the change affected life		
How much life changed because of the pandemic	Worse	Neither better nor worse	Better	Total
2020				
A little	31.5	55.7	12.8	100.0
To a moderate extent	49.9	40.0	10.2	100.0
To a great extent	69.2	22.2	8.6	100.0
2021				
A little	33.9	58.4	7.8	100.0
To a moderate extent	56.1	37.8	6.1	100.0
To a great extent	74.0	19.5	6.5	100.0
2022				
A little	26.8	62.9	10.3	100.0
To a moderate extent	42.3	45.2	12.6	100.0
To a great extent	62.5	22.0	15.5	100.0

Note: Cells may not add up to row totals due to rounding.

Table 6.8: Degree of perceived impact among people reporting their life changed due to the pandemic, by gender, 2022 (%)

	How the change affected life			
How much life changed because of the pandemic	Worse	Neither better nor worse	Better	Total
Males				
A little	39.5	47.5	11.2	100.0
To a moderate extent	43.4	43.4	13.2	100.0
To a great extent	62.6	20.8	16.7	100.0
Females				
A little	26.3	64.3	9.4	100.0
To a moderate extent	41.4	46.6	12.0	100.0
To a great extent	62.5	23.0	14.5	100.0

Note: Cells may not add up to row totals due to rounding.

Table 6.9: Degree of perceived impact among people reporting their life changed due to the pandemic, by age group, 2022 (%)

	How the change affected life			
How much life changed because of the pandemic	Worse	Neither better nor worse	Better	Total
15-24				
A little	18.2	73.7	8.1	100.0
To a moderate extent	31.1	57.6	11.3	100.0
To a great extent	45.8	39.0	15.2	100.0
25-34				
A little	24.6	64.7	10.7	100.0
To a moderate extent	32.8	49.3	17.9	100.0
To a great extent	48.6	28.7	22.7	100.0
35-44				
A little	27.5	58.0	14.6	100.0
To a moderate extent	36.7	49.2	14.1	100.0
To a great extent	61.2	19.9	18.9	100.0
45-54				
A little	27.8	59.2	13.1	100.0
To a moderate extent	41.7	41.0	17.4	100.0
To a great extent	57.7	22.8	19.5	100.0
55-64				
A little	30.1	61.3	8.6	100.0
To a moderate extent	54.1	36.4	9.5	100.0
To a great extent	70.9	16.4	12.7	100.0
65 and over				
A little	32.3	60.5	7.2	100.0
To a moderate extent	54.0	39.0	7.0	100.0
To a great extent	86.1	10.4	*3.6	100.0

Notes: Cells may not add up to row totals due to rounding. * Estimate not reliable.



Table 6.10: Degree of perceived impact among people reporting their life changed due to the pandemic, by immigrant status and First Nations identity, 2022 (%)

How much life changed because of the pandemic	How the change affected life			Total
	Worse	Neither better nor worse	Better	
<i>Non-First Nations Australian-born</i>				
A little	26.6	63.2	10.1	100.0
To a moderate extent	42.3	45.8	11.9	100.0
To a great extent	60.1	24.5	15.4	100.0
<i>First Nations</i>				
A little	22.9	66.6	*10.5	100.0
To a moderate extent	39.4	49.0	11.6	100.0
To a great extent	68.6	23.2	8.2	100.0
<i>Immigrant, main English-speaking countries</i>				
A little	24.9	67.7	7.4	100.0
To a moderate extent	39.1	47.2	*13.6	100.0
To a great extent	59.0	20.0	20.9	100.0
<i>Immigrant, other countries</i>				
A little	29.9	56.9	13.3	100.0
To a moderate extent	44.7	40.7	14.6	100.0
To a great extent	70.3	15.6	14.2	100.0

Notes: Cells may not add up to row totals due to rounding. * Estimate not reliable.



pandemic affected their life 'to a great extent' were much more likely to report that this change was for the worse. For example, in 2021, 74% of individuals for whom the pandemic had an impact on their life 'to a great extent' thought this change was for the worse, compared to only 6.5% who thought it was for the better.

Based on Wave 22 responses, Table 6.8 reports the perceived impact of the pandemic for females and males. Gender differences in such perceptions are generally quite similar, although 39.5% of males who thought the pandemic affected their lives 'a little' believed this change was for the worse; 26.3% of females who responded that the pandemic affected their lives 'a little' believed this change was for the worse. Among both females and males, roughly 62.5% felt the pandemic affected life 'to a great extent' and that this was for the worse.

Table 6.9 shows the perceived impact of the pandemic for various age groups, as reported

Table 6.11: Degree of perceived impact among people reporting their life changed due to the pandemic, by state and territory, 2022 (%)

State and territory, 2022 (%)	How the change affected life			
	Worse	Neither better nor worse	Better	Total
New South Wales				
A little	28.9	60.1	11.1	100.0
To a moderate extent	41.9	47.3	10.8	100.0
To a great extent	68.3	18.1	13.6	100.0
Victoria				
A little	29.9	60.0	10.1	100.0
To a moderate extent	43.7	42.7	13.7	100.0
To a great extent	57.7	25.9	16.4	100.0
Queensland				
A little	24.8	65.3	9.9	100.0
To a moderate extent	43.8	41.6	14.6	100.0
To a great extent	54.5	25.3	20.1	100.0
South Australia				
A little	21.6	71.0	7.4	100.0
To a moderate extent	42.7	48.5	8.9	100.0
To a great extent	73.7	14.9	11.4	100.0
Western Australia				
A little	25.6	63.1	11.3	100.0
To a moderate extent	37.7	47.2	15.1	100.0
To a great extent	65.3	18.4	16.4	100.0
Tasmania				
A little	20.8	66.0	13.3	100.0
To a moderate extent	45.1	43.0	11.9	100.0
To a great extent	63.9	26.5	9.7	100.0
Northern Territory				
A little	*15.3	84.7	0.0	100.0
To a moderate extent	36.3	63.8	0.0	100.0
To a great extent	76.5	23.5	0.0	100.0
Australian Capital Territory				
A little	21.7	69.6	*8.6	100.0
To a moderate extent	34.8	54.6	*10.6	100.0
To a great extent	43.4	37.8	*18.8	100.0

Notes: Cells may not add up to row totals due to rounding. * Estimate not reliable.

in 2022. Among individuals who felt the pandemic impacted life 'to a great extent', the largest proportion thought this change was for the worse. For instance, 61.2% of those in the 35 to 44 age group and 86.1% of those aged 65 and over who said life changed 'to a great extent' felt this change was for the worse. For Australians aged 25 to 34, for example, 22.7% thought the pandemic changed

life 'to a great extent' and that this change was for the better.

Differences in perceived impact of the pandemic are shown in Table 6.10 according to immigrant status and First Nations identity. Among respondents who believe the pandemic affected them 'to a great extent', 68.6% and 70.3% of First Nations respondents and immigrants from other countries, respectively, felt such change was

for the worse. About 15.4% of non-First Nations Australian-born respondents were of the view that their lives were affected 'to a great extent' for the better, compared with 20.9% of immigrants from main English-speaking countries and only 8.2% of First Nations respondents.

Table 6.11 reports the Wave 22 responses on how the pandemic affected Australians' lives by

states and territories. The findings again show that individuals who believe the pandemic had the greatest impact on life felt this change was for the worse. For example, 68.3% of New South Wales residents thought the pandemic affected their lives for the worse, with similar results for 73.7% of South Australians and 76.5% of Northern Territory residents. Among Queenslanders and Victorians, 20.1% and 16.4%, respectively, believed the pandemic affected them for the better to a great extent.

COVID-19 anxiety

Wave 22 of the HILDA Survey included a new set of questions aimed at measuring the degree of anxiety felt by Australians regarding COVID-19 (see Box 6.3). Mean COVID-19 anxiety scores are reported in Table 6.12 according to several individual characteristics for females and males separately. For all characteristic groups, the mean anxiety scores are significantly

Box 6.3: HILDA Survey measure of COVID-19 anxiety

Wave 22 of the HILDA Survey self-completion questionnaire contained the following six-item question related to COVID-19 fear or anxiety:

Below are several statements about the coronavirus, COVID-19. Please choose a number between 1 and 7 that best represents how true the statement is of you personally, where 1 means 'not true of me at all' and 7 means 'very true of me'.

- Thinking about COVID-19 makes me feel threatened*
- I am afraid of COVID-19*
- I am NOT worried about COVID-19*
- I am worried that I, or people I love, will get sick from COVID-19*
- I am stressed around other people because I worry I'll catch COVID-19*
- I have tried hard to avoid other people because I don't want to get sick*

An overall COVID-19 anxiety score that ranges from 1 (low COVID-19 anxiety) to 7 (high COVID-19 anxiety) is created as follows: $(a + b + [8 - c] + d + e + f) / 6$.

Box 6.4: Definition and classification of disability

The International Classification of Functioning, Disability and Health (ICF), produced by the World Health Organization, defines disability as an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual's health conditions and the various contextual (environmental and personal) factors of that individual. In this report, a person is defined as having a disability if they have any long-term health condition, impairment or disability that restricts the individual in everyday activities and that has lasted, or is likely to last, for six months or more. This is an 'operational' definition of disability that is very similar to that used in many household surveys, such as the Australian Bureau of Statistics (ABS) Survey of Disability, Ageing and Carers.

Disability severity is typically defined in terms of restrictions in the core activities of self-care, communication and mobility. The HILDA Survey does not collect information in each wave on core-activity restrictions, but it does collect information on the extent to which health conditions limit the amount of work an individual can do (on a 0 to 10 scale, where 0 equals 'not at all' and 10 equals 'unable to do any work'). In this report, we use a measure of disability severity based on this information, defining three levels of severity: no work restriction (0); moderate work restriction (1 to 7); and severe work restriction (8 to 10). The latter two categories are respectively referred to as 'moderate disability' and 'severe disability' and are sometimes combined into a single category.



different from each other at the 10% level.

Mean COVID-19 anxiety scores increase with age, with older Australians reporting greater anxiety than younger Australians. Average anxiety is relatively similar regardless of education level. Employed Australians reported the lowest mean COVID-19 anxiety scores, with the unemployed having slightly higher scores and the highest average anxiety scores among those not in the labour force.

Anxiety levels tend to be higher in lower-income groups, with females and males in the bottom household income quintile reporting scores of 3.7 and 3.4 (on the 1–7 scale), respectively, whereas in the top income quintile the average score is 3.1 for females and 2.8 for males.

COVID-19 anxiety scores are higher among individuals suffering from poor general health as well as those suffering from poor mental health. Persons with a disability that moderately or severely restricts work (see Box 6.4, page 114) report higher mean COVID-19 anxiety scores than persons who do not have such a disability.

Anxiety scores are slightly higher among partnered individuals than among non-partnered individuals, and mean scores are lower among persons with children than those without children. COVID-19 anxiety is slightly higher among persons residing in major urban areas, with a score of 3.3 for females and 3.0 for males.

Non-First Nations Australian-born individuals report the lowest mean anxiety scores, whereas immigrants from countries other than the main English-speaking countries have the highest COVID-19 anxiety (3.9 for females and 3.6 for males).

Females in New South Wales report the highest anxiety (3.5), followed by females residing in

Table 6.12: Mean COVID-19 anxiety score by individual characteristics, by gender, 2022 (1–7 scale)

	Males	Females
<i>Age</i>		
15–24	2.3	2.8
25–34	2.8	3.0
35–44	2.8	3.3
45–54	2.9	3.3
55–64	3.2	3.5
65 and over	3.5	3.7
<i>Educational attainment</i>		
Less than bachelor's degree	2.9	3.3
Bachelor's degree or higher	3.0	3.3
<i>Labour force status</i>		
Employed	2.8	3.1
Unemployed	3.0	3.3
Not in the labour force	3.4	3.6
<i>Household equivalised annual disposable income</i>		
Bottom quintile	3.4	3.7
Second quintile	3.0	3.3
Third quintile	2.9	3.1
Fourth quintile	2.8	3.1
Top quintile	2.8	3.1
<i>SF-36 general health measure</i>		
Not in poor general health	2.8	3.2
In poor general health	3.8	4.0
<i>SF-36 mental health measure</i>		
Not in poor mental health	2.8	3.2
In poor mental health	3.4	3.6
<i>Disability with moderate or severe work restriction</i>		
No	2.8	3.1
Yes	3.5	3.7
<i>Partnered</i>		
No	2.8	3.2
Yes	3.0	3.3
<i>Children</i>		
No children	3.0	3.3
Children	2.8	3.1
<i>Region of residence</i>		
Major urban	3.0	3.3
Other urban	2.9	3.2
Non-urban	2.7	3.0
<i>Immigrant status and First Nations identity</i>		
Non-First Nations Australian-born	2.8	3.1
First Nations	2.9	3.4
Immigrant, main English-speaking countries	3.0	3.2
Immigrant, other countries	3.6	3.9
<i>State or territory</i>		
New South Wales	3.1	3.5
Victoria	2.8	3.3
Queensland	2.8	3.0
South Australia	2.9	3.3
Western Australia	2.8	3.1
Tasmania	2.9	3.2
Northern Territory	2.7	2.6
Australian Capital Territory	3.3	3.3



Victoria, South Australia and the Australian Capital Territory (all 3.3). Males in the Australian Capital Territory have the highest COVID-19 anxiety (3.3), followed by males living in New South Wales (3.1). Residents of the Northern Territory have the lowest mean COVID-19 anxiety scores.

Duration of COVID-19 symptoms and long COVID

In the person questionnaire of the HILDA Survey in 2022, respondents were asked whether they had ever tested positive to COVID-19. Those who had tested positive were then asked the duration of their self-reported COVID-19 symptoms. This section describes the average duration of such symptoms and uses this information to construct estimates of reported long COVID among individuals who have tested positive to the virus.

Duration of COVID-19 symptoms

The self-reported duration of COVID-19 symptoms are shown in

Table 6.13: Mean duration of COVID-19 symptoms

	Days (%)	Days (number)	Weeks (%)	Weeks (number)	Months (%)	Months (number)
All persons	44.1	5.1	40.6	2.9	15.4	3.6
<i>Gender</i>						
Male	49.7	4.7	38.7	2.6	11.6	3.4
Female	39.2	5.5	42.3	3.1	18.5	3.7
<i>Age group</i>						
15-24	48.1	4.9	41.5	2.3	10.5	3.3
25-34	46.5	5.1	37.5	2.5	16.0	3.5
35-44	44.3	5.0	39.8	2.7	15.9	3.5
45-54	43.2	5.2	40.8	2.9	16.0	3.7
55-64	40.8	5.1	42.5	3.0	16.8	4.0
65 and over	37.8	5.3	44.0	4.4	18.3	3.6

Notes: The table contains reported duration of COVID-19 symptoms among respondents who tested positive to COVID-19. Days (%), weeks (%) and months (%) refer to the proportion of individuals reporting that their symptoms lasted either days, weeks or months. Days (number), weeks (number) and months (number) refer to the duration that symptoms lasted. The number of days is reported by respondents who reported that their symptoms lasted days. The number of weeks is reported by respondents who reported that their symptoms lasted weeks. The number of months is reported by respondents who reported that their symptoms lasted months.

Table 6.13 (page 116). Considering the population that tested positive to COVID-19, 44.1% of Australians said their symptoms lasted days, and among these respondents the average time they experienced symptoms was 5.1 days. For another 40.6%, symptoms lasted an average of 2.9 weeks, and for 15.4%, symptoms lasted for an average of 3.6 months.

Symptoms generally lasted longer for females than for males; 5.5 days for females versus 4.7 days for males, 3.1 weeks for females versus 2.6 weeks for males and 3.7 months for females versus 3.4 months for males.

Although symptoms tended to last longer among older age groups, the relationship is not entirely linear. For example, for those who had symptoms for some days, the mean duration was 5.1 days for 25-to-34-year-olds and 5.3 days for respondents aged 65 and over. Duration of symptoms did increase with age among persons who said their symptoms lasted for weeks, with 2.3 weeks for those in the 15 to 24 age group, 2.9 weeks in the 45 to 55 age group, and a mean of 4.4 weeks for those aged 65 and over. Within the 55 to 64 age group who stated their symptoms lasted for months, the mean duration was highest at 4 months, followed by 45-to-54-year-olds at 3.7 months.

Long COVID

Figure 6.5 shows the percentage of Australians, also by gender, estimated to have had long COVID, including its sub-conditions (see Box 6.5).

About 6.9% of Australians are estimated to have experienced ongoing symptomatic COVID-19, 5.3% have experienced post-COVID-19 condition and 12.2% have had long COVID. The prevalence is higher among females than among males: 7.8%

Box 6.5: HILDA Survey definition of 'long COVID'

In part because long COVID is a new condition, there is no international agreement on its definition, with a lack of clarity on the types of health conditions that need to be reported as part of a long-COVID diagnosis. For a detailed discussion of the various definitions and the limitations involved in the analyses of long COVID, see the Australian Institute of Health and Welfare (AIHW, 2022).

Recognising that there may be several possible definitions, in this chapter the definition proposed by the Australian Institute of Health and Welfare (AIHW, 2022) is used to define and measure long COVID. The definition is based on the UK National Institute for Health and Care Excellence (NICE) definition of long COVID, as follows:

- ongoing symptomatic COVID-19, with signs and symptoms of COVID-19 from 4 to 12 weeks;
- post-COVID-19 condition, with signs and symptoms that develop during or after an infection consistent with COVID-19, continue for more than 12 weeks, and are not explained by an alternative diagnosis.

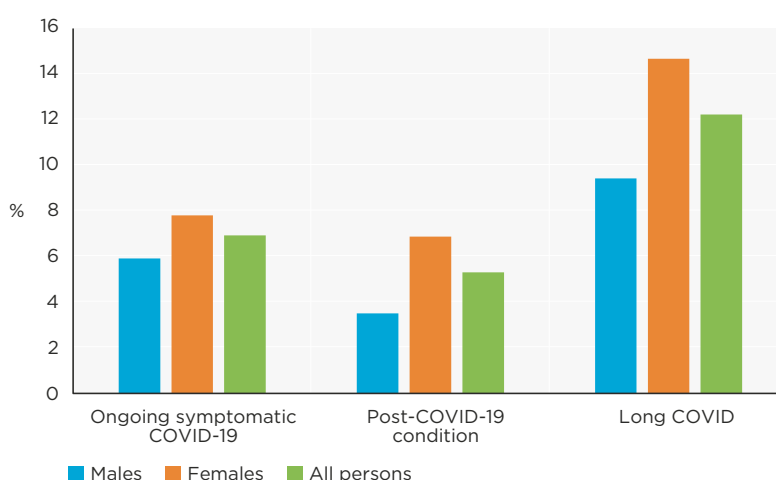
Long COVID is subsequently used as an overarching term to refer to both ongoing symptomatic COVID-19 and a post-COVID-19 condition. Note, however, that recent reports (AIHW, 2024a) opt to refer to long COVID as a 'post-COVID-19 condition'.

In this chapter, respondents were classified as having ongoing symptomatic COVID-19 if they: (1) tested positive to COVID-19; (2) experienced any of the symptoms that could be caused by COVID-19; and (3) symptoms persisted for 4 to 12 weeks.

Respondents were classified as having a post-COVID-19 condition if they: (1) tested positive to COVID-19; (2) experienced any of the symptoms that could be caused by COVID-19; and (3) symptoms persisted for more than 12 weeks. Respondents are then deemed to have experienced long COVID if they report having had either ongoing symptomatic COVID-19 or a post-COVID-19 condition.

It is recognised that capturing long COVID accurately remains a challenge because: (1) symptoms are based on self-reported data; (2) some respondents may report having had COVID-19 when in fact they contracted a different illness with symptoms similar to COVID-19 symptoms; and (3) general understanding of long COVID has improved since these questions were originally asked.

Figure 6.5: Prevalence of long COVID among people aged 15 and over



of females and 5.9% of males report ongoing symptomatic COVID-19, 6.9% of females and 3.5% of males report post-COVID-19 condition, and 14.7% of females and 9.4% of males have had general long COVID.

Table 6.14 breaks down the estimates by age group as well as by state and territory. The prevalence of long COVID is highest among Australians aged 45 and older, with long COVID reported by 15.9% of 55-to-64-year-olds, 15.1% of those aged older than 65, and 13.6% of those in the 45 to 54 age group. Respondents from Queensland (14.9%), South Australia (14.1%) and Western Australia (13.7%) have the highest estimated long COVID prevalence, with the lowest for New South Wales respondents (10.5%).

Table 6.14: Prevalence of long COVID, by age group and state and territory (%)

	Ongoing symptomatic COVID-19	Post-COVID-19 condition	Long COVID
<i>Age group</i>			
15-24	*5.0	3.9	8.9
25-34	4.6	5.5	10.0
35-44	7.4	*4.5	12.0
45-54	8.6	5.0	13.6
55-64	9.7	6.1	15.9
65 and over	7.5	7.6	15.1
<i>State or territory</i>			
New South Wales	6.0	4.5	10.5
Victoria	6.3	5.4	11.7
Queensland	7.8	*7.2	14.9
South Australia	8.4	5.7	14.1
Western Australia	9.4	4.3	13.7
Tasmania	*7.0	*4.6	11.6
Northern Territory	*4.2	*6.5	*10.7
Australian Capital Territory	*5.7	*3.1	*8.8

Note: * Estimate not reliable.



7

Perceived employment discrimination

Kyle Peyton



Australian legislation prohibits discrimination based on several protected attributes including gender, age, ethnicity, religion and parenting responsibilities. The HILDA Survey periodically investigates respondents' perceived experiences with employment discrimination, focusing on these protected characteristics in its 2008, 2010, 2014, 2018 and 2022 waves. This chapter explores the prevalence of employment discrimination in Australia, changes over time and the individual characteristics associated with experiences of discrimination. Additionally, it examines the relationship between discrimination and employment outcomes, including taking leave from work and job satisfaction.

Perceived employment discrimination in Australia

Figure 7.1 (page 120) presents estimates of the prevalence of perceived employment discrimination in Australia, as reported by HILDA Survey respondents for the years 2008, 2010, 2014, 2018 and 2022. Each year, the population for hiring discrimination rates includes individuals who applied for a job within the past two years, representing approximately 28% of people on average. Similarly,

the population for workplace discrimination rates consists of individuals employed at any point in the past two years, encompassing about 64% of people. These groups are referred to as 'job seekers' and 'employees' respectively.

An important distinction exists in how these two types of discrimination are measured in the HILDA Survey. Hiring discrimination estimates capture job seekers' subjective beliefs about whether they faced discrimination for any reason. In contrast, workplace discrimination estimates are based on employees' beliefs about discrimination due to one

Box 7.1: HILDA Survey measures of perceived employment discrimination

The HILDA Survey includes specific questions in the responding person questionnaire that distinguish between two types of employment discrimination:

1. Hiring Discrimination, which occurs during the application or hiring phase. To assess this, the HILDA Survey asks all respondents who have applied for a job in the past two years the following question: *Thinking of the jobs you have applied for in the past 2 years, do you think you were ever unsuccessful because the employer discriminated against you?* Those responding they have experienced discrimination are further queried about the specific basis of discrimination—whether it was due to their gender, age, ethnicity, religion or parenting responsibilities.^a
2. Workplace Discrimination, which refers to discrimination occurring during the course of employment. The survey measures this by asking all respondents who have been employed in the last two years whether they feel their employer discriminated against them based on any of the aforementioned attributes.

^a From 2018, an additional category was added for discrimination due to a 'long-term health condition or disability'. In 2022, a further category was added to capture discrimination targeting 'any other characteristic' not listed.

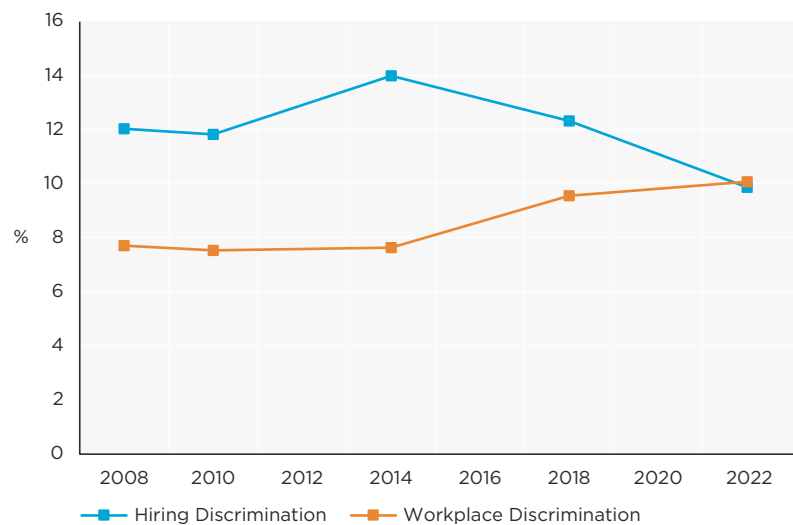
or more specific reasons provided by the survey instrument each year (see Box 7.1, page 119). Before 2018, the survey listed age, ethnicity, gender, religion or parenting responsibilities as potential reasons. In 2018, disability or long-term health condition was added and, in 2022, the category of 'other characteristics' was included.

Figure 7.1 shows that the proportion of job seekers experiencing hiring discrimination for any reason decreased from a high of 14% in 2014 to a low of 9.8% in 2022. Conversely, the proportion of employees reporting workplace discrimination for any listed reason increased over the same period. In 2014, 7.6% of employees reported experiencing workplace discrimination, which rose to 10.1% in 2022. This 2022 rate is the highest since 2008, with stable rates observed between 2008 and 2014. However, these changes do not necessarily indicate that more employees experienced workplace discrimination in 2018 and 2022; the increase in available discrimination categories must also be considered.

Implications of question wording changes for estimates of employment discrimination

One potential explanation for the apparent increase in workplace discrimination is the addition of new discrimination categories in the survey. Specifically, 'long-term health condition or disability' was added in 2018, and 'any other characteristic' in 2022 (see Box 7.1, page 119). Before 2018, respondents could only report workplace discrimination based on gender, age, ethnicity, religion or parenting responsibilities. These changes broadened the scope of workplace discrimination captured by the survey, especially in recent years. Notably, this does not affect

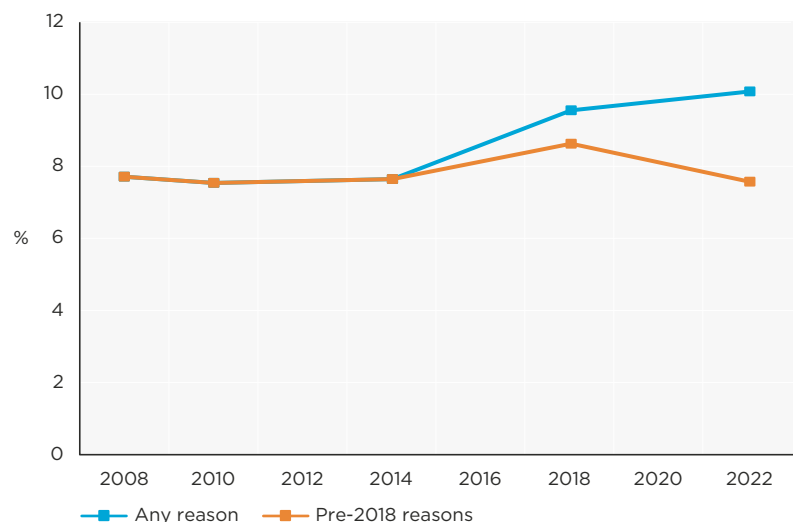
Figure 7.1: Prevalence of experience of employment discrimination



Notes: Estimates for hiring discrimination apply to the population aged 15 years and over who had applied for a job in the previous two years. Estimates for workplace discrimination apply to the population aged 15 years and over who had been employed at some stage in the previous two years.



Figure 7.2: Prevalence of workplace discrimination by measurement approach



Notes: Estimates apply to the population aged 15 years and over who had been employed at some stage in the previous two years. The 'Any reason' category reflects all available reasons for each year, including new categories introduced in 2018 (long-term health condition or disability) and 2022 (any other characteristic). The 'Pre-2018 reasons' category only includes reasons asked prior to 2018: age, ethnicity, gender, parenting responsibilities or religion.

estimates of hiring discrimination. Job seekers were first asked if they believed they had been discriminated against for any reason, and only afterward were they prompted to identify the specific basis for that discrimination (e.g., age, gender).

Because of this change in question wording, estimates of workplace discrimination 'for any reason' prior to 2018 rely on a narrower definition, which likely underestimates the overall prevalence of discrimination experienced by respondents. Figure 7.2 (page 120) illustrates the implications of this change by presenting two sets of estimates. When the analysis is limited to the five pre-2018 categories, the increase in reported workplace discrimination is smaller. For instance, in 2022, only 7.6% of employees reported discrimination for one of the original five reasons (orange line). However, once the broader categories introduced in 2018 and 2022 are included (blue line), the estimate rises to 10.1%.

Australia has enacted several key pieces of federal legislation over the past few decades to protect individuals from discrimination based on various characteristics. Notable federal laws include the *Racial Discrimination Act 1975*, the *Sex Discrimination Act 1984*, the *Disability Discrimination Act 1992* and the *Age Discrimination Act 2004*. These laws provide broad protections against various forms of discrimination, some of which extend beyond the specific categories included in the survey. For example, protections based on sexual orientation, gender identity, intersex status, and marital or relationship status are not explicitly covered by the survey instruments but are illegal under federal legislation.

In addition to federal protections, state and territory laws offer additional safeguards. For

instance, some state laws protect against discrimination based on political opinion, trade union activity, social origin, medical record and criminal record. These additional protections help broaden the scope of anti-discrimination measures across Australia.

The HILDA Survey has expanded its coverage of workplace discrimination over time, adding new categories in 2018 and 2022 to capture discrimination related to long-term health conditions and disabilities, and 'any other characteristic'. While these updates align with existing legal protections, the timing of survey changes does not always coincide with the introduction of federal laws. For example, although discrimination due to long-term health conditions and disabilities has been illegal since the *Disability Discrimination Act*

1992, this specific category was not introduced in the HILDA Survey until 2018.

Given the comprehensive nature of Australia's anti-discrimination legislation, individuals reporting discrimination may select categories that are legally protected or potentially outside the scope of these protections. This highlights the importance of recognising that the survey's categories, prior to 2022, did not necessarily reflect the full range of legally protected characteristics. Additionally, the 'any other characteristic' category introduced in 2022 allows for broader reporting of discrimination, though it may also capture instances that are not legally recognised. The survey's evolution reflects a growing awareness of the complex and varied nature of workplace discrimination.





Reasons for discrimination cited by those experiencing employment discrimination

Table 7.1 presents the reasons for hiring and workplace discrimination cited by individuals who reported experiencing discrimination, along with the overall prevalence of discrimination and corresponding population proportions. These estimates apply to individuals aged 15 and older who either applied for a job or were employed at some point in the previous two years. For example, in 2022, 28.4% of people aged 15 and older had applied for a job, and 9.9% of these job seekers reported experiencing hiring discrimination. Among those who experienced hiring discrimination, 15.8% cited gender as a reason. Similarly, among the 64.1% of people who were employed, 10.1% reported workplace discrimination, with 27.5% of them attributing it to gender.

Age-based discrimination has consistently been the most cited reason among both job seekers

and employees. Between 2008 and 2018, over 50% of job seekers who experienced hiring discrimination believed it was due to their age. However, by 2022, only 40% of job seekers cited age, which coincided with an overall decline in the proportion of job seekers experiencing hiring discrimination, dropping from 12.3% to 9.9%. Age was also the most frequently cited reason for workplace discrimination among employees. In 2022, 37% of employees who experienced workplace discrimination cited age, a significant decrease from 56.2% in 2008. Discrimination based on gender or parenting responsibilities was more commonly reported by employees than by job applicants in all years.

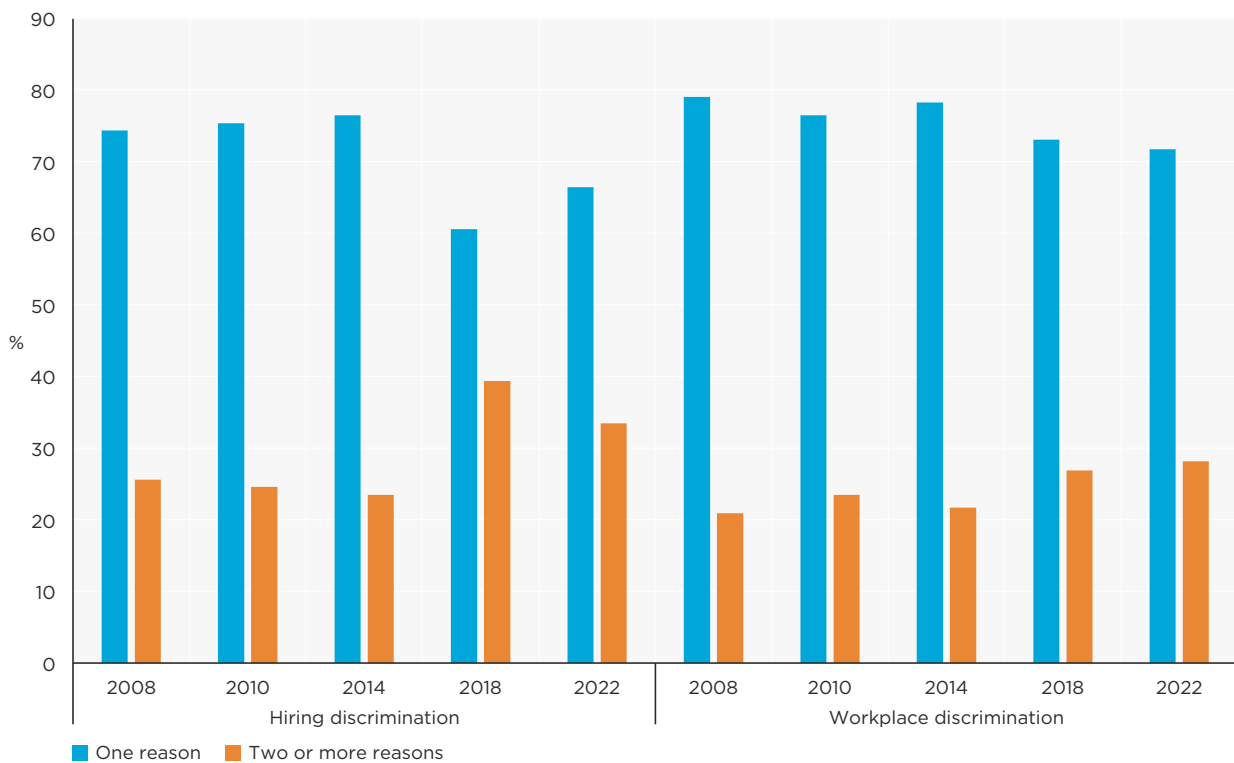
Religious discrimination was consistently the least cited reason among both job seekers and employees. Since the inclusion of 'long-term health condition or disability' in 2018, over 10% of job seekers and employees who experienced discrimination attributed it to this reason. In 2022, around 15% of those experiencing employment discrimination believed it was

Table 7.1: Reasons for hiring and workplace discrimination, prevalence of discrimination among job-seeking or employed individuals and corresponding population proportions, 2008 to 2022 (%)

	Hiring discrimination					Workplace discrimination				
	2008	2010	2014	2018	2022	2008	2010	2014	2018	2022
Age	50.7	54.0	52.3	54.0	39.8	56.2	55.3	45.7	43.1	37.0
Ethnicity	15.0	15.3	20.3	26.0	16.9	13.7	18.3	19.8	14.5	14.9
Gender	12.6	12.4	15.3	19.0	15.8	30.1	30.7	32.5	34.8	27.5
Parenting	13.8	10.2	14.1	9.1	*9.7	34.1	24.5	24.9	22.5	16.7
Religion	*3.3	*5.2	3.8	*6.2	*4.3	5.2	*5.9	7.4	*4.3	*3.4
Disability	–	–	–	11.5	15.0	–	–	–	15.9	15.1
Other	–	–	–	–	30.0	–	–	–	–	24.4
Prevalence of discrimination	12.0	11.8	14.0	12.3	9.9	7.7	7.5	7.6	9.5	10.1
Population proportion	29.2	25.9	28.0	27.6	28.4	63.5	64.8	63.1	63.0	64.1

Notes: Estimates for hiring discrimination apply to the population aged 15 years and over who applied for a job in the previous two years, while estimates for workplace discrimination apply to those employed at any point during the same period. Percentages for specific reasons (e.g., age, ethnicity) apply only to those who reported experiencing discrimination and do not sum to 100% because respondents could select more than one reason. Prior to 2018, the categories were age, ethnicity, gender, parenting responsibilities or religion. In 2018, disability or long-term health condition was added, and in 2022, discrimination due to some other characteristic was included. 'Prevalence of discrimination' is the proportion of people aged 15 years and over who applied for a job or were employed in the past two years and reported discrimination of any type. 'Percentage of population' is the share of people aged 15 years and over who applied for a job or were employed during the same period. * Estimate not reliable.

Figure 7.3: Proportion citing single versus multiple reasons for discrimination



Notes: Hiring discrimination estimates are for individuals aged 15 and over who applied for a job in the past two years and believed they were unsuccessful due to discrimination as listed in the survey. Workplace discrimination estimates are for individuals aged 15 and over who were employed at some point in the past two years and believed their employer discriminated against them based on the survey categories. Prior to 2018, the categories were age, ethnicity, gender, parenting responsibilities or religion. In 2018, disability or long-term health condition was added, and in 2022, discrimination due to some other characteristic was included.

due to their disability or health condition. Additionally, when the 'any other characteristic' category was introduced in 2022, 30% of job seekers and 24.4% of employees who experienced discrimination cited this reason.

Respondents could report multiple reasons for discrimination in any given year. Before 2018, they could select up to five reasons. The introduction of the 'long-term health condition or disability' category in 2018 allowed for up to six reasons, and the 'other characteristic' category added in 2022 expanded this to seven. Figure 7.3 (page 125) shows how the number of reasons cited by job seekers (left panel) and employees (right panel) evolved over time.

In each survey year, most cited only one reason for the discrimination they experienced.

However, the addition of new categories in 2018 and 2022 coincided with an increase in the proportion citing two or more reasons, especially among job seekers. In 2014, less than 25% of job seekers who experienced hiring discrimination cited multiple reasons, compared to nearly 40% in 2018 and 33.5% in 2022.

The addition of these new categories in 2018 and 2022 has likely led to more comprehensive estimates of workplace discrimination. However, it is important to recognise that these figures reflect respondents' personal perceptions of discrimination, rather than legal definitions. For instance, the relatively large proportions citing some other characteristic in 2022 (see Table 7.1, page 122) may not necessarily refer to legally protected attributes under federal or state legislation.



Characteristics associated with perceived employment discrimination

Since demographic characteristics often form the basis of employment discrimination, it is expected that certain groups will report different rates of discrimination (see e.g., Wilkins et al., 2011; Hahn and Wilkins, 2013). Table 7.2 presents the prevalence of employment discrimination experienced by individuals, broken down by key demographic characteristics that are protected

under Australian anti-discrimination laws. These include gender, age, immigrant status, First Nations identity, religious affiliation, disability and parenting responsibilities. It focuses on the 2010 to 2022 waves, as these groups can be consistently identified over this period. The table provides estimates of the proportion of individuals reporting any form of hiring or workplace discrimination, offering insights into how different groups of job seekers and employees in Australia have experienced employment discrimination.

Between 2010 and 2022, the rates of discrimination experienced by job applicants

and employees varied by group membership. Female respondents consistently report higher rates of workplace discrimination than males. In 2022, 12.1% of female employees reported experiencing workplace discrimination, compared to 8% of males. However, gender differences in hiring discrimination were not statistically significant in any year. Older Australians (55+) were more likely to report hiring discrimination, but no significant differences in workplace discrimination were found across age groups.

People with a disability reported significantly higher rates of both hiring and workplace

Table 7.2: Prevalence of employment discrimination experienced, by demographic characteristics that could form the basis for discrimination, 2010 to 2022 (%)

	Hiring discrimination				Workplace discrimination			
	2010	2014	2018	2022	2010	2014	2018	2022
<i>Gender</i>								
Male	12.1	13.6	12.3	9.5	5.9	5.6	6.8	8.0
Female	11.5	14.4	12.3	10.3	9.3	9.8	12.3	12.1
<i>Age group</i>								
15–24	7.1	8.1	6.8	8.0	8.3	9.0	9.4	9.7
25–34	9.5	13.2	12.4	7.6	8.5	7.6	10.9	10.8
35–44	12.4	13.1	10.0	7.1	6.1	7.4	9.1	10.3
45–54	19.4	21.4	18.8	12.7	7.6	6.2	8.8	9.8
55 and over	31.6	34.6	29.9	26.2	6.8	7.9	9.2	9.5
<i>Immigrant status and First Nations identity</i>								
First Nations	*10.3	12.8	11.6	*10.5	*8.5	8.2	10.2	11.4
Non-First Nations Australian-born	11.0	13.0	11.1	9.3	7.2	7.6	9.6	10.1
Immigrant, main English-speaking countries	16.9	14.6	10.9	15.4	8.4	6.9	9.7	9.5
Immigrant, other countries	14.6	17.2	17.9	9.1	8.6	7.9	9.3	9.8
<i>Religious affiliation</i>								
Christian religion	11.7	14.0	12.2	10.1	6.8	6.8	9.3	8.7
Other religion	17.2	18.4	*11.7	*12.5	*10.4	8.6	11.4	14.0
No religion	11.2	12.2	12.2	9.4	7.2	8.0	9.0	10.2
<i>Disability</i>								
Does not have a disability	9.7	11.6	10.4	8.0	6.7	7.2	8.2	8.4
Has a disability	22.6	25.7	20.1	16.5	11.8	10.0	16.5	16.4
<i>Parenting responsibilities</i>								
No dependent children	10.8	13.1	12.1	9.5	7.2	7.2	9.3	9.8
Couple parent with dependent children	14.1	16.1	12.8	10.9	7.4	7.6	9.1	10.2
Single parent with dependent children	15.4	16.6	15.2	9.8	14.2	15.2	18.3	13.6

Notes: Estimates for hiring discrimination apply to the population aged 15 years and over who applied for a job in the previous two years, while estimates for workplace discrimination apply to those employed at any point during the same period. * Estimate not reliable.

discrimination. In 2022, the rates were nearly double for those with a disability compared to those without. Similarly, immigrants were more likely to report hiring discrimination than non-First Nations Australian-born people. No significant differences in discrimination were found between First Nations and non-First Nations Australian-born people, though estimates are subject to high variability due to small sample sizes.

Non-Christian groups, particularly those with non-Christian religious affiliations, reported higher rates of both hiring and workplace discrimination. Those with dependent children—particularly single parents—reported higher rates of workplace discrimination. Notably, nearly 90% of single parents are female, whereas females are not over-represented among couple parents or people without children. This indicates that single parents, who are predominantly women, may face a dual disadvantage, experiencing discrimination not only due to their parenting responsibilities but also because of their gender.

To better understand the associations between demographic characteristics and employment discrimination, two

Table 7.3: Factors associated with experiencing employment discrimination, 2010 to 2022

	Hiring discrimination	Workplace discrimination
<i>Gender (Reference category: Male)</i>		
Female	ns	0.036
<i>Age group (Reference category: 15–24)</i>		
25–34	0.024	ns
35–44	ns	–0.025
45–54	0.082	–0.025
55 and over	0.152	–0.017
<i>Immigrant status and First Nations identity (Reference category: Non-First Nations Australian-born)</i>		
First Nations	ns	ns
Immigrant, main English-speaking countries	ns	ns
Immigrant, other countries	ns	ns
<i>Religious affiliation (Reference category: Christian)</i>		
Other religion	0.034	0.033
No religion	ns	0.007
Has a disability	0.074	0.054
<i>Parenting responsibilities (Reference category: No dependent children)</i>		
Couple parent with dependent children	ns	0.014
Single parent with dependent children	ns	0.048
<i>Year (Reference category: 2010)</i>		
2014	ns	ns
2018	ns	0.020
2022	–0.033	0.022
Number of observations	15,477	36,833

Notes: The table reports average marginal effects estimates from logistic regression models of the probability of experiencing employment discrimination. See the Technical Appendix for further information on these models. Models for each type of employment discrimination are fit separately on the pooled dataset of 2010, 2014, 2018 and 2022 survey waves. *ns* indicates the estimate is not significantly different from 0 at the 10% level.



logistic regression models were fitted to predict the likelihood of experiencing hiring and workplace discrimination separately. By pooling data from 2010 to 2022 and including fixed effects for each year, the precision of the estimates is improved, particularly for smaller sub-groups, such as First Nations people. Table 7.3 presents the results as average marginal effects, which represent the change in the probability of experiencing discrimination when a particular characteristic is present, relative to the reference category.

The probability of experiencing workplace discrimination is 3.6 percentage points higher for females than males, while no significant difference is observed for hiring discrimination. This suggests that women are more

likely to face discrimination once they are employed, rather than during the hiring process. Age is a significant predictor of hiring discrimination, with older job seekers (55+) being 15 percentage points more likely to report discrimination than younger job seekers (15–24). However, no significant difference was observed for workplace discrimination by age. This suggests that older workers may face more barriers during the hiring process rather than while employed.

Compared to those who identify as Christian, individuals who identify with other religions are about 3 percentage points more likely to experience discrimination, both as job seekers and employees. Those without a religious

affiliation are not significantly more likely to experience hiring discrimination and are only slightly more likely to experience workplace discrimination compared to Christians. This suggests that individuals who identify with non-Christian religions may face unique challenges in both attaining a job and once employed.

Disability status is strongly associated with both forms of employment discrimination. Individuals with a disability were 7.4 percentage points more likely to report hiring discrimination and 5.4 percentage points more likely to report workplace discrimination. This indicates that people with disabilities face barriers not only in securing employment but also in how they are treated while employed.

Table 7.4: Factors associated with experiencing employment discrimination by gender, 2010 to 2022

	Hiring discrimination		Workplace discrimination	
	Males	Females	Males	Females
<i>Age group (Reference category: 15–24)</i>				
25–34	<i>ns</i>	0.031	–0.02	<i>ns</i>
35–44	<i>ns</i>	<i>ns</i>	–0.028	–0.02
45–54	0.097	0.069	–0.018	–0.03
55 and over	0.161	0.143	<i>ns</i>	–0.021
<i>Immigrant status and First Nations identity (Reference category: Non-First Nations Australian-born)</i>				
First Nations	<i>ns</i>	0.051	<i>ns</i>	<i>ns</i>
Immigrant, main English-speaking countries	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
Immigrant, other countries	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
<i>Religious affiliation (Reference category: Christian)</i>				
Other religion	<i>ns</i>	<i>ns</i>	<i>ns</i>	0.017
No religion	<i>ns</i>	<i>ns</i>	0.04	0.027
Has a disability	0.084	0.067	0.042	0.064
<i>Parenting responsibilities (Reference category: No dependent children)</i>				
Couple parent with dependent children	<i>ns</i>	<i>ns</i>	0.017	<i>ns</i>
Single parent with dependent children	<i>ns</i>	<i>ns</i>	0.071	0.047
<i>Year (Reference category: 2010)</i>				
2014	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
2018	<i>ns</i>	<i>ns</i>	<i>ns</i>	0.03
2022	–0.037	–0.029	0.023	0.022
Number of observations	7,297	8,180	17,541	19,292

Notes: The table reports average marginal effects estimates from logistic regression models of the probability of experiencing employment discrimination. See the Technical Appendix for further information on these models. Models for each type of employment discrimination are fit separately on the pooled dataset of 2010, 2014, 2018 and 2022 survey waves. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

Lastly, parents—particularly single parents—were more likely to report workplace discrimination, with the probability being 1.4 percentage points higher for couple parents and 4.6 percentage points higher for single parents. However, no significant association was found between parenting responsibilities and hiring discrimination. This suggests that parents, especially single parents, are more likely to face discrimination once employed rather than during the job search process.

To further explore gender differences in experiences of employment discrimination, separate logistic regression models were estimated for male and female respondents. This disaggregated analysis, reported in Table 7.4 (page 126), shows how key characteristics—such as parenting responsibilities—interact with gender to influence discrimination experiences. While this approach highlights important gender-specific patterns, it is important to note that more complex interactions involving multiple demographic characteristics (e.g., First Nations female single parents with long-term disabilities) cannot be reliably estimated due to sample size constraints. However, the relatively balanced gender distribution in the sample enables robust comparisons between men and women.

The results show that both male and female single parents are significantly more likely to experience workplace discrimination compared to those without dependent children. While male single parents report a slightly higher rate of workplace discrimination (7.1 percentage points) than female single parents (4.7 percentage points), the difference between men and women is not statistically significant. Notably, although men make up a small proportion



of the single-parent population, they still report significantly higher rates of workplace discrimination compared to men without children.

For both men and women, older job seekers—particularly those aged 55 and over—are more likely to experience hiring discrimination. However, older workers do not report higher rates of workplace discrimination. Immigrant status and First Nations identity show no significant differences in the likelihood of experiencing either hiring or workplace discrimination, with the exception of First Nations women, who are 5.1 percentage points more likely to experience hiring discrimination

compared to non-First Nations Australian-born women.

Men with a disability are 8.4 percentage points more likely to report hiring discrimination and 4.2 percentage points more likely to report workplace discrimination, while the corresponding figures for women are 6.7 and 6.4 percentage points, respectively. The difference in workplace discrimination between males and females with disabilities (0.022) is statistically significant, indicating that although both groups face barriers, women with disabilities are more likely to experience workplace discrimination than their male counterparts.

Workplace discrimination and employment outcomes

Workplace discrimination can significantly impact an individual's professional life, wellbeing and career trajectory. This section examines some of the potential consequences of workplace discrimination for employees. Our focus is on individuals who were employed at any point in the two years preceding their interview, representing about 64% of the population in any given year (see Table 7.1, page 122). Comparisons

are made between those who reported experiencing workplace discrimination by an employer in the previous two years and those who did not, across the survey years 2008, 2010, 2014, 2018 and 2022.

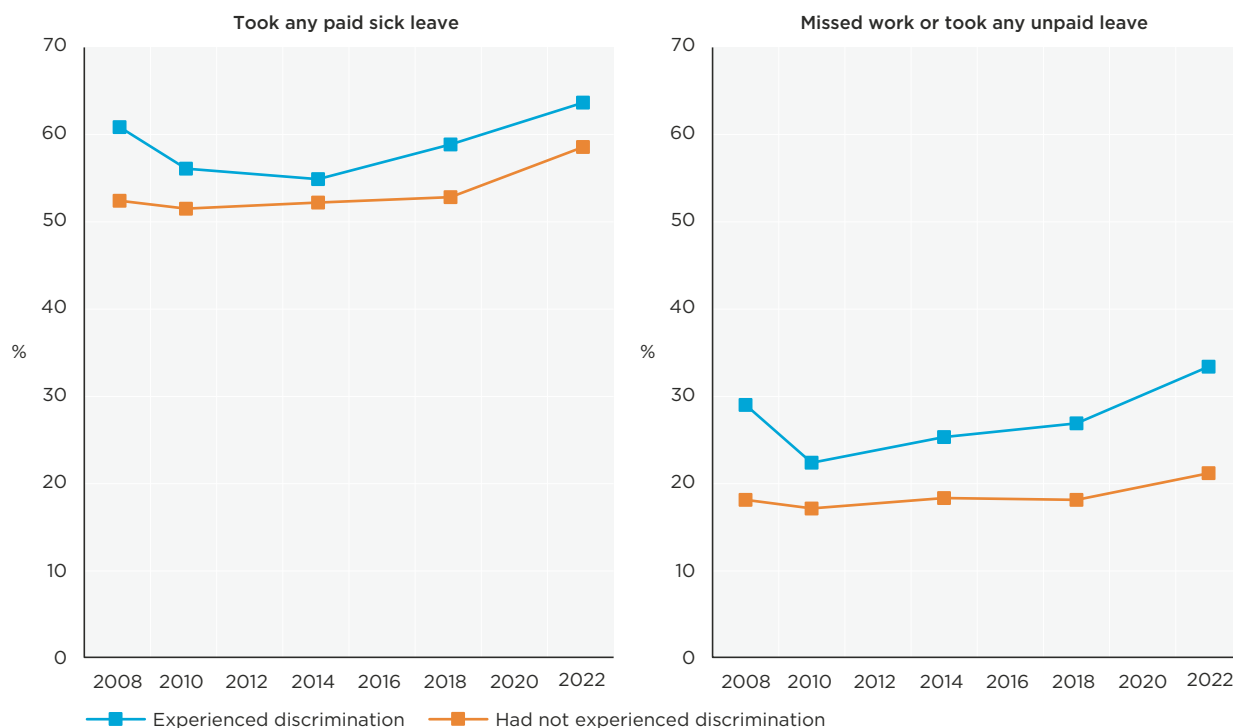
We first examine whether those who have experienced workplace discrimination are more likely to be absent from the workplace. The HILDA Survey asks respondents who were employed in the last 12 months whether they have taken leave from work over the past 12 months for 'paid annual (vacation) leave', 'paid sick leave', and whether they have 'missed work or taken any other time off for which you were not paid' when scheduled to be

at work. On average, roughly 60% of respondents reported taking paid annual leave, regardless of whether they have experienced workplace discrimination.

However, individuals who experienced workplace discrimination are significantly more likely to have taken paid sick leave and unpaid leave. Figure 7.4 shows that those who experienced discrimination are consistently more likely to use paid sick leave (left panel) and take unpaid leave (right panel). On average, those who have experienced discrimination are 5.4 percentage points more likely to take paid sick leave and 8.8 percentage points more likely to miss work or take unpaid leave. In 2022, 63.3% of employees who experienced discrimination took paid sick leave, compared to 58.2% of those who did not. Additionally, 33% of employees who experienced discrimination reported missing work or taking unpaid leave in 2022, compared to 22% of those who did not.



Figure 7.4: Employee absenteeism by experience of workplace discrimination

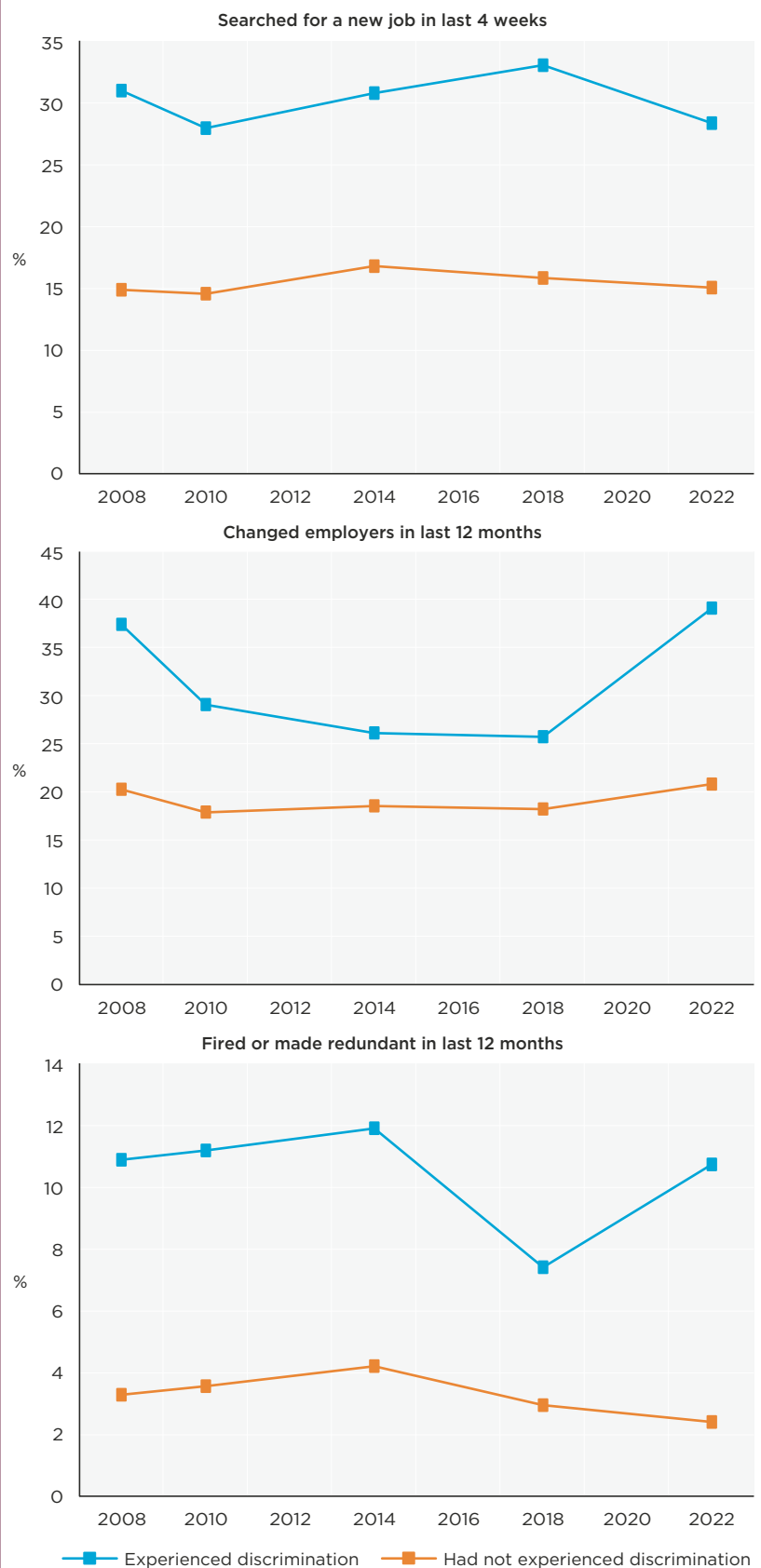


Note: Estimates apply to the population aged 15 years and over that had been employed at some stage in the previous two years.

Employees experiencing workplace discrimination may take more sick and unpaid leave due to stress and health issues related to discrimination. In contrast, paid annual leave usage, which is typically planned and unrelated to immediate health concerns, remains consistent across groups. While these patterns could suggest that workplace discrimination contributes to health-related absenteeism, it is important to recognise that the observed associations do not imply causation. Higher sick or unpaid leave usage may not necessarily be a direct consequence of discrimination but could instead reflect pre-existing health conditions or other factors. For instance, individuals with chronic illnesses may need to take more leave, exhausting their paid sick leave and resorting to unpaid leave. These individuals may also be more likely to report experiencing discrimination, perhaps due to their health condition or disability, which could confound the observed association. As such, the higher usage of sick and unpaid leave could be driven by health conditions rather than by discrimination itself. Additionally, other unmeasured factors, such as job characteristics or personal circumstances, may also influence these outcomes.

Job separation, both voluntary and involuntary, is another potential consequence of workplace discrimination. Employees who face discrimination may be more likely to be targeted for firing or redundancy and may invest more time in searching for new job opportunities, leading them to voluntarily leave their current employer. The HILDA Survey regularly asks respondents whether they have searched for a new job in the last 4 weeks, changed employers in the past

Figure 7.5: Job search and job separations by experience of workplace discrimination



Note: Estimates apply to the population aged 15 years and over who had been employed at some stage in the previous two years.

year and/or been involuntarily fired or made redundant.

Figure 7.5 (page 129) shows that individuals who have experienced workplace discrimination are significantly more likely to have searched for new jobs, voluntarily changed employers and/or been fired or made redundant. On average, those who have experienced workplace discrimination are 14.8 percentage points more likely to have searched for a new job in the last 4 weeks and 12.3 percentage points more likely to have voluntarily changed employers in the past year. Rates of involuntary separation are also about 7.1 percentage points higher among those who have experienced discrimination.

From 2018 to 2022, there was a notable increase in voluntary separations among both groups. In 2018, 18.2% of those who had not experienced workplace discrimination changed employers compared to 20.8% in 2022, a modest increase of 2.6 percentage points. Among those who had experienced workplace

discrimination, 39.1% reported changing employers in 2022 compared to 25.7% in 2018, a substantial increase of 13.4 percentage points. This rise coincided with improved labour market conditions post-COVID-19, with 2022 seeing the lowest unemployment rates ever recorded in the HILDA Survey.

When demand for labour increases, the cost of job search is reduced, increasing the probability of finding alternative employment and making it easier for employees facing discrimination to move to better job environments. In less competitive markets, employers have more power to discriminate without facing significant costs. However, when labour demand is high and unemployment is low, the power of employers diminishes, making it more costly for them to sustain discriminatory practices (see e.g., Becker, 1971; Holzer et al., 2006; Boulware and Kuttner, 2019). The 13.4 percentage-point increase in voluntary job separations among those who experienced discrimination, compared to a 2.6

percentage-point increase among those who did not, suggests that individuals experiencing workplace discrimination were more likely to capitalise on the favourable labour market conditions of 2022 to escape discriminatory environments.

While these findings align with the idea that increased demand for labour can disproportionately benefit those who experience workplace discrimination, it is also possible that other factors contributed to the observed changes in voluntary separations. For example, the pandemic period saw a significant rise in awareness and advocacy around workplace issues, including discrimination. Employees experiencing discrimination might have felt more empowered to leave hostile work environments due to the heightened focus on workplace equity and support during this time. This increased advocacy and support could have provided additional motivation and resources for employees experiencing discrimination to seek new employment opportunities.



Subjective expectations and satisfaction levels

Understanding employees' subjective expectations about their future job mobility and security can provide valuable insights into their perceptions and attitudes towards their current work environment. Given the potential impacts of discrimination on perceptions of job security and mobility, it is expected that those who have experienced workplace discrimination will report higher expected chances of both voluntary and involuntary job separations compared to those who have not experienced discrimination. The HILDA Survey includes questions that gauge these expectations by asking respondents to estimate the 'per cent chance' that they will 'leave their job voluntarily (quit or retire)' or 'lose their job (get retrenched, fired or not have their contract renewed)' within the next 12 months. Responses are recorded on

a 0–100 scale, where 0% indicates 'no chance' and 100% indicates 'absolute certainty'.

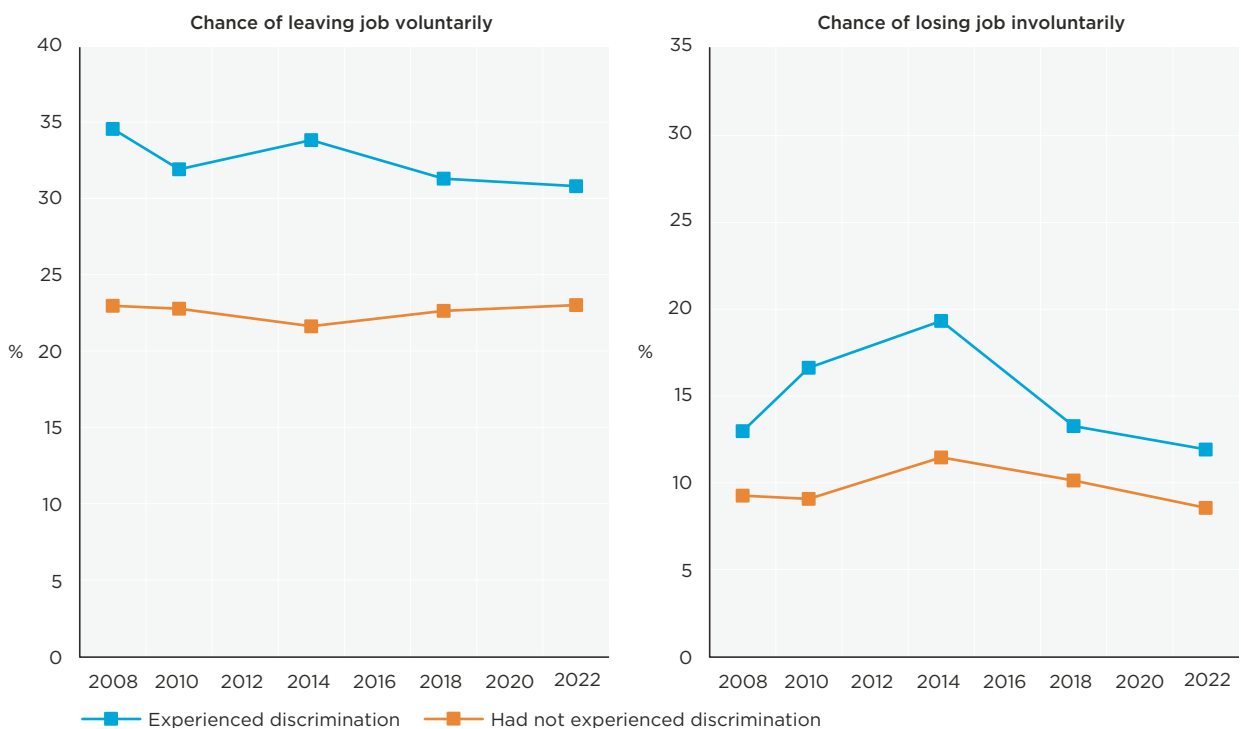
Figure 7.6 shows the averages for per cent chance of voluntary separation (left panel) and involuntary separation (right panel) among those who have, and have not, experienced workplace discrimination. As expected, people who have experienced workplace discrimination are more likely to believe that they will leave their job in the next 12 months, for both voluntary and involuntary reasons, in every year since 2008. The differences between the two groups are, however, much more pronounced for voluntary job separations. On average, those who have experienced discrimination reported a 32.6% chance of leaving their job compared to roughly 22.7% among those who have not experienced discrimination. For involuntary job separations, the averages are a 14.8% chance and a 9.7% chance respectively. While



the differences between groups have attenuated somewhat for subjective expectations of involuntary job loss over time, the gap for voluntary separations has remained stable.

These findings on subjective expectations of job mobility and security are consistent with the results discussed in the previous section regarding reported job search activity and job separations. The higher expectations of voluntary job

Figure 7.6: Mean expected probability of job loss by experience of workplace discrimination



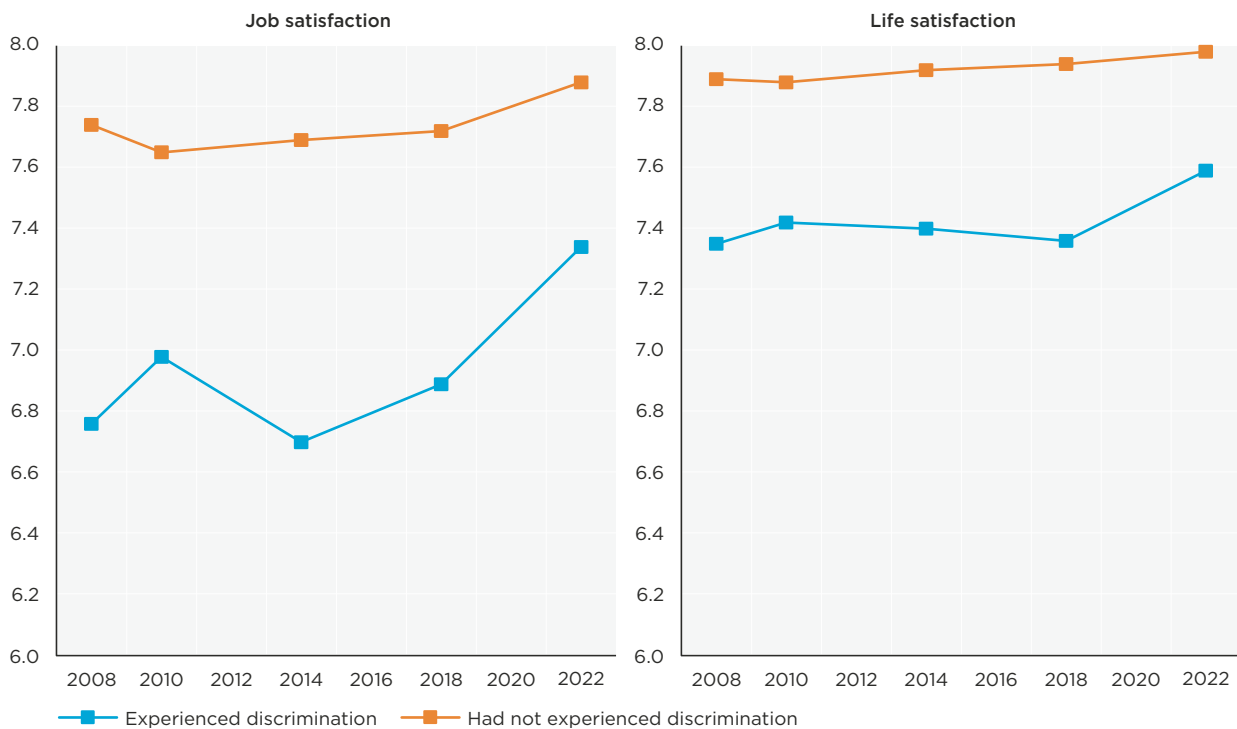
Note: Estimates apply to the population aged 15 years and over that had been employed at some stage in the previous two years.



separation among those who have experienced workplace discrimination align with the observed increase in job search activities and actual voluntary separations within this group. This suggests that perceived job insecurity and the desire to leave hostile work environments translate into concrete actions. However, alternative explanations should also be considered. For example, employees with higher job dissatisfaction might be more vigilant about job market conditions and more likely to anticipate leaving their jobs, regardless of discrimination. Other unmeasured factors that affect these groups differently, such as changing economic or personal circumstances, may also influence these subjective expectations.

Job satisfaction, influenced by the quality of one's workplace environment, is an important determinant of overall life satisfaction. Lower job satisfaction and life satisfaction

Figure 7.7: Average job satisfaction and life satisfaction (0–10 scale) by workplace discrimination



Note: Estimates apply to the population aged 15 years and over that had been employed at some stage in the previous two years.

are potential consequences of workplace discrimination. The HILDA Survey has asked respondents to report on overall life satisfaction and job satisfaction in every wave since 2001. Life satisfaction is measured by asking 'All things considered, how satisfied are you with your life overall?' Job satisfaction is similarly measured by asking 'All things considered, how satisfied are you with your job?' Responses range from 0 (completely dissatisfied) to 10 (completely satisfied), with 5 representing 'neither satisfied nor dissatisfied'.

Figure 7.7 (page 132) shows average levels of job satisfaction (left panel) and overall life satisfaction (right panel) among those who have, and have not, experienced workplace discrimination. Unsurprisingly, people who have experienced

workplace discrimination consistently report lower levels of job satisfaction and life satisfaction. On average, job satisfaction is 0.80 scale points lower for those who have experienced workplace discrimination, and overall life satisfaction is 0.50 scale points lower. In 2022, average job satisfaction among those who had experienced discrimination by an employer at some point during the previous two years was 7.34 out of 10. Similarly, mean overall life satisfaction was 7.59 out of 10. These were the highest levels reported among this group since 2008, and the gaps in satisfaction between the two groups have narrowed.

These changes may be partly attributable to the observed increase in voluntary separations in 2022 (see Figure 7.5, page 129), which likely led people who had

been discriminated against by a previous employer to find a better work environment with a new employer. However, because the questions on workplace discrimination refer to 'all paid jobs' held within the past two years, it is not possible to identify whether a current employer, or a previous one, is the discriminating employer. The overall trends nonetheless demonstrate a strong and consistent association between experienced workplace discrimination and satisfaction with one's job, as well as life in general. It is important to note that these findings do not necessarily imply that workplace discrimination is the sole or primary reason for lower satisfaction levels. It is also possible that employees with unpleasant jobs or workplace environments are both less satisfied and more likely to report workplace discrimination.



8

Housing and neighbourhood satisfaction

Kyle Peyton



The environments we inhabit—our homes and neighbourhoods—are important determinants of our happiness, security and sense of belonging. The worsening housing crisis in Australia is quickly becoming one of the most pressing issues facing individuals and families. In 2021 and 2022, Australians faced some of the worst housing affordability challenges and lowest property vacancy rates on record. While these challenges were particularly acute for renters living in major capital cities, rising inflation and interest rates over the same period also put increased pressure on home owners with mortgages. Additionally, these years saw some of the worst weather-related disasters in history, with severe flooding destroying thousands of homes across the country and resulting in billions of dollars in property damage.

The HILDA Survey has, from its inception, collected information on a range of factors that allow for an examination of Australians' satisfaction with their homes and the neighbourhoods in which they live. In every wave since 2009, the survey has also asked respondents to report whether they have experienced a weather-related disaster that damaged or destroyed their home. The survey is therefore well positioned to provide insights about Australians' satisfaction with their home and neighbourhood, as well as their experiences with weather-related disasters, over a significant period.

This chapter provides a detailed examination of housing and neighbourhood satisfaction, how these attitudes have changed over time, and the characteristics associated with different levels of satisfaction, such as the type of home one lives in and whether it is rented or owned. Additionally, it examines the relationship between satisfaction levels and desires to move to a different home or neighbourhood, including whether moving leads to subsequent changes in housing and neighbourhood satisfaction. The final section of this chapter provides an analysis of Australians' experiences of weather-related disasters over the past 14 years, including the differential impact that recent events have had across different regions of Australia.

Box 8.1: HILDA Survey measures of housing and neighbourhood satisfaction

The HILDA Survey has asked Australians to report their satisfaction levels in various areas of life in every wave since 2001. *Housing satisfaction* is measured by asking respondents to rate their satisfaction with 'the home in which you live'. *Neighbourhood satisfaction* is measured by asking respondents to rate their satisfaction with 'the neighbourhood in which you live'. Response options range from 0 ('completely dissatisfied') to 10 ('completely satisfied'), with a neutral midpoint at 5 ('neither satisfied nor dissatisfied').

Housing and neighbourhood satisfaction

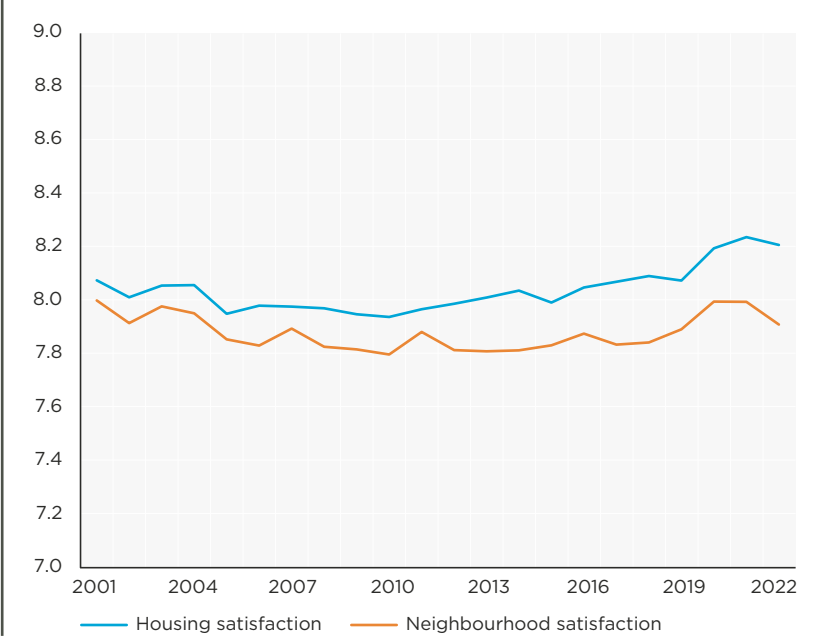
Figure 8.1 (page 135) shows the average level of housing and neighbourhood satisfaction recorded in every wave of the

HILDA Survey since 2001, as captured using the measures described in Box 8.1. These averages include home owners without mortgages, home owners with mortgages, renters of private housing, renters of social housing and those living in homes they neither own nor pay rent for. The

latter group, constituting about 2% of the population in any given year, predominantly comprises individuals living in homes owned by relatives, staying rent free with friends or relatives or receiving housing as part of job compensation.

While there have been some fluctuations over time, both measures have remained relatively high over the 22-year period. Housing satisfaction has consistently been higher than neighbourhood satisfaction, averaging 8.04 out of 10 compared to 7.88 out of 10. Trends in housing and neighbourhood satisfaction have both been on a generally upward trajectory since 2009. The most significant changes for housing satisfaction occurred during the COVID-19 pandemic, when levels increased by 0.17 scale points from 8.07 to 8.24. For neighbourhood satisfaction, the most significant change in the series—0.16 scale points—occurred between 2017 and 2022. This was followed by a significant

Figure 8.1: Average housing and neighbourhood satisfaction (0-10 scale)

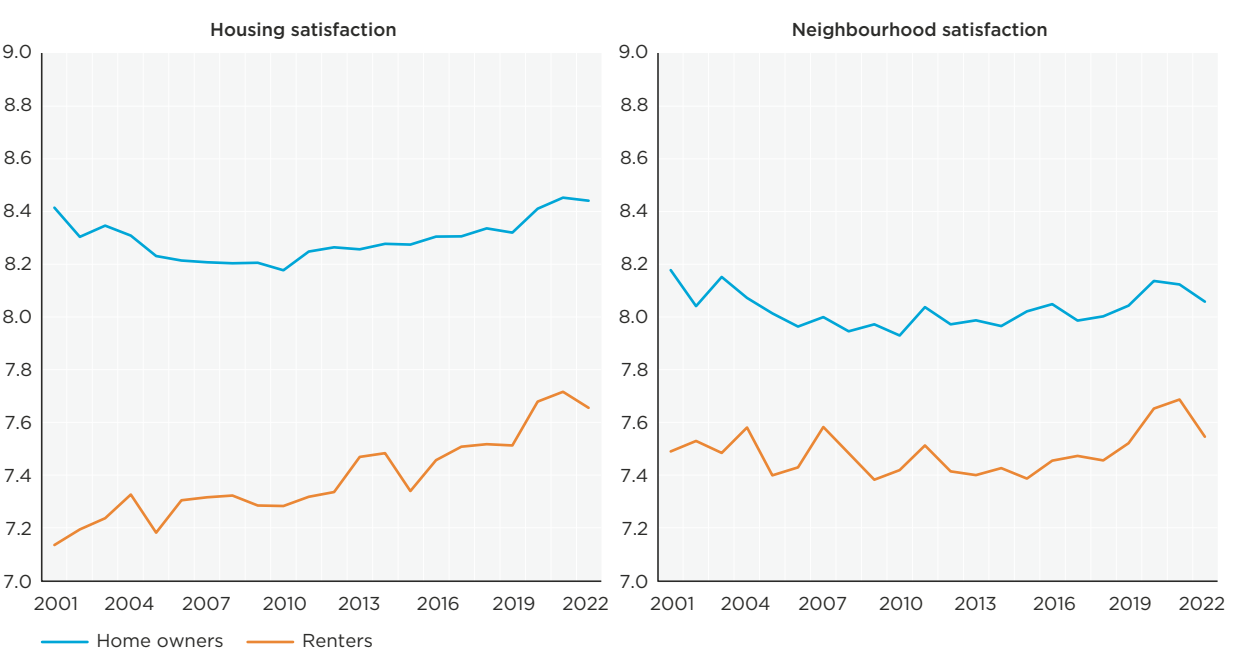


decline in neighbourhood satisfaction, by about 0.08 scale points, in 2022. Although levels of housing satisfaction also declined by about 0.03 scale points, this was not a significant change relative to 2021 levels.

Although these averages paint a portrait of generally high levels of

housing and neighbourhood satisfaction, Figure 8.2 reveals large and persistent gaps between renters and home owners. Home owners include those who own their homes outright (26% of the population on average) and those with mortgages (about 42% of the

Figure 8.2: Mean housing and neighbourhood satisfaction for renters and home owners (0-10 scale)



Notes: Estimates for those living in homes they neither own nor pay rent for (approximately 2% of the population) are unreliable and are therefore excluded. This group predominantly comprises individuals living in homes owned by relatives, staying rent free with friends or relatives or receiving housing as part of job compensation.

population), as trends are not significantly different between these groups over time. Renters include those living in private rental accommodation (about 26% of the population) and those living in social housing (about 4% of the population), as trends are not significantly different between these groups over time.

Housing satisfaction has averaged 8.29 out of 10 among home owners, compared to 7.39 out of 10 among renters. Levels of neighbourhood satisfaction have followed a similar pattern, averaging 8.03 out of 10 for home owners compared to 7.49 out of 10 for renters. There were significant increases in housing satisfaction among both renters

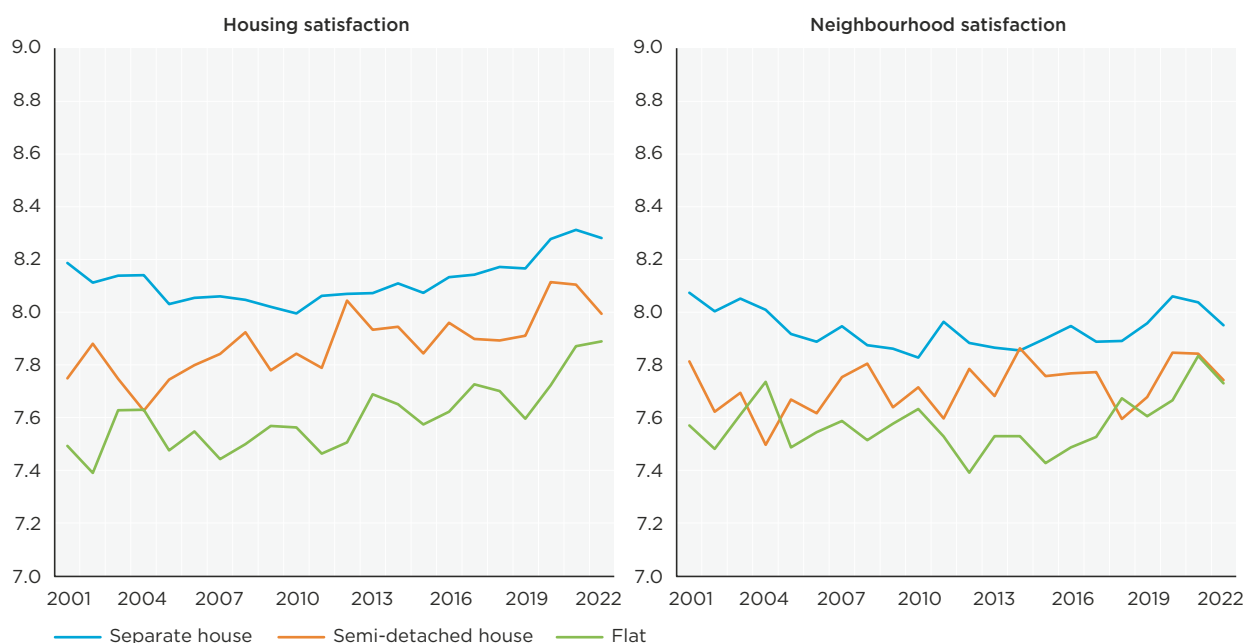
and home owners during the COVID-19 pandemic, a period during which both groups experienced a temporary decline in housing costs due to a combination of declining interest rates and rental prices between 2019 and 2021. These increases—0.21 scale points for renters and 0.13 for home owners—may be partly attributable to this temporary decline in housing costs. Levels of housing satisfaction declined slightly among renters in 2022, but this was not a significant change relative to 2021.

Changes in neighbourhood satisfaction were less pronounced but followed similar trends between 2019 and 2022—an

increase of 0.17 scale points for renters compared to 0.08 for home owners. These temporary increases were followed by significant declines, 0.14 scale points for renters and 0.06 scale points for home owners. In 2022, levels of neighbourhood satisfaction had roughly returned to pre-pandemic levels for both groups.

As Figure 8.3 demonstrates, there are relatively modest differences across different types of housing. Those living in separate houses (roughly 81% of the population) report the highest levels of housing satisfaction, averaging 8.1 out of 10, followed by those living in semi-detached houses (about 7% of the population),

Figure 8.3: Mean housing and neighbourhood satisfaction by housing type (0-10 scale)



Note: Estimates for those living in 'Other' housing types (less than 1% of the population) are unreliable and are therefore excluded. This group includes dwellings attached to offices or shops, non-private dwellings (e.g., nursing home), caravans, cabins, houseboats and tents.

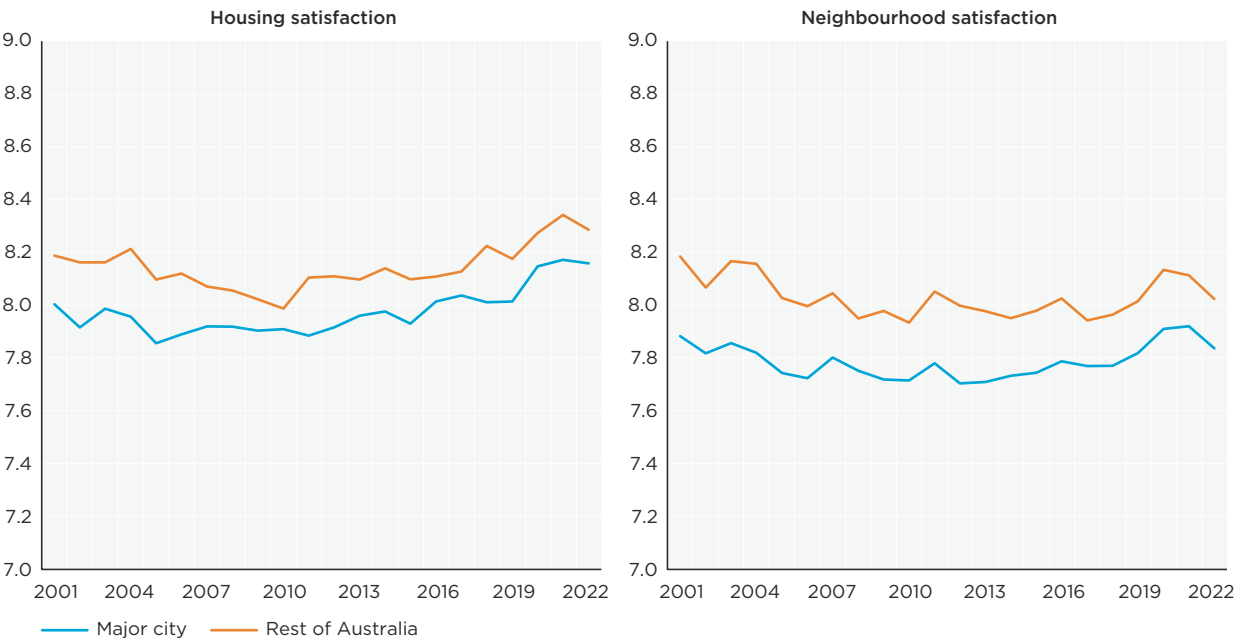


averaging 7.9 out of 10. Those living in flats (about 12% of the population) have consistently reported the lowest levels of housing satisfaction, averaging 7.6 out of 10 over the 22-year period. Neighbourhood satisfaction follows similar trends, with those living in separate houses, semi-detached houses and flats averaging 7.94, 7.72 and 7.58 out of 10 respectively.

These differences by housing type are partly attributable to the fact that home owners—who report significantly higher levels of housing and neighbourhood satisfaction—are more likely to live in separate houses than flats. In 2022, for example, approximately 89% of home owners lived in separate houses and just 5% lived in flats. By contrast, 61% of renters lived in separate houses and 26% lived in flats. Although those living in separate houses reported average housing satisfaction scores 0.39 points higher than those living in flats in 2022, this was about half the size of the 0.80 scale point gap observed



Figure 8.4: Mean housing and neighbourhood satisfaction by region of residence (0-10 scale)



Note: Estimates for those living in a 'Major city' (about 64% of the population) include persons living in Sydney, Melbourne, Brisbane, Perth or Adelaide.

between renters and home owners. Similarly, the gap in neighbourhood satisfaction between renters and home owners was 0.51 scale points in 2022, compared to 0.22 scale points between those living in separate houses versus flats.

Figure 8.3 (page 136) also shows there were significant increases in housing and neighbourhood satisfaction between 2019 and 2021 across all housing types. Housing satisfaction increased by 0.15 scale points among those living in separate houses, 0.19 among those living in semi-detached houses and 0.27 scale points among those living in flats. Similarly, neighbourhood satisfaction increased by 0.08 scale points among home owners, 0.16 among those living in semi-detached houses and 0.22 among people living in flats.

Levels of housing satisfaction increased among those living in flats in 2022 and declined among the other groups, but none of these changes were significant relative to 2021 levels. In 2022, there was a significant decline in neighbourhood satisfaction of about 0.09 scale points among those living in separate houses. Although there were similar

declines among those living in semi-detached houses and flats, these changes were not significant relative to 2021 levels.

Region of residence is another important predictor of housing satisfaction. Figure 8.4 (page 137) shows that those living in one of Australia's major cities—Sydney, Melbourne, Brisbane, Perth or Adelaide—have consistently reported lower levels of housing and neighbourhood satisfaction than those living elsewhere. Housing satisfaction among those living in a major city, which comprised about 64% of the Australian population in 2022, has averaged about 0.18 scale points lower over the 22-year period. The difference for neighbourhood satisfaction has averaged about 0.11 scale points over the same period.

Relative to the differences observed between renters and home owners (Figure 8.2, page 135), these differences are also relatively modest. Although renters are somewhat more likely to live in major cities than home owners, this relationship is relatively weak. In 2022, for example, 64% of renters lived in a major city compared to 60% of home owners. This small

difference of about 4 percentage points has remained stable over the 22-year period since 2001.

The significant increases observed in housing satisfaction during the COVID-19 pandemic were similar among both groups—0.16 points for those living in a major city and 0.17 for those living elsewhere. In 2022, however, levels of housing satisfaction remained relatively stable among those living in major cities and declined slightly, by about 0.06 scale points, among those living elsewhere. Changes in neighbourhood satisfaction followed similar trends—an increase of about 0.10 scale points for both groups. However, these changes were followed by significant declines, with neighbourhood satisfaction among both groups returning to pre-pandemic levels in 2022.

Perceptions of neighbourhood quality

Although the HILDA Survey does not directly ask respondents about housing quality, several waves have included questions



Box 8.2: Measurement of perceived neighbourhood quality

Since 2001, the HILDA Survey has periodically asked respondents a series of questions about quality-of-life issues affecting their local neighbourhood, such as noise, vandalism and anti-social behaviour. Specifically, the self-completion questionnaire contains the following 10-item question:

How common are the following things in your local neighbourhood?

- a. Neighbours helping each other out?
- b. Neighbours doing things together?
- c. Loud traffic noise?
- d. Noise from airplanes, trains or industry?
- e. Homes and gardens in bad condition?
- f. Rubbish and litter lying around?
- g. Teenagers hanging around on the streets?
- h. People being hostile and aggressive?
- i. Vandalism and deliberate damage to property?
- j. Burglary and theft?

Response options comprise: 'Never happens' (1); 'Very rare' (2); 'Not common' (3); 'Fairly common' (4); and 'Very common' (5).

In this report, responses to items c. to j. are used to produce a measure of neighbourhood quality, created by reverse coding these items and taking the respondent-level averages. The index ranges from 1 to 5, with higher values indicating more positive perceptions of neighbourhood safety and lower levels of disorder, reflecting a higher quality of neighbourhood life.

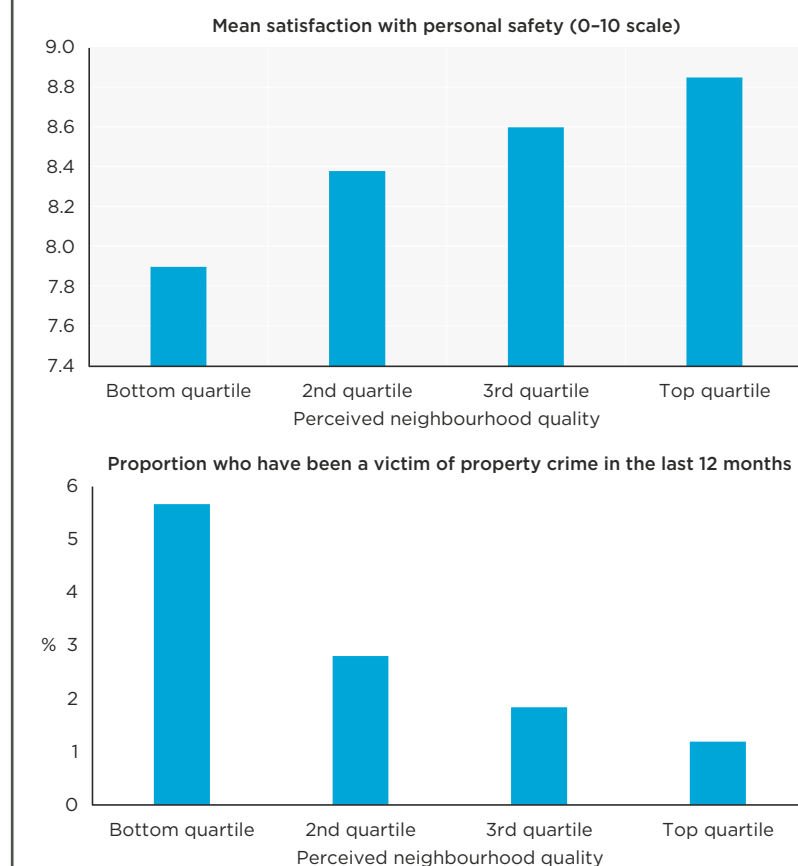


that can be aggregated to construct a measure of perceived neighbourhood quality (see Box 8.2, page 138). This measure reflects issues related to safety and disorder, such as noise, vandalism and anti-social behaviour. Overall, perceptions of neighbourhood quality have remained relatively positive and stable over time, averaging 3.5 out of 5 between 2001 and 2022. In 2022, the median score on this index was 3.5 out of 5, suggesting that most people perceive their neighbourhoods as moderately safe and well-maintained.

Additionally, the HILDA Survey periodically includes questions related to general feelings of safety and experiences of crime victimisation. One of these questions, which has appeared in every wave of the survey, asks respondents to rate 'How safe you feel' using the same 0 to 10 scale described in Box 8.1 (page 134). General feelings of safety are relatively high in the HILDA Survey, with the average score being 8.42 out of 10 in 2022. While this question does not specifically ask about feelings of safety in one's neighbourhood, it is expected that individuals who live in areas with more issues related to safety and disorder—and lower perceived neighbourhood quality—report feeling less safe overall.

The second measure, periodically included in the self-completion questionnaire (SCQ), asks respondents whether they have

Figure 8.5: Crime victimisation and feelings of safety by perceived neighbourhood quality, 2022



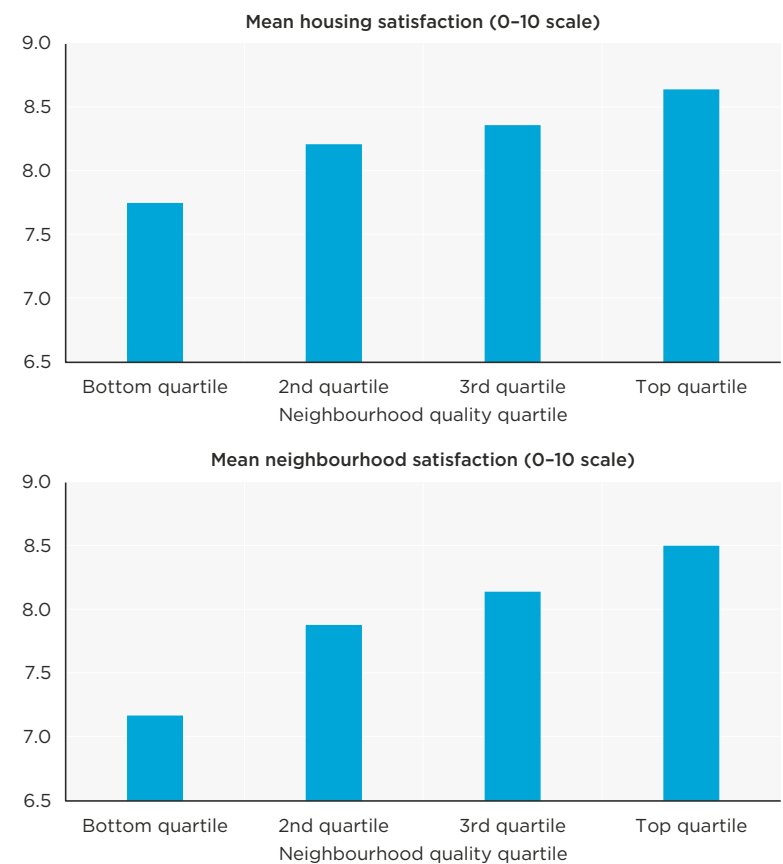
been the 'victim of a property crime (e.g., theft, housebreaking)' in the past 12 months. In 2022, about 3% of HILDA respondents reported experiencing a property crime within the previous year. Although property crime rates are relatively low in Australia, individuals living in neighbourhoods with higher levels of crime and disorder are more likely to report being victims of such incidents.

To explore the relationship between perceptions of neighbourhood quality and these two measures, individuals were grouped into quartiles based on their perceptions of the summary index described in Box 8.2 (page 138). Quartiles divide the population into four roughly equal groups, each representing about 25% of respondents. The bottom quartile includes individuals with the lowest perceptions of neighbourhood

quality, scoring 3 or less. The second quartile consists of individuals with moderately low perceptions, scoring between 3 and 3.5, indicating higher perceived neighbourhood quality than the first quartile but still below the median. The third quartile represents those scoring between 3.5 and 4, reflecting moderately high perceptions. Finally, the top quartile includes individuals with the most positive perceptions of neighbourhood quality, scoring between 4 and 5, placing them above 75% of the population.

As expected, Figure 8.5 demonstrates a clear linear relationship between perceived neighbourhood quality and both overall feelings of safety (top panel) and crime victimisation (bottom panel). Individuals with the most negative perceptions of their neighbourhoods (bottom quartile) report feeling the least

Figure 8.6: Housing and neighbourhood satisfaction by perceived neighbourhood quality, 2022



safe, while those with the most positive perceptions (top quartile) feel the safest. The relationship with reported crime victimisation is even stronger: nearly 6% of individuals in the bottom quartile—those who perceive their neighbourhood as the most unsafe and disorderly—report being the victim of a property crime in the past 12 months. In contrast, only about 1% of those in the top quartile, with the most positive perceptions of their neighbourhood quality, reported experiencing property crime.

Figure 8.6 shows that perceptions of neighbourhood quality are closely linked to both housing and neighbourhood satisfaction. Individuals with the most negative perceptions of their neighbourhood (bottom quartile) report the lowest satisfaction levels, averaging 7.75 for housing satisfaction and 7.17 for

neighbourhood satisfaction (out of 10). There is a clear linear increase across quartiles, with those in neighbourhoods perceived as safer and more orderly (top quartile) reporting higher satisfaction scores. Specifically, housing satisfaction in the top quartile is 0.89 points higher, and neighbourhood satisfaction is 1.33 points higher, than in the bottom quartile. In short, individuals who perceive their neighbourhoods as safer and more orderly are significantly more satisfied with both their homes and where they live.

Characteristics associated with housing and neighbourhood satisfaction

The previous section highlighted that housing and neighbourhood satisfaction are strongly influenced by home ownership, perceptions of neighbourhood



quality and, to a lesser extent, housing type and region. However, satisfaction is also shaped by various demographic and socio-economic characteristics. Table 8.1 illustrates how these factors are associated with housing and neighbourhood satisfaction using data from the 2022 HILDA Survey.

Older individuals, particularly those aged 65 and over, report the highest levels of satisfaction, while those aged 25 to 54 tend to be less satisfied. Interestingly, younger adults (18-24) report relatively high housing satisfaction. This may be partly attributable to the fact that most Australians under the age of 25 are still living with their parents, as shown in last year's report. Gender differences in satisfaction are minor, and educational differences are modest, with those holding a bachelor's degree reporting higher neighbourhood

Box 8.3: Socio-Economic Index for Areas (SEIFA)

Constructed by the Australian Bureau of Statistics (ABS) using Census data, SEIFA is a suite of four indexes that can be used to explore different aspects of socio-economic conditions by geographic areas. For each index, every geographic area in Australia is given a SEIFA number, which shows how disadvantaged that area is compared with other areas in Australia. In analysis presented in this report, the SEIFA measure used is the decile of the *Index of Relative Socio-Economic Advantage and Disadvantage*, which is derived from Census variables such as low income, low educational attainment, unemployment and dwellings without motor vehicles. For more information, see ABS (2009).

satisfaction. First Nations Australians, however, report the lowest satisfaction levels, while immigrants from English-speaking countries report the highest.

Indicators of relative socio-economic advantage are key correlates. Individuals in the lowest quintile of household income report housing satisfaction levels 0.46 scale points lower, and neighbourhood satisfaction levels 0.95 scale points lower, compared to those in the highest income quintile. Home owners are also significantly more satisfied than renters. Renters and those living in flats report substantially lower satisfaction levels, with renters scoring 0.79 points lower on housing satisfaction and 0.45 points lower on

neighbourhood satisfaction compared to home owners. Similarly, housing satisfaction among those living in flats is 0.36 scale points lower than among those living in separate houses, and neighbourhood satisfaction is 0.21 scale points lower.

Local socio-economic factors also play an important role. The Socio-Economic Indexes for Areas (SEIFA; see Box 8.3), which rank areas based on socio-economic advantage and disadvantage, shows a clear relationship with satisfaction levels. Individuals living in the most advantaged areas (top SEIFA quintile) report neighbourhood satisfaction scores nearly 1 point higher than those living in the most

disadvantaged areas (bottom SEIFA quintile). SEIFA also has a notable, albeit smaller, association with housing satisfaction: individuals in the top SEIFA quintile are 0.46 points more satisfied with their housing than those in the bottom quintile.

While these descriptive results offer valuable insights, many of these factors are interrelated (e.g., income and home ownership). To better understand the relative importance of these factors, regression models presented in Table 8.2 account for multiple characteristics simultaneously. The results confirm that older individuals, those with higher incomes, home owners and those living in more advantaged SEIFA areas are generally more satisfied with their homes and neighbourhoods. There is also a strong linear relationship between satisfaction levels and other measures of relative advantage. While household income and SEIFA have a similar relationship with housing satisfaction, the association between SEIFA



	Housing satisfaction	Neighbourhood satisfaction
<i>Age group</i>		
18–24	8.27	7.85
25–34	8.05	7.78
35–44	7.89	7.81
45–54	8.00	7.74
55–64	8.29	7.90
65 and over	8.58	8.23
<i>Gender</i>		
Female	8.20	7.91
Male	8.17	7.89
<i>Educational attainment</i>		
Less than bachelor's degree	8.20	7.87
Bachelor's degree or higher	8.16	7.97
<i>Immigrant status and First Nations identity</i>		
Non-First Nations Australian-born	8.18	7.95
First Nations	8.10	7.67
Immigrant, main English-speaking countries	8.28	8.02
Immigrant, other countries	8.16	7.67
<i>Housing tenure type</i>		
Home owner	8.42	8.05
Private rental	7.63	7.60
Social housing	7.73	7.08
<i>Housing type</i>		
Separate house	8.25	7.94
Semi-detached house	7.97	7.72
Flat	7.89	7.73
<i>Household equivalised income</i>		
Bottom quintile	8.05	7.71
Second quintile	8.09	7.87
Middle quintile	8.17	7.85
Fourth quintile	8.25	7.97
Top quintile	8.34	8.10
<i>Socio-economic index for area</i>		
Bottom quintile	7.92	7.35
Second quintile	8.18	7.74
Middle quintile	8.13	7.94
Fourth quintile	8.26	8.06
Top quintile	8.38	8.30
<i>Neighbourhood quality</i>		
Bottom quartile	7.75	7.17
Second quartile	8.21	7.88
Third quartile	8.36	8.14
Top quartile	8.64	8.50
<i>Location</i>		
Non-urban Australia	8.30	8.20
Sydney	8.07	7.72
Melbourne	8.15	7.93
Brisbane	8.20	7.93
Perth	8.16	7.71
Adelaide	8.13	7.74
Other urban Australia	8.25	7.94

and neighbourhood satisfaction is much stronger than the association between income and neighbourhood satisfaction.

Neighbourhood quality stands out as the strongest predictor of both housing and neighbourhood satisfaction. Those living in neighbourhoods perceived as safer and more orderly report significantly higher satisfaction with both their homes and surroundings. Individuals in the top quartile of perceived neighbourhood quality are 0.71 points more satisfied with their homes and 1.17 points more satisfied with their neighbourhoods compared to those in the bottom quartile.

Other demographic characteristics, such as gender and education, are inconsistent predictors of satisfaction levels. While males report lower levels of neighbourhood satisfaction than females, and those with a bachelor's degree report lower levels of housing satisfaction than those without one, these differences are relatively small in magnitude.

To better illustrate the implications of the regression results, individuals were divided into the least and most satisfied groups based on their predicted satisfaction levels, as generated by the models. Among those predicted to have the lowest levels of housing satisfaction (bottom 25%), 76% are renters, either privately or in social housing, whereas 99% of individuals with the highest predicted satisfaction (top 25%) are home owners. Additionally, 64% of the least satisfied group lives in neighbourhoods with low perceived quality, compared to less than 1% in the most satisfied group. Location also plays a role—61% of the least satisfied reside in major capital cities, compared to only 45% of those with the highest levels of satisfaction.

A similar pattern emerges for neighbourhood satisfaction: 53% of those with low predicted satisfaction are renters, compared to 90% home ownership among those with the highest predicted satisfaction. The relationship between perceived neighbourhood quality and satisfaction is

particularly striking: 83% of the least satisfied group rate their neighbourhood quality in the bottom quartile, compared to less than 1% in the top group. These results underscore how housing tenure, location and perceived neighbourhood quality are key differentiators of satisfaction levels.



Table 8.2: Predictors of housing and neighbourhood satisfaction, 2022

	Housing satisfaction	Neighbourhood satisfaction
<i>Age group (Reference category: 18–24)</i>		
25–34	–0.16	ns
35–44	–0.46	ns
45–54	–0.42	ns
55–64	–0.13	ns
65+	0.13	0.36
Male	ns	–0.07
Bachelor's degree or higher	–0.15	ns
<i>Immigrant status and First Nations identity (Reference category: Non-First Nations Australian-born)</i>		
First Nations	ns	ns
Immigrant, main English-speaking countries	ns	ns
Immigrant, other countries	ns	–0.34
<i>Housing tenure type (Reference category: Home owner)</i>		
Private rental	–0.62	–0.25
Social housing	–0.49	–0.58
<i>Housing type (Reference category: Separate house)</i>		
Semi-detached house	ns	ns
Flat	ns	0.15
<i>Household equivalised income (Reference category: Bottom quintile)</i>		
Second quintile	0.12	0.18
Middle quintile	0.17	0.17
Fourth quintile	0.24	0.24
Top quintile	0.27	0.26
<i>Socio-economic index for area (Reference category: Bottom quintile)</i>		
Second quintile	0.14	0.20
Middle quintile	0.10	0.35
Fourth quintile	0.20	0.46
Top quintile	0.28	0.67
<i>Neighbourhood quality (Reference category: Bottom quartile)</i>		
Second quartile	0.34	0.59
Third quartile	0.44	0.79
Top quartile	0.71	1.17
<i>Location (Reference category: Non-urban Australia)</i>		
Sydney	–0.13	–0.31
Melbourne	ns	–0.13
Brisbane	ns	ns
Perth	ns	–0.38
Adelaide	ns	–0.25
Other urban Australia	ns	ns
Number of observations	13,768	13,770

Notes: Estimates for housing and neighbourhood satisfaction are from linear regression models. ns indicates the estimate is not significantly different from 0 at the 10% level.

Relationship between satisfaction levels and moving

The results from the previous section highlight the significant influence of home ownership, neighbourhood safety and disorder, and relative socio-economic advantage on housing and neighbourhood satisfaction. These findings demonstrate the critical role of neighbourhood conditions in shaping individuals' overall satisfaction with their homes and the neighbourhoods they live in.

This section investigates the relationship between satisfaction levels and the desire to move to a different home or neighbourhood, including whether moving leads to subsequent changes in housing and neighbourhood satisfaction. Specifically, it investigates the relationship between individuals' levels of satisfaction and their desire to stay in their current neighbourhood, as well as their reported likelihood of moving

within the next 12 months. The panel structure of the HILDA Survey also allows for estimating whether people who move house in one wave of the survey report higher or lower levels of housing and neighbourhood satisfaction in the next wave.

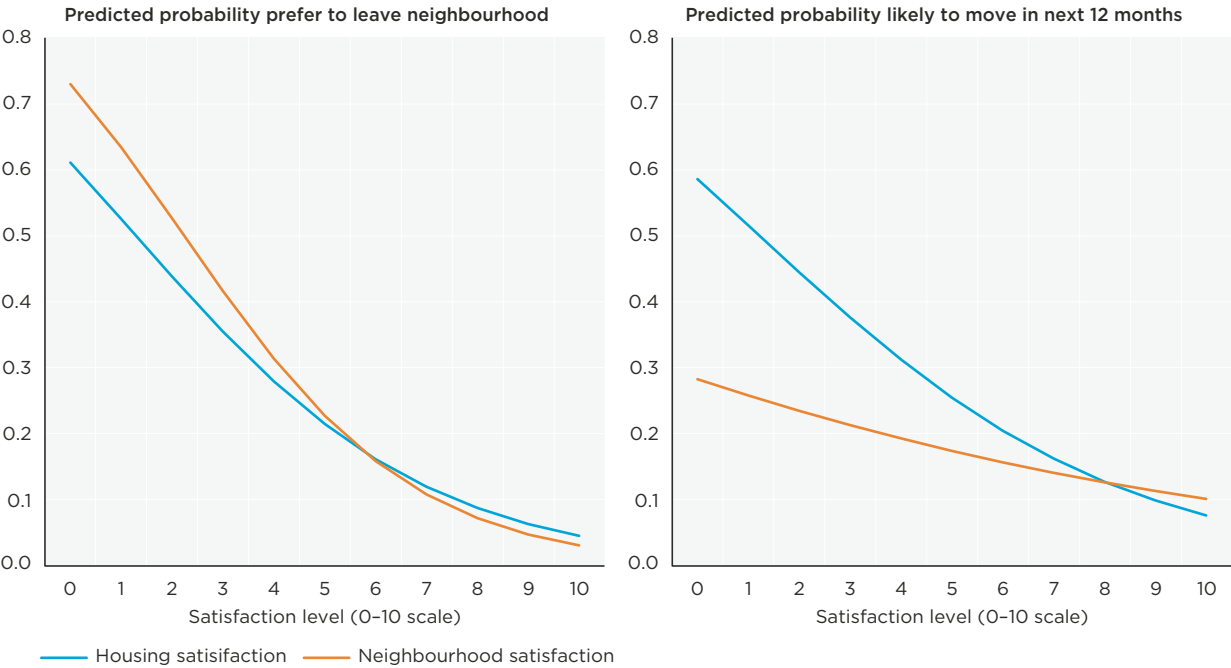
In the 2022 wave of the HILDA Survey, respondents were asked two questions that can be used as indicators of moving. The first asked respondents to report their preference to continue living in their neighbourhood on a 5-point scale ranging from 'Strong preference to stay' to 'Strong preference to leave' with a neutral midpoint. About 9% provided a response above the neutral midpoint, indicating a preference to leave their neighbourhood. The second asked respondents to report the likelihood that they would move in the next 12 months on a 5-point scale ranging from 'Very unlikely' to 'Very likely' with a neutral midpoint. About 13% provided a response above the neutral

midpoint, indicating they were likely to move in the next 12 months.

To estimate the relationship between these moving indicators and levels of housing and neighbourhood satisfaction, separate logistic regression models were fit to predict the probability of indicating a preference to leave and a likely move in the next 12 months. Figure 8.7 shows a strong relationship between these two moving indicators and levels of housing and neighbourhood satisfaction. Specifically, the probability of indicating a preference to leave the neighbourhood or a likely move in the next 12 months decreases sharply at higher levels of housing and neighbourhood satisfaction.

Levels of housing and neighbourhood satisfaction are especially strong predictors of one's preference to leave a neighbourhood. The predicted probability of indicating a

Figure 8.7: Relationship between moving indicators and satisfaction levels, 2022



Notes: Estimates are predicted probabilities from separate logistic regression models. The left panel shows the probability of preferring to leave the current neighbourhood, and the right panel shows the probability of being likely to move in the next 12 months, both as functions of housing and neighbourhood satisfaction levels.

preference to leave the neighbourhood decreases from 0.61 at the lowest levels of housing satisfaction to 0.05 at the highest levels. The relationship with neighbourhood satisfaction is even stronger, with predicted probabilities ranging from 0.73 at the lowest levels of satisfaction to 0.03 at the highest levels.

Satisfaction levels are somewhat weaker predictors of the probability of being likely to move in the next 12 months. The predicted probability of a likely move in the next 12 months ranges from 0.58 for those with the lowest levels of housing satisfaction to 0.08 for those with the highest levels. The relationship between neighbourhood satisfaction is much weaker, with predicted probabilities ranging from 0.28 at

the lowest level to 0.10 at the highest level.

These findings demonstrate a significant association between satisfaction levels and individuals' preferences to remain in their current neighbourhoods, as well as their likelihood of moving. Given that lower satisfaction levels are correlated with a higher probability of wanting to leave or planning to move, it is reasonable to expect that many people who decide to move are motivated by a desire to live in a better home or a more desirable neighbourhood. However, whether moving leads to increased satisfaction levels is uncertain, as it depends on various factors such as the quality of the new location, individual expectations and the challenges associated with moving.

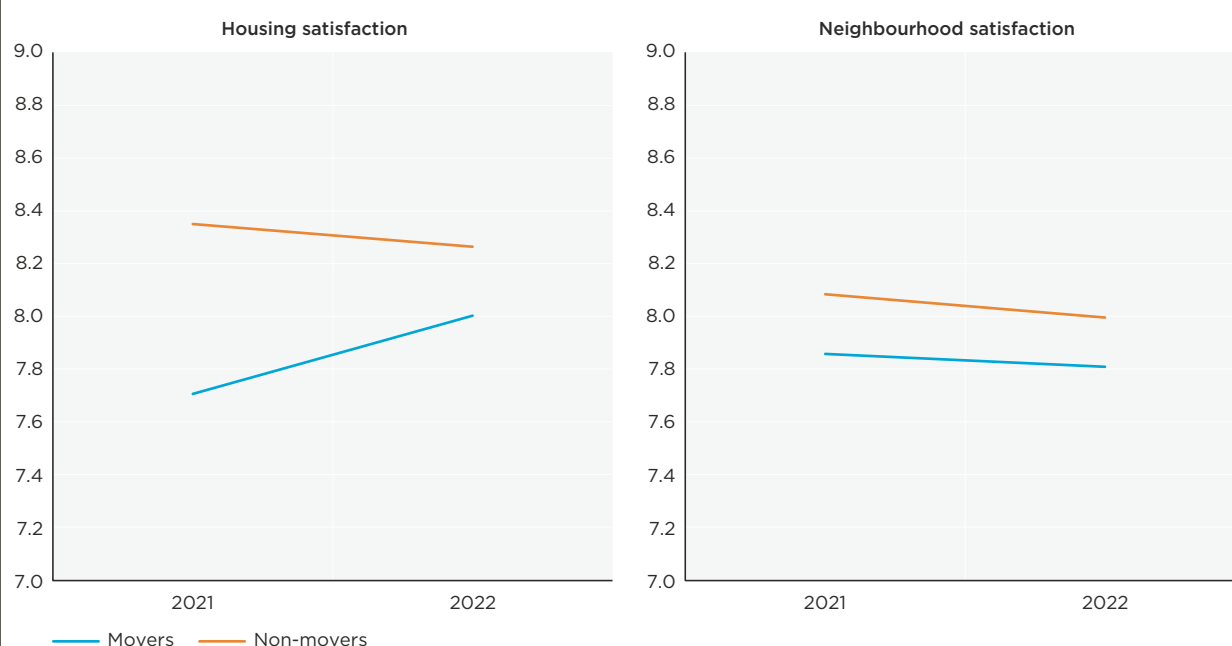
The HILDA Survey is well-placed to answer the question of whether moving house subsequently leads to higher levels of housing and neighbourhood satisfaction. The data show that in 2022, roughly 15% of people reported moving house in the past 12 months. Given that levels of housing and neighbourhood satisfaction are measured every year, the survey can be used to compare changes in satisfaction between 2021 and 2022 for those who moved between waves and those who did not. If moving house is associated with improvements in housing and neighbourhood satisfaction, then changes in satisfaction levels between 2021 and 2022 should be more positive among those who moved house relative to those who did not.

To calculate respondent-level changes between waves, the sample is restricted to the subset of HILDA respondents who were present in both the 2021 and 2022 survey waves. Figure 8.8 (page 146) shows how levels of satisfaction changed between 2021 and 2022 for those who moved between waves and those who did not. This analysis shows that, on average, housing satisfaction increased by 0.29 scale points among movers and decreased by 0.09 scale points among non-movers. The estimated difference of 0.38 scale points reflects an increase in housing satisfaction among the group that moved and a small decrease among those who did not move.

Similarly, the right panel of Figure 8.8 shows that average levels of neighbourhood satisfaction declined slightly among both groups. Although the decline of 0.05 scale points among movers was somewhat smaller than the decline of 0.09 scale points among non-movers, both groups experienced a small decline in neighbourhood satisfaction



Figure 8.8: Mean satisfaction levels for movers and non-movers, 2021 to 2022 (0-10 scale)



Note: Estimates apply to the subset of HILDA respondents who were present in both the 2021 and 2022 survey waves, and for whom moving status could be determined.

between waves. While the difference of 0.38 scale points for housing satisfaction is statistically significant, the small difference of 0.04 scale points for neighbourhood satisfaction is not. Overall, this demonstrates that moving house between 2021 and 2022 was associated with a relative improvement in housing satisfaction, but neighbourhood satisfaction was relatively constant. Of course, moving house does not necessarily imply moving to a different neighbourhood, so these

differences reflect the relative changes among those who moved to a different neighbourhood as well as the relative changes among those who moved within the same neighbourhood.

Given the panel structure of the HILDA Survey, this analysis can be performed to examine the relationship between relative changes in satisfaction levels attributable to moving house in prior periods as well. To achieve this, analyses for changes between each period (e.g., 2018 to 2019) are restricted to the

subset of individuals who were present in both periods, and for whom moving status could be determined. These results are presented in Table 8.3 for the 2017 to 2022 period, with each estimate capturing the relative changes associated with moving house between survey waves. The first set of estimates are for housing satisfaction, where positive estimates imply that satisfaction improved more (or declined less) for those who moved between survey waves. The second set of results are for



neighbourhood satisfaction, where positive estimates again imply that satisfaction improved more (or declined less) for movers relative to non-movers.

Relative changes in satisfaction are estimated using separate regression models that include ‘fixed effects’ for each individual and each period. This approach accounts for time-invariant characteristics and broader temporal trends that could influence levels of satisfaction. For example, applying this regression model to the subset of HILDA respondents who were present in the 2021 and 2022 waves yields the same estimates of relative changes attributable to moving house between those waves as previously discussed: a significant improvement of 0.38 for housing satisfaction and a non-significant difference for neighbourhood satisfaction. It is important to note that these estimates, like those shown in Figure 8.8 (page 146), apply to the subset of HILDA respondents who were present in both waves, and for whom moving status between waves could be determined, rather than the entire Australian population.

The results in Table 8.3 demonstrate that although moving house between survey waves has been reliably associated with an improvement

in housing satisfaction, the magnitude has declined somewhat in recent years. For example, moving house between 2017 and 2018 was associated with an improvement in housing satisfaction of 0.71 scale points, whereas moving house between 2020 and 2021 was associated with an improvement of 0.54 scale points. Moreover, the results show that although moving house between 2021 and 2022 was not associated with a significant improvement in neighbourhood satisfaction, moving house was reliably associated with improvements among those who moved house between prior waves. For example, moving house between the COVID-19 pandemic years of 2020 and 2021 was associated with a relative improvement in neighbourhood satisfaction of 0.20 scale points.

Overall, the results in Table 8.3 provide evidence that moving house has generally been associated with an increase in housing and neighbourhood satisfaction over the last five to six years, though the magnitude of these improvements has declined somewhat. The fact that people with low levels of satisfaction are significantly more likely to report that they want to leave their neighbourhood or plan to move house in the future suggests that many seek to

improve their living conditions through relocation. However, moving house is increasingly costly and options are becoming more constrained due to worsening housing supply conditions, particularly in capital cities where most Australians live.

These factors may help explain the declining improvements in satisfaction seen in recent years. In particular, those who moved between 2021 and 2022 faced historically high housing costs and record low vacancy rates. Furthermore, the rise of remote work during the COVID-19 pandemic and new job opportunities may have encouraged moves to more affordable regions or locations offering better living conditions. If movers had access to more affordable housing options or lived in regions less affected by declining affordability, these factors—alongside shifts in work patterns—could have contributed to the smaller observed increases in satisfaction during the 2021 to 2022 period compared to previous years.

It is important to note, however, that the results reported here do not necessarily mean that moving house causes an improvement in housing or neighbourhood satisfaction. Specifically, the estimates in Table 8.3 do not have a causal interpretation unless it is

Table 8.3: Relative changes in housing and neighbourhood satisfaction after moving, 2017 to 2022

	Housing satisfaction				
	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022
Estimate	0.71	0.69	0.69	0.54	0.38
Number of observations	24,775	24,817	24,297	23,962	23,107
Moved (%)	15.71	16.69	15.44	15.86	15.41
	Neighbourhood satisfaction				
	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022
Estimate	0.30	0.37	0.29	0.20	ns
Number of observations	24,774	24,817	24,303	23,966	23,103
Moved (%)	15.71	16.69	15.44	15.86	15.41

Notes: Each estimate is from a separate regression model with fixed effects for individuals and years. Estimates of relative changes apply to the subset of HILDA respondents who were present in both waves, and for whom moving status between waves could be determined. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

assumed that if the people who moved house had not done so, their changes in satisfaction would have been the same as the changes observed among those who did not move between periods. This assumption is untestable because the changes that would have happened to movers if they were instead non-movers cannot be observed. If, for example, people who move between waves are on a trajectory to become more satisfied with their existing home or neighbourhood, then these estimates might overstate the benefits of moving house. Conversely, other factors that vary between waves, such as changes in housing affordability, could also affect movers and non-movers differently. For example, if rising rents and home prices disproportionately prevented dissatisfied non-movers from relocating, the benefits of moving among those who did move might be underestimated. This underestimation could occur if the observed movers represent a more advantaged group with better access to improved housing opportunities, while many dissatisfied individuals

remained in place due to affordability constraints.

Experience of weather-related disasters

The SCQ of the HILDA Survey includes a section that asks respondents whether they have experienced a wide range of major life events over the past 12 months, such as changing jobs or getting married. Since 2009, respondents have also been asked if 'a weather-related disaster (e.g., flood, bushfire, cyclone) damaged or destroyed your home' in the past 12 months.

Figure 8.9 shows the proportion in each wave that indicated a weather-related disaster had damaged or destroyed their home within the past 12 months. These data show that, prior to 2022, experiencing a weather-related disaster that resulted in damage or destruction of one's home was quite rare, with no more than 3% of the population reporting such an experience between 2009 and 2021. This rate increased significantly in the 2022 wave, when 4.5% of the

population had their homes damaged or destroyed in the previous 12 months. In 2021, just 1.3% of Australians reported having such an experience.

When interpreting these changes, it is important to note that respondent interviews are conducted annually, starting in July, with 90% of the 2022 interviews completed by October. Given the timing of the HILDA Survey interviews, the significant increase in 2022 is attributable to a series of major floods that occurred during the latter half of 2021 and the first half of 2022. These include the 2021 Central Queensland floods (November 2021), the January 2022 Queensland floods caused by Cyclone Seth, the Eastern Australia floods affecting Queensland and New South Wales in February and March 2022, and potentially the July 2022 floods in New South Wales. Additionally, a small number of respondents interviewed beyond October 2022 may also reflect on the October 2022 South Eastern Australia floods affecting Victoria, Tasmania and New South Wales.

Prior to 2022, the highest rates were observed between 2010 and 2012. This period coincided with a



Figure 8.9: Proportion of people reporting a weather-related disaster damaged or destroyed their home in the last 12 months

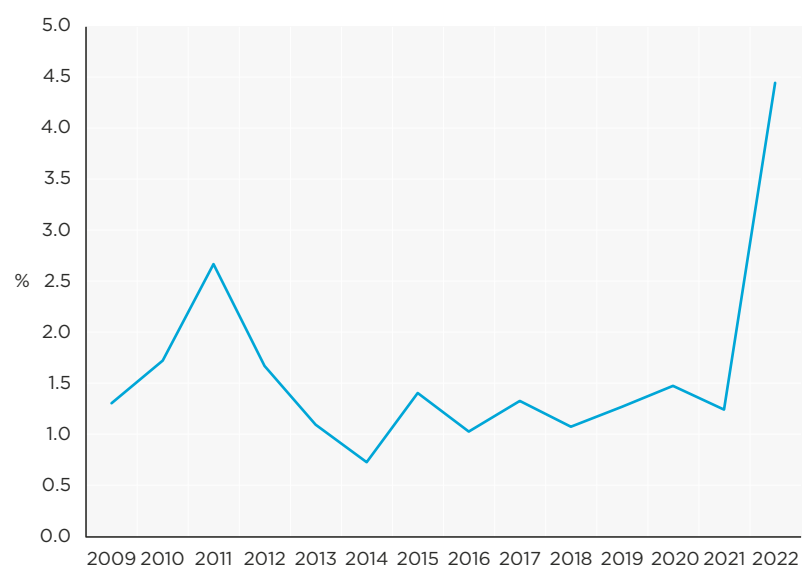
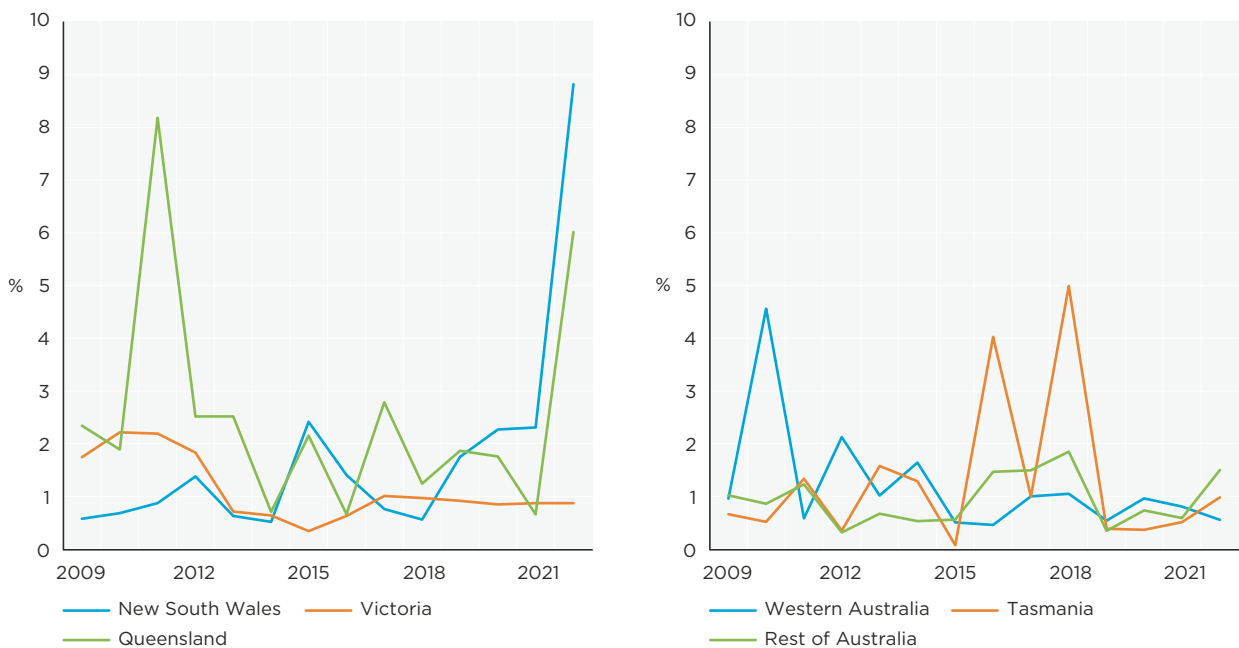


Figure 8.10: Rates of home damage from weather-related disasters by region



series of natural disasters, including the Western Australian storms in March 2010, and a series of major natural disasters between November 2010 and April 2011 that resulted in billions of dollars in property damage across Queensland. The 'Black Saturday bushfires', which occurred between February and March 2009 and destroyed over 2,000 homes in Victoria, would have been captured in the 2009 wave.

Figure 8.10, which shows how rates of home damage have varied across regions, demonstrates considerable regional variation that strongly corresponds with the occurrence of major natural disasters. In 2022, which corresponds with the Eastern Australia floods, roughly 9% of people in New South Wales and 6% of people in Queensland reported having their homes damaged or destroyed. In 2011, during a period marked by a series of major floods and cyclones in Queensland, 8.6% of Queenslanders reported their homes were damaged or destroyed. As expected, there is also a significant increase in Western Australia during the

2010 storms, when 5% reported their homes were damaged or destroyed. The spikes in Tasmania correspond to the 2016 Tasmania bushfire and the 2018 Hobart floods. The relatively high rates observed in Victoria between 2009 and 2012 are attributable to the 2009 bushfires, which primarily impacted regional and rural areas, as well as a series of major floods that occurred between 2010 and 2011.

Finally, Table 8.4 shows how experiencing home damage varied by region and housing situation during survey waves

corresponding to some of Australia's most significant flood-related natural disasters in the series—2010, 2011, 2012 and 2022. For each year, the columns report the percentages that experienced (Yes) and did not experience (No) home damage by each characteristic. If a particular characteristic has no influence on the likelihood of experiencing home damage, we expect to see roughly equal percentages in each column.

As expected, the regional variations across years strongly correspond to the natural



	2010		2011		2012		2022	
	Yes	No	Yes	No	Yes	No	Yes	No
<i>Region</i>								
New South Wales	13.1	32.9	10.7	33.1	26.7	32.4	62.5	30.2
Queensland	21.6	19.7	60.6	18.7	29.8	19.7	27.3	19.9
Western Australia	27.1	10.0	*2.3	10.6	13.3	10.4	*1.3	11.0
Tasmania	*0.7	2.3	*1.2	2.3	*0.5	2.3	*0.5	2.3
Victoria	32.5	25.2	20.7	25.3	27.8	25.3	5.1	26.7
Rest of Australia	*5.0	10.0	*4.6	10.0	*1.9	10.0	3.3	9.9
<i>Housing tenure type</i>								
Owner outright	28.2	31.7	20.8	30.7	22.4	30.5	27.1	30.3
Owner with mortgage	50.5	40.2	43.1	37.6	41.8	38.5	39.6	40.0
Private rental	17.9	21.2	29.1	25.7	31.9	25.1	24.0	24.7
Social housing	*2.0	4.4	*3.4	3.8	*3.0	3.6	5.2	2.5
Other	*1.3	2.5	*3.6	2.2	*0.9	2.3	4.1	2.5
<i>Housing type</i>								
Separate house	87.2	83.3	88.0	79.5	83.9	79.7	82.5	79.9
Semi-detached house	*2.4	5.5	* 2.1	7.6	*2.0	6.6	6.5	7.6
Flat	*9.0	10.6	9.0	12.5	*10.5	13.1	9.8	11.7
Other	*1.4	0.6	*1.0	0.5	* 3.6	0.7	*1.2	0.7

Notes: Cells may not add up to 100% due to rounding. 'Other' housing tenure type includes those living in social housing and those living rent free. 'Other' housing type includes dwellings attached to offices or shops, non-private dwellings (e.g., nursing home), caravans, cabins, houseboats and tents. * Estimate not reliable.

disasters that occurred. In 2010, 32.5% of those who experienced home damage were located in Victoria, while 27.1% were in Western Australia. Only 13% of those who experienced a weather-related disaster in 2010 were in New South Wales, Australia's most populous state. In 2011, most people who experienced a weather-related disaster resulting in the damage or destruction of their home—about 61%—were in Queensland. Victoria is also over-represented in 2011 and 2012. In 2022, nearly 63% of people who experienced home damage were located in New South Wales, and just 5.1% were in Victoria.

Table 8.4 also shows that home owners, who comprise over 60% of HILDA Survey respondents, are significantly more likely to experience home damage than those living in rentals and other types of accommodation. In 2010, for example, nearly 80% of those who experienced home damage

were home owners. While those living in private rentals were under-represented among those who experienced home damage in 2010, their share was significantly higher in later years. Finally, those who experienced home damage were somewhat more likely to live in separate houses in every period.

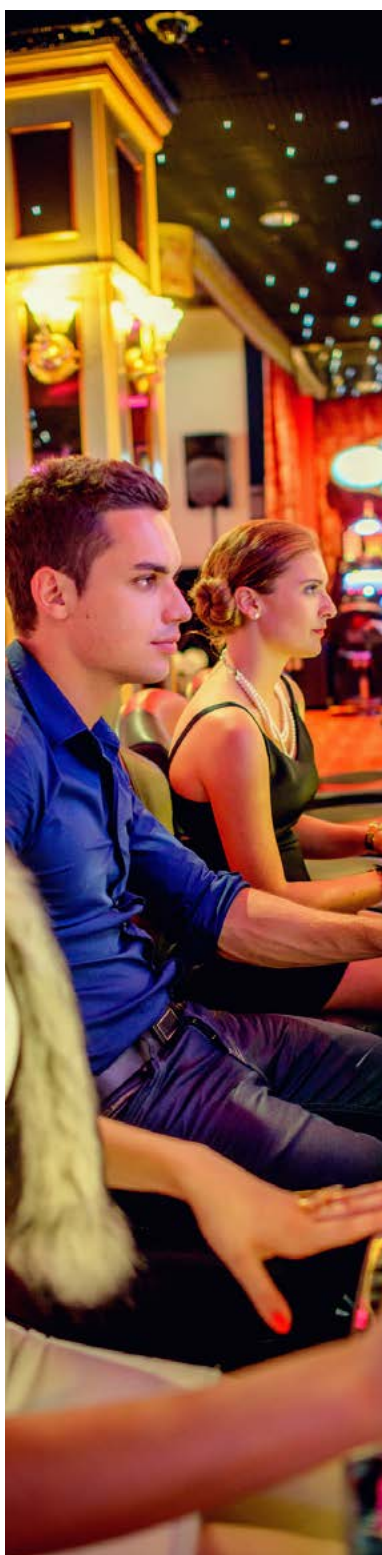
Overall, these results demonstrate that the HILDA Survey consistently reflects regional disparities in experienced home damage due to weather-related disasters, corresponding strongly to the major disasters, particularly floods, that have caused significant damage over the years. The sharp increase in 2022 is an unprecedented departure from prior trends, and the record high rate of home damage that occurred in this period will play a crucial role in studying the long-term impacts that weather-related disasters have on individuals and families in future waves of the HILDA Survey.



9

Gambling

Ferdi Botha



In 2015, 2018 and 2022, the HILDA Survey has included questions in the self-completion questionnaire (SCQ) about gambling incidence and gambling expenditure for several gambling types, as well as a set of questions measuring the severity of gambling. This chapter examines the dynamics of gambling behaviour in Australia, reporting on the incidence and expenditure on different gambling types and how these have changed over time. The chapter also considers the factors associated with being a gambler, the level of gambling expenditure and being engaged in high-risk gambling. Finally, the chapter reports how high-risk gambling is related to selected health and wellbeing outcomes.

Box 9.1: Measurement of gambling incidence and expenditure in the HILDA Survey

Information on gambling expenditure was collected from the following question included in the self-completion questionnaire in Waves 15, 18, and 22:

In a typical month, roughly how much do you spend on the following activities? This includes money spent online (on a computer, mobile/smart phone, iPad, etc.). If you are unsure please make your best guess.

For each of the following 10 types of gambling activity, respondents are asked if they typically spend any money on the activity and, if they do, are asked to report their typical monthly expenditure:

- Instant scratch tickets ('scratchies')*
- Bingo*
- Lotto or lottery games, like Powerball or Oz Lotto*
- Keno*
- Private betting (e.g., playing cards or mah-jong with friends and family)*
- Poker*
- Casino table games (e.g., blackjack, roulette)*
- Poker machines ('pokies') or slot machines*
- Betting on horse or dog races (but not sweeps)*
- Betting on sports*

Note that the question combines both physical and online gambling activity, so it is not possible to explore each gambling medium separately.

Figure 9.1 (page 152) reports the prevalence of gambling activity (see Box 9.1, page 151) for every type of gambling. The Lotto or lottery games is by far the most prevalent gambling activity, with 29.6% of Australians having engaged in this activity in 2015, though this has declined to 27.1% in 2018 and 26.3% in 2022.

Instant scratch tickets were played by 8.5% of Australians in 2015 but engagement in this activity has fallen to 5.3% in 2022. Bingo, keno, private betting, poker and casino table games

are the least prevalent gambling activities. In 2015, 3.3% of Australians were engaged in some form of sports betting, and in 2022 this has risen to 5.1%.

Table 9.1 reports the percentage of women and men involved in each type of gambling activity. The proportion of women and men gambling on instant scratch tickets, lotto or lottery games, and poker machines have steadily declined in every wave measured since 2015. For example, the percentage of women playing lotto or lottery games fell from

Box 9.2: The Problem Gambling Severity Index

Developed by Ferris and Wynne (2001), the Problem Gambling Severity Index (PGSI) provides a measure of the extent to which an individual suffers from 'problem gambling', in this report referred to as 'high-risk gambling'. The index is derived from responses to nine questions in the self-completion questionnaire about the frequency of different types of gambling-related harms over a 12-month period.

Respondents can choose between four different answers, namely 'never', 'sometimes', 'most of the time' and 'always'. The questions are as follows:

- Have you bet more than you could really afford to lose?
- Have you needed to gamble with larger amounts of money to get the same feeling of excitement?
- When you gambled, did you go back another day to try to win back the money you lost?
- Have you borrowed money or sold anything to get money to gamble?
- Have you felt that you might have a problem with gambling?
- Has gambling caused you any health problems, including stress and anxiety?
- Have people criticised your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
- Has your gambling caused any financial problems for you or your household?
- Have you felt guilty about the way you gamble or what happens when you gamble?

Each answer is scored on a 0 ('never') to 3 ('almost always') scale and summed to provide an index that potentially ranges from 0 to 27. These scores can then be used to identify five groups of people, as follows:

- Non-gambling: Did not gamble in the past 12 months
- Non-problem gambling: Scores of 0
- Low-risk gambling with few or no identified negative consequences: Scores of 1 or 2
- Moderate-risk gambling leading to some negative consequences: Scores of 3 to 7
- High-risk gambling with negative consequences and a possible loss of control: Scores of 8 or more

Note that in the original version of the PGSI, questions about gambling harm are only asked of respondents who participated in at least some form of gambling in the previous 12 months. In the HILDA Survey, however, respondents are not asked about gambling over the previous 12 months and therefore this filter is not used. In this chapter, therefore, non-gamblers and non-problem gamblers are combined into one group.

27.5% in 2015 to 24% in 2022, and the percentage of men playing poker machines fell from 9% in 2015 to 7.3% in 2022.

Another noteworthy trend is the rise in the proportion of men betting on horse or dog races (from 9.3% in 2015 to 10.1% in 2022) and on sports (from 5.6% in 2015 to 9.3% in 2022). In relative terms, the increase in sports betting among men in the seven-year period between 2015 and 2022 is large, amounting to a 66% increase in the proportion of men involved in sports betting.

For individuals with at least some expenditure on a gambling activity, the average reported typical monthly expenditure on that gambling activity is shown in Figure 9.2 (page 153). While expenditure on poker declined from \$200.13 in 2015 to \$101.76 in 2022, monthly expenditure on poker machines almost doubled over the same period, increasing from \$120.66 to \$241.09. The rise in expenditure on poker machines also coincided with a fall in the proportion of individuals reporting

Figure 9.1: Prevalence of each type of gambling activity among people aged 18 and over

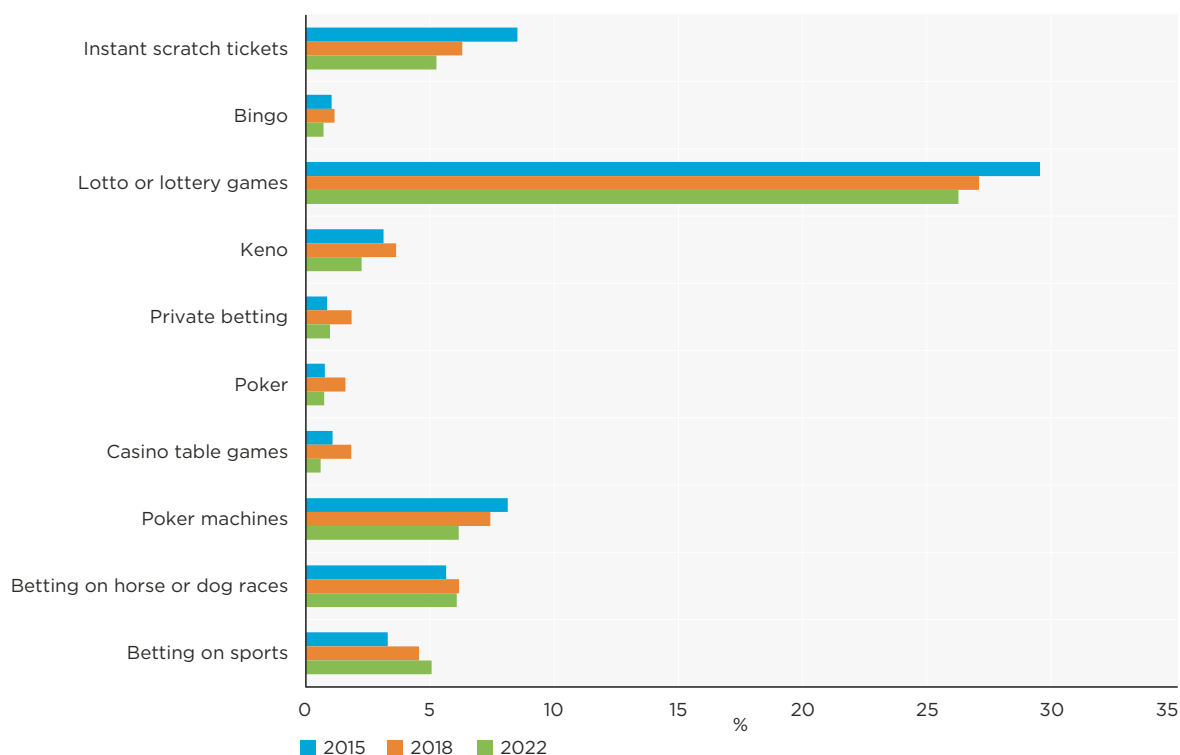


Table 9.1: Proportion of people aged 18 and over engaged in each gambling type, by gender, 2015 to 2022 (%)

	Men			Women		
	2015	2018	2022	2015	2018	2022
Instant scratch tickets	8.0	5.6	4.9	9.1	7.0	5.6
Bingo	*0.4	0.8	*0.3	1.6	1.5	1.1
Lotto or lottery games	31.8	29.1	28.6	27.5	25.2	24.0
Keno	3.9	4.4	2.9	2.4	2.9	1.6
Private betting	1.1	2.4	1.6	0.6	1.3	0.4
Poker	1.0	2.2	1.2	*0.6	1.0	*0.3
Casino table games	1.7	2.5	1.0	*0.5	1.2	0.2
Poker machines	9.0	8.4	7.3	7.3	6.5	5.1
Betting on horse or dog races	9.3	9.9	10.1	2.1	2.6	2.2
Betting on sports	5.6	7.6	9.3	0.7	1.6	1.1

Note: * Estimate not reliable.

any poker machine expenditure (see Figure 9.1 [page 152] and Table 9.1), which suggests that those persons who are gambling on poker machines are spending more when they do gamble.

Expenditure on casino table games increased by \$33.17 between 2018 and 2022 to a total typical monthly expenditure of \$149.94. Spending on horse or dog races fell from \$218.90 in 2018 to \$147 in 2022 but is still higher than the 2015 amount of



Figure 9.2: Mean monthly expenditure on each gambling activity among those with expenditure on the activity

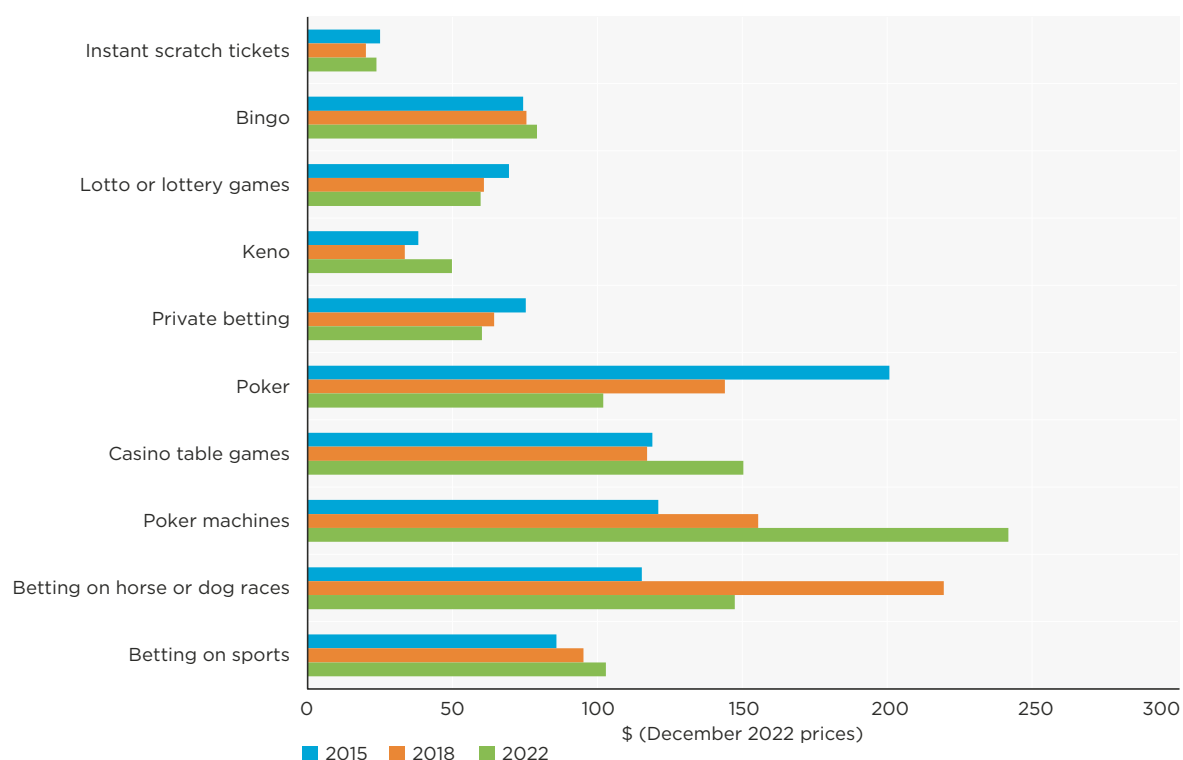
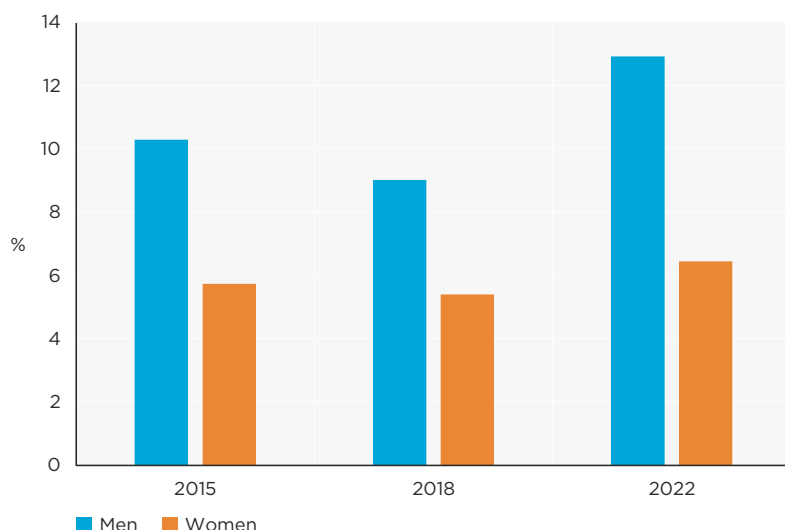


Table 9.2: Mean monthly expenditure on each type of gambling, by gender, 2015 to 2022 (\$, December 2022 prices)

	Men			Women		
	2015	2018	2022	2015	2018	2022
Instant scratch tickets	29.26	22.47	23.17	21.15	18.35	24.08
Bingo	87.11	68.40	108.05	71.22	76.54	72.25
Lotto or lottery games	78.20	74.81	66.08	59.32	45.12	51.99
Keno	34.42	34.21	50.43	43.98	32.12	48.19
Private betting	64.25	70.92	64.32	95.43	42.45	44.68
Poker	103.66	139.79	95.53	357.85	163.69	123.64
Casino table games	129.98	129.68	175.99	82.37	71.43	40.51
Poker machines	118.54	200.70	208.65	123.23	100.68	284.96
Betting on horse or dog races	127.73	255.55	168.82	60.79	45.03	51.50
Betting on sports	85.95	95.57	108.87	82.94	89.41	47.17

Note: The table reports mean typical monthly expenditure (in December 2022 prices) on each gambling type among persons who have expenditure on the activity.

Figure 9.3: Proportion of individuals aged 18 and over with any gambling problem



\$115.03. Expenditure on sports betting has increased over time, at \$85.61 in 2015, \$94.86 in 2018 and \$102.66 in 2022.

The mean typical monthly expenditure on each gambling type is shown for women and men in Table 9.2. Spending on instant scratch tickets is lowest compared to all other gambling types, followed by keno. Poker expenditure has declined since 2015, especially for women, with spending falling from \$357.85 per month in 2015 to \$123.64 per month in 2022.

Whereas for women expenditure on casino table games has declined over time, for men



spending on this gambling type increased from \$129.68 in 2018 to \$175.99 in 2022. Poker machine expenditure has risen slightly for men, and for women there was a large jump in such expenditure between 2018 and 2022 (from \$100.68 to \$284.96). For men, typical monthly expenditure on sports betting has increased from \$85.95 in 2015 to \$108.87 in 2022 (an increase of almost 27%).

Figure 9.3 (page 154) shows the proportion of Australians having any form of gambling risk as classified according to the PGSI (see Box 9.2, page 152). In 2015, 5.7% of women identified at least one harmful consequence of their gambling, whereas in 2022 6.4% of women did so. The proportion of men who identified adverse gambling consequences is much higher compared to women. About 10.3% of men were classified as being at-risk gamblers in 2015, and in 2022 this proportion increased to 12.9%.

Figure 9.4 breaks down the type of risky gambling according to level of severity of the potential gambling harms identified by respondents, and Table 9.3 shows these results for women and men separately. The figure shows that the rise in the proportion of Australians reporting any gambling problem (Figure 9.3, page 154) stemmed from an increase in each of the three gambling severity types.

In 2022, 4.9% of Australians were engaged in low-risk gambling compared to 3.7% in 2018 (Figure 9.4). The proportion identifying

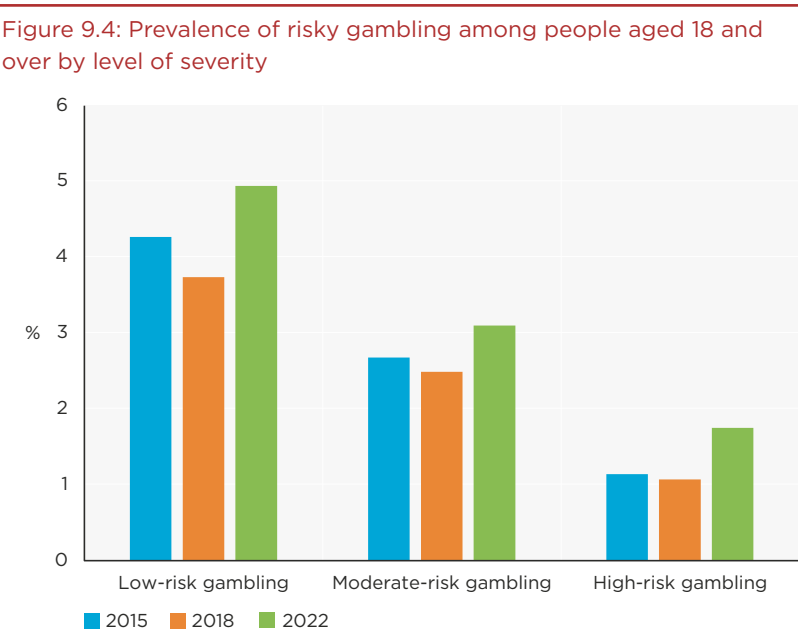


Table 9.3: Prevalence of risky gambling among people aged 15 and over by level of severity, by gender, 2015 to 2022 (%)

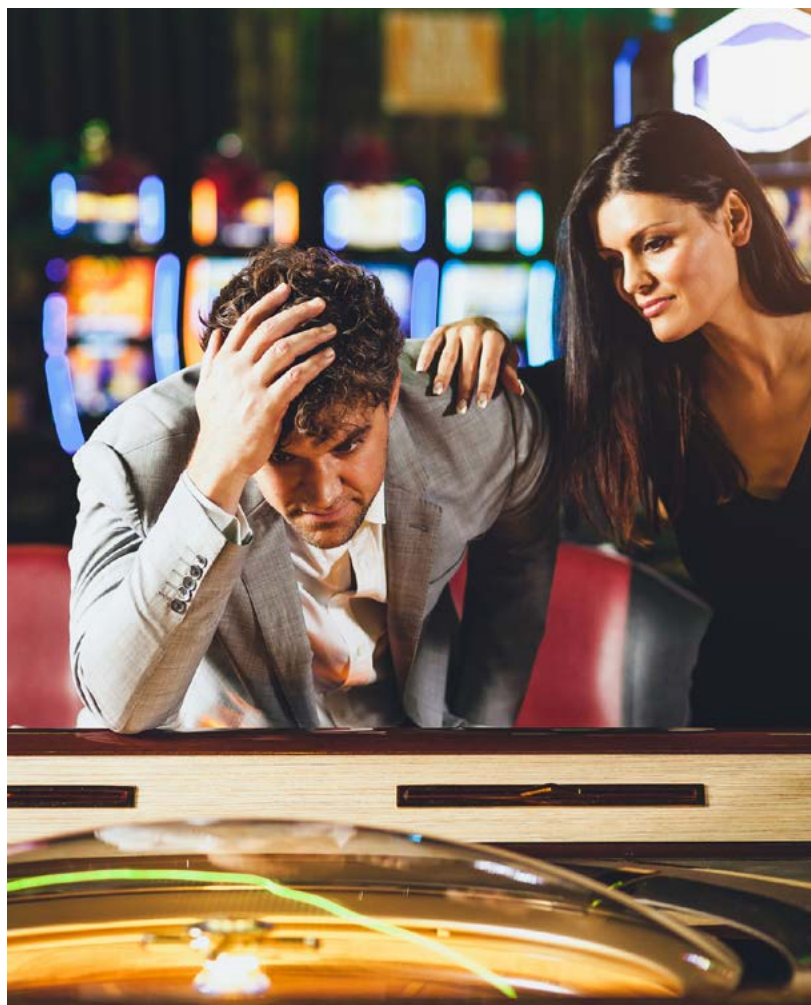
	Men			Women		
	2015	2018	2022	2015	2018	2022
Non-problem gambling	89.6	90.8	86.8	94.2	94.5	93.5
Low-risk gambling	5.2	4.5	6.7	3.4	3.0	3.3
Moderate-risk gambling	3.8	3.1	4.1	1.6	1.9	2.1
High-risk gambling	1.5	1.6	2.4	0.8	0.6	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: The gambling risk categories are derived from the PGSI (see Box 9.2, page 152). Row totals may not add up to 100 due to rounding.

moderate gambling risks increased from 2.5% in 2018 to 3.1% in 2022, while those reporting high-risk gambling harms increased from 1.1% in 2018 to 1.8% in 2022.

The prevalence of risky gambling is much higher among men than women (Table 9.3). Whereas 3.3% of women reported low-risk gambling in 2022, 6.7% of men reported low-risk gambling in the same year. The proportion of high-risk gambling in 2022 was 1.2% among women and 2.4% among men. Between 2015 and 2022, the proportion of women reporting moderate and high-risk gambling problems increased. Over the same period, among men the proportion reporting any gambling harm (low-, moderate- or high-risk) increased.

Note that although the percentage of women and men reporting high-risk gambling harm is relatively small, in terms of population the 2022 estimates still amount to roughly 157,000 women and almost 310,000 men.



Determinants of gambling and gambling expenditure

Table 9.4 presents the regression results of the predictors of reporting any gambling-related expenditure and actual reported total gambling expenditure. Models (1) and (2) report the factors associated with whether an individual participates in at least one type of gambling each month. This groups together all gamblers, namely those who do not report any gambling harms as well as those who report at least low-risk gambling harms. Models (3) and (4) report the factors associated with the total amount spent on gambling activities in a typical month.

The incidence of, and expenditure on, gambling increases strongly with age. Women in the 55–65 age group, for instance, are 34.5 percentage points more likely than women in the 18 to 24 age group to be a gambler. Monthly gambling expenditure for men aged 55 to 64 and 65 and over is on average \$686.90 and \$722.50, respectively, higher than the gambling expenditure of men in the 18 to 24 age group.

Higher education is associated with lower gambling incidence and gambling expenditure. For example, women and men with at least a bachelor's degree are 11.2 and 10.6 percentage points, respectively, less likely to be gamblers than those with less than a bachelor's degree, and men with a bachelor's degree spend on average \$275.50 less per

month compared to men without at least a bachelor's degree.

Both the probability of engaging in gambling and the level of monthly gambling expenditure are greater among partnered women relative to non-partnered women. For men, there is no significant relationship of partnership status with gambling status and gambling expenditure. Having children under 15 in the home is related to a lower probability of being a gambler, as well as lower expenditure on gambling activities.

Both women and men who are employed and are not in the labour force are significantly less likely to be gamblers as compared to unemployed Australians. Employed men, moreover, spend on average \$216.2 per month less on

Table 9.4: Factors associated with gambling and gambling expenditure, by gender, 2015 to 2022

	Incidence		Expenditure	
	Model (1) Men	Model (2) Women	Model (3) Men	Model (4) Women
<i>Age group (Reference category: 18–24)</i>				
25–34	0.102	0.104	329.8	125.8
35–44	0.188	0.198	452.8	204.0
45–54	0.256	0.269	601.9	264.5
55–64	0.305	0.345	686.9	305.7
65 and over	0.333	0.364	722.5	321.2
Bachelor's degree or higher	–0.106	–0.112	–275.5	–88.7
Partnered	<i>ns</i>	0.027	<i>ns</i>	20.1
Has children < 15 in household	–0.049	–0.042	–100.7	–29.6
<i>Labour force status (Reference category: Unemployed)</i>				
Employed	–0.096	–0.039	–216.2	–37.3
Not in the labour force	–0.080	–0.078	–148.4	–50.6
Household equivalised annual disposable income (\$'0,000)	<i>ns</i>	–0.002	6.2	–1.4
Financial risk taker	0.054	<i>ns</i>	269.2	48.2
Smoker	0.061	0.058	146.6	67.0
In poor general health	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
Disability with moderate or severe work restriction	–0.020	–0.017	–43.1	<i>ns</i>
<i>Immigrant status (Reference category: Australian-born)</i>				
Immigrant, main English-speaking countries	0.021	–0.022	<i>ns</i>	–20.4
Immigrant, other countries	–0.047	–0.045	–107.2	–24.7
First Nations	0.067	0.052	110.9	38.0
<i>Region of residence (Reference category: non-urban)</i>				
Major urban	<i>ns</i>	0.028	<i>ns</i>	21.4
Other urban	<i>ns</i>	0.030	<i>ns</i>	15.7
<i>State of residence (Reference category: New South Wales)</i>				
Victoria	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
Queensland	0.031	0.055	<i>ns</i>	33.2
South Australia or Northern Territory	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
Western Australia	0.088	0.117	119.1	64.5
Tasmania	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
Australian Capital Territory	0.047	–0.056	<i>ns</i>	–48.9
<i>Survey year (Reference category: 2015)</i>				
2018	–0.031	–0.047	–47.5	–44.8
2022	–0.036	–0.060	–69.8	–45.5
Number of observations	19,886	22,923	19,857	22,906

Notes: Models (1) and (2) are mean marginal effects from Probit regression models of the predictors of having any gambling expenditure. Estimates from models (3) and (4) are coefficient estimates from Tobit models of the predictors of the level of gambling expenditure. See the Technical Appendix for an explanation of these models. *ns* indicates the estimate is not significantly different from 0 at the 10% level.



gambling activities than unemployed men do.

For women, but not men, the likelihood of being a gambler declines by 0.2 percentage points for every additional \$10,000 in household disposable income. Though the magnitudes are small, the effects of household disposable income on gambling expenditure are negative for women and positive for men; each additional \$10,000 in household disposable income decreases women's monthly expenditure by \$1.40 but increases men's expenditure by \$6.20.

Being a financial risk taker (see Box 5.3, page 90) is related to a 5.4 percentage point greater likelihood of being a gambler among men, but for women there is no significant relationship between being a gambler and being a financial risk taker. Being a financial risk taker is positively associated with gambling expenditure among both women and men; among men, for instance, financial risk takers spend on average \$269.20 per month more than non-financial risk takers.

Being a smoker is related to both higher incidence of, and expenditure on, gambling-related activities. There is no significant relationship between poor general health and either gambling incidence or expenditure. The likelihood of being a gambler is lower among Australians with a long-term disability relative to Australians without a long-term disability, and gambling expenditure is \$43.10 lower for men with a disability as compared to men without a disability.

Among women, immigrants from any other country are less likely to be gamblers than Australian-born women. Among men, however, immigrants from main-English speaking countries are 2.1 percentage points more likely

than Australian-born men to be gamblers, whereas immigrants from countries other than the main-English speaking countries are 4.7 percentage points less likely to be gamblers than are Australian-born men. Compared to Australian-born men, monthly gambling expenditure is on average \$107.20 lower for immigrants from countries other than the main-English speaking countries.

First Nations women and men are 5.2 and 6.7 percentage points, respectively, more likely to be gamblers compared to non-First Nations women and men. Furthermore, the typical monthly gambling expenditure for First Nations women is \$38 higher than for non-First Nations women, whereas for First Nations men expenditure is \$110.90 higher than for non-First Nations men.

Gambling incidence and expenditure is lower among women in non-urban areas compared to women living in all other urban areas, and for men there is no relationship between region of residence and gambling incidence and expenditure.

Compared to residents of New South Wales, residents of

Queensland and Western Australia are more likely to be gamblers. Women in the Australian Capital Territory are 5.6 percentage points more likely to report gambling activity compared to women in New South Wales, whereas men in the Australian Capital Territory are 4.7 percentage points more likely than New South Wales men to be gamblers. Monthly gambling spending for men in Western Australia, for example, is \$119.10 higher than for men in New South Wales.

The survey year estimates suggest that the probability of reporting any gambling expenditure is lower in 2018 and 2022 compared to 2015. The typical monthly gambling-related expenditure in 2018 and 2022 is also lower, by between \$45 to \$70, relative to expenditure in 2015.

Determinants of risky gambling

Table 9.5 reports the regression results describing the individual factors that predict the probability of an individual being an 'at-risk' gambler, that is,

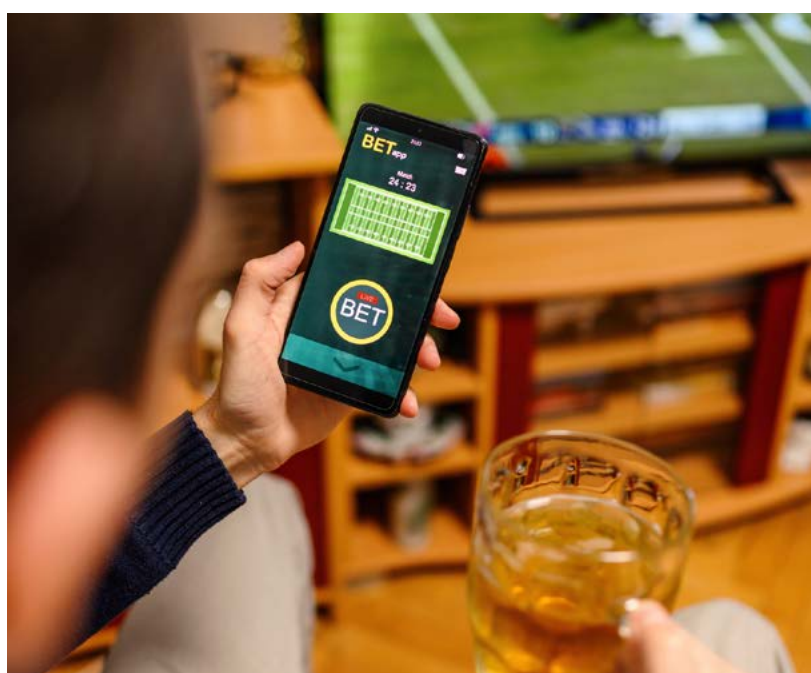


Table 9.5: Factors associated with risky gambling, by gender, 2015 to 2022

	Men	Women
<i>Age group (Reference category: 18–24)</i>		
25–34	0.023	0.009
35–44	ns	0.011
45–54	ns	0.016
55–64	ns	0.020
65 and over	ns	0.014
Bachelor's degree or higher	–0.042	–0.027
Partnered	–0.023	–0.008
Has children < 15 in household	–0.014	–0.012
<i>Labour force status (Reference category: Unemployed)</i>		
Employed	ns	0.024
Not in the labour force	ns	ns
Household equivalised annual disposable income (\$'0,000)	–0.001	–0.001
Financial risk taker	0.084	0.051
Smoker	0.067	0.044
In poor general health	0.021	0.011
Disability with moderate or severe work restriction	ns	ns
<i>Immigrant status (Reference category: Australian-born)</i>		
Immigrant, main English-speaking countries	ns	ns
Immigrant, other countries	ns	0.029
First Nations	0.061	0.047
<i>Region of residence (Reference category: Non-urban)</i>		
Major urban	ns	ns
Other urban	–0.013	ns
<i>State of residence (Reference category: New South Wales)</i>		
Victoria	–0.011	–0.008
Queensland	–0.021	0.008
South Australia or Northern Territory	–0.027	ns
Western Australia	–0.018	–0.012
Tasmania	–0.027	ns
Australian Capital Territory	ns	–0.023
<i>Survey year (Reference category: 2015)</i>		
2018	ns	ns
2022	0.020	0.009
Number of observations	19,906	22,904

Note: The table reports mean marginal effects from Probit regression models of the predictors of being a risky gambler, that is, being classified as low-, moderate- or high risk on the PGSI. See the Technical Appendix for an explanation of these models. *ns* indicates the estimate is not significantly different from 0 at the 10% level.



reporting low-, moderate- or high gambling risks according to the PGSI. As highlighted in Figure 9.3 (page 154), 6.4% of women and 12.9% of men reported at least some gambling harms in 2022.

Age is a stronger predictor of experiencing gambling harm among women than men. All women aged 25 or older are significantly more likely than women in the 18 to 24 group to report risky gambling. For men, those aged 25 to 34 are more likely than 18-to-24-year-olds to report risky gambling, but for all other age groups there are no other differences in the probability of gambling harm (relative to the 18 to 24 age group).

Gambling harm is less likely for individuals with at least a bachelor's degree compared to those without, and partnered individuals are less likely than non-partnered persons to report risky gambling. Having children younger than 15 in the household is related to a lower probability of experiencing gambling-related risks.

There is limited evidence of a relationship between labour force status and gambling risk, although employed women are 2.4 percentage points more likely than unemployed women to report gambling harm. Household disposable income has a negative,

albeit relatively small, effect on the probability of risky gambling, as each additional \$10,000 in household disposable annual income lowers the prospect of engaging in risky gambling activities by 0.1 percentage points.

Not surprisingly, financial risk takers are more likely (5.1 percentage points [women] and 8.4 percentage points [men]) than non-financial risk takers to experience gambling-related harm. Smokers are also more likely to report risky gambling compared to non-smokers.

Compared to individuals who are not in poor general health, individuals in poor general health are more likely to experience gambling harm. There is no significant association between gambling harm and long-term disability status.

For men there is no significant relationship between immigrant status and experiencing gambling harm, but female immigrants from countries other than the main English-speaking countries are on average 2.9 percentage points more likely than Australian-born women to report risky gambling (despite female immigrants from non-main English-speaking countries being less likely than Australian-born women to gamble [Table 9.4, page 157]). First Nations women and men are

4.7 and 6.1 percentage points, respectively, more likely than non-First Nations women and men to engage in risky gambling.

There are no differences in the probability of risky gambling by region of residence for women. Among men, those living in other urban areas (not in major cities) are 1.3 percentage points less likely to report risky gambling as opposed to those residing in non-urban areas.

Among women, individuals residing in Victoria, Western Australia and the Australian Capital Territory are less likely than New South Wales residents to experience gambling-related harms, whereas this probability is higher among Queensland residents than New South Wales residents. Among men, New South Wales residents are more likely than residents in all other states and territories (except the Australian Capital Territory, with which there is no significant difference) to report risky gambling.

While there was no difference in the probability of gambling harm between 2015 and 2018, in 2022 women and men were 0.9 percentage points and 2 percentage points, respectively, more likely to experience gambling-related harm compared to 2015.





Associations of risky gambling with health and wellbeing

Table 9.6 summarises the regression results of how being an at-risk gambler (i.e., a low-, moderate- or high-risk gambler on the PGSI) is associated with overall life satisfaction (see Box 13.2, page 197), mental health (see Box 2.6, page 31), high alcohol consumption (i.e., consuming alcohol on five or more days per week) and financial stress (see Box 3.7, page 48). We recognise that these outcomes are not exhaustive, and that gambling can also be related to other aspects of life. Note that these estimates are associations and should not be interpreted as causal effects.

Women who are risky gamblers report on average 0.097 points lower life satisfaction (on a 0–10 scale) relative to women who are non-gamblers or non-problem gamblers. For men, there is no significant relationship between

life satisfaction and being a risky gambler.

Whereas for women mental health is not related to being a risky gambler, mental health is 1.642 points worse (on a 0–100 scale) for men who are at-risk gamblers as compared to men who are non-gamblers or non-problem gamblers.

For women, risky gamblers are 13.3 percentage points more likely to be a heavy drinker than non-

gamblers or non-problem gamblers. For men, there is no significant relationship between risky gambling and excessive alcohol consumption.

Among women, there is no significant relationship between financial stress and being an at-risk gambler. In contrast, men who are risky gamblers are 7.2 percentage points more likely to experience financial stress compared to men who are not at-risk gamblers.

Table 9.6: Associations between risky gambling and selected outcomes, 2015 to 2022

	Life satisfaction	Mental health	Heavy drinker	Financial stress
<i>Men</i>				
At-risk gambler	<i>ns</i>	–1.642	<i>ns</i>	0.072
Number of observations	20,281	20,215	2,692	2,482
<i>Women</i>				
At-risk gambler	–0.097	<i>ns</i>	0.133	<i>ns</i>
Number of observations	23,357	23,277	2,097	3,512

Notes: The table presents estimates from fixed effects regression models of the relationship of being an at-risk gambler with life satisfaction (0–10 scale), SF-36 mental health (0–100 scale), the probability of being a heavy drinker (consuming alcohol on five or more days per week) and the probability of experiencing financial stress. The estimates for life satisfaction and mental health are estimated via linear fixed effects models, and the estimates for being a heavy drinker and experiencing financial stress are mean marginal effects from fixed effects Logit models. See the Technical Appendix for an explanation of these models. All models also control for age, educational attainment, labour force status, real household equivalised disposable income, partnership status, children, long-term health condition, area of residence and survey year. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

10

Religious affiliation and attendance at religious services

Ferdi Botha



The HILDA Survey has asked Australians about their religious beliefs and religious practices in six waves (2004, 2007, 2010, 2014, 2018 and 2022). These questions relate to religious affiliation, the importance attached to religion and frequency of attendance at religious services. This chapter reports how religious affiliations and practices have changed in Australia since 2004. The chapter also examines the factors associated with reporting a religious affiliation, as well as how religiosity is associated with several wellbeing outcomes.

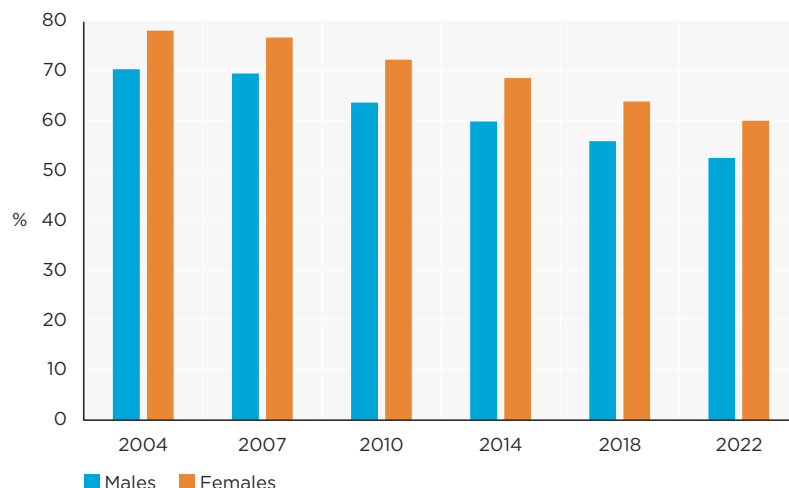
Religious affiliation

Figure 10.1 shows the proportion of Australians aged 15 and over reporting a religious affiliation between 2004 and 2022. In all years, the proportion of males who are religious is lower than the proportion of females who are religious. There is a clear downward trend in religiosity for both males and females. In 2004, 78.1% of females had a religious affiliation, whereas in 2022, this declined to 60.1%. Among males, 70.3% and 52.6% had a religious affiliation in 2004 and 2022, respectively

Religious affiliation is disaggregated by age group in Figure 10.2 (page 163). In almost all years, older age groups are more likely to have a religious affiliation. The proportion of Australians with a religious affiliation has declined in all age groups. For example, in 2004, 71.8% of 35-to-44-year-olds were religious, compared to 55.6% in 2022. For the 65 and over age group, religious affiliation has declined to about 74% in 2022, down from about 90.8% in 2004.

Figure 10.3 (page 164) further shows the prevalence of religious affiliation by marital status. Religiosity has also fallen among

Figure 10.1: Proportion of people aged 15 and over with a religion by gender



Box 10.1: HILDA Survey measures of religious affiliation, religious importance and religious service attendance

Questions about religion have been asked in the self-completion questionnaire in Waves 4 and 7, and every four waves since Wave 10.

Religious affiliation is obtained by asking respondents to select from a list the option that best describes their religion. Possible options include 'no religion', several Christian religions and other religions such as Buddhism, Hinduism, Islam and Judaism.

To measure the *importance of religion*, respondents are asked: *On a scale of 0 to 10, how important is religion in your life?* Responses can range from 0 (one of the least important things in my life) to 10 (the most important thing in my life).

Frequency of attending religious services is measured by asking respondents the question: *How often do you attend religious services? Please do not include ceremonies like weddings or funerals.* Response options comprise 'never', 'less than once a year', 'about once a year', 'several times a year', 'about once a month', '2 or 3 times a month', 'about once a week', 'several times a week' and 'every day'.



individuals in all marital status categories. Among married Australians, for example, the proportion reporting a religious affiliation decreased from 80.2% in 2004 to just under 67% in 2022. For widowed individuals, religiosity declined from 92.6% in 2004 to 78.5% in 2022. The widowed consistently reported the highest rates of religious affiliation relative to other marital status groups, in part reflecting the fact that widowed individuals tend to be older. Those in de facto relationships are the least religious in all years, and in 2022, 35.3% of Australians in de facto relationships were religious.

Table 10.1 reports religious affiliation by type of religion over time. For both males and females, the proportion of those affiliated to Islam has grown slightly over time, to 2% by 2022. Note that because the HILDA Survey is not representative of more recent migrants to Australia (see Chapter 1), the prevalence of religions such as Hinduism and Islam—which are the main religions for many new migrants—are likely underestimated (also see ABS, 2022).

By far the two largest groups are those reporting no religion and Christianity. The rise in the proportion of Australians reporting no religion has coincided with a fall in the proportion of Australians who are Christian. Among females, in

Figure 10.2: Proportion of people with a religion by age group

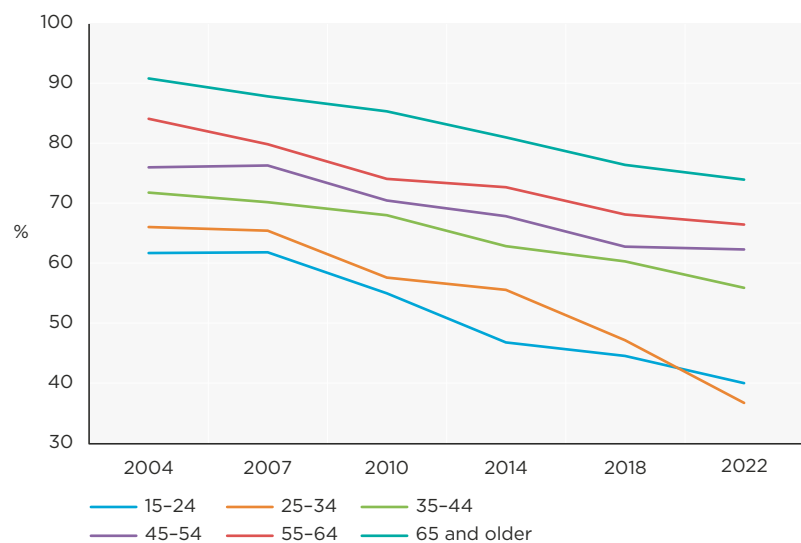
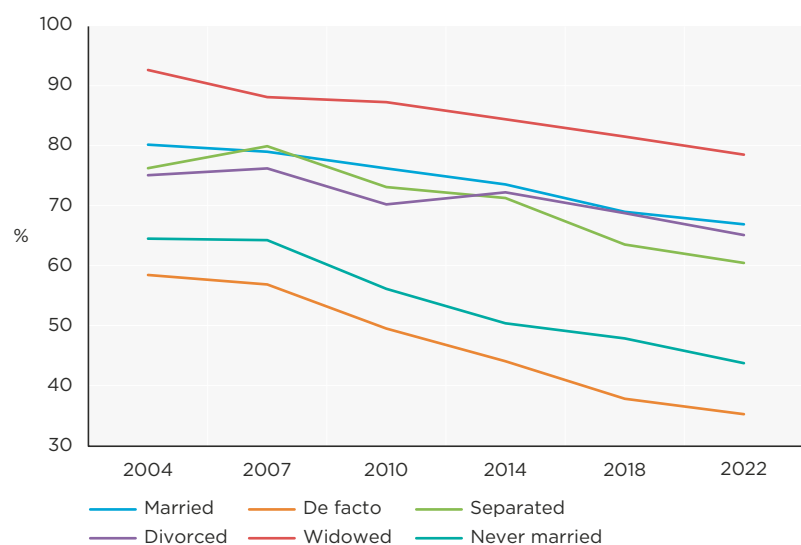


Figure 10.3: Proportion of people with a religion by marital status



	2004	2007	2010	2014	2018	2022
<i>Females</i>						
No religion	21.6	22.9	27.7	30.7	35.7	39.4
Buddhism	1.6	1.7	2.2	2.2	2.0	2.0
Christianity	72.6	69.9	65.5	59.5	54.8	51.0
Hinduism	*0.8	*0.8	*0.7	2.6	2.8	2.6
Islam	*0.9	1.2	1.6	1.7	1.9	2.0
Judaism	*0.3	*0.3	*0.3	0.4	0.4	0.4
Other	1.3	1.4	1.3	1.7	1.3	1.7
Not stated	0.9	1.8	0.7	0.9	1.2	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Males</i>						
No religion	29.1	30.2	35.8	39.6	43.5	46.3
Buddhism	1.3	1.8	1.5	2.0	1.4	1.3
Christianity	65.2	62.7	57.8	51.8	47.1	44.6
Hinduism	*1.0	*1.1	*0.8	3.1	*3.4	2.8
Islam	1.1	1.2	1.3	1.7	2.0	2.0
Judaism	*0.3	*0.3	*0.3	0.3	*0.4	*0.3
Other	1.0	1.0	1.2	0.9	0.8	1.2
Not stated	1.0	1.7	1.3	0.7	1.4	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Cells may not add up to column totals due to rounding. * Estimate not reliable.

2004, 21.6% had no religion and 72.6% were Christian. By 2022, 39.4% had no religion and 51% were Christian. These trends are even greater for males, with 46.3% reporting no religion in 2022, up from 29.1% in 2004. In 2004, 65.2% of males reported they were Christian, whereas 44.6% did so in 2022. Another observation among males is that, in 2022, Christianity was for the first time not the dominant religion, with a greater proportion reporting no religion (46.3%) than Christianity (44.6%). At an overall population level,

2022 has also been the first year where fewer than half of those surveyed reported Christianity as their religion.

Table 10.2 shows the proportion of Australians with a religious affiliation in 2022 by several individual characteristics. Consistent with the trends in Figure 10.2 (page 163), prevalence of religious affiliation rises with age. Among females, 40.9% of 25-to-34-year-olds have a religious affiliation, whereas just under 70% of 55-to-64-year-olds are religious. Less than a third of

males aged 25 to 34 are religious, and 70.5% of males aged 65 and over report a religious affiliation.

Religiosity is higher among males with at least a bachelor's degree (55.2%) than males without a degree (51.5%), and among females religiosity is similar for those with and without a degree. Religious affiliation is most prevalent among persons who are not in the labour force (67.9% for females and 60.4% for males), and 39.3% of unemployed females report a religious affiliation.



Rates of religious affiliation decline as household disposable income increases. Among females, for instance, 67.7% in the bottom income quintile are religious, whereas 58.4% and 56.5% in the fourth and top quintiles, respectively, are religious. Fewer than half of males in the top income quintile have a religious affiliation, compared to 57.6% of males in the bottom income quintile.

Males with poor general health report slightly higher rates of religious affiliation than males who are not in poor general health, and religiosity is higher among both males and females with a disability relative to those without a disability. Persons in poor mental health report lower rates of religious affiliation. For example, 44.3% of males in poor mental health have a religious affiliation, whereas 54.3% of males not in poor mental health are religious.

The widowed have the highest proportion of individuals that are religious. Religious affiliation is low among those in de facto relationships, with 37.7% and 32.8% of females and males, respectively, being religious. Of never married males, 39.7% identify as religious.

For males, there are no major differences in religious status between those with and without children younger than 15 in the household. Among females, 61% without children are religious, whereas 53.3% with children have a religious affiliation.

Religious affiliation is most prevalent among individuals residing in major urban areas. Religiosity is high among immigrants from non-main English-speaking countries, as 78.8% of females and 74.1% of males report a religious affiliation. Less than half of non-First Nations Australian-born males are religious. The

Table 10.2: Persons with a religious affiliation by gender, 2022 (%)

	Males	Females
<i>Age group</i>		
15-24	37.8	42.5
25-34	32.6	40.9
35-44	52.5	59.2
45-54	58.1	66.4
55-64	63.0	69.8
65 and over	70.5	77.1
<i>Educational attainment</i>		
Less than bachelor's degree	51.5	60.1
Bachelor's degree or higher	55.2	60.0
<i>Labour force status</i>		
Employed	49.4	56.0
Unemployed	49.4	39.3
Not in the labour force	60.4	67.9
<i>Household equivalised annual disposable income (December 2022 prices)</i>		
Bottom quintile	57.6	67.7
Second quintile	54.2	60.4
Middle quintile	54.2	59.1
Fourth quintile	51.6	58.4
Top quintile	48.6	56.5
<i>SF-36 general health measure</i>		
Not in poor general health	52.2	60.1
In poor general health	56.0	59.6
<i>Disability with moderate or severe work restriction</i>		
No	51.4	58.8
Yes	58.5	64.8
<i>SF-36 mental health measure</i>		
Not in poor mental health	54.3	61.9
In poor mental health	44.3	53.1
<i>Marital status</i>		
Married	64.6	69.3
De facto	32.8	37.7
Separated	53.6	66.6
Divorced	63.4	66.2
Widowed	74.1	79.7
Never married	39.7	48.7
<i>Children</i>		
No children aged under 15	52.5	61.0
Children aged under 15	52.8	53.3
<i>Region of residence</i>		
Major urban	53.3	60.8
Other urban	51.4	58.3
Non-urban	49.5	58.6
<i>Immigrant status and First Nations identity</i>		
Non-First Nations Australian-born	47.7	55.1
First Nations	37.8	42.7
Immigrant, main English-speaking countries	54.5	62.4
Immigrant, other countries	74.1	78.8



prevalence of religious belief is relatively low among First Nations Australians, with 42.7% of First Nations females being religious and 37.8% of First Nations males being religious.

Importance of religion

Figure 10.4 shows the reported mean importance of religion (see Box 10.1, page 163) for religious and non-religious individuals. As expected, among non-religious persons the average reported religious importance score has remained very low, ranging between 0.6 and 1. The picture is different when examining mean importance of religion only for religious individuals. Mean religious importance for religious females has remained relatively constant over time, remaining between 5.4 and 5.5 over the 18 years. For religious males, the mean importance of religion has increased slightly, from 4.5 in 2004 to 4.8 in 2022. It is noteworthy that even among religious individuals, religion is not considered that important.

Frequency of attendance at religious services

Table 10.3 reports how often Australians attend religious services (see Box 10.1, page 163), by gender and over time. As expected, given the observed declines in overall religiosity, the frequency of religious service attendance has fallen as well. For instance, 40.3% of females never attended religious gatherings in 2004, and this proportion increased to 43.6% in 2010 and 53.9% in 2022. At the same time, in 2004 16% of females attended religious services at least once per week, compared to 11.3% in 2022.

The trend is similar for males. In 2004, 12.3% attended religious services at least once per week, and in 2014 and 2022 this fell to 10.2% and 8.6%, respectively. While almost half of males never attended religious gatherings in 2004, in 2022 59.4% reported never attending religious gatherings.

Figure 10.4: Mean importance of religion by gender and religious status (0-10 scale)

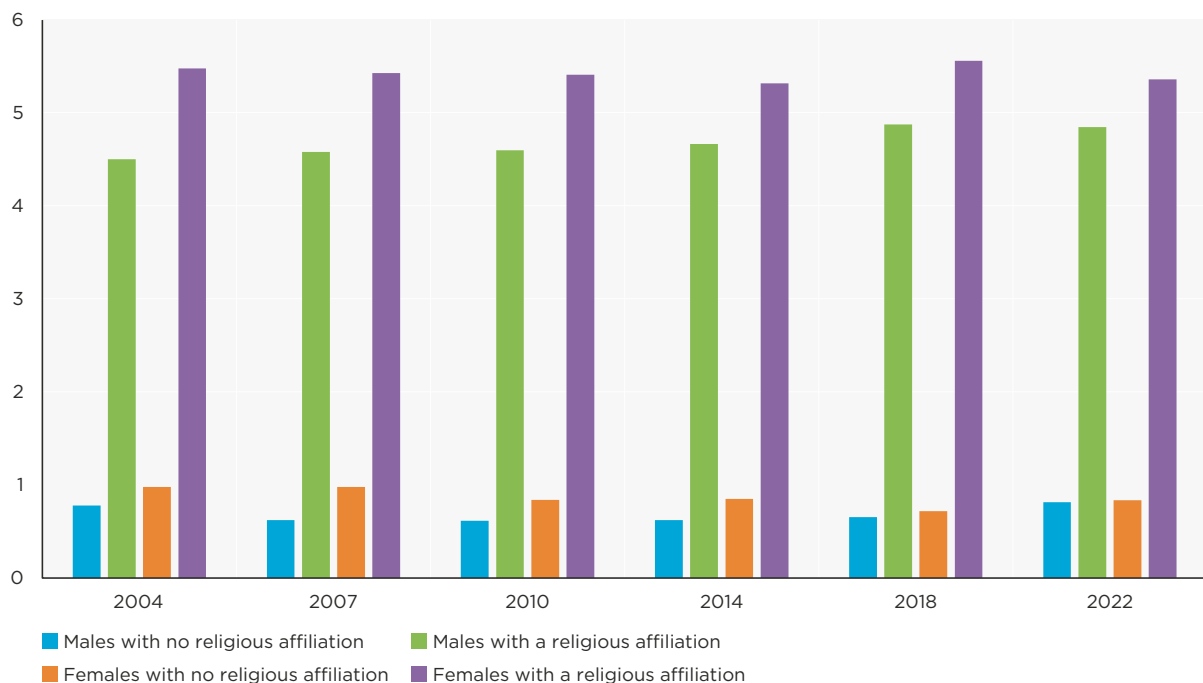


Table 10.3: Frequency of attendance at religious services by gender, 2004 to 2022 (%)

	2004	2007	2010	2014	2018	2022
<i>Males</i>						
Never	49.7	49.1	51.1	52.9	56.1	59.4
Once a year or less	23.2	24.6	23.5	21.5	19.2	19.4
Several times per year	9.8	10.3	10.2	9.4	9.5	8.7
1-3 times per month	5.0	4.6	4.7	6.1	4.8	4.0
At least once per week	12.3	11.5	10.6	10.2	10.3	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Females</i>						
Never	40.3	41.2	43.6	46.1	49.2	53.9
Once a year or less	23.7	24.1	23.5	22.3	19.9	20.6
Several times per year	13.0	12.8	12.8	11.7	11.4	9.9
1-3 times per month	7.0	6.4	6.7	6.7	6.0	4.4
At least once per week	16.0	15.5	13.5	13.2	13.5	11.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: Cells may not add up to column totals due to rounding.

Factors determining ceasing of religious belief

Table 10.4 reports regression results of the individual characteristics associated with ceasing religious affiliation, that is, whether an individual reported not being religious although had reported being religious in the years preceding interview.

Table 10.4 suggests that the ceasing of religious belief was more likely among older age groups. Females aged 25 to 64 are more likely to cease their religious beliefs than females in the 15 to 24 age group. For males, those aged 15 to 24 were less likely than all other age groups to cease religion. Males in the 35 to 44 age group, for example, are 7.3 percentage points more likely than males aged 15 to 24 to cease religious belief.

There is no significant association between educational attainment and the probability of terminating religious belief. Females who are in de facto relationships, separated, divorced and never married are more likely than





Table 10.4: Factors associated with ceasing religious affiliation, by gender, 2004 to 2022

	Males	Females
<i>Age group (Reference category: 15–24)</i>		
25–34	0.048	0.046
35–44	0.073	0.045
45–54	0.067	0.048
55–64	0.067	0.039
65 and over	0.017	<i>ns</i>
Bachelor's degree or higher	<i>ns</i>	<i>ns</i>
<i>Marital status (Reference category: Married)</i>		
De facto	0.030	0.029
Separated	0.046	0.053
Divorced	0.020	0.043
Widowed	<i>ns</i>	–0.020
Never married	0.024	0.024
<i>Labour force status (Reference category: Unemployed)</i>		
Employed	<i>ns</i>	0.023
Not in the labour force	<i>ns</i>	<i>ns</i>
Household equivalised annual disposable income (\$'0,000, December 2022 prices)	<i>ns</i>	<i>ns</i>
Major life event: Serious personal injury or illness	–0.027	<i>ns</i>
Major life event: Major improvement in finances	<i>ns</i>	<i>ns</i>
Major life event: Major worsening in finances	0.028	0.044
Disability with moderate or severe work restriction	<i>ns</i>	–0.009
<i>Immigrant status (Reference category: Australian-born)</i>		
Immigrant, main English-speaking countries	<i>ns</i>	<i>ns</i>
Immigrant, other countries	–0.061	–0.069
First Nations	–0.031	–0.024
<i>Survey year (reference category: 2004)</i>		
2007	0.025	0.022
2010	0.026	0.031
2014	<i>ns</i>	0.012
2018	<i>ns</i>	<i>ns</i>
2022	<i>ns</i>	<i>ns</i>
Number of observations	36,906	42,140

Notes: The table presents mean marginal effects from Probit regression models of the predictors of ceasing religious affiliation. See the Technical Appendix for an explanation of these models. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

married females to cease religious belief, whereas widows are 2 percentage points less likely to cease religious affiliation as compared to married females. Among males, there is no significant difference between the married and widowed in the likelihood of ceasing religious belief. Compared to all other marital status groups, however, married males were less likely to cease religious affiliation.

For males there is no relationship between the probability of ceasing religious affiliation and their labour force status. Unemployed females and females not in the labour force do not differ in their likelihood of ceasing religious belief, but employed females are 2.3 percentage points more likely than unemployed females to terminate their religious affiliation.

Real equivalised household income is not related to the probability of ceasing religious beliefs. Males who report having suffered a serious personal injury or illness are 2.7 percentage points less likely to cease religious affiliation compared to males who did not experience such a major life event.

Interestingly, experiencing a major improvement in finances is not significantly associated with the probability of ceasing religion, whereas a major financial worsening is. Females and males who experienced major worsening in finances are 4.4 and 2.8 percentage points, respectively, more likely to stop religious belief relative to those who did not experience such an event.

Ceasing of religious belief is less likely for females with a disability compared to females who do not have a disability. There is no relationship between having a disability and the likelihood of ceasing religious affiliation among males.

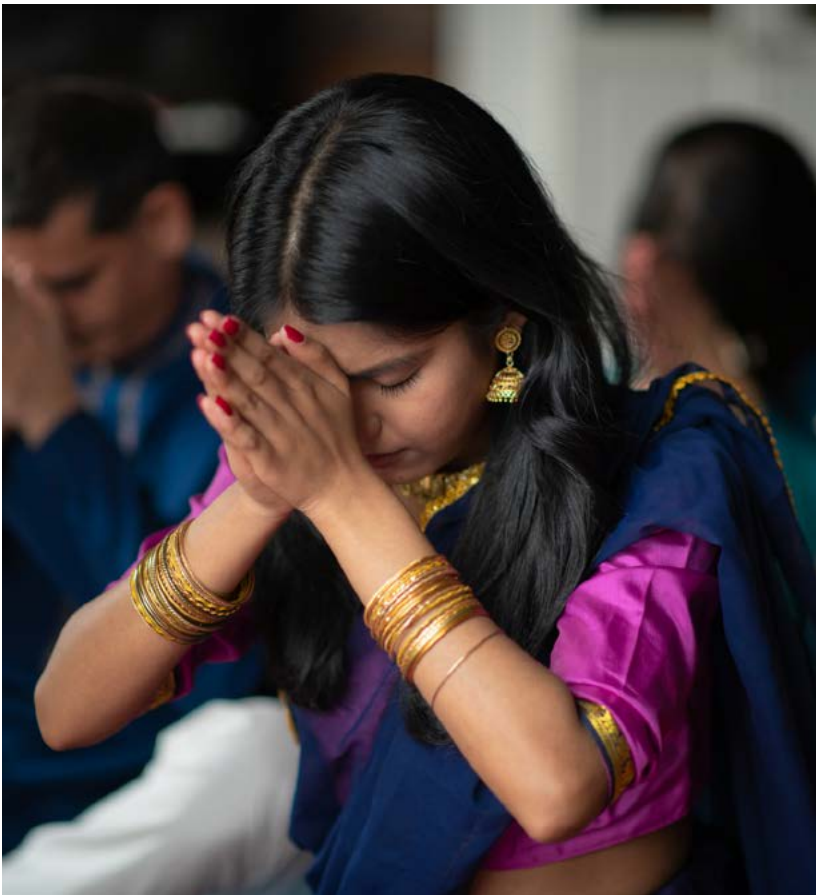
There is no difference in the likelihood of ceasing religion between Australian-born individuals and immigrants from the main English-speaking countries. Compared to Australian-born persons, female and male immigrants from countries other than the main English-speaking countries are on average 6.9 and 6.1 percentage points, respectively, less likely to cease their religious belief. First Nations Australians are less likely than non-First Nations Australians to cease religious affiliation.

Relative to 2004, females were more likely to cease religious belief in 2007, 2010 and 2014, but there was no difference in this probability in 2018 and 2022. For males, the probability of ceasing religious affiliation was greater in 2007 and 2010 compared to 2004, but relative to 2004 there was no difference in 2014, 2018 and 2022 in the likelihood of ceasing religious belief.

Association of religiosity with health, wellbeing and trust

Table 10.5 reports the regression results showing how religious affiliation is related to life satisfaction (see Box 13.2, page 197), mental health (see Box 2.6, page 31), loneliness (see Box 2.5, page 28) and general trust (see Box 12.2, page 183). We emphasise, however, that these estimates should not be interpreted as causal effects.

Religious affiliation is positively related to life satisfaction, with females and males with a religious affiliation on average reporting life satisfaction scores of 0.054 and 0.047 points (on a 0–10 scale), respectively, higher compared to females and males with no religious affiliation.



Mental health is also significantly associated with religious affiliation. Females with a religious affiliation report 0.588 points (on a 0–100 scale) better mental health as compared to females who are not religious, and the mental health of religious males are 0.733 points better relative to males who are not religious.

There are no significant relationships between religious status and loneliness. For males, there is also no significant relationship between loneliness and having a religious affiliation. For females, however, those who are religious report on average 0.057 points (on a 1–7 scale) greater levels of trust than those who are not religious.

Table 10.5: Association of having a religious affiliation with health, wellbeing and trust, 2004 to 2022				
	Life satisfaction	Mental health	Loneliness	General trust
<i>Males</i>				
Has a religious affiliation	0.047	0.733	ns	ns
Number of observations	37,003	36,880	36,751	26,467
<i>Females</i>				
Has a religious affiliation	0.054	0.588	ns	0.057
Number of observations	42,326	42,182	41,980	30,227
<i>Notes:</i> The table presents estimates from fixed effects regression models of the effects of religious affiliation on life satisfaction (0–10 scale), SF-36 mental health (0–100 scale), loneliness (1–7 scale) and generalised trust (1–7 scale). See the Technical Appendix for an explanation of these models. All models also control for age, educational attainment, labour force status, real household equivalised disposable income, marital status, area of residence and survey year. The question on trust has been asked since 2010. <i>ns</i> indicates the estimate is not significantly different from 0 at the 10% level.				

11

Community participation

Ferdi Botha



Every four years since 2006, Australians have been asked about different aspects of community participation, an umbrella term referring to informal social connectedness, civic engagement and political participation. To provide insights into how Australians interact in their communities and partake in community-related activities, as well as how these have changed over time, this chapter reports changes in community participation, examines who has lower and higher levels of community participation, and explores the factors associated with active community participation.

Community participation over time

Mean community participation scores over time are presented in Figure 11.1 (page 171). Average participation scores in each of the three sub-components are almost always higher for females than

males, the only exception being political participation in 2022 where males (1.4) score slightly higher than females (1.3).

Levels of political participation have remained relatively constant since 2006, and around 1.4 to 1.5 on the 0–10 scale. In contrast, social connectedness and civic engagement have consistently fallen since 2010. For females,

Box 11.1: HILDA Survey measure of community participation

In every fourth wave since Wave 6, the self-completion questionnaire has contained the following 12-item question measuring the extent of involvement in the community:

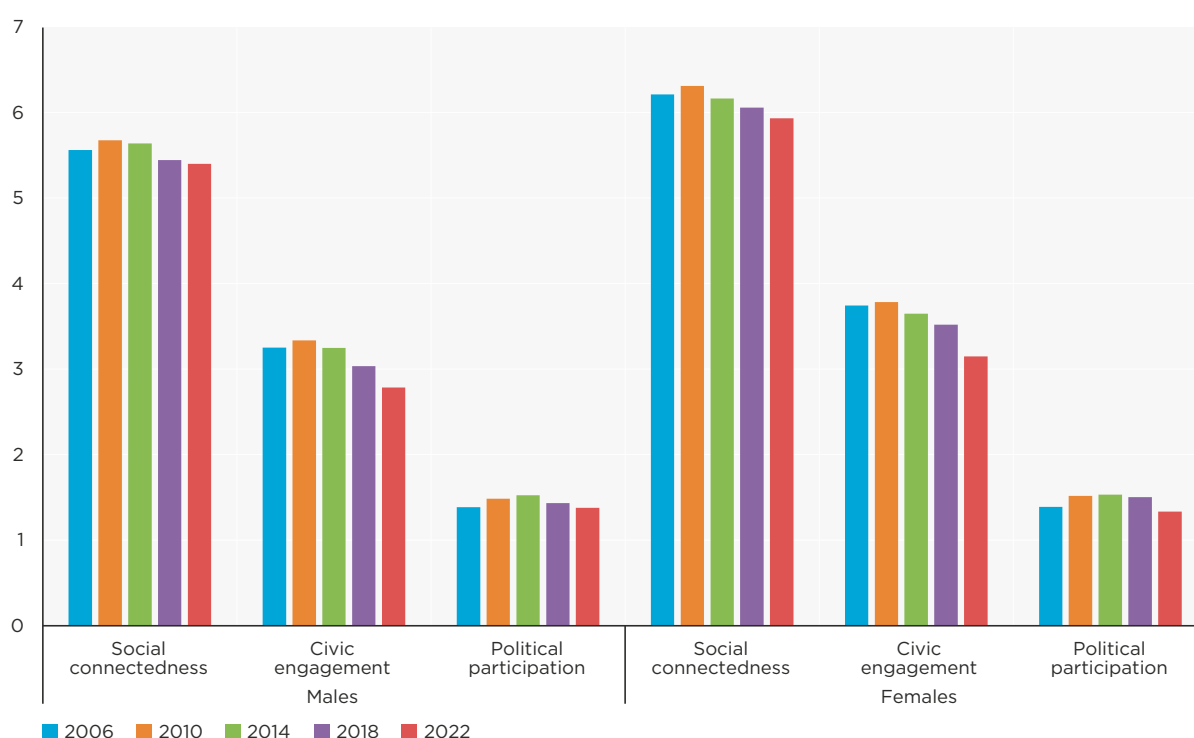
In general, how often do you do the following things:

- Have telephone, email or mail contact with friends or relatives not living with you*
- Chat with your neighbours*
- Attend events that bring people together such as fetes, shows, festivals or other community events*
- Get involved in activities for a union, political party or group that is for or against something*
- Make time to attend services at a place of worship*
- Encourage others to get involved with a group that's trying to make a difference in the community*
- Talk about current affairs with friends, family or neighbours*
- Make time to keep in touch with friends*
- Volunteer your spare time to work on boards or organising committees of clubs, community groups or other non-profit organisations*
- See members of your extended family (or relatives not living with you) in person*
- Get in touch with a local politician or councillor about issues that concern you*
- Give money to charity if asked*

For each item, the response options comprise 'never', 'rarely', 'occasionally', 'sometimes', 'often' and 'very often'. Consistent with Berry and Welsh (2010), in this chapter community participation is separated into three components. Items a, b, g, h and j define *informal social connectedness*, items c, e, i and l define *civic engagement*, and items d, f and k define *political participation*.

For simplicity and ease of interpretation, each sub-component is averaged and then rescaled to range from 0 to 10 (informal social connectedness = $\{[a + b + g + h + j]/5\} \times 2$; civic engagement = $\{[c + e + i + l]/4\} \times 2$; political participation = $\{[d + f + k]/3\} \times 2$), with a higher score corresponding to more frequent participation in that component.

Figure 11.1: Mean community participation by gender (0–10 scale)



mean social connection has declined from 6.3 in 2010 to 5.9 in 2022, and civic engagement has declined from 3.8 in 2010 to 3.2 in 2022. For males, average social connection was 5.4 in 2022 compared to 5.7 in 2010, and civic engagement declined from 3.3 in 2010 to 2.8 in 2022.

Frequency of community participation

Table 11.1 shows the reported frequency of participation in various community activities in 2022, by gender. The patterns of community participation are generally quite similar between females and males.

About 37.8% of females and 36.2% of males often contact friends and family. Roughly 35% of Australians rarely or never have verbal contact with their neighbours.

Attendance of worship services and volunteering at clubs or community groups are low; 57.9% of females and 62.8% of males



Table 11.1: Participation in community activities by gender, 2022 (%)

	Never	Rarely	Occasionally	Sometimes	Often	Very often	Total
Males							
<i>Informal social connectedness</i>							
Contact with friends and family	1.7	7.0	16.7	17.5	36.2	21.0	100.0
Contact with neighbours	9.6	24.4	23.5	21.8	17.0	3.7	100.0
Active interest in current affairs	10.5	17.3	23.5	21.4	21.6	5.8	100.0
Keep in touch with friends	2.7	9.6	19.3	27.4	31.7	9.4	100.0
See extended family in person	7.7	21.1	25.0	23.1	19.0	4.1	100.0
<i>Civic engagement</i>							
Attend community events	10.3	30.0	26.1	21.2	10.3	2.1	100.0
Attend worship services	62.8	17.4	6.4	4.2	4.2	5.0	100.0
Volunteer at clubs or community groups	56.0	20.3	7.3	6.6	6.7	3.1	100.0
Give money to charity	20.6	24.6	25.0	16.6	10.5	2.8	100.0
<i>Political participation</i>							
Involved in union or political group	63.9	22.0	6.2	4.9	2.1	0.9	100.0
Encouraging political activism	47.4	25.7	12.6	8.6	3.9	1.8	100.0
Contact politician or councillor	72.4	17.5	5.4	3.2	1.0	0.5	100.0
Females							
<i>Informal social connectedness</i>							
Contact with friends and family	0.8	3.3	8.8	13.0	37.8	36.3	100.0
Contact with neighbours	9.9	25.0	21.9	22.3	16.5	4.5	100.0
Active interest in current affairs	10.4	16.2	23.3	22.8	20.5	6.8	100.0
Keep in touch with friends	1.5	5.7	13.3	24.2	38.1	17.3	100.0
See extended family in person	4.9	15.6	20.5	24.4	26.0	8.7	100.0
<i>Civic engagement</i>							
Attend community events	8.5	26.6	26.3	25.0	10.9	2.7	100.0
Attend worship services	57.9	17.9	7.2	4.9	4.1	7.9	100.0
Volunteer at clubs or community groups	54.8	20.0	8.4	7.3	5.8	3.7	100.0
Give money to charity	13.0	21.2	26.6	20.5	14.1	4.6	100.0
<i>Political participation</i>							
Involved in union or political group	65.9	22.6	5.7	4.1	1.1	0.7	100.0
Encouraging political activism	44.6	26.8	13.8	9.5	3.9	1.4	100.0
Contact politician or councillor	73.3	17.1	5.6	3.1	0.6	0.3	100.0

Note: Cells may not add up to row totals due to rounding.



never attend religious worship services, and 54.8% of females and 56% of males never volunteer at clubs or community groups.

Consistent with Figure 11.1 (page 171), Australians rarely partake in political activities. Among males, 85.9% are never or rarely involved in unions or political groups, 73.1% never or rarely encourage political activism, and 89.9% never or rarely contact their local politician. These rates are similar for females.

Characteristics associated with low and high community participation

Table 11.2 reports average community participation scores for each sub-component in 2022, by individual characteristics. Mean social connectedness and civic engagement scores increase

Table 11.2: Mean community participation scores by individual characteristics, 2022 (0-10 scale)

	Social connectedness	Civic engagement	Political participation
<i>Age group</i>			
15-24	5.2	2.5	1.1
25-34	5.5	2.5	1.2
35-44	5.6	3.1	1.5
45-54	5.6	3.1	1.3
55-64	5.8	3.2	1.4
65 and over	6.1	3.4	1.5
<i>Gender</i>			
Female	5.9	3.2	1.3
Male	5.4	2.8	1.4
<i>Educational attainment</i>			
Less than bachelor's degree	5.5	2.8	1.2
Bachelor's degree or higher	6.1	3.4	1.7
<i>Labour force status</i>			
Employed	5.7	3.0	1.3
Unemployed	5.0	2.7	1.4
Not in the labour force	5.7	3.0	1.4
<i>Household equivalised annual disposable income</i>			
Bottom tercile	5.5	2.9	1.4
Middle tercile	5.6	2.9	1.3
Top tercile	5.9	3.1	1.3
<i>SF-36 general health measure</i>			
Not in poor general health	5.8	3.0	1.4
In poor general health	5.1	2.6	1.2
<i>SF-36 mental health measure</i>			
Not in poor mental health	5.9	3.1	1.4
In poor mental health	4.8	2.4	1.3
<i>Disability with moderate or severe work restriction</i>			
No	5.7	3.0	1.4
Yes	5.5	2.8	1.4
<i>Partnered</i>			
No	5.3	2.7	1.3
Yes	5.9	3.2	1.4
<i>Children</i>			
No children	5.7	2.9	1.3
Children	5.6	3.1	1.4
<i>Region of residence</i>			
Major urban	5.7	3.0	1.3
Other urban	5.6	2.9	1.4
Non-urban	5.5	2.9	1.5
<i>Immigrant status and First Nations identity</i>			
Non-First Nations Australian-born	5.7	2.8	1.3
First Nations	4.8	2.5	1.6
Immigrant, main English-speaking country	5.7	3.0	1.4
Immigrant, other countries	5.6	3.5	1.7

with age, though this age pattern is not as pronounced for political participation. Females report higher mean social connectedness and civic engagement than males, whereas average political participation is slightly higher among males (1.4) than among females (1.3).

Individuals with at least a bachelor's degree have higher average community participation scores in all three sub-domains. Unemployed persons (5.0) have lower social connectedness than persons who are employed (5.7) and not in the labour force (5.7). Similarly, civic engagement is lower for unemployed individuals (2.7) than for those who are employed (3.0) and not in the labour force (3.0). Mean political participation is similar for unemployed persons and those not in the labour force, and slightly lower for employed persons.

Mean social connectedness and civic engagement are highest among Australians in the top household disposable income tercile. Political participation, however, is slightly higher among persons in the lowest household disposable income tercile than in the middle and top terciles.

Average community participation for all three sub-domains is higher among individuals who are not in poor general health than those classified as being in poor general health. Individuals in poor mental health also have lower community participation scores than those who are not in poor mental health. Mean social connectedness and civic engagement is higher among persons without a disability than those with a disability, whereas mean political participation is similar for those with and without a disability.

Partnered Australians report higher community participation scores than non-partnered Australians. Civic engagement and political participation are



higher among those with children than without children. Average social connectedness is slightly greater for persons without children (5.7) than with children (5.6).

Whereas social connectedness and civic engagement tend to be higher for individuals residing in major urban areas, political participation is higher for individuals residing in non-urban areas.

Social connectedness and civic engagement scores are higher among non-First Nations Australian-born persons than among First Nations Australians, who have relatively low mean social connectedness and civic engagement scores, at 4.8 and 2.5, respectively. The political participation score is higher for

First Nations Australians than for non-First Nations Australian-born individuals.

Whereas mean social connectedness is relatively similar among all immigrants regardless of birth country, both civic engagement and political participation are higher among immigrants from countries other than the main English-speaking countries than among immigrants from the main English-speaking countries.

Determinants of community participation

Table 11.3 reports the regression results of the factors determining each of the sub-domains of

Table 11.3: Factors associated with community participation by gender, 2006 to 2022

	Males			Females		
	Social connectedness	Civic engagement	Political participation	Social connectedness	Civic engagement	Political participation
<i>Age group (Reference category: 15–24)</i>						
25–34	0.092	0.088	ns	0.201	0.194	0.075
35–44	ns	0.290	0.190	0.195	0.651	0.357
45–54	ns	0.364	0.254	0.217	0.761	0.394
55–64	0.299	0.343	0.255	0.362	0.768	0.408
65 and over	0.404	0.412	0.244	0.440	0.950	0.458
Bachelor's degree or higher	ns	ns	ns	ns	ns	ns
Partnered	–0.103	ns	ns	ns	–0.164	ns
<i>Household type (Reference category: Couple without children)</i>						
Couple with children	–0.106	0.114	0.056	–0.052	0.099	ns
Single-parent household	–0.177	ns	ns	–0.195	–0.158	ns
Other household type	–0.147	ns	ns	–0.105	–0.103	ns
<i>Labour force status (Reference category: Employed)</i>						
Unemployed	0.260	ns	ns	ns	ns	ns
Not in the labour force	0.154	ns	ns	0.206	ns	ns
Household equivalised annual disposable income (\$'0,000, December 2022 prices)	ns	ns	ns	ns	ns	ns
SF-36 general health (0–100)	0.005	0.003	0.002	0.005	0.004	0.002
SF-36 mental health (0–100)	0.015	0.006	ns	0.014	0.007	0.003
Disability with moderate or severe work restriction	ns	ns	ns	ns	ns	ns
<i>Region of residence (Reference category: non-urban)</i>						
Major urban	ns	0.133	0.159	ns	0.189	0.095
Other urban	ns	0.254	0.258	ns	0.335	0.320
<i>Survey year (Reference category: 2006)</i>						
2010	0.114	0.069	0.075	0.083	ns	0.103
2014	ns	–0.060	0.063	ns	–0.127	0.085
2018	–0.117	–0.214	ns	–0.153	–0.301	ns
2022	–0.131	–0.446	–0.103	–0.196	–0.644	–0.117
Number of observations	31,421	31,515	31,549	35,875	35,993	35,990

Notes: The table presents estimates from fixed effects regression models of the predictors of community participation, where each sub-domain is measured on a 0–10 scale. See the Technical Appendix for an explanation of these models. *ns* indicates the estimate is not significantly different from 0 at the 10% level.



community participation for females and males separately.

Levels of political participation generally increase with age. For instance, females aged 55 to 64 report on average 0.362 points greater social connectedness than females aged 15 to 24, and compared to females aged 15 to 24, females 65 and over report 0.95 points higher civic participation. Males aged 45 to 54, for example, report 0.254 points greater political participation than males in the 15 to 24 age group.

There is no significant association between community participation and level of educational attainment. Partnered females report on average 0.164 points lower civic engagement than non-partnered females. Social connectedness is 0.103 points lower for partnered males as compared to non-partnered females.

Females and males in couple households without children report lower levels of social connectedness compared to those in all the alternative household types (i.e., couples with children, single-parent households, other household type). Civic engagement is lower for females in single-parent

households and in other household types compared to females in couple households without children. There is no relationship between household type and political participation for females. Relative to males in households with a couple without children, civic participation and political participation are 0.114 and 0.056 points higher respectively among males residing in households consisting of a couple with children.

Community participation does not differ significantly between unemployed females and employed females. Females who are not in the labour force report on average 0.206 points greater social connectedness than employed females. Among males, there is no association between labour force status and civic engagement and political participation. Social connectedness is significantly higher among males who are unemployed and not in the labour force as compared to employed males.

For males, there is no relationship between household equivalised annual disposable income and community participation. Among females, each additional

\$10,000 in household equivalised annual disposable income is related to a 0.005 point decrease in civic engagement.

For females and males, each additional one-point improvement in general health is associated with an increase in all sub-domains of community participation of between 0.002 and 0.005 points.

Among females, a one-point improvement in their mental health is related to a significant increase in all community participation domains. There is no association between mental health and political participation for males, though an improvement in mental health of one point leads to a 0.015 point and 0.006 point increase in social connectedness and civic engagement, respectively. There are no significant differences between individuals who have a disability and individuals who do not have a disability.

Social connectedness is not related to region of residence for either females or males. When controlling for other factors, civic engagement and political participation are lower among persons living in non-urban areas compared to those living in major urban and other urban areas. For example, females living in other urban areas have 0.335 points higher civic engagement than females residing in non-urban areas, and political participation is 0.159 points greater among males in major urban areas relative to males in non-urban areas.

Finally, community participation was generally higher in 2010 than in 2006, but the results suggest that, especially since 2018, community participation is lower than in 2006. For females and males, all sub-domains of community participation were significantly lower in 2022 compared to 2006.



12

Charitable giving

Kyle Peyton



Charitable giving takes various forms, including monetary donations, volunteering and non-monetary contributions. Measuring charitable donations provides valuable insights into the economic contributions of private giving and their role in fostering social cohesion and community engagement. In 2022, donations and bequests in Australia totalled more than \$13 billion, supporting over 60,000 registered charities (Australian Charities and Not-for-Profits Commission, 2024). Since its inception, the HILDA Survey has collected information on a wide range of household expenditures, including groceries and healthcare fees, primarily through the self-completion questionnaire (SCQ). In 2020, new items were added to measure the total amount donated to charity annually (see Box 12.1).

This chapter focuses on individual charitable donations reported by households between 2020 and 2022, analysing trends over this period, the relationship between charitable donations and other types of household expenditure, and the characteristics that influence charitable giving. It also explores how charitable donations relate to various aspects of social capital, such as social trust, volunteering and church attendance. Although individual donations form a vital part of private giving, they represent less than 10% of total revenue for charities, with government funding accounting for the largest share, comprising 51% of charities' revenue in 2022 (Australian Charities and Not-for-profits Commission, 2024). While this chapter emphasises monetary donations, it is important to recognise that they are only one aspect of charitable giving. Other forms, such as volunteering and non-monetary contributions, also play a critical role in supporting communities and enhancing social cohesion.

Charitable donations in Australia

Charitable donations are very common, with most Australians living in a household that spends some amount of money on

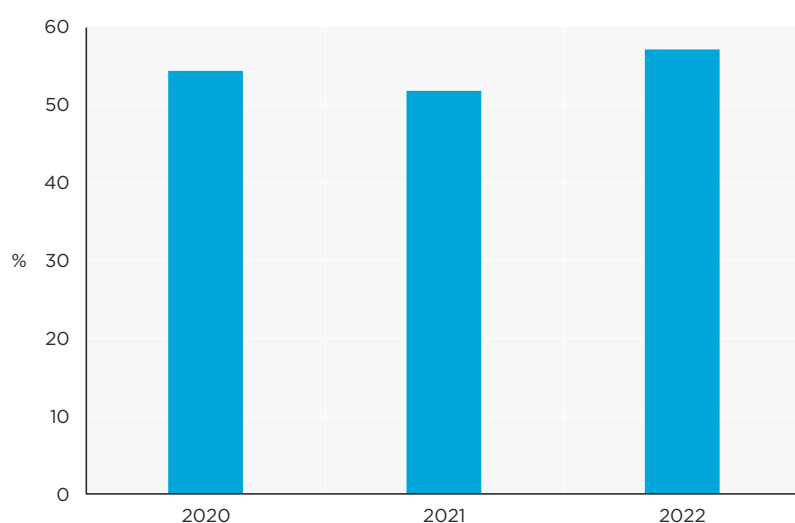
charitable donations. Figure 12.1 (page 178) shows that in 2022, 57% of Australians lived in a household that donated some amount of money to charity, an increase of 4 percentage points since 2021. Rates of charitable donations fell by about 2 percentage points between

Box 12.1: Measurement of charitable donations in the HILDA Survey

Since 2020, the household expenditure items in the self-completion questionnaire have included questions about monetary donations to charities. Specifically, the survey asks respondents responsible for household bill payments whether anyone in the household has donated any money to 'charities or other organisations'. Those responding yes to this question are then asked to provide their best estimate of the total amount donated by all people in the household over the last 12 months.

In households where multiple members provide responses to these questions, discrepancies between the reported total amounts can occur. These discrepancies are resolved by calculating the average of all reported amounts. For example, if one household member reports a donation of \$400 and another reports \$200, the household average is calculated as \$300. Charitable donations are recorded as zero in cases where all household members indicate that no money was donated to charity.

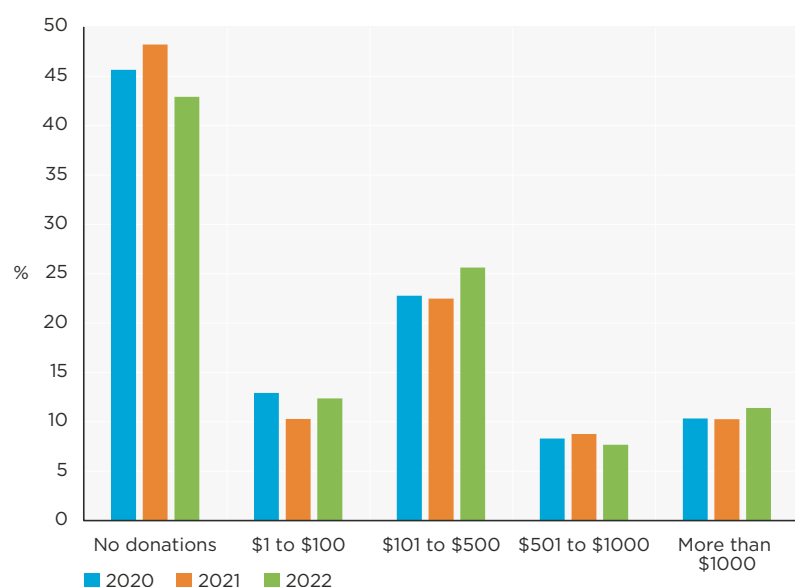
Figure 12.1: Proportion of people with household donations to charity



2020 and 2021, from 54% in 2020 to 52% in 2021.

Although donation amounts vary, annual donations above \$1,000 are rare. Figure 12.2 shows the distribution of charitable donations by amount given between 2020 and 2022, with amounts presented in December 2022 prices to adjust for inflation. In 2022, about 43% of people lived in households that donated no money to charity, 46% lived in households that donated less than \$1,000, and about 11% lived in households where annual donations exceeded \$1,000. While there has been some growth in the proportion of people living in households that donate under \$500 per year, those living in households with annual donations in excess of \$500 have remained below 20%.

Figure 12.2: Distribution of donations by amount given (December 2022 prices)



Charitable donations and other household expenditure

Charitable donations often serve as a reflection of households' economic wellbeing. During periods of economic growth, households may feel more financially secure and, as a result, more inclined to donate.

Conversely, during economic downturns, donations may decrease as households prioritise essential expenses. As shown in Table 12.1, between 2020 and 2022, total charitable donations declined by 9.2%, from \$12.04 billion in 2020 to \$10.93 billion in 2022, with average annual household donations following a similar trend.

Although the HILDA Survey did not measure charitable giving prior to the COVID-19 pandemic, data from 2020 and 2021 indicate a decline in charitable donations during the pandemic years.



Table 12.1: Expenditure on charitable donations, 2020–2022
(\$, December 2022 prices)

	2020	2021	2022	Change 2020 to 2022 (%)
Average amount donated	483	441	432	–10.6
Total donations (in billions)	12.04	11.16	10.93	–9.2

Note: Averages calculated for all households, including those with no charitable donations.

Table 12.2: Associations between charitable donations and other household expenditures (in hundreds of December 2022 dollars)

Groceries	0.51
Meals eaten out	2.63
Home repairs, renovations and maintenance	0.12
Motor vehicle fuel	–0.91
Telephone and internet charges	<i>ns</i>
Other insurance	2.97
Education fees	1.67
Electricity, gas and other heating fuels	<i>ns</i>
Alcohol	–1.75
Private health insurance	4.67
Tobacco products	–1.88
Motor vehicle repairs and maintenance	5.39
Fees paid to health practitioners	5.86
Women's clothing and footwear	1.53
Men's clothing and footwear	–1.93
Public transport, taxis and ride-sharing services	<i>ns</i>
Medicines	4.55
Children's clothing and footwear	–2.58
Year is 2021	–58.68
Year is 2022	–63.63
Number of observations	49,573

Notes: Estimates are from a regression of charitable donations on other household expenditures (in hundreds of December 2022 dollars) using a pooled dataset (2020–2022) with fixed effects for survey year. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

Comparable decreases were observed in household expenditure on categories such as alcohol, tobacco products and telephone and internet services—areas that had experienced significant growth between 2019 and 2020. These coincide with the onset of the COVID-19 pandemic (see Chapter 3, Table 3.13 of this report), suggesting that as households adjusted their budgets post-pandemic, they may have reduced discretionary spending, including charitable donations, in response to new financial pressures.

To more formally examine the relationship between charitable donations and other forms of household expenditure, Table 12.2 presents the results from a regression model where the amount of money donated to charity is the outcome and various other household expenditures (in hundreds of dollars) are included as predictors. By scaling expenditures in \$100 increments, the estimates reflect how a \$100 increase in spending on a given category is associated with changes in charitable donations.



The results show that while many household expenditures are correlated with charitable donations, the associations are generally small. For instance, an additional \$100 spent on home repairs, renovations and maintenance is linked to only a 12-cent increase in charitable donations. The strongest association is with healthcare practitioner fees, where a \$100 increase in spending corresponds to about \$6 more donated to charity. Overall, these findings suggest that although correlations between household

expenditures and charitable donations exist, they tend to be modest in strength.

Characteristics associated with donating money to charity

Charitable donations are influenced by various demographic and socio-economic characteristics. Understanding these associations provides insights into which groups are more likely to donate and the potential underlying reasons for their charitable behaviour. For example, household income and home ownership are significant indicators of economic wellbeing, with home ownership being the largest contributor to household wealth in Australia (Wilkins et al., 2020). It is reasonable to expect that wealthier individuals with higher incomes are more likely to donate to charity. Similarly, education level, religious affiliation and immigrant status can provide insights into cultural and social factors that influence charitable giving.

Table 12.3 provides a descriptive overview of donation rates and average amounts donated across different groups, while Table 12.4 shows results from regression models that account for these characteristics simultaneously. These models allow us to understand the association between a specific characteristic (e.g., age) and charitable giving, while holding other factors constant (e.g., income, educational attainment). The estimates for donation rates apply to the adult population, and the average donation amounts apply to those who live in households that donated to charity.

Donation rates and amounts vary significantly by family type.

Table 12.3: Rates of donating and average amount donated, by demographic characteristics, 2022

	Donated any money to charity (%)	Average amount donated (\$, December 2022 prices)
<i>Family type</i>		
Non-elderly couple	56.9	720
Couple with dependent children	58.9	907
Single parent	46.3	364
Single male under age 65	47.1	563
Single female under age 65	53.8	576
Older couple	68.0	887
Single male aged 65 and over	49.4	617
Single female aged 65 and over	59.0	579
<i>Age group</i>		
18–24	55.9	692
25–34	43.2	527
35–44	52.8	800
45–54	62.9	777
55–64	62.2	849
65 and over	63.0	779
<i>Household equivalised income</i>		
Bottom quintile	46.9	471
Second quintile	48.7	593
Middle quintile	58.4	687
Fourth quintile	62.2	637
Top quintile	66.2	1,193
<i>Educational attainment</i>		
Less than bachelor's degree	52.8	535
Bachelor's degree or higher	64.6	1,116
<i>Immigrant status and First Nations identity</i>		
Non-First Nations Australian-born	56.3	729
First Nations	37.9	440
Immigrant, main English-speaking countries	61.1	913
Immigrant, other countries	57.7	749
<i>Religious affiliation</i>		
No religion	50.5	520
Christian	61.3	940
Other religion	62.2	589
<i>Housing tenure type</i>		
Homeowner	63.2	824
Private rental	41.5	461
Social housing	39.1	206
Other	45.8	954
<i>Location</i>		
Non-urban Australia	52.3	699
Sydney	54.8	838
Melbourne	62.5	759
Brisbane	55.9	1,029
Perth	65.5	711
Adelaide	56.0	553
Other urban Australia	53.7	647

Note: Estimates for donation rates apply to the population aged 18 and over, and estimates for average donation amounts apply to those who are aged 18 and over and live in a household that donated some amount of money to charity.



Couples with dependent children and older couples are more likely to donate and give more, with donation rates of 58.9% and 68%, respectively, and average donations are approximately \$900. Single parents have lower donation rates (46.3%) and smaller average donations (\$364). Older individuals, especially those aged 65 and over, donate at higher rates (63%).

Household income strongly correlates with charitable giving. Those in the highest income quintile donate more frequently (66.2%) and give larger amounts (\$1,193) than those in the lowest quintile (46.9%, \$471). Similarly, educational attainment is a strong predictor: those with a bachelor's degree have higher donation rates (64.6%) and donate larger amounts (\$1,116).

Donation rates and amounts also vary by immigrant status and religious affiliation. Immigrants from English-speaking countries donate more frequently (61.1%)

and give larger amounts (\$913). Those with no religious affiliation donate less frequently (50.5%) and give smaller amounts (\$520), while Christians donate at higher rates (61.3%) and contribute more (\$940).

Home ownership is another key predictor of charitable giving, with home owners donating more frequently (63.2%) and in larger amounts (\$824) than renters. While those living in major cities, particularly Melbourne and Perth, tend to donate more, the relationship between location and charitable giving is less consistent.

Although the descriptive results in Table 12.3 provide valuable insights, the regression analysis in Table 12.4 adjusts for the interrelated nature of these characteristics (e.g., income and home ownership). The regression results largely confirm the patterns seen in Table 12.3 (page 180), especially the strong associations between income, educational attainment, and

home ownership and charitable giving. However, after adjusting for other factors, the relationships between age, family type and location become less pronounced. For instance, individuals aged 25 to 34 are 14 percentage points less likely to donate than those aged 18 to 24, and their donations are significantly smaller.

Income, home ownership and educational attainment remain strong predictors, reinforcing that wealthier and better-educated individuals are more likely to donate and contribute larger amounts. Relative to those in the bottom income quintile, those in the top quintile are 19 percentage points more likely to donate, and those who donate give \$612.66 more. Individuals in private rentals are 13 percentage points less likely to have any household expenditure on donations, and those who donate give \$140.25 less than home owners. Finally, those with a bachelor's degree

Table 12.4: Predictors of donating money to charity and the amount donated, 2022

	Donated to charity	Amount donated (\$, December 2022 prices)
<i>Family type (Reference category: Non-elderly couple)</i>		
Couple with dependent children	0.05	275.94
Single parent	ns	ns
Single male under age 65	ns	ns
Single female under age 65	ns	ns
Older couple	0.11	257.40
Single male aged 65 and over	ns	ns
Single female aged 65 and over	ns	ns
<i>Age group (Reference category: 18–24)</i>		
25–34	–0.14	–274.48
35–44	–0.09	–221.46
45–54	ns	–224.16
55–64	ns	ns
65 and over	ns	ns
<i>Household equivalised income (Reference category: Bottom quintile)</i>		
Second quintile	0.04	139.62
Middle quintile	0.13	222.61
Fourth quintile	0.16	ns
Top quintile	0.19	612.66
Bachelor's degree or higher	0.08	514.95
<i>Immigrant status and First Nations identity (Reference category: Non-First Nations Australian-born)</i>		
First Nations	–0.05	ns
Immigrant, main English-speaking countries	ns	137.47
Immigrant, other countries	–0.04	ns
<i>Religious affiliation (Reference category: None)</i>		
Christian	0.07	444.38
Other religion	0.12	ns
<i>Housing tenure type (Reference category: Home owner)</i>		
Private rental	–0.13	–140.25
Social housing	–0.09	–245.43
Other	–0.09	288.27
<i>Location (Reference category: Non-urban Australia)</i>		
Sydney	ns	ns
Melbourne	0.09	ns
Brisbane	ns	ns
Perth	0.10	ns
Adelaide	0.05	–114.88
Other urban Australia	0.03	ns
Number of observations	13,793	7,751

Notes: Estimates for donation rates are average marginal effects from logistic regression models of the probability of donating to charity and apply to the population aged 18 and over. Estimates for average donation amounts are from linear regression models of the donation amount and apply to those who are aged 18 and over and live in a household that donated some amount of money to charity. ns indicates the estimate is not significantly different from 0 at the 10% level.

are 8 percentage points more likely to donate, and they give over \$500 more than those without a bachelor's degree.

In summary, the regression analysis provides a more nuanced understanding of how different factors are associated with charitable giving. After accounting for a wide range of characteristics, wealthier and better-educated individuals continue to stand out as more likely to donate and to give larger sums. However, factors like age and family structure have a much weaker relationship with charitable giving when all background characteristics are considered together.

Charitable donations and social capital

This final section examines the relationship between charitable donations and various measures of social capital, using three key indicators of community participation: time spent volunteering, membership in community associations and frequency of religious attendance. Additionally, the HILDA Survey includes a series of questions designed to measure social trust. A detailed description of these measures and the underlying survey questions are provided in Box 12.2.

In the social sciences, social capital generally refers to the networks, norms and social trust that facilitate coordination and cooperation for mutual benefit. Community participation and social trust are commonly considered key components of social capital (e.g., Putnam, 2000; Leigh, 2010). Charitable donations are typically viewed as a positive outcome of higher social capital, reflecting a strong sense of community



Box 12.2: Measurement of social capital in the HILDA Survey

Community participation refers to the engagement of individuals in activities that strengthen social bonds and promote collective wellbeing. It involves actions that individuals take to interact with others in their community, participate in communal activities and contribute to the common good. The HILDA Survey periodically includes the following three measures of community participation in the self-completion questionnaire (SCQ).

1. *Time spent doing volunteer or charity work.* In every wave of the HILDA Survey, respondents are asked to report the amount of time (in hours and minutes) they spend on 'volunteer or charity work (e.g., canteen work at the local school, unpaid work for a community club or organisation)' in a typical week. This measures the amount of time individuals dedicate to unpaid activities aimed at helping others or contributing to community organisations. Given that few respondents report spending any time volunteering, and those who do rarely report spending more than a few hours a week, the following three categories were created: 'None', '2 hours per week or less' and 'More than 2 hours per week'.

2. *Active membership in community associations.* In every wave of the HILDA Survey, respondents are asked whether they are 'currently an active member of a sporting, hobby or community-based club or association' (Yes or No). This indicates whether individuals are actively involved in clubs, groups or organisations within their community.

3. *Frequency of attendance at religious services.* In the 2004, 2007, 2010, 2014, 2018 and 2020 waves of the HILDA Survey respondents were asked, 'How often do you attend religious services? Please do not include ceremonies like weddings or funerals', with nine response options ranging from 'Never' to 'Every day'. Following prior work, the measure used here groups responses into five categories: 'Never', 'Once a year or less', 'Several times per year', '1-3 times per month' and 'At least once per week'. (See Chapter 10 of this report for an analysis of religious affiliation and attendance at religious services.) This measures how often individuals participate in religious activities, which often provide a structured environment for social interaction, mutual support and community engagement.

Social trust refers to the belief in the honesty, integrity and reliability of others, reflecting a general expectation that people will act in fair, cooperative and socially acceptable ways. Since 2006, the SCQ of the HILDA Survey has asked respondents to report their level of agreement or disagreement with the following seven statements, each measured using a 7-point scale from 'Strongly disagree' (1) to 'Strongly agree' (7).

- a. *Most people would try to take advantage of you if they got a chance (reverse coded)*
- b. *Most people you meet keep their word*
- c. *Most people you meet succeed by stepping on other people (reverse coded)*
- d. *Most people you meet make agreements honestly*
- e. *Most of the time people try to be helpful*
- f. *People mostly look out for themselves (reverse coded)*
- g. *Generally speaking, most people can be trusted*

For items b., d., e. and g., higher levels of agreement reflect higher levels of social trust, whereas for items a., c. and f., higher levels of disagreement indicate higher levels of social trust. After reverse coding items a., c. and f., all items were highly correlated ($\alpha = 0.84$). A summary index of social trust was created by taking the respondent-level average across all seven items. The index ranges from 1 (low social trust) to 7 (high social trust) by construction, with the average level of social trust in 2022 being 4.76.

Note that in previous volumes of this report, social capital has also been defined to include the extent to which one has access to help and support from other people, such as friends and family. This dimension of social capital is not considered in this year's report.

responsibility and trust. People who donate to charity often do so because they feel a responsibility to their community and trust that their contributions will be used effectively. Moreover, charitable giving can further reinforce social capital by fostering a culture of generosity and community engagement.

Community participation, such as volunteering and involvement in community organisations, is a key behavioural aspect of social capital. These activities help build networks, strengthen mutual trust and encourage cooperative behaviour. High levels of community participation indicate strong networks and relationships within communities, promoting

mutual support and cooperation. While community participation is a behavioural measure of social capital, social trust reflects attitudes about the honesty, integrity and reliability of others. High levels of social trust are crucial for fostering cooperation and reducing the need for costly enforcement mechanisms. Social trust is linked to numerous positive outcomes, including higher levels of civic participation and charitable giving.

Community participation

Time spent volunteering in Australia is notably low, especially compared to the rate of donating to charity. In 2022, only 17.6% of respondents reported spending

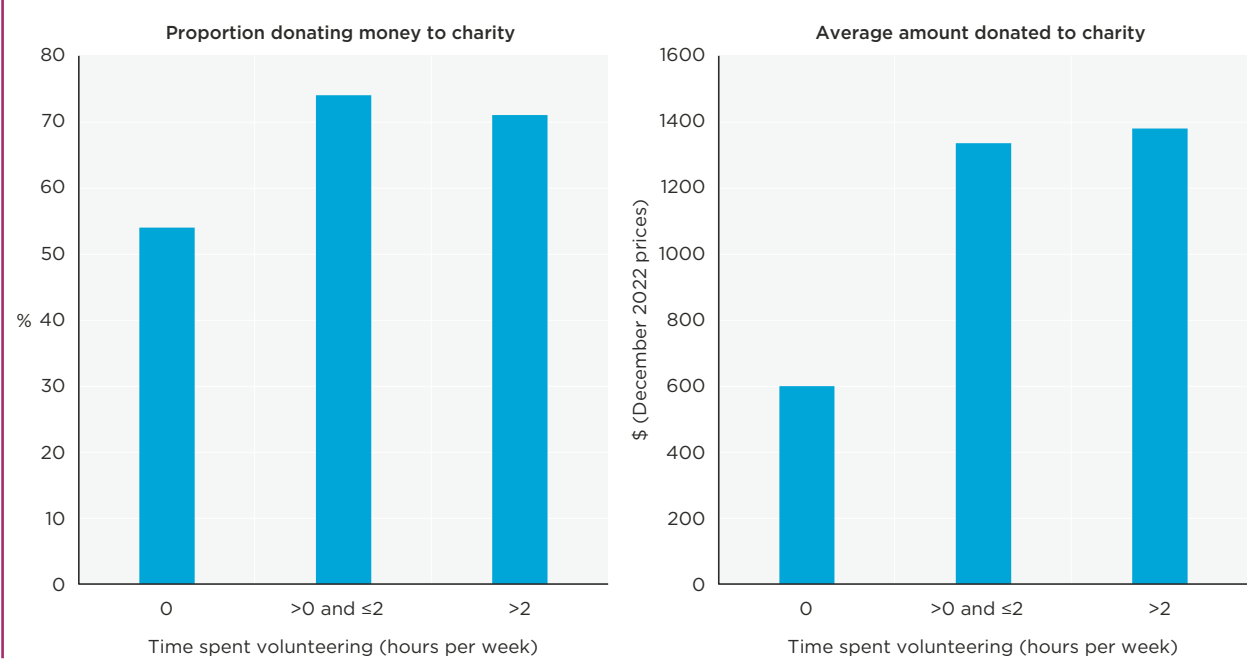
any time volunteering, whereas approximately 57% reported donating to charity. Among those who volunteered, 49.2% spent 2 hours per week or less, while the remaining 51% volunteered for more than 2 hours per week.

Figure 12.3 (left panel) shows that both the rates of charitable donations and the average amounts donated are significantly higher among those who spend time volunteering. The rate of charitable donations was 54% among those who did not volunteer, compared to 74% among those who volunteered 2 hours per week or less—a significant difference of 20 percentage points. About 71% of those who volunteered more than 2 hours per week donated to charity, a rate not statistically different from the 74% observed among those volunteering 2 hours or less.

Similarly, Figure 12.3 (right panel) indicates that among the 57% of people who donated to charity in 2022 (see Figure 12.1, page 178), the average amount donated was significantly higher for those who also volunteered. Non-volunteers donated an average of \$599,



Figure 12.3: Charitable donations by amount of time spent volunteering, 2022



while those who volunteered 2 hours per week or less donated an average of \$1,336—a significant difference of \$737. Those who volunteered more than 2 hours per week donated an additional \$44 on average, though this difference was not statistically significant compared to those who volunteered less.

Overall, these findings demonstrate that people who volunteer are more likely to donate to charity and tend to give larger amounts compared to those who do not volunteer. This also provides evidence against the idea that people might ‘substitute’ volunteering for charitable donations, as we would expect lower donation rates and amounts among volunteers if substitution were occurring.

Additionally, it is important to consider the broad definition of volunteering used in the HILDA Survey, which encompasses various activities that may not traditionally be considered charity work, such as canteen work at local schools or unpaid work for community clubs or organisations (see Box 12.2, page 183). Despite this inclusive definition, those who spend time

volunteering represent a small portion of the population. Over 80% of Australians did not spend any time volunteering in 2022, and this is not simply a continuation of declines attributable to the COVID-19 pandemic. Although volunteer rates dropped by about 3 percentage points during the pandemic (2020 and 2021), the 2022 rates have returned to the pre-pandemic level of 17.2% observed in 2019.

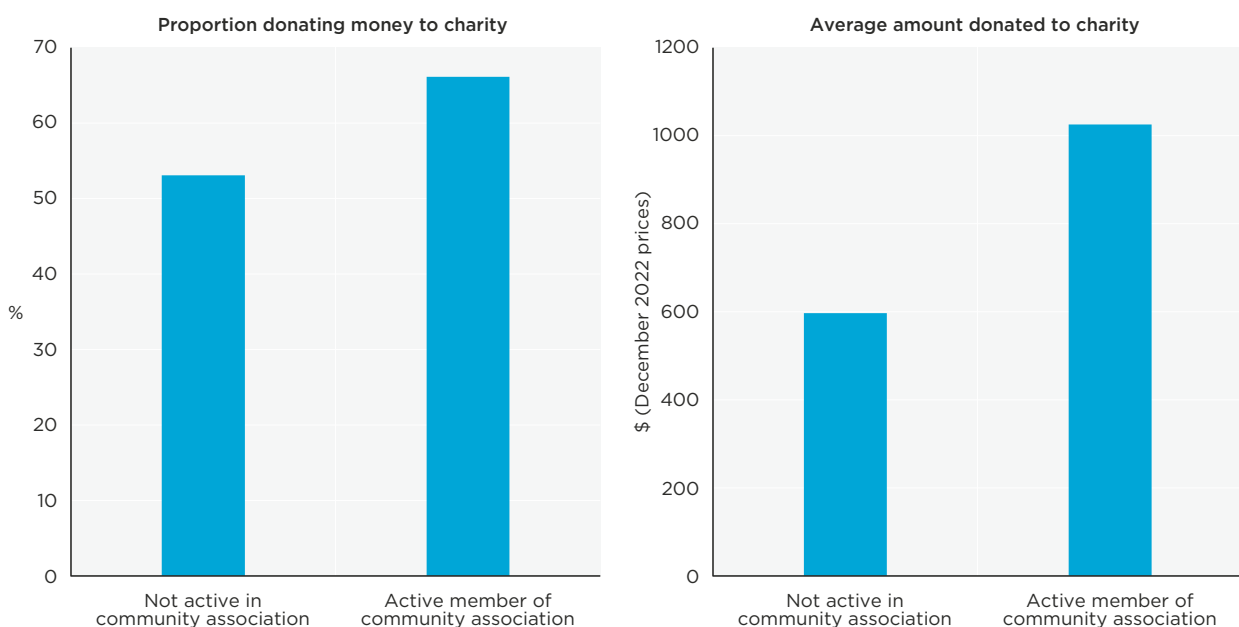
The next measure of community participation included in the 2022 HILDA Survey concerns membership in community organisations. Active participation in community groups is one of the most widely used indicators of social capital, with declining rates linked to reduced civic engagement and weakened community bonds (Putnam, 2000; Leigh, 2010). Although rates have been declining in Australia, they are less steep compared to other countries like the United States. In 2022, HILDA data show that roughly 32% of Australians were active members of a community group, a modest decline from the peak rates of nearly 40% recorded before 2005. This



decline may nonetheless be significant because participation in community groups generally reflects broader forms of community cohesion and civic engagement that are correlated with charitable giving.

Unsurprisingly, Figure 12.4 (left panel) shows that people who are active in community groups are significantly more likely to donate to charity and, when they do donate, give much larger donations. Specifically, 66% of people who are active members of a community association

Figure 12.4: Charitable donations by whether participate in community associations, 2022



allocate some annual household spending to charitable donations, versus 53% among those who are not involved in community groups. Additionally, Figure 12.4 (right panel) demonstrates that, among the 57% of people who donated to charity in 2022, the average amount donated was nearly twice as high among those who were active in a community group (\$1,023) when compared to those who were not (\$596).

These findings mirror the patterns observed with volunteering: individuals who are active in community groups are more likely to donate to charity and tend to give larger amounts. Given that a larger segment of the population is involved in community groups compared to volunteering (32% versus 17.6%), this demonstrates that the strong association between community participation and charitable donations extends beyond volunteering to a form of participation that involves a broader segment of the population. This broader base of participation provides additional evidence reinforcing the important relationship between

community engagement and charitable giving.

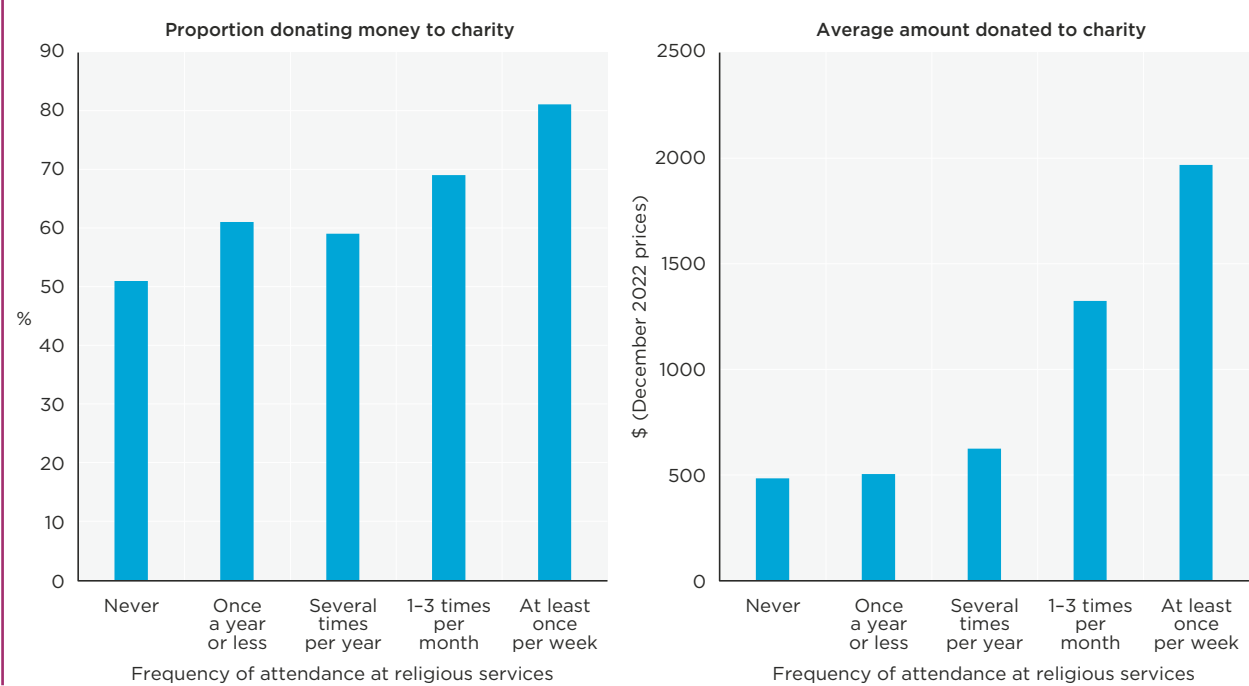
Finally, religious attendance is a significant aspect of social life and civic participation for many Australians. Although religious belief and practice have steadily declined over time (see Chapter 10 of this report), the HILDA data show that over half the population (56.5%) reported having a religious affiliation in 2022. Religious institutions often provide a structured environment for social interactions and contribute significantly to social capital by fostering networks of trust and reciprocity (Putnam, 2000; Leigh, 2010). This is particularly relevant given that religious communities frequently emphasise values of altruism and social responsibility, which can translate into higher rates of charitable donations. Additionally, religious institutions themselves frequently engage in charitable activities, creating both direct and indirect pathways through which religious attendance might encourage charitable giving.

Analysis of the HILDA data (not reported in Figure 12.5) shows

that, in 2022, 56.5% of Australians reported that they never attended religious services, 20% reported attending once a year or less, 9.3% attended several times per year, 4.2% attended 1–3 times per month, and the remaining 10% attended at least once per week. Figure 12.5 shows significant differences in rates of charitable giving (left panel) and donation amounts (right panel) among these groups.

Those who never attend religious services have the lowest rate of charitable donations, with only 50.8% reporting any charitable giving. By contrast, donation rates are 60.5% among those who attend once a year or less, a significant difference of about 10 percentage points. Donation rates remain relatively stable at 59% among those attending several times per year, and there is a significant difference of nearly 10 percentage points among those attending 1–3 times per month, with 68.6% reporting household spending on charitable donations. The highest rate of charitable giving is observed among those attending religious services at least once per

Figure 12.5: Charitable donations by frequency of attendance at religious services, 2022



week, with 80.6% reporting donations, a significant difference of 12 percentage points compared to those who attend 1–3 times per month.

In terms of the amounts donated, there is also a clear gradient associated with religious attendance. Individuals who never attend religious services donate an average of \$483 annually, which increases slightly to \$504 for those attending once a year or less. Those attending several times per year donate more, averaging \$624 annually. A significant difference is observed for individuals attending religious services 1–3 times per month, who donate an average of \$1,323 annually. Finally, those attending at least once per week donate significantly more

than those attending 1–3 times per month, with an average annual donation of \$1,965—more than four times the amount donated among those who never attend religious services.

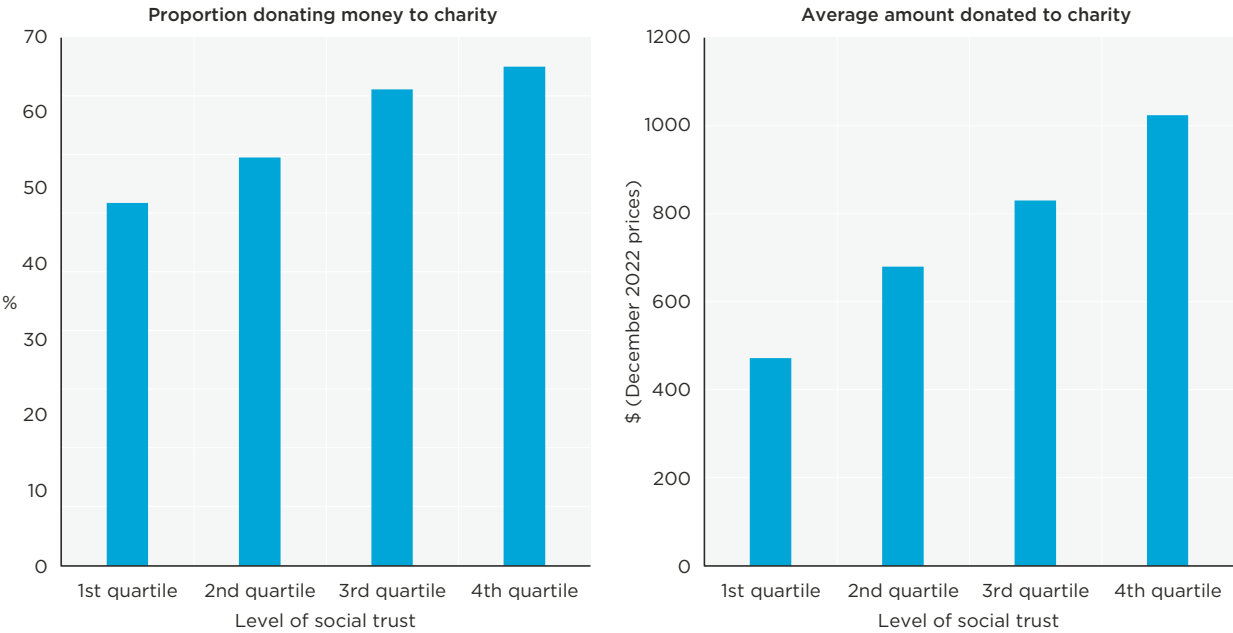
Overall, these findings suggest that religious communities may play a vital role in fostering charitable giving. Individuals who participate more frequently in religious services are not only more likely to donate to charity but tend to donate larger amounts, particularly those who attend 1–3 times per month or more (about 14% of the population). These patterns suggest that regular engagement in religious activities can significantly influence both the likelihood and magnitude of charitable donations.

Social trust

Social trust, defined as the belief in the honesty, integrity and reliability of others, is a key component of social capital. This section examines how varying levels of social trust relate to charitable donations among Australians. Using a summary index of social trust created from the seven items described in Box 12.2 (page 183), individuals were grouped into quartiles. Quartiles divide the population into roughly equal groups, with each group representing about 25% of respondents based on their social trust levels.

The first quartile includes individuals with the lowest levels of social trust, scoring 4 or less on a 7-point scale. The second

Figure 12.6: Charitable donations by level of social trust, 2022



quartile consists of individuals with moderately low trust, scoring above 4 but no higher than 4.8, indicating more trust than the bottom quartile but still below the median. The third quartile includes those scoring above 4.8 but no higher than 5.6, representing moderately high trust levels just above the median. Finally, the fourth quartile represents the top 25%, with social trust levels above 5.6, reflecting higher trust than 75% of the population. This analysis explores whether individuals with higher social trust are more likely to donate to charity and whether they tend to donate larger amounts compared to those with lower social trust.

Figure 12.6 (page 187) shows a strong linear relationship between social trust and rates of charitable donations (left panel) and, for those who choose to donate, the amounts given (right panel). Those in the first quartile, with the lowest levels of social trust, have the lowest rate of charitable

donations, with only 47.7% reporting any household expenditure on charitable donations. This increases to 54.5% among those in the second quartile, a significant difference of about 6.8 percentage points. The rate further increases to 62.8% for those in the third quartile and is 66.4% for those in the fourth quartile, indicating a clear positive relationship between levels of social trust and the likelihood of donating to charity.

In terms of the amounts donated, there is also a clear gradient associated with social trust. Individuals in the first quartile donate an average of \$471 annually, which increases to \$679 for those in the second quartile, a significant difference of \$208. Those in the third quartile donate more, averaging \$829 annually. Finally, a significant increase is observed among individuals in the fourth quartile, who donate an average of \$1,022 annually, more than

double the amount donated by those in the first quartile.

Overall, these findings demonstrate a strong positive association between social trust and charitable donations. Individuals with higher levels of social trust are not only more likely to donate to charity but also tend to donate larger amounts. This relationship suggests that social trust is an important determinant of charitable giving in Australia. The observed gradient in both donation rates and amounts underscores the potential role of social trust in fostering a culture of charitable giving.

Associations between charitable donations and measures of social capital

The previous sections document strong positive associations between charitable donations, community participation and social trust. However, community participation and social trust are

Table 12.5: Associations between charitable donations and measures of social capital, 2022

	Unadjusted		Adjusted	
	Donated to charity	Amount donated (\$, December 2022 prices)	Donated to charity	Amount donated (\$, December 2022 prices)
<i>Time spent volunteering (Reference category: None)</i>				
1-2 hours per week	0.12	431.76	0.11	323.18
More than 2 hours per week	0.07	419.1	0.06	440.07
Active member of community association	0.07	173.13	0.04	ns
<i>Attendance at religious services (Reference category: Never)</i>				
Once a year or less	0.08	ns	0.07	ns
Several times per year	0.07	ns	0.06	ns
1-3 times per month	0.17	830.21	0.16	797.39
At least once per week	0.28	1,352.76	0.28	1,434.21
<i>Social trust (Reference category: Bottom quartile)</i>				
Second quartile	0.05	136.45	ns	ns
Third quartile	0.12	277.65	0.06	148.67
Top quartile	0.16	410.18	0.08	292.29
Number of observations	13,609	7,695	12,829	7,251

Notes: Estimates for donation rates are average marginal effects from logistic regression models of the probability of donating to charity and apply to the population aged 18 and over. Estimates for average donation amounts are from linear regression models of the donation amount and apply to those who are aged 18 and over and live in a household that donated some amount of money to charity. Unadjusted estimates are from regression models that do not include additional predictors of charitable donations, and adjusted estimates are from regression models that include all predictors from Table 12.4. *ns* indicates the estimate is not significantly different from 0 at the 10% level.

not independent factors; they are interconnected aspects of social capital that can influence one another. By estimating a regression model that includes multiple predictors simultaneously, we can account for the correlations between them and assess the contribution of each, while controlling for the influence of the others. This approach helps identify the most influential factors while reducing the risk of overstating the importance of any single measure of social capital.

Table 12.5 presents the results from four separate regression models. The relationship between any donations to charity (1 = Yes, 0 = No) and the predictors is estimated using logistic regression, with results presented as average marginal effects. These estimates represent the change in the probability of donating when a specific characteristic is present, relative to the reference category. The relationship between the amount donated and the predictors is estimated using linear regression, where the results represent how a one-unit increase in a predictor is associated with a change in donation amount, holding all other factors constant. The 'unadjusted' models only include measures of social capital, while the 'adjusted' models account for all the predictors examined in Table 12.4.

The unadjusted models show clear associations between time spent volunteering, religious attendance, social trust and charitable donations. For example, volunteering 1-2 hours per week is linked to a 12-percentage-point increase in the likelihood of donating, while attending religious services at least once per week corresponds to a 28-percentage-point higher probability of giving. Social trust also shows a positive gradient, with individuals in the top quartile being 16 percentage points more

likely to donate compared to those in the lowest quartile.

When it comes to donation amounts, volunteers who give 1-2 hours weekly contribute \$431.76 more annually, while those volunteering more than 2 hours donate \$419.10 more. Active community members donate an additional \$173.13 annually, and regular religious attendees give significantly more, with weekly attendees donating \$1,352.76 more than non-attendees. Social trust follows a similar pattern, with those in the top quartile donating \$410.18 more annually. These patterns align with the descriptive associations seen in earlier figures, with religious attendance emerging as the most influential factor.

After accounting for additional factors, time spent volunteering, religious attendance and social trust remain strongly associated with charitable donations. Volunteering 1-2 hours per week is linked to an 11-percentage-point higher likelihood of donating, with volunteers contributing over

\$300 more annually. Regular religious attendance continues to show a strong association: individuals attending at least once per week are 28 percentage points more likely to donate, contributing over \$1,000 more than those who do not attend. High levels of social trust remain significant, although the magnitudes are slightly reduced when adjusting for other factors.

In summary, those who volunteer, attend religious services regularly and have higher levels of social trust are more likely to engage in charitable giving and donate larger amounts. However, it is important to acknowledge that these associations do not imply causality. Charitable giving itself may foster greater community involvement and trust, or other unmeasured factors could influence both giving and social capital. Thus, while social capital and charitable giving are strongly correlated, this does not imply that simply increasing social trust and civic participation will directly lead to higher levels of charitable giving.



13

Pet ownership

Kyle Peyton



Pet ownership is a significant aspect of many people's lives. Pets offer companionship and emotional support and may improve mental health and wellbeing. However, pet ownership also entails costs, including financial burdens and time commitments. Given these mixed potential impacts, understanding patterns and trends in pet ownership, as well as their associations with measures of wellbeing, is an important area of study. The HILDA Survey included questions on pet ownership for the first time in 2018, and these questions appeared again in 2022. These questions encompass whether people have pets or not, as well as the types of pets they own. This chapter examines the patterns of pet ownership in 2018 and 2022, changes in pet ownership over that period and the factors associated with pet ownership. Additionally, it explores the relationship between pet ownership and measures of wellbeing, including life satisfaction and loneliness.

Box 13.1: Measurement of pet ownership in the HILDA Survey

To measure pet ownership, respondents were asked, *Do you have any pets?*. If they answered 'Yes', they could then specify whether they owned a dog, cat, bird, fish, horse or another type of pet. In this chapter, a person is classified as a pet owner if anyone in their household reports owning a pet. Similarly, if anyone in the household reports owning a specific type of pet, all household members are classified as owning that type of pet.

Pet ownership in Australia

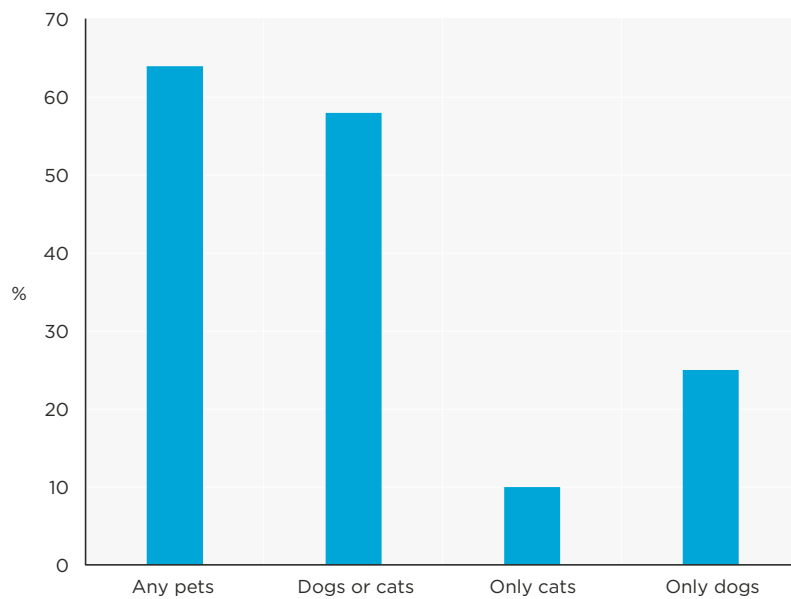
Pet ownership is very common in Australia, with most people owning at least one type of pet. Figure 13.1 (page 191) shows that in 2022, about 64% of Australians lived in a household with at least one pet. Dogs and cats were among the most popular companions, with 58% of the population owning either dogs or cats, and about 6% owning pets other than dogs or cats. Approximately 25% of the population owned only dogs, while just 10% owned only cats.

Figure 13.2 (page 191) highlights the five most common types of pets among pet-owning households in 2022. Dogs are by far the most popular pet, with about 71% of pet owners having a dog. Cats follow, with nearly 40% of pet owners having a cat. Birds,

fish and horses round out the top five, with 18% of pet owners having a bird, 14% having a fish and 3% having a horse. These were also the five most popular pet types in 2018, when pet ownership questions were first included in the HILDA Survey (Wilkins et al., 2020).

Although the HILDA data differentiate between types of pets, they do not provide the total number of pets owned per type. For instance, those reporting ownership of a fish and a horse may own one of each or multiple fishes and horses. Similarly, individuals owning only one type of pet, such as a cat, may own multiple cats. Examining the number of types of pets people own allows us to infer a minimum number of pets owned. Figure 13.3 (page 192) shows that 62% of pet owners had just one type of pet, 25%

Figure 13.1: Pet ownership in 2022



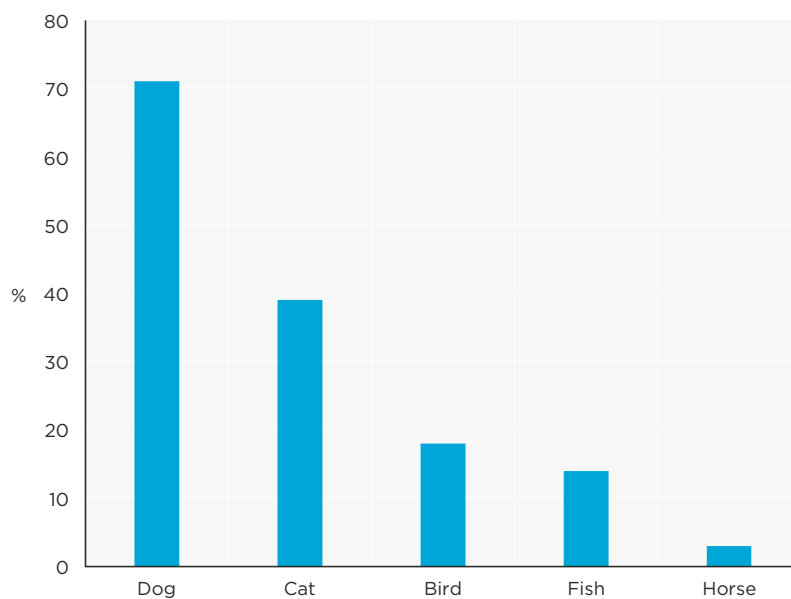
owned two types and 13% owned at least three types of pets. Among those with just one type of pet, 63.5% owned a dog, 25.3% owned a cat and 11.2% owned some other type of pet. Among those with two types of pets, 43.4% owned both a cat and a dog, and 65.5% of those with three or more types of pets owned both a cat and a dog. Only 7% of those with two types of pets owned neither a cat nor a dog, and just 2% of those with three or more types of pets did not own either a cat or a dog.

Characteristics associated with pet ownership

Table 13.1 (page 193) presents the demographic characteristics of pet owners in 2022, differentiating between those who do not own pets, those who own pets of any type and those who own only dogs or only cats. Pet ownership patterns vary by gender, age, household income, housing situation and region. For example, cat owners are more likely to be female, and pet ownership is least common among individuals aged 65 and over. Pet owners tend to have higher household incomes and are more likely to have children under 15. Housing situation is the strongest predictor of pet ownership: nearly 90% of pet owners live in freestanding houses and 71% are home owners (with or without a mortgage).

To further explore these relationships, Table 13.2 (page 194) presents the results of logistic regression models predicting pet ownership based on the characteristics in Table 13.1. Four separate models predict the likelihood of owning any pets, owning dogs or cats, owning only dogs and owning only cats. The results are reported as average

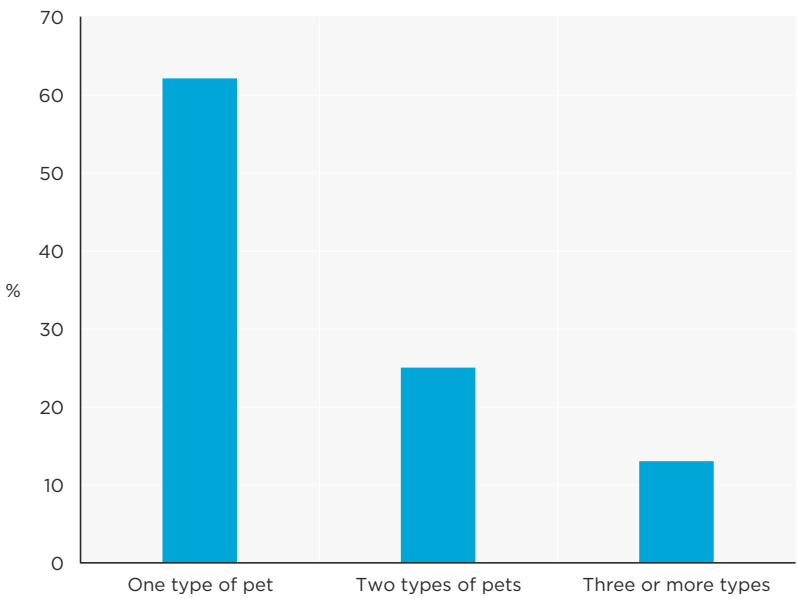
Figure 13.2: Top five pets among pet-owning households, 2022



Note: Percentages do not sum to 100% because individuals can own multiple types of pets.



Figure 13.3: Number of types of pets in pet-owning households, 2022



marginal effects, representing the change in the probability of pet ownership when a specific characteristic is present, relative to the reference category.

The findings show that females are more likely to own pets, particularly cats. The probability of owning a pet is 4.2 percentage points higher for females, and they are 1.1 percentage points more likely to own only cats. Older individuals are significantly less likely to own pets, with those aged 65 and over being about 25 percentage points less likely to own any pet compared to those aged 15 to 24. University graduates are about 8 percentage points less likely to



Table 13.1: Characteristics of individuals by pet ownership status, 2022 (%)

	No pets	Pets	Dogs or cats	Only dogs	Only cats
<i>Gender</i>					
Male	51.1	48.7	48.8	50.7	45.1
Female	48.9	51.3	51.2	49.3	55.0
<i>Age group</i>					
Less than 15	16.3	20.2	19.7	18.7	16.3
15-24	8.6	14.5	15.0	13.6	13.5
25-34	13.8	14.8	15.2	16.5	17.4
35-44	14.3	13.5	13.0	13.2	13.0
45-54	9.2	14.8	14.8	14.1	13.7
55-64	12.2	11.3	11.7	12.4	11.7
65 and over	25.6	11.0	10.6	11.5	14.5
<i>Educational attainment</i>					
Less than bachelor's degree	72.6	79.6	80.0	78.0	76.3
Bachelor's degree or higher	27.4	20.4	20.0	22.1	23.7
<i>Country of birth</i>					
Australia	71.7	81.9	83.3	81.7	77.8
Immigrant, main English-speaking countries	7.4	8.4	8.6	8.2	11.8
Immigrant, other countries	20.9	9.7	8.1	10.1	10.4
<i>Household equivalised income</i>					
Bottom quintile	25.6	17.0	16.3	13.9	19.0
Second quintile	20.0	19.9	19.3	16.2	22.4
Middle quintile	18.9	20.6	20.6	20.7	20.8
Fourth quintile	16.0	22.3	22.8	24.0	18.6
Top quintile	19.4	20.2	20.9	25.2	19.3
<i>Children in household</i>					
No children under 15 years of age	63.9	53.4	54.2	56.8	63.5
At least one child under 15 years of age	36.1	46.6	45.8	43.2	36.5
<i>Housing tenure type</i>					
Homeowner	63.6	71.4	71.2	74.5	62.1
Private rental	30.2	23.6	23.9	20.8	32.3
Other	6.2	5.0	4.9	4.7	5.7
<i>Housing type</i>					
Freestanding house	70.6	88.2	88.1	87.8	77.4
Semi-detached house	9.9	6.1	6.1	6.6	10.4
Flat	18.6	5.1	5.1	4.9	11.5
Other	0.9	0.6	0.6	0.8	*0.7
<i>Region</i>					
Non-urban Australia	8.8	16.1	16.6	13.0	10.5
Sydney	26.7	14.8	13.6	16.0	16.5
Melbourne	18.9	18.2	18.1	19.7	20.9
Brisbane	8.2	10.1	10.2	10.0	12.8
Perth	8.4	8.2	8.2	7.8	8.9
Adelaide	5.5	5.2	5.2	4.5	7.7
Other urban Australia	23.5	27.5	28.1	29.2	22.7

Notes: Cells may not add up to 100% due to rounding. Main English-speaking countries comprise Canada, Ireland, New Zealand, South Africa, UK and USA. 'Other' housing tenure type includes those living in social housing and those living rent free. 'Other' housing type includes dwellings attached to offices or shops, non-private dwellings (e.g., nursing home), caravans, cabins, houseboats and tents.

* Estimate not reliable.

Table 13.2: Factors associated with pet ownership

	Any pets	Dogs or cats	Only dogs	Only cats
Female	0.042	0.043	ns	0.011
<i>Age group (Reference category: 15-24)</i>				
25-34	-0.026	-0.024	0.051	ns
35-44	-0.059	-0.074	ns	ns
45-54	ns	ns	ns	ns
55-64	-0.084	-0.068	ns	ns
65 and over	-0.246	-0.241	-0.059	ns
Bachelor's degree or higher	-0.082	-0.086	-0.032	ns
<i>Country of birth (Reference category: Australia)</i>				
Immigrant, main English-speaking countries	ns	ns	ns	0.035
Immigrant, other countries	-0.171	-0.222	-0.066	-0.026
<i>Household equivalised income (Reference category: Bottom quintile)</i>				
Second quintile	ns	0.027	ns	ns
Third quintile	0.052	0.068	0.052	ns
Fourth quintile	0.062	0.089	0.073	ns
Top quintile	0.064	0.094	0.104	ns
<i>Children in household (Reference category: No children under 15 years of age)</i>				
At least one child under 15 years of age	0.026	0.016	-0.014	-0.038
<i>Housing tenure type (Reference category: Homeowner)</i>				
Private rental	-0.061	-0.041	-0.046	0.027
Other	ns	ns	0.027	ns
<i>Housing type (Reference category: Freestanding house)</i>				
Semi-detached house	-0.115	-0.113	-0.047	0.03
Flat	-0.272	-0.253	-0.136	ns
Other	-0.262	-0.253	ns	-0.06
<i>Region (Reference category: Non-urban Australia)</i>				
Sydney	-0.154	-0.183	0.033	ns
Melbourne	-0.104	-0.108	0.039	0.034
Brisbane	-0.128	-0.137	ns	0.031
Perth	-0.12	-0.109	ns	0.030
Adelaide	-0.099	-0.116	ns	0.058
Other urban Australia	-0.083	-0.084	0.048	0.011
Year = 2022	0.026	0.034	0.026	0.019
Number of observations	31,639	31,639	31,639	31,639

Notes: The table reports average marginal effects estimates from logistic regression models of the probability of pet ownership. Models for each type of pet ownership are fit separately on the pooled dataset of 2018 and 2022 survey waves. *ns* indicates the estimate is not significantly different from 0 at the 10% level.



own a pet, and pet ownership is about 17 percentage points lower among immigrants from non-English speaking countries.

Higher household income is positively associated with pet ownership, particularly for those who only own dogs. Individuals in the top income quintiles are more likely to own dogs—and no other type of pet—compared to those in lower income groups. Households with children under 15 are about 3 percentage points more likely to own a pet, although the probability of owning only cats decreases by 4 percentage points when children are present.

Home ownership is another significant predictor: renters are 6 percentage points less likely to own any pets compared to home owners, although individuals who own only cats are 2.8 percentage points more likely to rent. Additionally, individuals living in flats or apartments are 27 percentage points less likely to own any pet compared to those

in freestanding homes. Finally, pet ownership is more common in non-urban regions, with significantly lower rates observed in major capital cities and other urban areas.

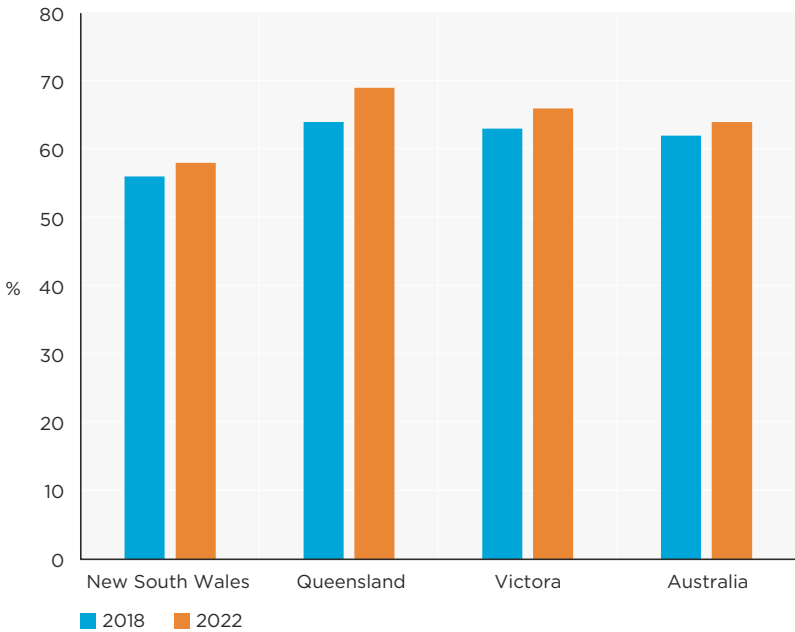
Changes in pet ownership between 2018 and 2022

Between 2018 and 2022, pet ownership in Australia increased by approximately 2 percentage points. In 2018, around 62% of HILDA Survey respondents lived in a household with at least one pet, compared to 64% in 2022. Figure 13.4 (page 197) highlights the most significant increases in pet ownership in New South Wales (+3 percentage points), Victoria (+3 percentage points) and Queensland (+5 percentage points). No significant changes were observed in the other states and territories.

Table 13.3 further breaks down these results by region and housing situation, including home owners (with and without a mortgage), private renters and renters of social housing. Across Australia, pet ownership among private renters increased by about 4 percentage points between 2018 and 2022, reaching 58%. Pet ownership rates among home owners increased by about 2 percentage points, while changes among renters of social housing were not statistically significant.

In New South Wales, pet ownership among home owners rose by about 3 percentage points, but there were no significant changes among renters. In Queensland, pet ownership increased by about 6 percentage points among both private renters and home owners. In contrast, pet ownership rates in Victoria remained stable among home owners but grew substantially among renters. In 2022, approximately 65% of

Figure 13.4: Proportion of individuals who own pets, by region



Notes: Individuals are classified as pet owners if anyone in the household reports owning any type of pet. Changes between 2018 and 2022 were not significantly different from zero at the 10% level in the Australian Capital Territory, Northern Territory, South Australia, Tasmania or Western Australia.



Table 13.3: Proportion of individuals who own pets by region and housing situation, 2018 and 2022 (%)

	2018	2022	Difference
<i>Australia</i>			
Home owner	64.7	66.8	2.1
Renter of private housing	54.1	58.3	4.2
Renter of social housing	58.3	60.9	ns
<i>New South Wales</i>			
Home owner	59.1	62.4	3.2
Renter of private housing	46.2	48.4	ns
Renter of social housing	59.2	56.2	ns
<i>Victoria</i>			
Home owner	66.5	66.5	ns
Renter of private housing	55.5	64.6	9.1
Renter of social housing	50.9	71.1	20.2
<i>Queensland</i>			
Home owner	66.7	72.6	5.9
Renter of private housing	56.7	62.6	5.9
Renter of social housing	61.5	59.1	ns
<i>Rest of Australia</i>			
Home owner	68.1	68.0	ns
Renter of private housing	62.8	62.9	ns
Renter of social housing	62.2	60.9	ns

Notes: Individuals are classified as pet owners if anyone in the household reports owning any type of pet. 'Rest of Australia' comprises those living in the Australian Capital Territory, Northern Territory, South Australia, Tasmania or Western Australia. ns indicates the estimate is not significantly different from 0 at the 10% level.



private renters in Victoria owned pets, an increase of 9 percentage points from 2018, while pet ownership among renters of social housing rose by about 20 percentage points.

Comparable increases in pet ownership among renters were not observed in other states or territories. The growth in pet ownership among renters in Victoria likely reflects the impact of new rental legislation that took effect in March 2020, making it easier for renters to own pets. A similar legislative change was enacted in Queensland in October 2022, but since over 75% of Queensland respondents were interviewed before the legislation took effect, its impact on pet ownership in Queensland is unlikely to be reflected in the data. No significant changes in pet ownership were observed outside New South Wales,

Victoria and Queensland, regardless of housing situation.

Pet ownership and subjective wellbeing

Given the changes in pet ownership rates observed between 2018 and 2022, many Australian families became pet owners for the first time in 2022. There were 15,676 individuals who were present in both the 2018 and 2022 HILDA Survey waves, and for whom pet ownership could be determined. In 2018, 5,407 did not own a pet, while 10,269 owned a pet of some type. By 2022, 1,521 of the 5,407 individuals who did not own a pet in 2018, or about 10% of all respondents, became pet owners. Dogs and cats were the most common pets added, with 84% of new pet owners obtaining either a dog or a cat.

We can leverage these changes in pet ownership to examine the relationship between pet ownership and subjective wellbeing. To do so, we compare changes in subjective wellbeing between 2018 and 2022 for those who acquired a pet and those who did not. Specifically, we focus on loneliness (see Box 2.5, page 28) and overall life satisfaction (see Box 13.2, page 197), both of which have been measured in every wave of the HILDA Survey. If pet ownership is associated with improvements in wellbeing, we would expect to see greater increases in wellbeing among those who acquired a pet compared to those who did not.

To achieve this, we restrict our analysis to those who did not own a pet in 2018 and estimate the relationship between changes in wellbeing and changes in pet ownership using a regression model that includes 'fixed effects' for each individual and each year.



Box 13.2: HILDA Survey measure of life satisfaction

The HILDA Survey asks respondents to report on their overall life satisfaction using the question: *All things considered, how satisfied are you with your life overall?*, with response options ranging from 0 (completely dissatisfied) to 10 (completely satisfied).

This approach accounts for time-invariant characteristics and broader temporal trends that could influence wellbeing. For instance, a fixed-effects model would indicate a positive relationship between pet ownership and life satisfaction if individuals who added pets between 2018 and 2022 exhibited increases (or smaller decreases) in life satisfaction over the same period, compared to those who did not add pets.

Table 13.4 presents the results from separate fixed effects regression models for each measure of wellbeing and two types of pet ownership: adding any type of pet and adding either a dog or a cat.

The top panel shows results for life satisfaction, where positive estimates imply that life satisfaction improved more (or declined less) for those who acquired a pet. The bottom panel shows results for loneliness, where negative estimates imply that loneliness declined more (or increased less) for those who acquired a pet. It is important to note that these estimates apply to the subset of HILDA respondents who did not own any pets in 2018 and for whom pet ownership status could be determined in 2022, rather than the entire Australian population.

None of the estimates for life satisfaction are statistically different from zero, suggesting

that changes in life satisfaction between 2018 and 2022 were similar among those who did and did not acquire pets. These results suggest that adding a pet to the household, on its own, did not lead to greater life satisfaction among these individuals. These results do not necessarily imply that adding a pet had no effect on life satisfaction. The two groups may have been on different trajectories; for example, those who acquired pets may have done so to counteract declining life satisfaction, while those who did not acquire pets may have already been on a stable or improving trajectory.

The estimates show that changes in loneliness between 2018 and 2022 differed significantly between those who acquired pets and those who did not. Acquiring a pet was associated with a relative decrease in loneliness of about 0.12 scale points, with a similar effect (0.15 points) for those who acquired a dog or cat. Broader societal factors, particularly the COVID-19 pandemic, likely contributed to the general increase in loneliness during this period, due to social isolation from lockdowns and restrictions. Loneliness increased by 0.11 points among those who did not own a pet in either year but decreased by 0.01 points for those who acquired a pet. The

Table 13.4: Association between changes in wellbeing and changes in pet ownership

	Any pets	Dogs or cats
<i>Life satisfaction (0–10 scale)</i>		
Estimate:	<i>ns</i>	<i>ns</i>
Number of observations:	10,698	10,698
<i>Loneliness (0–7 scale)</i>		
Estimate:	–0.121	–0.145
Number of observations:	10,219	10,219

Notes: Regression models with fixed effects for each individual and each year are estimated on the subset of HILDA respondents who did not own a pet in 2018 and for whom pet ownership status could be determined in 2022. *ns* indicates the estimate is not significantly different from 0 at the 10% level

difference of 0.12 scale points reflects this rise in loneliness for non-pet owners and the small decrease for those who became pet owners.

In other words, people who acquired pets may have been on a trajectory to become lonelier in 2022, but getting a pet reduced their loneliness compared to the potential increase they might have experienced without one. However, this does not imply

causality, as we cannot observe what would have happened if these individuals had not acquired a pet. The estimates could be biased if pet owners and non-pet owners were already on different loneliness trajectories.

To interpret these estimates causally, we would need to assume that, without acquiring a pet, the change in loneliness among pet owners would have been the same as the change observed among non-pet owners.

This assumption is untestable and, if it does not hold, the differences in loneliness cannot be attributed solely to pet ownership. The direction and magnitude of any bias depend on the nature of this assumption. If acquiring a pet mitigated an expected increase in loneliness, the estimate may understate the benefit of pet ownership. Conversely, if pet owners were already on a trajectory to become less lonely, the estimate may overstate the effect of getting a pet.



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Technical appendix

A. Overview of statistical methods and terms used in the report

Adjustments for inflation

All dollar figures presented in this report are expressed at December 2022 prices to remove the effects of inflation (the general rise in prices of goods and services) and thereby make estimates for different years more comparable. This is achieved using the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI), which is produced on a quarterly basis (ABS Catalogue Number 6401.0). To convert a dollar value to December 2022 prices, the value is multiplied by the ratio of the CPI for the December quarter of 2021 (121.3) to the value of the CPI in the quarter to which the value relates. For example, to convert a wage measured in the third quarter of 2001 (when the CPI was 74.7) to December 2022 prices, the wage is multiplied by 1.62 (121.3/74.7). The interpretation of this adjustment is that prices on average rose by 62% between the September quarter of 2001 and the December quarter of 2021, which means that the amount of money required to buy a given bundle of goods and services had on average increased by 62%. We therefore need to increase the wage measured in the September quarter of 2001 by 62% to make it comparable with a wage measured in the December quarter of 2021. Note that for dollar values measured over an annual timeframe, such as income, the average value of the CPI over the relevant year is used for the denominator.

Balanced panel

A longitudinal household survey is known as a household panel study. A **balanced** panel restricts the sample to individuals who have responded to the survey in all waves of the period under study. For example, a balanced panel for Waves 1 to 10 of the HILDA Survey consists of individuals who have responded in all 10 waves.

Correlation coefficient

Often referred to as the Pearson correlation coefficient, the correlation coefficient is a statistical measure of how two variables are associated with each other. It is equal to the covariance of the two variables relative to the product of their standard deviations, having a minimum possible value of -1 (perfectly negatively correlated) and a maximum possible value of 1 (perfectly positively correlated). Positive values indicate that when one variable increases, the other variable also tends to increase. Negative values indicate that when one variable increases, the other variable tends to decrease. If the correlation coefficient is 0, there is no (linear) association between the two variables. Note that the correlation coefficient does not tell us about the extent and nature of any *causal* relationship between the two variables.

Gini coefficient

The Gini coefficient is a measure of dispersion often used as a measure of inequality of income and wealth. It ranges between 0 and 1, a low value indicating a more equal distribution and a high value indicating a more unequal distribution. Zero corresponds to perfect equality (everyone having exactly the same) and 1 corresponds to perfect inequality (where one person has everything and everyone else has nothing).

Indicator variable

Used in regression analysis, an indicator (or dummy) variable is equal to 1 if a particular characteristic or event is present, and equal to 0 otherwise. In ordinary least squares regression, the coefficient of an indicator variable is interpreted as the mean effect on the dependent variable of the presence of the characteristic/event, holding all else constant.

Mean marginal effects

Qualitative dependent variable models, such as Probit and Logit, are 'non-linear', meaning that the effects of explanatory variables on the probability of an outcome depend upon the value of that explanatory variable at which the effects are evaluated, and indeed also depend on the values of the other explanatory variables at which they are evaluated. For example, in the Probit models of the probability of gambling presented in Chapter 9, the effects of income will depend on the values of the other explanatory variables. This makes it difficult to interpret coefficient estimates. We therefore report 'mean marginal effects' estimates, which provide a straightforward way of ascertaining the effects of explanatory variables that are analogous to those obtained in linear regression models—that is, the effect on the dependent variable of a one-unit increase in the explanatory variable. Specifically, continuing with the example above, the mean marginal effect estimate for income, which is equivalised income (see Box 3.2, page 36) measured in units of \$10,000, is the mean effect on the probability of gambling, evaluated over all members of the sample, of increasing equivalised income by \$10,000.

Mean, median and mode

The mean, median and mode are all measures of central tendency. The mean is the statistical term used for what is more commonly known as the average—the sum of the values of a data series divided by the number of data points. The median is the middle data point in data sorted from lowest to highest value; 50% of the data points will lie below the median and 50% will lie above it. The mode is simply the most frequently occurring value of a data series.

Percentiles, deciles, quintiles and terciles

Percentiles, deciles, quintiles and terciles all identify 'locations' in the distribution of a variable, such as income, when it is ordered from lowest to highest. There are 100 percentiles, 10 deciles, five quintiles and three terciles for any given distribution. For example, the first (or bottom) percentile of the income distribution identifies the income below which are the lowest 1% of incomes (and above which are the highest 99% of incomes), the first decile identifies the income below which are the lowest 10% of incomes, the first quintile identifies the income below which are the lowest 20% of incomes, and the first tercile identifies the income below which are the lowest third of incomes. It is also common to refer to the percentile, decile, quintile or tercile to which an observation 'belongs'. For example, people with an income greater than the income at the 19th percentile but less than the income at the 20th percentile are said to belong to (or be located in) the 20th percentile. (Such individuals would also belong to the second decile, the first quintile and the first tercile.)

Regression models

In statistical analysis, a regression model is used to identify associations between a 'dependent' variable (such as earnings) and one or more 'independent' or 'explanatory' variables (such as measures of educational attainment and work experience). In particular, it shows how the typical value of the dependent variable changes when any one of the independent variables is varied and all other independent variables are held fixed. Most commonly, regression models estimate how the mean value of the dependent variable depends on the explanatory variables—for example, mean (or 'expected') earnings given a particular level of education and work experience. Different types of regression models are used depending on factors such as the nature of the variables and data, and the 'purpose' of the regression model. The following types of models are often estimated using HILDA Survey data.

- **Ordinary Least Squares** models estimate linear associations between a dependent variable (such as earnings) and one or more independent (or explanatory) variables (such as age and educational attainment). The method finds the linear combination of the explanatory variables that minimises the sum of the squared distances between the observed values of the dependent variable and the values predicted by the regression model.
- **Probit** and **Logit** models are used to estimate the effects of factors, such as age and educational attainment, on a 'qualitative' or categorical dependent variable, such as labour force status. (The variable 'labour force status' is qualitative because it is not naturally 'quantitative' or numerical, such as is the case with income.) The standard models examine 'binary' dependent variables, which are variables with only two distinct values, and estimates obtained from these models are interpreted as the effects on the *probability* the variable takes one of those values. For example, a model might be estimated on the probability an individual is employed (as opposed to not employed). Multinomial Probit and Logit models examine variables that take on more than two distinct values, such as the models of the probability of working on the weekend estimated in Chapter 4. The interpretation of estimates in these models is the same as in the binary models.
- **Fixed-effects** models are often applied to panel data such as the HILDA Survey data. They involve accounting for the effects of all characteristics of sample members that do not change over time. For example, if we are interested in how life events impact on life satisfaction, a fixed-effects model is useful because we can control for (remove the effects of) fixed individual traits such as optimism and pessimism. This is achieved by examining how the outcome of interest changes at the individual level in response to changes in explanatory variables (such as income). For example, a fixed-effects model will find a positive effect of income on life satisfaction if individuals who experience increases in income from one year to the next tend to exhibit increases in life satisfaction over the same period, and individuals who experience decreases in income from one year to the next tend to exhibit decreases in life satisfaction over that period.
- **Random-effects** models are also often applied to panel data. They differ from fixed-effects models by allowing estimation of the effects of characteristics that typically do not change over time (such as gender). This is made possible by assumptions about the distribution and nature of unobserved fixed individual traits, such as intrinsic motivation. The models are relatively complicated. For more information on random-effects models, see, for example, Hsiao (2003).
- **Hazard** models are used to investigate the determinants of duration in a particular state, such as unemployment. They estimate the probability of leaving that state as a function of duration of the 'spell' and other factors. A commonly used model is the Cox proportional hazards model.

Relative standard error

The standard error of an estimate is a measure of the precision with which the estimate is estimated. For example, assuming statistical independence of the values in the sample, the standard error of the mean of a variable (such as income) is the standard deviation of the variable divided by the square root of the sample size, and there is a 95% probability that the true mean lies within 1.96 standard deviations of the estimated mean. The relative standard error of an estimate is the ratio of the standard error to the value of the estimate. In this report, we have marked with an asterisk (*) estimates in descriptive tabulations based on fewer than 20 observations, which will typically have a relative standard error greater than 25%. Note that a relative standard error that is less than 25% implies there is a greater than 95% probability the true quantity lies within 50% of the estimated value.

Standard deviation

The standard deviation is a measure of variability or 'dispersion' of a variable. It is equal to the square root of the mean squared difference of a variable from its mean value.

Statistical significance

In the context of statistical analysis of survey data, a finding is statistically significant if it is unlikely to be simply due to sampling variability—that is, if it is unlikely to be due to random factors causing specific characteristics of the survey sample to differ from the characteristics of the population. A common standard is to regard a difference between two estimates as statistically significant if the probability that they are different is at least 95%. However, 90% and 99% standards are also commonly used. The 90% standard is adopted for regression results presented in this report. Note that a statistically significant difference does not mean the difference is necessarily large or significant in the common meaning of the word.

B. Population inferences from the HILDA Survey data

As discussed in Watson and Wooden (2002), the reference population for Wave 1 of the HILDA Survey was all members of private dwellings in Australia, with the main exception being the exclusion of people living in remote and sparsely populated areas. These coverage rules were broadly in line with those adopted by the Australian Bureau of Statistics (ABS) in its supplements to the Monthly Population Survey. Households were selected using a multi-staged approach designed to ensure representativeness of the reference population. First, a stratified random sample of 488 of the 1996 Census Collection Districts (CDs), each of which contains approximately 200 to 250 households, was selected from across Australia. Within each of these areas, depending on the expected response and occupancy rates of the area, a random sample of 22 to 34 dwellings was selected. Within each dwelling, up to three households were randomly selected. The frame of CDs was stratified by state and territory and, within the five most populous states, by metropolitan and non-metropolitan regions. Nonetheless, despite the region-based stratification, Wave 1 of the HILDA Survey was an equal-probability sample; in particular, the smaller states and territories were not over-sampled. This reflects the focus of the HILDA Survey on producing nationwide population estimates.

All members of the selected households were defined as members of the sample, although individual interviews were (and continue to be) only conducted with those aged 15 years and over. Since Wave 1, interviews have been sought with all members of Wave-1 responding households, which has meant following all individuals of these households wherever they go in Australia (including remote and sparsely populated areas). Individuals who move overseas are, however, not interviewed while they are living overseas. Note that, to ensure completeness of household information, any individuals who become part of an existing (permanent) sample member's household are also interviewed, but—aside from important exceptions explained below—these individuals are only interviewed as long as they remain in the same household as the permanent sample member.

The HILDA Survey is designed to have an indefinite life, which is primarily achieved by adding to the sample any children born to or adopted by sample members. The HILDA Survey aims to remain representative of the Australian population, but its original design as a longitudinal study meant that it would not be representative of immigrants who arrived after the initial (Wave 1) selection of the sample. To date, two approaches have been taken to address this source of declining representativeness. First, immigrants who join the household of an existing sample member automatically become permanent sample members. Second, in Wave 11, a general sample top-up (of 4,096 individuals) was conducted, which allowed immigrants who had arrived between 2001 and 2011 to enter the HILDA Survey sample. Nonetheless, immigrants arriving after 2011 are under-represented in the HILDA Survey sample from Wave 12 onwards.

Non-response is an issue for all household surveys, and *attrition* (i.e., people dropping out due to refusal to participate or our inability to locate them) is a further particular issue in all panel surveys. Because of attrition, and despite sample additions owing to changes in household composition, panels may slowly become less representative of the populations from which they are drawn, although as a result of the 'split-off' method, this does not necessarily occur.

To overcome the effects of survey non-response (including attrition), the HILDA Survey data managers analyse the sample each year and produce *weights* to adjust for differences between the characteristics of the panel sample and the characteristics of the Australian population.¹ That is, adjustments are made for non-randomness in the sample selection process that causes some groups to be relatively under-represented and others to be relatively over-represented. For example, non-response to Wave 1 of the survey was slightly higher in Sydney than it was in the rest of Australia, so that slightly greater weight needs to be given to Sydneysiders in data analysis in order for estimates to be representative of the Australian population as a whole.

The population weights provided with the data allow us to make inferences about the Australian population from the HILDA Survey data. A population weight for a household can be interpreted as the number of households in the Australian population that the household represents. For example, one household (Household A) may have a population weight of 1,000, meaning it represents 1,000 households, while another household (Household B) may have a population weight of 1,200, thereby representing 200 more households than Household A. Consequently, in analysis that uses the population weights, Household B will be given 1.2 times (1,200/1,000) the weight of Household A. To estimate the mean (average) of, say, income of the households represented by Households A and B, we would multiply Household A's income by 1,000, multiply Household B's income by 1,200, add the two together and then divide by 2,200.

The sum of the population weights is equal to the estimated population of Australia that is 'in scope', by which is meant 'they had a chance of being selected into the HILDA sample' and which therefore excludes those that HILDA explicitly has not attempted to sample—namely, some people in very remote regions in Wave 1, people resident in non-private dwellings

¹ Further details on how the weights are derived are provided in Watson and Fry (2002), Watson (2004b) and Summerfield et al. (2023).

in 2001 and non-resident visitors. In principle, the in-scope population in Waves 2 to 10 excludes most immigrants arriving in Australia after 2001, and the in-scope population in Waves 12 to 20 excludes most immigrants arriving after 2011. For example, in 2021, based on visa grants and migration flows data, it is estimated that immigrants arriving after 2011 (when the last sample top-up was conducted) accounted for between 4.5% and 6% of the Australian population, translating to between approximately 1.1 million and 1.5 million people. These individuals are largely not represented in the HILDA Survey sample. However, owing to a lack of suitable external benchmarks for this population subgroup, these immigrants are in practice included in the in-scope population. Consequently, in all waves, the HILDA Survey weights sum to the total Australian population inclusive of new immigrants. In Wave 22, the household population weights sum to 10.1 million and the 'person' population weights sum to 25.5 million (immigrant top-up from Wave 24).

As the length of the panel grows, the variety of weights that might be needed also grows. Most obviously, separate cross-sectional weights are required for every wave, but more important is the range of longitudinal weights that might be required. Longitudinal (multi-year) weights are used to retain representativeness over multiple waves. In principle, a set of weights will exist for every combination of waves that could be examined—Waves 1 and 2, Waves 5 to 9, Waves 2, 5 and 7, and so on. The longitudinal weights supplied with the data allow population inferences for analysis using any two waves (i.e., any pair of waves) and analysis of any 'balanced panel' of a contiguous set of waves, such as Waves 1 to 6 or Waves 4 to 7. Longitudinal weights are also provided to allow analysis of 'rotating' content. For example, to facilitate longitudinal analysis of wealth, longitudinal weights are provided for Waves 2, 6, 10, 14 and 18. In this report, cross-sectional weights are always used when cross-sectional results are reported and the appropriate longitudinal weights are used when longitudinal results are reported. Thus, all statistics presented in this report should be interpreted as estimates for the in-scope Australian population. That is, all results are 'population-weighted' to be representative of the Australian community.

A further issue that arises for population inferences is missing data for a household, which may arise because a member of a household did not respond or because a respondent did not report a piece of information. This is particularly important for components of financial data such as income, where failure to report a single component by a single respondent (e.g., dividend income) will mean that a measure of household income is not available. To overcome this problem, the HILDA data managers *impute* values for various data items. For individuals and households with missing data, imputations are undertaken by drawing on responses from individuals and households with similar characteristics, and also by drawing on their own responses in waves other than the wave in which the data are missing. Full details on the imputation methods are available in Watson (2004a), Hayes and Watson (2009) and Sun (2010). In this report, imputed values are used in all cases where relevant data are missing and an imputed value is available. This largely applies only to income, expenditure and wealth variables.

The population weights and imputations allow inferences to be made from the HILDA Survey about the characteristics and outcomes of the Australian population. However, estimates based on the HILDA Survey, like all sample survey estimates, are subject to sampling error. Because of the complex sample design of the HILDA Survey, the reliability of inferences cannot be determined by constructing standard errors on the basis of random sampling, even allowing for differences in probability of selection into the sample reflected by the population weights. The original sample was selected via a process that involved stratification by region and geographic 'ordering' and 'clustering' of selection into the sample within each stratum. Standard errors (measures of reliability of estimates) need to take into account these non-random features of sample selection, which can be achieved by using *replicate weights*. Replicate weights are supplied with the unit record files available to approved researchers for cross-sectional analysis and for longitudinal analysis of all balanced panels that commence with Wave 1 (e.g., Waves 1 to 4 or Waves 1 to 8). Full details on the sampling method for the HILDA Survey are available in Watson and Wooden (2002), while details on the construction, use and interpretation of the replicate weights are available in Hayes (2009).

In this report, standard errors of statistics are not reported. Instead, for tabulated results of descriptive statistics, estimates that have a relative standard error of more than 25% are marked with an asterisk (*). For regression model parameter estimates, estimates that are not statistically significantly different from 0 at the 10% level are not reported, with *ns* (not significant) appearing in place of the estimate.

C. Fieldwork process and outcomes

Sample

The HILDA Survey commenced, in 2001, with a nationally representative sample of Australian households (residing in private dwellings). Of the 11,693 households selected for inclusion in the sample in 2001, 7,682 households agreed to participate, resulting in a household response rate of 66%. The 19,914 residents of those households form the basis of the 'main sample' that is interviewed in each subsequent year (or survey wave), but with interviews only conducted with people aged 15 years or older. As noted in Section B of this Technical Appendix, interviews are also conducted with any other person who joins a household in which an original sample member is living. These individuals are only interviewed as long as they remain living with an original sample member, unless they are an immigrant who migrated to Australia after 2001 or they have a child with an original sample member, in which case they become a 'permanent' sample member. People who are known to have died are removed from the sample (but their existing data are retained). We also do not pursue interviews with people who have moved overseas, people who have requested to no longer be contacted or people we have not been able to contact for three successive survey waves. In 2011 an entirely new 'top-up' sample was added. This resulted in the addition of 2,153 households and 5,451 people (including children aged under 15). The household response rate for the top-up sample was 69%.



Data collection

The annual interviews for the main sample commence towards the end of July each year and conclude by mid-February of the following year. The interviewer workforce comprised 140 interviewers in Wave 22, 121 of whom were face-to-face interviewers. The remaining 19 were dedicated telephone interviewers. In Wave 22, 4,433 interviews (or 27.8% of the total completed) were undertaken by telephone.

Response

Table A1 and Figure A1 (page 206) summarise key aspects of the HILDA sample for the period examined in this report (Waves 1 to 22).² Table A1 presents the number of households, respondents and children under 15 years of age in each wave. In Wave 22, interviews were obtained with a total of 15,954 people, of which 12,581 were from the original sample and 3,373 were from the top-up sample. Of the original 13,969 respondents in 2001, 6,180 or 53.7% of those still in scope (i.e., alive and in Australia), were still participating at Wave 22.

Note that—the top-up sample aside—the total number of respondents in each wave is greater than the number of Wave 1 respondents interviewed in that wave, for three main reasons. First, some non-respondents in Wave 1 are successfully interviewed in later waves. Second, interviews are sought in later waves with all people in sample households who turn 15 years of age. Third, additional people are added to the panel as a result of changes in household composition. For example, if a household member ‘splits off’ from their original household (e.g., children leave home to set up their own place, or a couple separates), the entire new household joins the panel. Inclusion

Table A1: HILDA Survey sample sizes

	Households	People interviewed	Children under 15
Wave 1	7,682	13,969	4,787
Wave 2	7,245	13,041	4,276
Wave 3	7,096	12,728	4,089
Wave 4	6,987	12,408	3,888
Wave 5	7,125	12,759	3,896
Wave 6	7,139	12,905	3,756
Wave 7	7,063	12,789	3,691
Wave 8	7,066	12,785	3,574
Wave 9	7,234	13,301	3,625
Wave 10	7,317	13,526	3,600
Wave 11 (original sample)	7,390	13,603	3,601
Wave 12 (original sample)	7,420	13,536	3,608
Wave 13 (original sample)	7,463	13,608	3,680
Wave 14 (original sample)	7,441	13,633	3,625
Wave 15 (original sample)	7,546	13,753	3,653
Wave 16 (original sample)	7,635	13,834	3,765
Wave 17 (original sample)	7,659	13,791	3,822
Wave 18 (original sample)	7,615	13,723	3,834
Wave 19 (original sample)	7,633	13,748	3,863
Wave 20 (original sample)	7,552	13,467	3,846
Wave 21 (original sample)	7,395	13,048	3,708
Wave 22 (original sample)	7,117	12,581	3,643
Wave 11 (top-up sample)	2,153	4,009	1,180
Wave 12 (top-up sample)	2,117	3,939	1,090
Wave 13 (top-up sample)	2,092	3,892	1,055
Wave 14 (top-up sample)	2,097	3,878	1,045
Wave 15 (top-up sample)	2,085	3,852	1,037
Wave 16 (top-up sample)	2,115	3,859	1,054
Wave 17 (top-up sample)	2,082	3,779	1,025
Wave 18 (top-up sample)	2,023	3,711	1,011
Wave 19 (top-up sample)	2,031	3,714	995
Wave 20 (top-up sample)	2,003	3,603	964
Wave 21 (top-up sample)	1,963	3,501	949
Wave 22 (top-up sample)	1,886	3,373	914

² More detailed data on the sample make-up, and in particular response rates, can be found in Summerfield et al. (2023).

of ‘split-offs’ is the main way in which panel surveys, including the HILDA Survey, maintain sample representativeness over the years.

Figure A1 reports re-interview rates (percentage of previous-wave respondents still in scope who were interviewed in the current wave) and response rates among new entrants to the sample for both the original sample and the top-up sample. As can be seen, re-interview rates for the original sample are high, exceeding 95% for the first time in Wave 8. However, response rates dropped during the pandemic years.

In Wave 22, the re-interview rate was 93.5% for the original sample and 92.8% for the top-up sample. We expect much lower response rates among new individuals joining the sample. Nevertheless, response rates for this group have averaged approximately 75 to 80% for much of the period since Wave 4. However, in Wave 22, the rate was 66.6% for the original sample and 60.9% for the top-up sample.

All people who are interviewed are also asked to complete a separate self-completion questionnaire (SCQ), either on paper or (since Wave 20)

online. Of the 15,954 people who were interviewed in Wave 22, 14,814 (92.9%) completed this SCQ.

More detailed information on interview response rates across demographic groups is presented in Tables A2 and A3 (pages 207, 208). Table A2 examines Wave 1 respondents, presenting the proportion of the sample responding in all 22 waves and the proportion responding in Wave 22, disaggregated by characteristics in Wave 1 (i.e., in 2001). Table A3 presents analogous information for the Wave 11 top-up sample.

Figure A1: HILDA Survey response rates, Waves 2 to 22 (2002 to 2022)

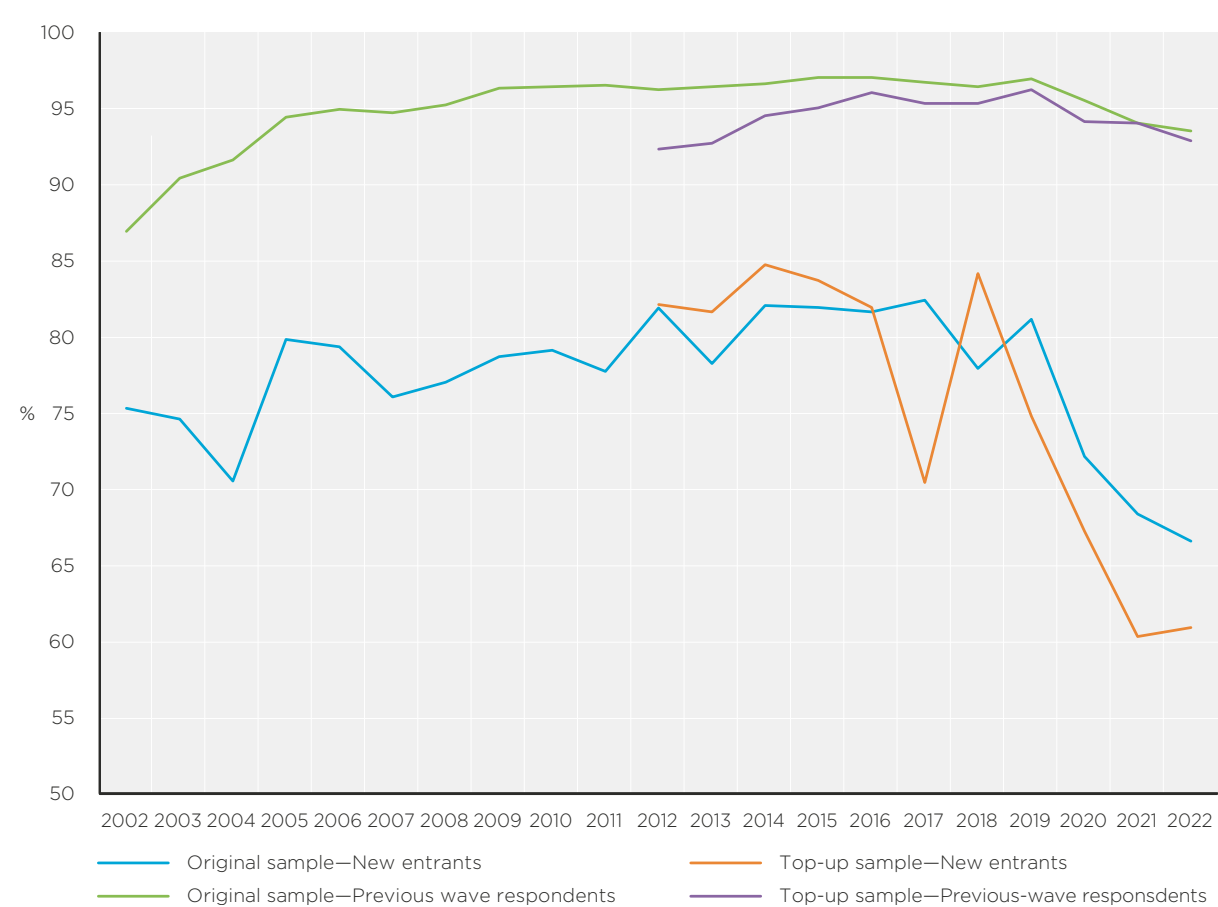


Table A2: Percentage of Wave 1 respondents re-interviewed by selected Wave 1 characteristics (%)

Wave 1 characteristics	Interviewed in all waves	Interviewed in Wave 22	Wave 1 characteristics	Interviewed in all waves	Interviewed in Wave 22
Area			Indigenous status		
Sydney	41.4	50.6	Indigenous	32.0	53.8
Rest of New South Wales	45.1	54.6	Non-Indigenous	44.3	53.6
Melbourne	43.6	54.9	Education attainment		
Rest of Victoria	41.6	50.6	Year 11 or below	37.7	47.3
Brisbane	48.7	56.4	Year 12	43.7	54.1
Rest of Queensland	44.7	52.2	Certificate 3 or 4	43.4	52.9
Adelaide	46.1	55.4	Diploma	49.8	58.8
Rest of South Australia	41.6	55.1	Degree or higher	56.5	65.6
Perth	42.1	51.1	Dwelling type		
Rest of Western Australia	36.8	49.7	House	44.7	54.4
Tasmania	48.8	59.4	Semi-detached	42.0	51.8
Northern Territory	56.7	71.0	Flat, unit, apartment	39.2	48.5
Australian Capital Territory	53.2	65.1	Other	39.0	50.0
Gender			Labour force status		
Male	42.4	52.2	Employed full-time	46.6	56.2
Female	45.4	54.9	Employed part-time	48.6	58.3
Age (years)			Unemployed	34.1	47.4
15-19	32.6	48.4	Not in the labour force	38.1	46.9
20-24	33.7	47.1	Employment status in main job^a		
25-34	41.8	52.6	Employee	47.6	57.4
35-44	48.9	57.8	Employer	45.1	53.4
45-54	52.9	61.2	Own account worker	44.7	53.2
55-64	49.9	57.4	Contributing family worker	42.4	55.6
65-74	30.7	35.6	Occupation^a		
75 and over	5.1	5.7	Managers/administrators	49.1	59.1
Marital status			Professionals	56.1	65.4
Married	46.7	55.0	Associate professionals	47.3	56.3
De facto	42.2	52.1	Tradespersons	39.3	49.8
Separated	43.7	53.7	Advanced clerical/service	46.5	54.0
Divorced	51.3	60.8	Intermediate clerical/sales/service	47.8	57.8
Widowed	38.5	42.4	Intermediate production/transport	41.8	49.3
Single	37.4	50.9	Elementary clerical/sales/service	47.1	58.3
Country of birth			Labourers	38.5	48.2
Australia	45.6	55.3	All Wave 1 respondents		
Overseas				44.0	53.7
Main English-speaking	45.0	52.8	Total number responding		
Other	34.4	45.1		4,874	6,180

Notes: Estimates are for the sample and are therefore not population-weighted. ^a Employed people only.



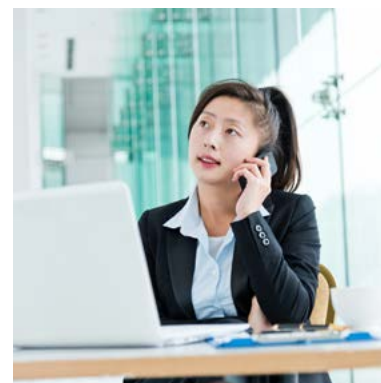
Table A3: Percentage of Wave 11 top-up respondents re-interviewed by selected Wave 11 characteristics (%)

Wave 11 characteristics	Interviewed in all waves	Interviewed in Wave 22	Wave 11 characteristics	Interviewed in all waves	Interviewed in Wave 22
Area			Indigenous status		
Sydney	57.3	62.6	Indigenous	55.1	57.8
Rest of New South Wales	62.8	67.5	Non-Indigenous	59.3	64.6
Melbourne	62.3	65.6	Education attainment		
Rest of Victoria	56.2	60.9	Year 11 or below	52.4	58.7
Brisbane	61.2	68.7	Year 12	59.0	63.4
Rest of Queensland	58.5	66.1	Certificate 3 or 4	60.7	67.0
Adelaide	64.8	67.2	Diploma	62.0	68.6
Rest of South Australia	60.8	60.8	Degree or higher	64.5	67.5
Perth	50.9	58.6	Dwelling type		
Rest of Western Australia	41.0	54.0	House	59.3	64.5
Tasmania	65.3	68.0	Semi-detached	55.8	63.2
Northern Territory	50.0	58.3	Flat, unit, apartment	61.5	64.5
Australian Capital Territory	53.1	54.9	Other	100.0	100.0
Gender			Labour force status		
Male	58.1	64.1	Employed full-time	60.7	67.2
Female	60.2	64.7	Employed part-time	60.2	64.5
Age (years)			Unemployed	60.6	64.5
15-19	51.7	55.9	Not in the labour force	56.3	60.3
20-24	53.7	60.8	Employment status in main job^a		
25-34	63.2	69.1	Employee	60.8	66.7
35-44	58.7	64.3	Employer	55.1	66.0
45-54	61.8	67.3	Own account worker	59.7	62.2
55-64	65.3	70.2	Contributing family worker	60.0	70.0
65-74	65.6	68.7	Occupation^a		
75 and over	28.9	32.5	Managers	59.8	68.6
Marital status			Professionals	65.7	70.7
Married	62.0	67.2	Technicians and trades workers	54.9	61.0
De facto	57.7	63.6	Community and personal service workers	61.0	65.9
Separated	69.2	70.5	Clerical and administrative workers	57.8	63.8
Divorced	59.1	63.8	Sales workers	59.3	64.9
Widowed	46.2	48.5	Machinery operators and drivers	61.0	66.2
Single	55.0	60.9	Labourers	62.1	66.2
Country of birth			All Wave 11 top-up respondents		
Australia	60.5	65.7		59.2	64.4
Overseas			Total number responding		
Main English-speaking	57.0	64.3		2,077	2,321
Other	55.7	59.8			

Notes: Estimates are for the sample and are therefore not population-weighted. ^a Employed people only.



HILDA Survey personnel



Melbourne Institute survey management team

Co-Directors

Professor Roger Wilkins

Associate Professor Nicole Watson

Deputy Director, Survey Management

Ms Michelle Summerfield

Database Manager

Ms Ninette Macalalad

Survey Methodologist

Dr Mossamet Kamrun Nessa

Database Support Officers

Ms Roopa Kamath

Ms Brooke Garrard

Senior Research Fellows

Dr Inga Laß

Dr Kyle Peyton

Research Officer

Mr Taylor Ey

Special Adviser

Professor Emeritus Mark Wooden

External Reference Group

Professor Ann Evans, Australian National University (Chair)

Ms Catherine Andersson, Australian Institute of Family Studies

Mr Lawson Ashburner, Productivity Commission

Professor Garry Barrett, The University of Sydney

Dr Jennifer Baxter, Australian Institute of Family Studies

Professor Peter Butterworth, Australian National University

Professor Belinda Hewitt, The University of Melbourne

Professor David Johnston, Monash University

Dr Gianni La Cava, e61

Professor Rachel Ong ViforJ, Curtin University

Professor Peter Siminski, University of Technology Sydney

Technical Reference Group

Professor Robert Breunig, Australian National University

Dr John Henstridge, Data Analysis Australia

Mr Bruce Fraser, Australian Bureau of Statistics

Roy Morgan Research

HILDA project team

Antonina De Maria

Christine Maddern

Cynthia Vien

Danielle Jenner

Harris Mazari

Jayme Verhagen

Jodi Norton

Joshua Button

Kieran Dong

Louisa Katerelos

Paige Klonaris

Rayoul Borges

Tania Mackenzie

Vivek Malpani

Yen Lai

HILDA Team 1800

Abdul Ahad Saeed

Andrew Szetho

Asavari Datar

Barret Parker

Blaise Adamson

Danielle Bambery

Ellmir Asipi

Fiona Crockett

Hazel Dungca

Jacinda Matthews

Jack Smith

Jade Smith

Jai Moore

Jane Baird

Karleon Gonzalez

Kelly Herbison

Kristie Roche

Lia Sharard

Loughlin Foley

Lucy Cooper

Mithil Sathwara

Patrick Ciccotosto

Phoebe Hayward

Ramsha Pasha

Rebecca Jarvis

Rinata Buccheri

Samantha Tait

Thomas Woodman

Tim MacPherson

Tony Nguyen

William Hollingsworth

HILDA face-to-face field interviewing team

Aaron Brown

Aaron Rinder

Amanda Pritchard

Andie Pearson

Andrew Craker

Andrew James

Angela Malberg

Anthony Foley

Anthony Woollams

Beth Donnelly

Beth Ritters

Bev Worrall

Beverley Price

Bridgitte Tadrosse

Bruce Bell

Cathy Andrew

Charmaine Foley

Cheryl Perrett

Chris Corcoran

Christine Brennan

Christine Leece

Christopher Bremner-Macdonald

Christopher Joosen

Claire Marlow

Colleen Moore

Daniel Davis

Daniella Joyce

David Cummins

David Reed

Denise Mortlock

Dennis Williams
 Dianne Paterson
 Dylan Hyde
 Ebony Purnell
 Elaine O’Gorman
 Elizabeth Griffiths
 Elizabeth Haworth (Beverley)
 Farah Aslankooi
 Garry Grooms
 George Patniotis
 Glen Randall
 Gordon Caldwell
 Harris Mazari
 Helen Szuty
 Ian Hosking
 Jan Pianta
 Janis Layer
 Jay Clark
 Jayne Malan
 Jayne Wymer
 Jeffrey Thom
 Jenny Eddy
 Jo Avery
 John Crawford
 John Lees
 John McCredie
 Josie Holland
 Julie Oliver
 Kaleil Merren
 Karen Reid-Smith
 Karen Steele
 Karen Yaxley
 Kerrie Townley-Jones
 Kimberley Maxfield
 Kristin Farmer
 Lana Fitt
 Leesa Vickery
 Linda Buttel
 Lisa Kean
 Lyn Olsen
 Lynda Taylor
 Lynndal Richards
 Manjula Dissanayake
 Maree Gene Trezise (Kerry)
 Marg Reynolds
 Margaret Evans
 Marianne Hunter
 Marie Mylonas
 Marija Savic
 Marise Caruana
 Marlene Wills
 Maryanne Payne
 Melina Pandelides
 Michele Elms
 Mohsin Khan
 Naiara Carrillo

Noel Jugovac
 Pam Bowtell
 Patricia Kempster
 Patrick Morton
 Paul Reed
 Paula Tresintsis
 Pauline Davies
 Peter Mulholland
 Philip Hands
 Rachelle Munro
 Rinata Buccheri
 Robert Neal
 Robin Trotter
 Robyn Hefferan
 Roger Wilkins
 Roma Sirc
 Ross Lewis

Sally O’Neal
 Sandra Essex
 Sandra Potter
 Sanjay Bholagosien
 Scott O’Dea
 Shane Dawes
 Stephanie Kent
 Stephen Beattie
 Stephen Hogarty
 Steve Dewar
 Sue Whiteley
 Sunita Waghmode
 Suzanne Torok
 Tim O’Shaughnessy
 Timothy Haddad
 Vicky Nowak
 Zoe Perrett





Commenced in 2001, the Household, Income and Labour Dynamics in Australia (HILDA) Survey is a nationally representative household-based panel study, providing longitudinal data on the economic wellbeing, employment, health and family life of Australians.

The study is funded by the Australian Government Department of Social Services and is managed by the Melbourne Institute of Applied Economic and Social Research at the University of Melbourne. Roy Morgan Research has conducted the fieldwork since 2009, prior to which The Nielsen Company was the fieldwork provider.

