Economic and other wellbeing in Australia – October 2022

ANU Centre for Social Research and Methods

Professor Nicholas Biddle and Professor Matthew Gray

ANU Centre for Social Research and Methods

Australian National University

3rd November, 2022

Acknowledgements

The ANU Centre for Social Research and Methods COVID-19 Impact Monitoring series has received funding from the Australian Institute of Health and Welfare. The authors would like to particularly thank Matthew James, Deputy CEO Australian Institute of Health and Welfare, for comments on reports and survey instruments in this series. The opinions and conclusions in this paper should, however, be attributed to the authors only. The survey data will be available for download through the Australian Data Archive.

Abstract

The October 2022/23 Budget signals a shift to including a range of non-economic measures of progress and quality of life. During the COVID-19 period and into late 2022, there has been large changes in many wellbeing measures. The ANU Centre for Social Research and Methods (CSRM) has been documenting these and other changes in wellbeing as part of the COVID-19 Impact Monitoring Survey series. This paper describes the trends, variation, and determinants of wellbeing over the tumultuous period since COVID-19 first reached Australia and up until October 2022, with a particular focus on changes in economic wellbeing.

Average hours worked per person are now above what they were pre-pandemic, and far fewer Australians are worried about losing their jobs than they were in 2017. Those who are most concerned about their job security are those in the middle part of the age distribution, those born overseas in a non-English speaking country, those with low education, and those with low income.

In real terms, average household income is still below what it was pre-pandemic. The decline has been greatest at the bottom of the distribution, and lowest at the middle part of the distribution. As COVID-19 restrictions have eased, the factors that impact on a person's life satisfaction have also shifted. In April 2020 there was no significant difference in life satisfaction between the middle and the bottom of the income distribution. By October 2022, a very large difference had opened up, and the difference between those at the top of the distribution and the middle had widened. This paper also shows that one of the key determinants of life satisfaction now is experiences of price increases.

Executive Summary

This paper describes the trends, variation, and determinants of wellbeing over the tumultuous period since COVID-19 first reached Australia and up until October 2022 using data from the ANU COVID-19 Impact Monitoring Surveys, with a particular focus on changes in economic wellbeing.

Mental health and subjective wellbeing

- Between August and October 2022 there has been very little change in mental health and subjective wellbeing
- Life satisfaction is lower than what it was pre-pandemic, whereas psychological distress is now at a similar level to what it was pre-COVID-19.
- Australians are less lonely than they were early in the pandemic, and people are more satisfied with the direction of the country compared to pre-pandemic

Hours worked and job security

- There was a large decline in hours worked per adult in the first few months of the pandemic, dropping from 21.9 hours in February 2020 to 18.5 hours in May 2020.
- Average hours worked has increased steadily since the first national lockdown and by August 2022 average hours worked was back to the pre-COVID levels. There is some evidence that hours worked has continued to increase between August and October 2022, reaching 22.6 hours per week in the most recent data collection.
- Not only are people working more hours in late 2022 compared to the early days of the pandemic, but those who are employed are less worried about losing their jobs.
- Over the longer term, there have been large declines in the per cent of workers in Australia who were concerned about specific potential sources of job insecurity between October 2017 and October 2021. The biggest declines were for 'The company that you work for is poorly managed,' 'Your employer finds someone overseas who is willing to do your job for less money,' and 'Your employer finds someone in Australia who is willing to do your job for less money.'
- There are certain groups within the population who are more concerned than others including those in the middle part of the age distribution, those born overseas in a non-English speaking country, those with low education, and those with low income.

Income and financial stress

- After a large decline in income between February 2020 and April 2020, real income continued to decline until January 2021 (after adjusting for inflation). Income then increased slowly until April 2022. There is some evidence, however, that real income has started to decline since April 2022 as the rate of inflation has increased. By October 2022, household income was $1,629 (in February 2020 dollar equivalents), a 3.1 per cent decline since April 2022.
- The largest relative decline in income between February 2020 and October 2022 was for those in the bottom income quintile, with a 7.8 per cent decrease, or $37 in February 2020 dollar equivalents.
- Pre-COVID, more than one-quarter (26.7 per cent) of Australians said that they were finding it difficult on their present income. This declined to 17.3 per cent by November 2020 during the first year of the pandemic. By October 2022, however, slightly more than one-quarter of Australians (25.1 per cent) were again finding it difficult on their current income.
- It is only the top income quintile that has a significantly lower level of financial stress than pre-COVID, with all other quintiles with a similar value to prior to the pandemic.

Prices and wellbeing

- During 2022, there has been a large increase in the per cent of Australians who think that prices have gone up by 'A lot more' since prior to COVID-19, from 21.6 per cent in January 2022 to 44.1 per cent in August 2022 and then 48.4 per cent in October 2022.
- There has been a large increase in the proportion of Australians who think rising prices are a very big problem. In January 2022, over one-in-three (37.4 per cent) Australians thought that price rises were a very big problem. This increased to 54.6 per cent in August 2022 and then again to 56.9 per cent in October 2022.
- As COVID-19 restrictions have eased, the factors that impact on a person's life satisfaction have also shifted. In April 2020 there was no significant difference in life satisfaction between the middle and the bottom of the income distribution. By October 2022, a very large difference had opened up, and the difference between those at the top of the distribution and the middle had widened.
- One of the key determinants of life satisfaction in October 2022 is people's experiences of price increases. Life satisfaction in October 2022 was 10 per cent lower for those who thought that rising prices were a very big problem compared to those who did not (6.41 compared to 7.13)

1 Introduction and overview

On the 25th of October, 2022, the Australian Treasurer Hon Dr Jim Chalmers delivered the first Commonwealth Budget for the recently elected Albanese Labor Government (the October 2022-23 Budget). It outlines a challenging set of economic circumstances for Australia, both domestically and internationally, as well as the beginnings of an economic narrative and set of policy responses to these circumstances. The opening pages of the budget summary summarises the view of the Albanese government:

> *The challenges facing Australia are growing – intense and frequent flooding, a substantial global economic slowdown, high inflation and rising interest rates. The nation is facing widespread skills shortages and falling real wages, and a budget burdened by one trillion dollars of debt and persistent structural deficits.*[1]

Many other countries face similar economic and environmental challenges. Australia, however, is in a strong position than many other countries. As stated in the Commonwealth Budget overview 'While Australia is performing strongly compared with most other advanced economies, we will not be completely spared from these global challenges.' Navigating such an environment will require a careful balancing of policy responses from the Commonwealth Government, the Reserve Bank of Australia (RBA), state/territory governments, and the broader set of policy institutions in Australia.

The estimated budget deficit for the 2022/23 financial year is $36.9 billion, or 1.5 per cent of Gross Domestic Product (GDP). The Australian economy is expected to grow by 3.25 per cent in the 2022/23 financial year, but only 1.5 per cent in the following financial year. Inflation is expected to reach 7.75 per cent by the end of 2022, albeit with a projected decrease thereafter. This is a slight increase on the 7.3 per cent increase in CPI in the 12 months leading up to the September 2022 quarter, which was the largest annual increase in the CPI since 1990.

To control inflation and bring it back within the target 2-3 per cent band, the Reserve Bank of Australia (RBA) has lifted the target cash rate a number of times since the low of 0.10 per cent during the COVID-19 pandemic. The first interest rate rise was in May 2022 and as of October 2022 was at 2.6 per cent, with rates widely tipped to increase a number of subsequent times over the short term.

One of the factors that is putting pressure on prices is the very tight labour market in Australia. The unemployment rate, which measures the proportion of people in the labour force who are actively seeking work and able to commence work, was 3.5 per cent in September 2022 (seasonally adjusted).[2] Unemployment has not been as low as it is in 2022 in over a generation, with the vast majority of Australians currently in the labour force never having experienced such a low rate in their adult life. Even the labour force underutilisation rate, which includes both the number of people unemployed and the number of people in underemployment (working less than part-time and willing and able to work more hours) expressed as a proportion of the labour force is as low as it has been (9.6 per cent) since the late 1980s.

Analysis by CSRM of the distributional impacts of the major changes to personal income tax and social security policy over the course of the 47th parliament finds that relative to the previous policy settings, households will gain around $20.5 billion per year in 2024-25 representing a 1.65 per cent gain in disposable income (Phillips et al., 2022). The policies included in the modelling are the: (i) increase in Parental Leave Pay (PLP) from a maximum of 20 weeks to 26 weeks; (ii) increase in childcare subsidies; and (iii) implementation of the stage

3 tax cuts which cuts passed parliament under the previous Coalition Government and which will be implemented in 2024-25.

These changes resulted in much bigger gains to higher income households than lower income households with households in the top 20 per cent gaining around $12 billion per year (2.2 per cent of income) compared to the bottom 20 per cent gaining effectively nothing. Middle income households gain around $2.4 billion (1.1 per cent of income).

In addition to the distributional impact, the October 2022/23 Budget signals a shift in the approach to budgets by including a range of non-economic measures of progress and quality of life via the inclusion of Budget Statement No. 4 – *Measuring What Matters.*[3] The framework within the budget identifies 32 indicators related to wellbeing grouped using a 'traffic light' system. There are twelve indicators that fall into the green category in that they are at or better than the OECD average and either stable or improving. At the other end of the distribution, there are five indicators that are in the red category, in that they are worse than the OECD average and declining. In between, within the orange category there are six indicators that were worse than the OECD average but stable or improving, alongside nine indicators that were at or better than the OECD average but declining.

During the COVID-19 period and into late 2022, there has been as large swings in many wellbeing measures since perhaps the second world war. Employment, hours worked, social support, income, life satisfaction, social interaction, confidence in government, housing affordability, and income inequality are all measures that are incorporated in Treasury's wellbeing framework that have been shown to vary substantially over the COVID-19 period both through time and across individuals.[4]

The ANU Centre for Social Research and Methods (CSRM) has been documenting these and other changes in wellbeing as part of the ANU CSRM COVID-19 Impact Monitoring Survey series. The first wave of data was collected in the second half of April 2020. On the 10th of October 2022, data collection began for the 13th wave the COVID-19 Impact Monitoring series, with a total of 3,468 responses collected between the start of collection and the 24th of October when data collection finished.

Surveys have also been conducted with the same group of respondents in January and February 2020, just before the COVID-19 pandemic started in Australia, as part of the ANUpoll and Australian Social Survey International-ESS (AUSSI-ESS) surveys respectively.[5] Data is also available on a smaller subset of respondents from October 2019. This allows us to track outcomes for the same group of individuals in the three years from just prior to COVID-19 impacting Australia through to more than two-and-a-half years since COVID-19 first reached Australia. More detail on the survey is given in Appendix 1

This paper describes the trends, variation, and determinants of wellbeing over the tumultuous period since COVID-19 first reached Australia using data from the ANU COVID-19 Impact Monitoring Surveys, with a particular focus on changes in economic wellbeing.

2 Changes in mental health and wellbeing

2.1 Life satisfaction

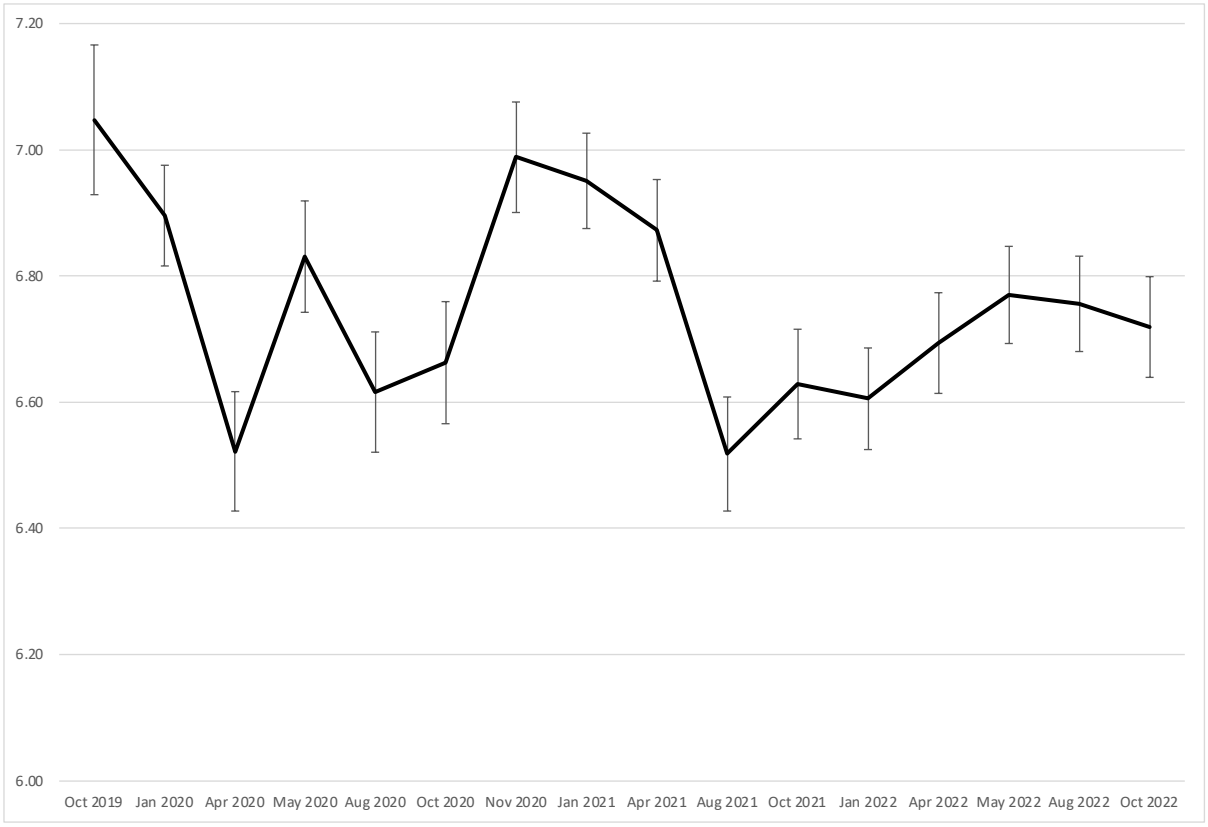
In the last two months (that is, between August and October 2022), there has been very little change in mental health and wellbeing as captured in the COVID-19 Impact Monitoring Survey Series.

In each of the COVID-19 Impact Monitoring Surveys, respondents have been asked:

> *'The following question asks how satisfied you feel about life in general, on a scale from 0 to 10. Zero means you feel 'not at all satisfied' and 10 means 'completely satisfied'. Overall, how satisfied are you with life as a whole these days?'*

Over the COVID-19 period, life satisfaction varied quite substantially with the highest level of life satisfaction reported in November 2020, and the lowest levels in April 2020 and August 2021. Since this August 2021 minimum of 6.52, life satisfaction has shown a steady increase with it being 6.72 in October 2022, significantly higher than it was earlier in the year, but still lower than late 2020, and pre-COVID.

Figure 1 Life satisfaction, Australia, October 2019 to October 2022



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll, Oct 2019; January, April, May, August, October, and November 2020; January, April, August, October 2021; and January, April, May, August, and October 2022

2.2 Psychological distress

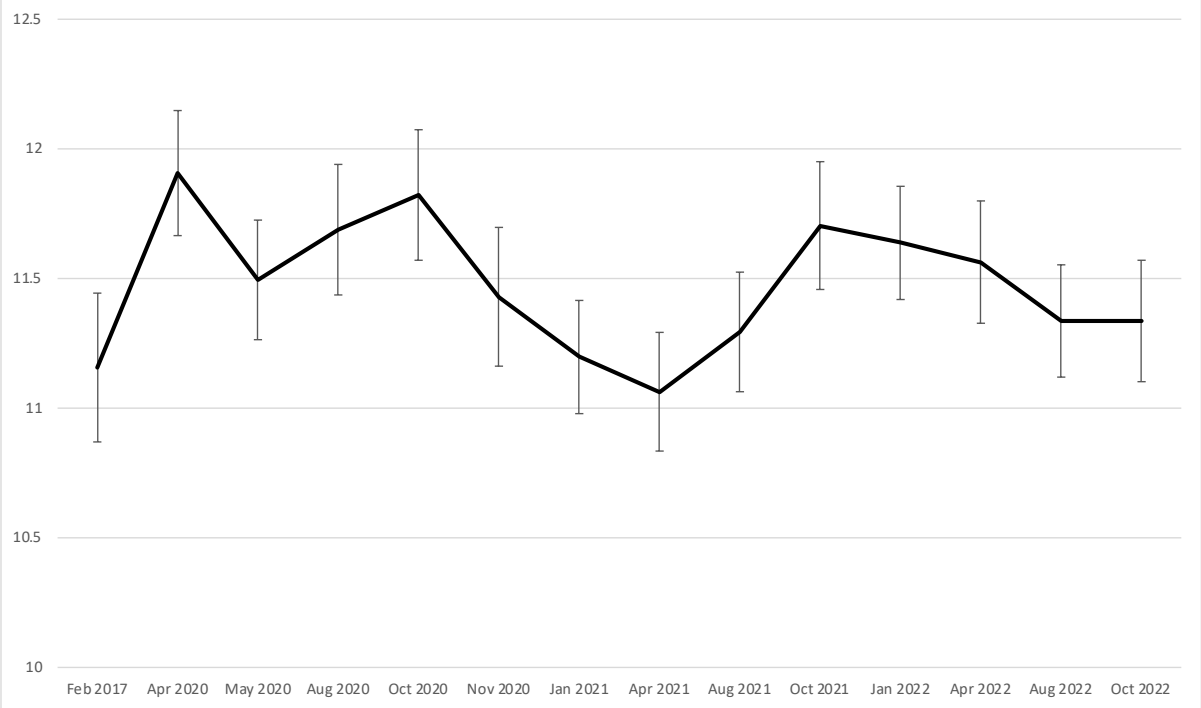
All of the waves of the COVID-19 Impact Monitoring surveys (i.e., since April 2020) have measured mental health using the Kessler (K6) module (Kessler et al. 2002). Although the K6 module was not asked just prior to the pandemic in the January and February surveys, comparable data is available from the Life in Australia™ panel for February 2017.

The K6 questions ask the respondent how often in the last four weeks they felt: 'nervous'; 'hopeless'; 'restless or fidgety'; 'so depressed that nothing could cheer you up'; 'that everything was an effort'; and 'worthless'. There were five response categories, from "none of the time" to "all the time", with values ranging from 1 through 5. Respondents who score highly on this measure are considered to be at risk of a serious mental illness (other than a substance use disorder). It is important to recognise that while the K6 screens for the risk of serious mental illness, it is not a clinical diagnostic measure.

The K6 items can be summed to produce an index, with potential values ranging from 6 to 30. experience Figure 2 plots the continuous K6 measure since April 2020 (including a pre-COVID baseline from February 2017). There was a large increase in psychological distress between February 2017 and April 2020, improvements in May 2020, a worsening during the second half of 2020, and then gradual but substantial improvement to early 2021. After April 2021, there was a worsening in mental health outcomes again, with psychological distress starting to decline again in January 2022, but only slightly and with little change between January 2022 and April 2022. Since April 2022, there has been a much larger decline in psychological distress

– from 11.56 in April to 11.34 in August and October 2022 with psychological distress no longer significantly higher than in February 2017.

Figure 2 Psychological distress (K6), Australia, February 2017 to October 2022



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

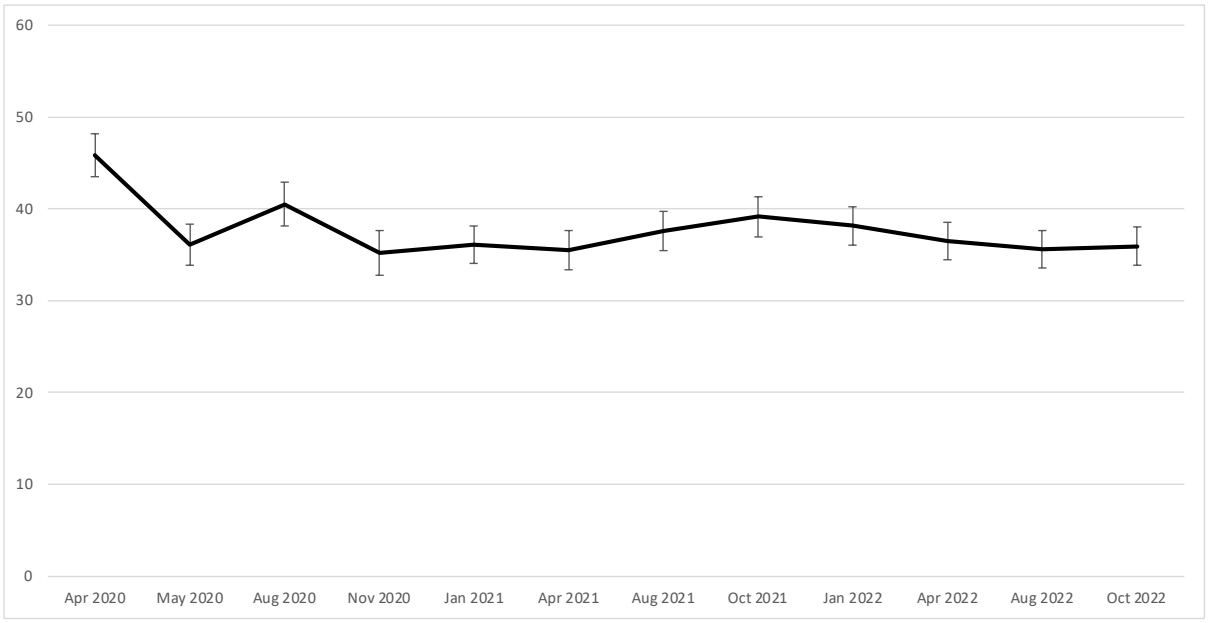
Source: Life in Australia, February 2017; ANUpoll: April, May, August, October, and November 2020; January, April, August, October 2021; and January, April, August, and October 2022

2.3 Social isolation

Since the start of the pandemic, respondents have been asked 'In the past week, how often have you felt lonely?' with four response options: rarely or none of the time (less than 1 day); some or a little of the time (1 to 2 days); occasionally or a moderate amount of time (3 to 4 days); most or all of the time (5 to 7 days).

There was a very high level of loneliness in April 2020, with 45.8 per cent of Australians saying that they were lonely at least some of the time (Figure 3) (data on loneliness was not collected prior to the pandemic). Loneliness declined after that first month of country-wide lockdowns, and then fluctuated slightly throughout the next two years. However, even in October 2022 more than one-third of Australians (35.9 per cent) reported having experienced loneliness at least some of the time in the week prior to the survey.

Figure 3 Per cent of Australians reporting that they had experienced loneliness, April 2020 to October 2022



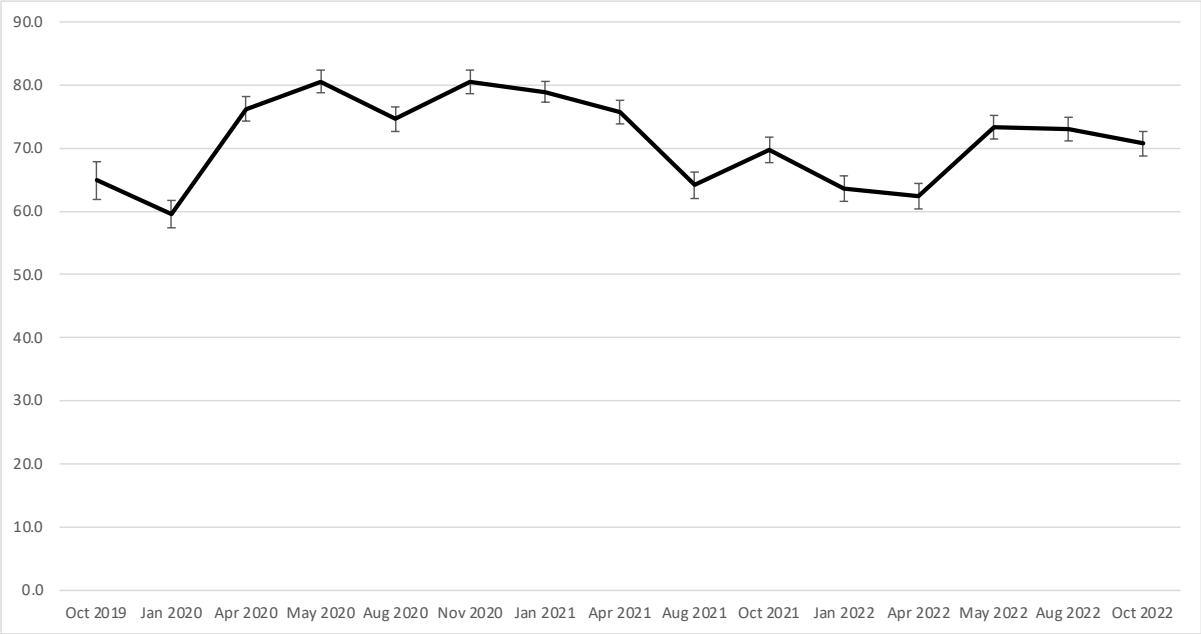
Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll: April, May, August, and November 2020; January, April, August, October 2021; and January, April, August, and October 2022

2.4 Satisfaction with the direction of the country

In every ANUpoll survey since October 2019 respondents have been asked 'Firstly, a general question about your views on living in Australia. All things considered, are you satisfied or dissatisfied with the way the country is heading?' Combining those who were satisfied or very satisfied, there was a significant and substantial increase in satisfaction between April and May 2022, with a small but statistically significant decline between May and October 2022, with 70.7 per cent of Australians now satisfied with the direction of the country.

Figure 4 Per cent of Australians who were satisfied or very satisfied with the direction of the country – October 2019 to October 2022.



Note: The "whiskers" on the bars indicate the 95 per cent confidence intervals for the estimate.

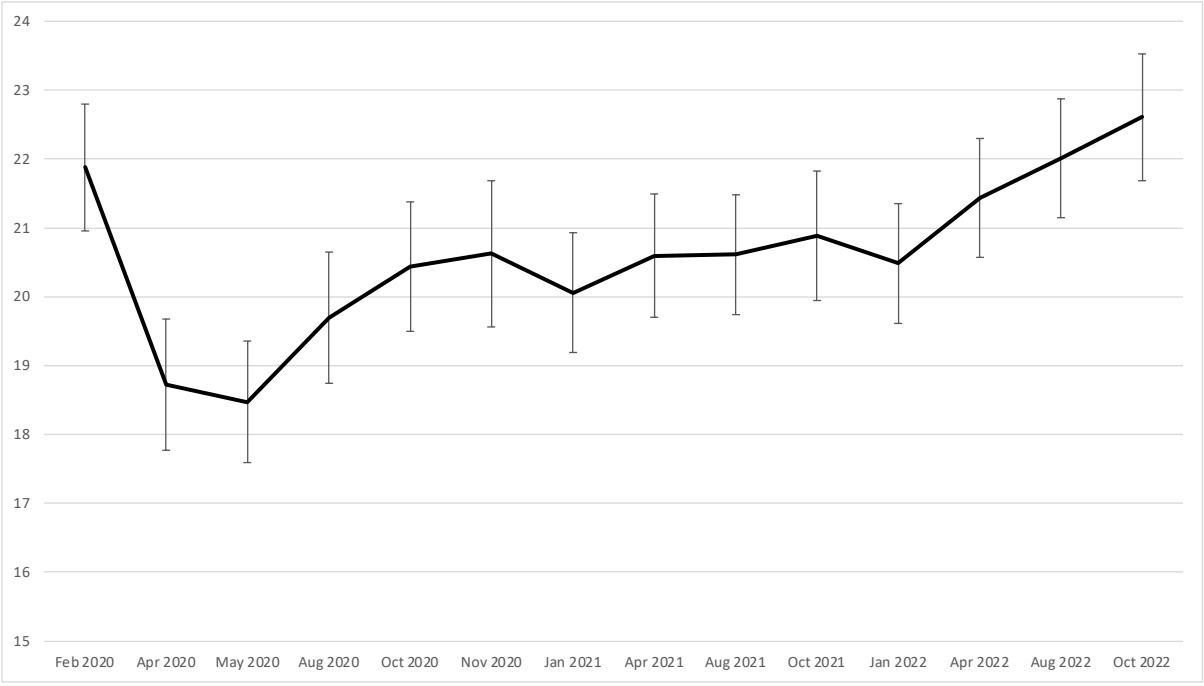
Source: ANUpoll: January, April, May, August, October, and November 2020; January, April, August, October 2021; and January, April, May, August, and October 2022

3 The Australian labour market in late 2022

3.1 Changes in hours work since early 2020

Nationally, the patterns of hours worked since early 2020 (Figure 5) were quite different to the patterns in life satisfaction and mental health. There was a large decline in hours worked per person in the first few months of the pandemic, dropping from 21.9 hours in February 2020 to 18.5 hours in May of that year. Apart from brief drops in hours during January (due to seasonal factors), hours worked per adult in Australia has increased steadily since the first national lockdown. By August 2022, hours worked per person was back to the pre-COVID levels, with some evidence that hours worked has continued to increase between August and October 2022, reaching 22.6 hours in the most recent data collection.

Figure 5 Hours worked, Australia, February 2020 to October 2022



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: AUSSI-ESS: February 2020; ANUpoll: April, May, August, October, and November 2020; January, April, August, October 2021; and January, April, August, and October 2022

3.2 Link between hours worked and wellbeing

While at the national level the changes in hours worked since early 2020 (Figure 5) are quite different to the changes in life satisfaction and mental health, at the individual level reductions in hours worked is strongly correlated with mental health and life satisfaction. Using the longitudinal nature of the ANUpoll surveys the relationship between hours worked and life satisfaction is estimated using a random effects regression model. The regression model includes controls for age, sex, other demographic characteristics, education, geography and survey wave and month. It is estimated that an additional hour worked per week is associated with an increase in life satisfaction of around 0.005 (Appendix Table A2).

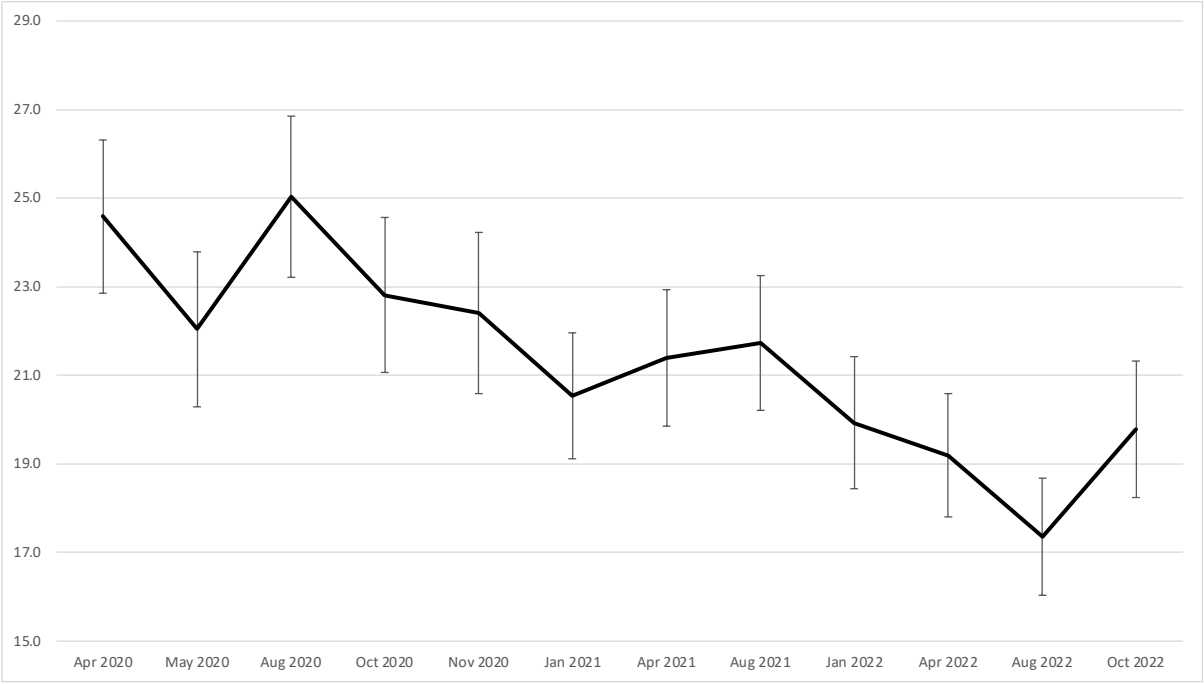
While this may not seem large, someone going from full-time work (35 hours per week) to zero hours would be expected to experience a decline in life satisfaction equal to 0.165, which is roughly equivalent to the change in average life satisfaction in Australia between October 2019 and January 2020 (predominantly due to the Black Summer bushfires) or in the opposite direction between January and May 2022, with the easing of COVID-19 restrictions and the election of a new government.

3.3 Perceived employment insecurity

The increase in hours worked since the early stages of the COVID-19 pandemic is mirrored in the official employment statistics (discussed in the Introduction). This has resulted in a dramatic reduction in perceived employment insecurity (i.e., an increase in perceived employment security) since the start of the pandemic. In most waves of data, we have asked respondents who are currently employed: 'I would like you to think about your employment prospects over the next 12 months. What do you think is the per cent chance that you will lose your job during the next 12 months? That is, get retrenched or fired or not have your contract renewed.'

Figure 6 shows that not only are people working more hours in late 2022 compared to the early days of the pandemic, but that those who are employed are less worried about losing their jobs. In August 2020 as lockdowns continued and employment support like JobKeeper were beginning to be scaled back, the average expected likelihood of losing employment was 25.0 per cent. This declined over the next two years to 17.3 per cent in August 2021, though there is some evidence that over the last two months the Australian workforce has become slightly more pessimistic about their employment prospects, with an increase in the average percentage to 19.9 per cent. This figure is significantly different from the August 2022 low, but is still well below the August 2020 peak.

Figure 6 Expected likelihood of losing one's job, Australia, April 2020 to October 2022



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll: April, May, August, October, and November 2020; January, April, and October 2021; and January, April, August, and October 2022

We have been tracking people's specific concerns about job security over a longer period. The October/November 2017 ANUpoll had a focus on job security. In that survey, as well as in October 2021 and 2022, respondents were asked: 'Following are some reasons why people might worry about losing a job. For each one, please answer how concerned, if at all, you are about potentially losing your job for this reason?' The reasons asked about were:

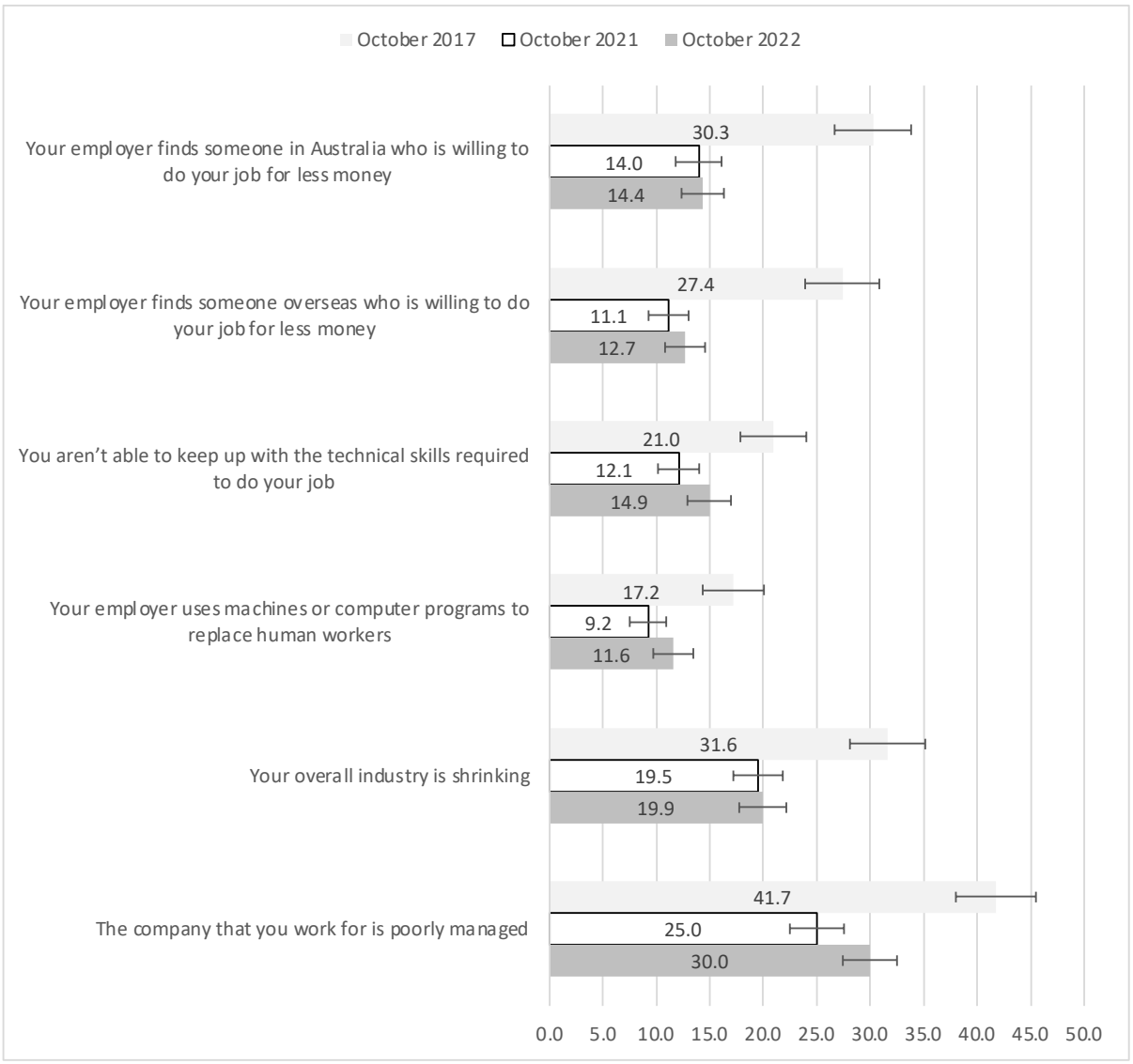
- Your employer finds someone in Australia who is willing to do your job for less money
- Your employer finds someone overseas who is willing to do your job for less money
- You aren't able to keep up with the technical skills required to do your job
- Your employer uses machines or computer programs to replace human workers
- Your overall industry is shrinking
- The company that you work for is poorly managed

Figure 7 shows the per cent of people who were very concerned or somewhat concerned about each of the reasons, as opposed to not too concerned or not concerned at all. There have been large declines in the per cent of workers in Australia who were concerned about

each of the specific potential sources of job insecurity between October 2017 and October 2021. The biggest declines were for 'The company that you work for is poorly managed' (16.7 percentage point decline), 'Your employer finds someone overseas who is willing to do your job for less money' (16.3 percentage point decline), and 'Your employer finds someone in Australia who is willing to do your job for less money' (16.3 percentage point decline).

For all potential sources of job insecurity with the exception of "The company that you work for is poorly managed" there was no significant change between October 2021 and 2022. Some went up by a little, others went down by a little, but they were all within the margin of error of the survey. The only reason asked about that had a significant change was 'The company that you work for is poorly managed', with an increase from 25.0 per cent concerned in October 2021 to 30.0 per cent concerned in October 2022 (higher than any of the other measures in October 2022). It is perhaps not surprising in a very tight labour market that this source of insecurity is the one that people are most concerned about, as company management is very much a firm-specific source of concern, whereas the others are more related to the broader labour market and macroeconomic environment.

Figure 7 Specific concerns about job loss, Australia, October 2017 to October 2022



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll: October 2017, October 2021, and October 2022.

3.4 Factors associated with perceived employment insecurity

Not all workers have the same level of concern about their job security. In order to better understand the factors associated with different levels of perceived job security a regression model is estimated. The dependent variable is the respondents self-reported expected likelihood of losing their job. Because the dependent variable is continuous between the values of 0 and 100 (inclusive), we estimate a Tobit model. However, it should be noted that the qualitative conclusions do not vary if we estimate a simple Ordinary Least Squares (OLS) regression. The model includes demographic, socioeconomic, and geographic factors as explanatory variables. The detailed regression results are reported in Appendix Table A2.

Many of the factors that predict perceived job insecurity are quite surprising (both in terms of size and direction of the association), whereas others that one might have expected to have an association do not. Women have a lower perceived probability of losing their job compared to men as do younger workers (aged 18 to 24) and older workers (65 years and over). Those who live outside of a capital city have a lower perceived probability of losing their job than those who live in a capital city and there is a reasonably consistent relationship with a person's household income with higher income associated with a lower expected probability. One of the interesting findings from the analysis though is that higher levels of education do not appear to be associated with a lower perceived probability of job loss, despite studies over many years finding that having higher levels of human capital levels increases job security (see for example, Jarosch, 2021; Diris and van Vliet, 2022).

In addition, regression models are used to estimate the individual level factors associated with the level of concern about each of the specific potential causes of job insecurity (described in Figure 7). Because these measures are categorical (very concerned, somewhat concerned, not too concerned, not concerned at all) an ordered probit model is estimate. The explanatory variables are the same as those included in the models of the factors associated with perceived level of job insecurity (reported in Appendix Table A3).

In these models a positive coefficient indicates that a person with that characteristic is more concerned about that particular reason resulting in the loss of their job and a negative coefficient indicating that they are less concerned.

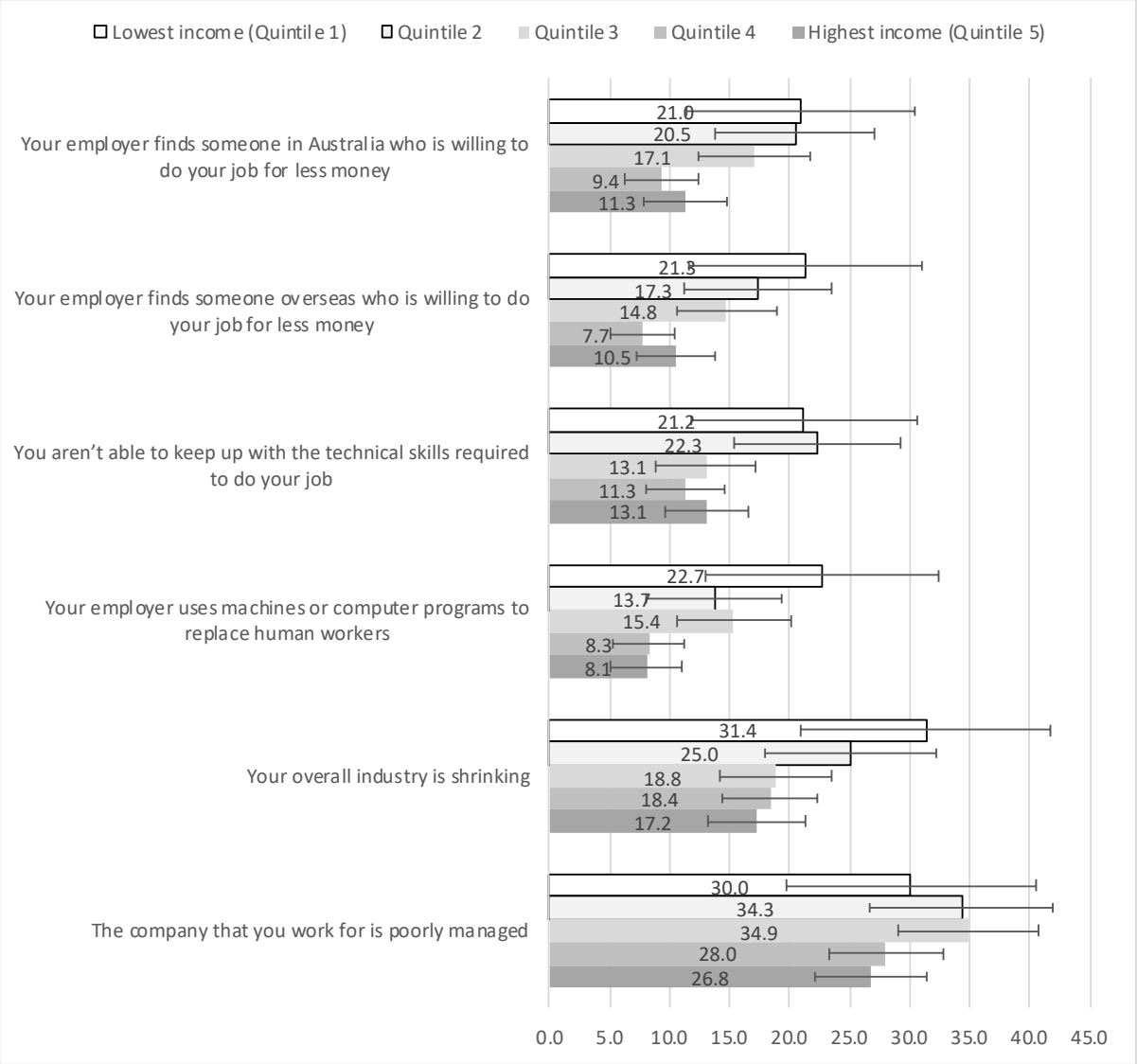
- There were no significant differences between males and females for any of the specific sources of job insecurity;
- Older workers, and particularly those aged 65 years and over, were less concerned than those in the middle part of the age distribution. Younger workers (those aged 18 to 24) were less concerned about their overall industry shrinking and poor management;
- Those born overseas in a non-English speaking country tended to have a greater level of concern than those born in Australia and those born in an English-speaking country. The biggest differences were for their employer findings someone else from overseas and their overall industry shrinking;
- Those who spoke a language other than English tended to be more concerned, particularly that their employer will find someone else either in Australia or overseas, and that they wouldn't be able to keep up with the skill requirements;
- Those who had not completed Year 12 did not tend to have a greater or lesser level of concern than those who had completed Year 12, and there did not appear to be many

differences by education. The only exception is that those with an undergraduate degree were slightly less concerned about their company being poorly managed;
- There were not many differences by the socioeconomic characteristics of the area in which people lived, though those who lived in the most disadvantaged areas were more concerned about their employer finding someone from overseas, and those who lived in the most advantaged areas were less concerned about the company they work for being poorly managed;
- Those who lived outside of a capital city tended to be less concerned than those who lived in a capital city.

The variable that had one of the largest and most consistent association with the specific potential causes of job loss was household income. This was evident in the regression analysis presented in the Appendix, but can also be seen in Figure 8, which gives the per cent of workers who were very or somewhat concerned about each of the specific potential causes of job loss by income quintile. Compared to those in the middle-income quintile, those in the lowest income quintile were significantly and substantially more likely to be concerned about their industry shrinking (31.4 compared to 18.8 per cent), not being able to keep up with skills requirements (21.2 compared to 13.1 per cent), and automation (22.7 compared to 15.4 per cent).

There were also differences between the top and the middle part of the income distribution, though these tended to be smaller. Those at the top of the income distribution were generally less concerned than those in the middle part of the income distribution, particularly when it comes to their employer finding someone to replace them either from Australia (17.1 compared to 11.3 per cent) or overseas (14.8 compared to 10.5 per cent), automation (15.4 compared to 8.1 per cent), and poor management (34.9 compared to 26.8 per cent).

Figure 8 Concerns about potential causes of job loss, by household income, 2022



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: ANUpoll: October 2022.

4 Income and financial stress

4.1 Changes in real income

Australian household's income in October 2022 remains below what it was in February 2020, just prior to the COVID-19 pandemic. The specific question that we asked in February 2020 and all surveys since was 'Please indicate which of the following describes your household's total income, after tax and compulsory deductions, from all sources?' Respondents are then asked to choose from one of ten income categories. These categories have been converted into a continuous income measure using interval regression.[6]

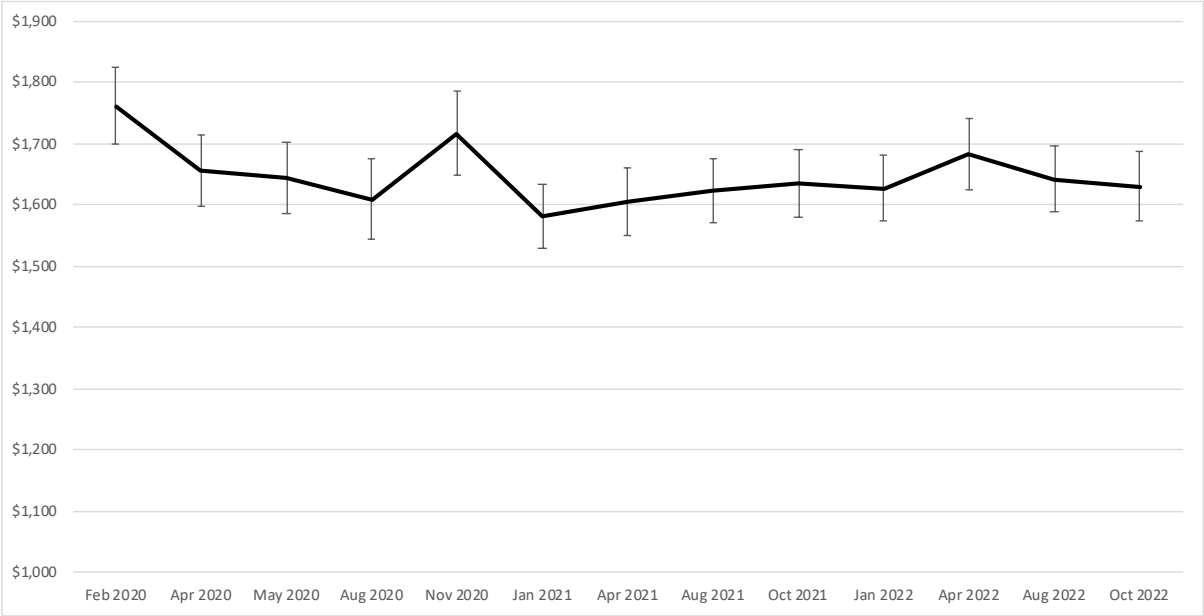
Figure 9 gives the estimated average household income for each wave of data collection, adjusted for the CPI value in the quarter in which the survey took place and expressed in February 2020 dollar equivalents. As the most recent CPI value is for the September 2022 quarter, the adjustment for the October 2022 survey is based on the budget forecast of 7.75 per cent year-on-year inflation, or a CPI value of 130.7. It should also be mentioned that for

the June 2020 quarter, inflation was negative. Furthermore, for the September 2020 quarter, the CPI value was still below the March 2020 value. So, we in fact increase nominal income for the April to August 2020 surveys in order to express those income values as February 2020 equivalents.

Apart from a short-lived peak in November 2020 (which may reflect one-off random variation), real household income over the last two and a half years had appeared to be following a U-shaped curve. After a large and statistically significant decline between February 2020 and April 2020 (from $1,761 to $1,655), real income continued to decline until January 2021 where it reached a low of $1,581 per week. Income then increased slowly until April 2022 ($1,682) such that by then although income was still below the pre-pandemic level, it was significantly above the January 2021 low.

There is some evidence that real income has started to decline since April 2022 as inflation has increased. By October 2022, household income was $1,629 (in February 2020 dollar equivalents), a 3.1 per cent decline since April 2022. Although there is uncertainty around these estimates, within the sample who completed both surveys this represents a statistically significant decline in living standards over the last six-months.

Figure 9 Weekly household income in February 2020 dollar equivalents, Australia, February 2020 to October 2022



Note: The “whiskers” on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: AUSSI-ESS: February 2020; ANUpoll: April, May, August, and November 2020; January, April, August, October 2021; and January, April, August, and October 2022

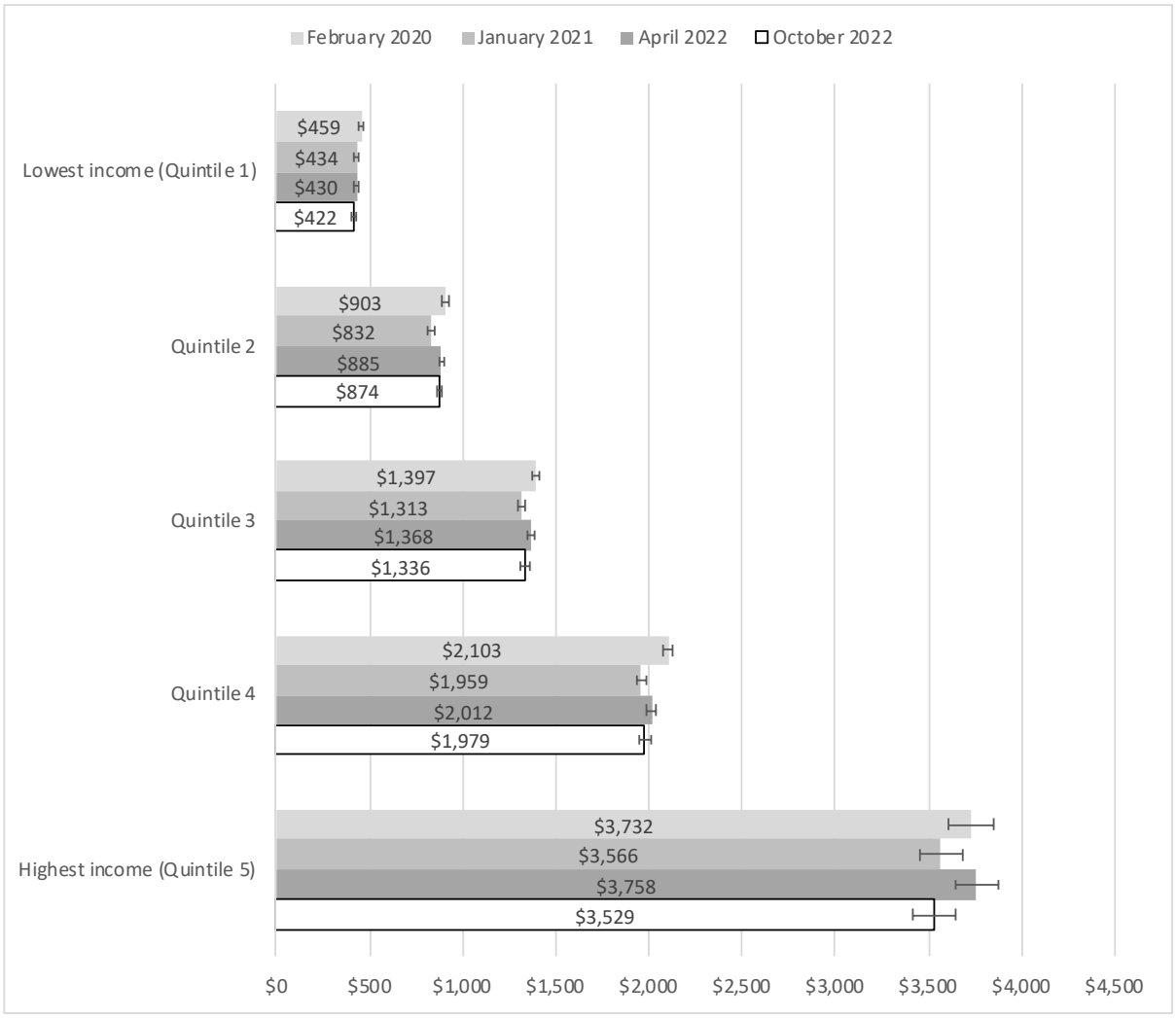
4.2 Distributional change

The changes in income documented in Figure 9 have varied somewhat across the income distribution, as shown in Figure 10 below. Focusing on four key points in time over the last two and a half years, average income (adjusted for inflation) is given for each of the five income quintiles. Between February 2020 and January 2021, the largest relative decline in income was for those in the second income quintile (7.8 per cent), although all income quintiles experienced a decline in income. Between January 2021 and April 2022, there were increases

in income for all quintiles apart from the bottom (where there was a 1.1 per cent decline) with the largest increase for the second (6.4 per cent) and top (5.4 per cent) quintiles.

Over the last six months (April to October 2022), there have been small declines in real income for income quintiles one through to four. However, the largest decline over this period was for those in the top income quintiles, with an estimated $229 drop in income, or 6.1 per cent. However, over the entire period (from February 2020 to October 2022) the largest relative decline in income was for those in the bottom income quintile, with a 7.8 per cent decrease, or $37 in February 2020 dollar equivalents.

Figure 10 Weekly household income in February 2020 dollar equivalents, selected months from February 2020 to October 2022, by quintile



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: AUSSI-ESS: February 2020; ANUpoll: January 2021; and April and October 2022

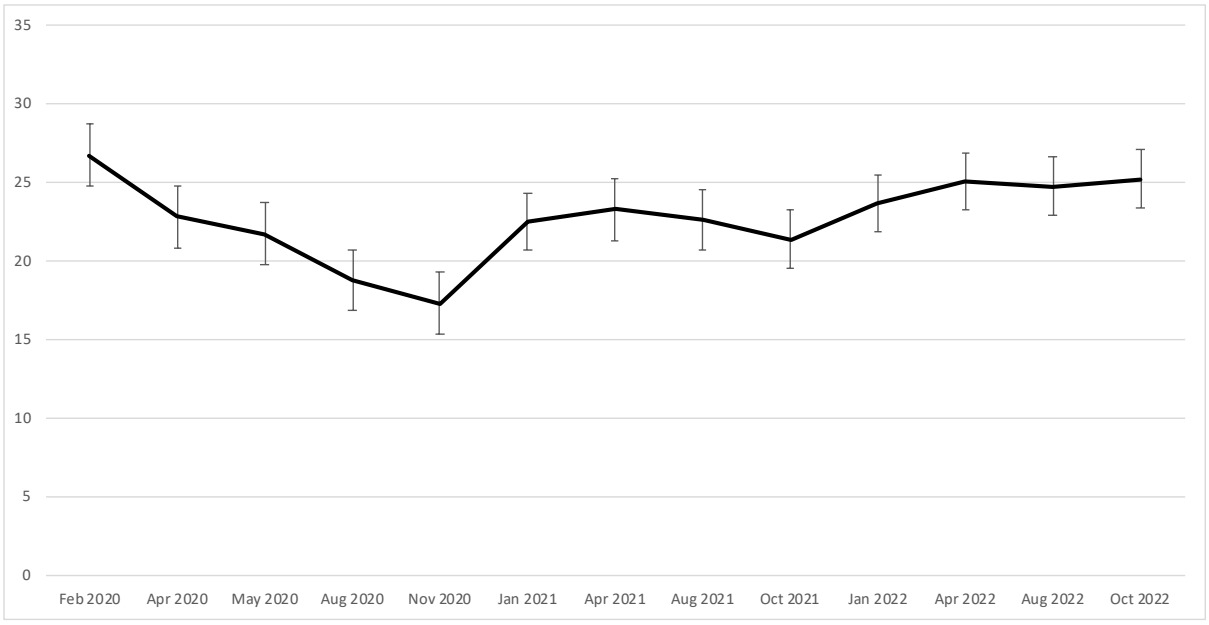
4.3 Financial stress

Although there has been a fall in average real income over the last two and a half years and fall for all income quintiles, this has not necessarily always translated into increases in financial stress. This is partly because expenditure opportunities and requirements have also been impacted by the pandemic, particularly when borders were closed, and social distancing measures were still in place. Since February 2020, respondents have been asked 'Which of the

following descriptions comes closest to how you feel about your household's income nowadays?' with four response options: Living comfortably on present income; Coping on present income; Finding it difficult on present income; and Finding it very difficult on present income.

Figure 11 gives the per cent of Australians who are estimated to find it difficult (or very difficult) on their present income. Pre-COVID, more than one-quarter (26.7 per cent) of Australians said that they were finding it difficult on their present income. This declined to 17.3 per cent by November 2020 during the first year of the pandemic. By October 2022, however, slightly more than one-quarter of Australians (25.1 per cent) were again finding it difficult on their current income.

Figure 11 Difficulty getting by on current income, Australia, February 2020 to October 2022

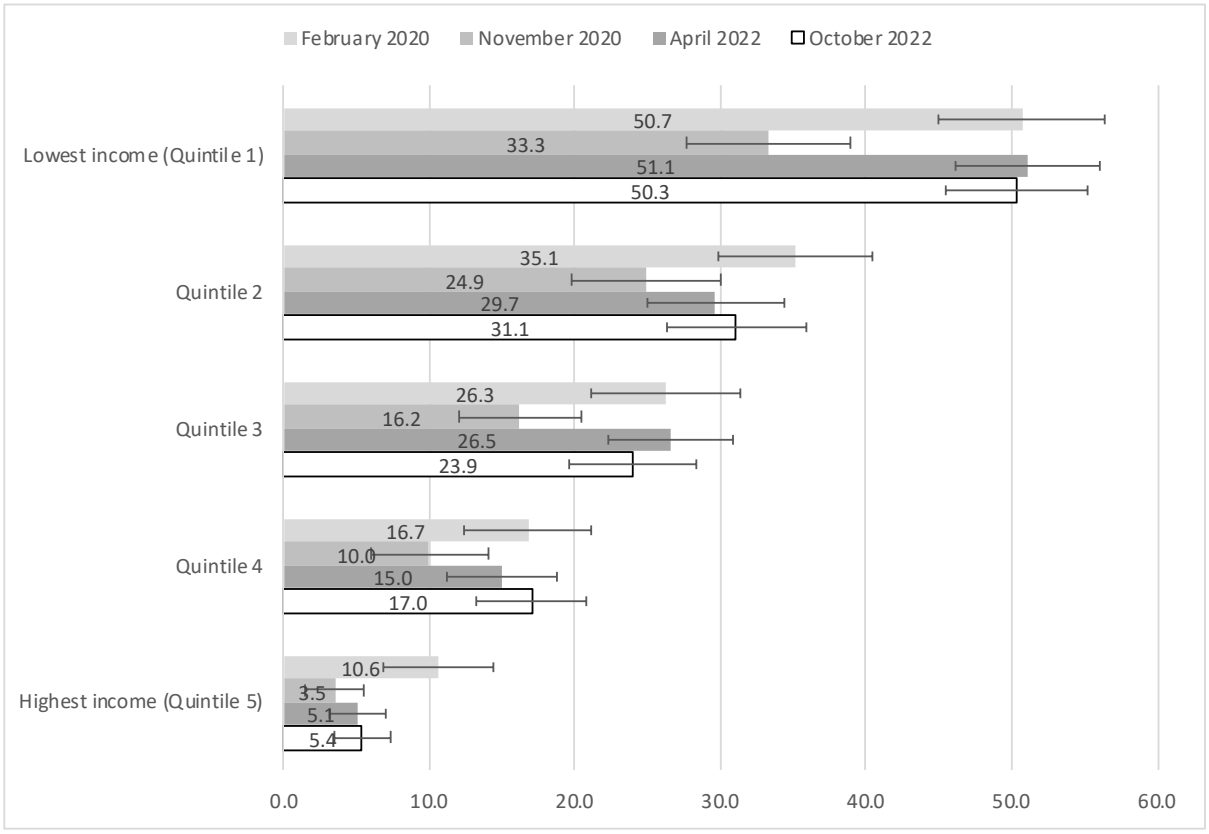


Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: AUSSI-ESS: February 2020; ANUpoll: April, May, August, and November 2020; January, April, August, October 2021; and January, April, August, and October 2022

The changes in this measure of financial stress were not consistent across the income distribution between February 2020 and October 2022 (Figure 12). Although there was a decline in financial stress for all income quintiles, the biggest relative decline in financial stress between February 2020 and November 2020 was for those in the top income quintile – from 10.6 per cent saying they were finding it difficult to 3.5 per cent. All income quintiles then experienced an increase in financial stress up until April 2022, with substantial variation over the last 6 months. Over the entire period (from February 2020 to October 2022), it is only the top income quintile that has a significantly lower level of financial stress than pre-COVID, with all other quintiles with a similar value to prior to the pandemic.

Figure 12 Per cent of Australians finding it difficult to get by on current income, selected months from February 2020 to October 2022, by household income quintile



Note: The "whiskers" on the lines indicate the 95 per cent confidence intervals for the estimate.

Source: AUSSI-ESS: February 2020; ANUpoll: November 2020; and April and October 2022

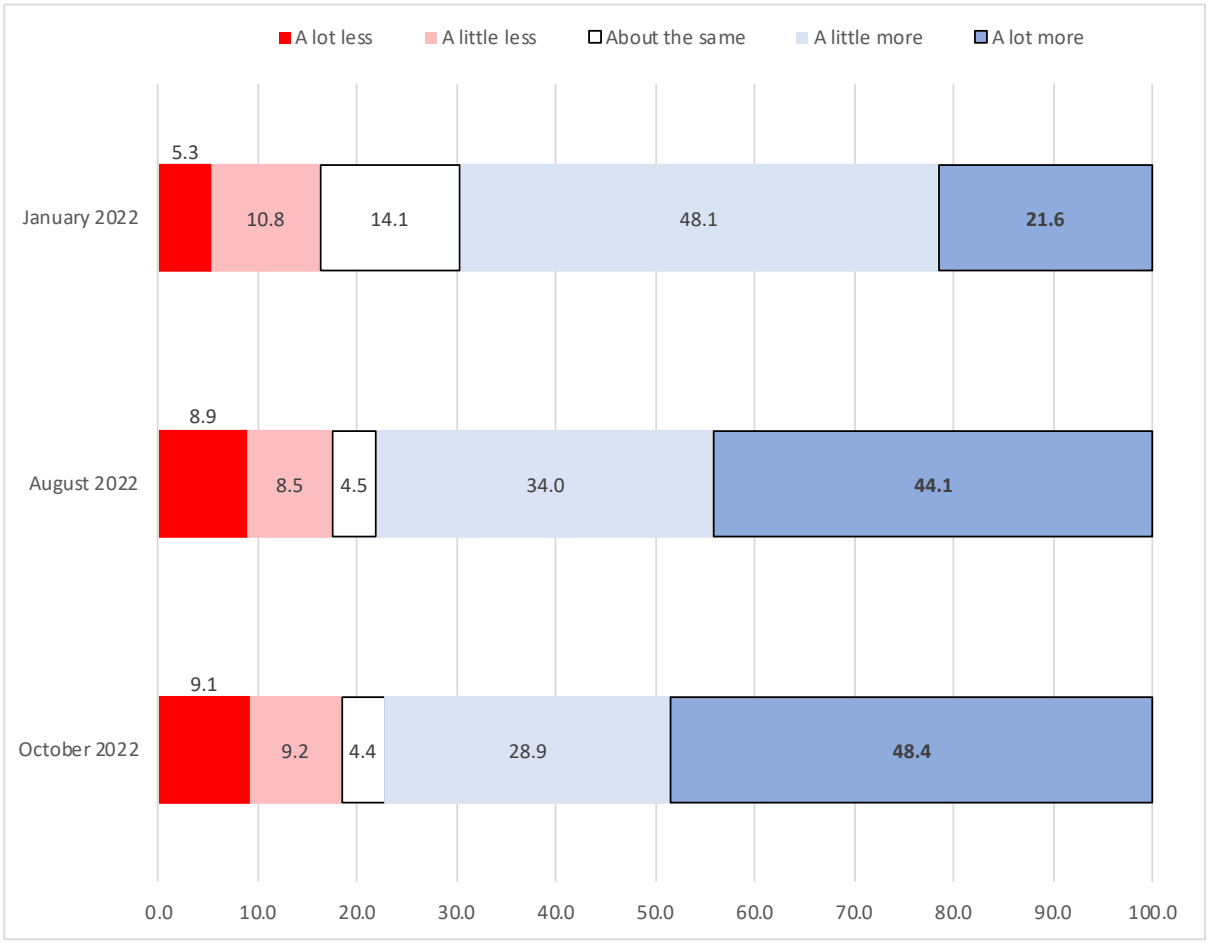
5 Prices and the relationship with wellbeing

Inflation is at levels in Australia not seen since the late 1980s (apart from the one-off shock due to the introduction of the Goods and Services Tax in 2000). Australia is not alone in experiencing inflationary pressures, with Russia's invasion of Ukraine and ongoing supply constraints due to COVID-19 restrictions (including currently in China) pushing up prices in all major economies. In the United Kingdom, for example, the CPI increased by 8.8 per cent in the 12 months leading up to September 2022, with inflation over the same period in the US only slightly lower at 8.2 per cent.

5.1 Views on price rises

In January, August, and October 2022 ANUpoll respondents were asked 'Thinking back to prior to the COVID-19 pandemic in Australia, how much more or less do you think you would have to pay now for the same level of goods or services?' Over that period there has been a large increase in the per cent of Australians who think that prices have gone up by 'A lot more', from 21.6 per cent in January 2022 (when year on year inflation was 5.1 per cent) to 44.1 per cent in August 2022 and then 48.4 per cent in October 2022 (Figure 13), by which time inflation was around 7.3 per cent, or perhaps even higher depending on what is estimated for the December quarter CPI.

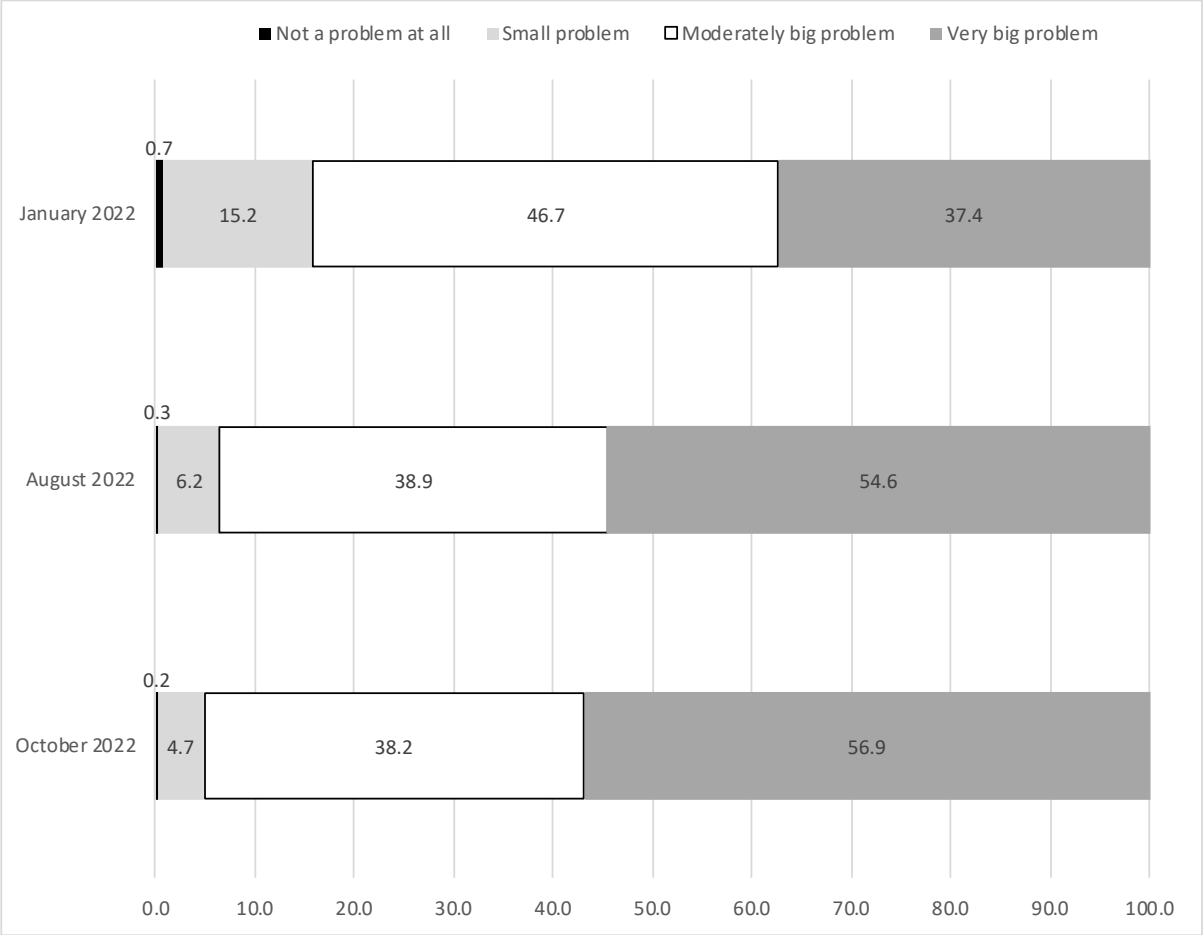
Figure 13 Estimated price rises since before COVID-19, Australia, January, August, and October 2022



Source: ANUpoll: January, August, and October 2022

Over the same period ANUpoll respondents have also been asked 'How much of a problem do you think rising prices are in Australia?' There has been a large increase in the proportion of Australians that think rising prices are a very big problem (Figure 14). In January 2022, 37.4 per cent of Australians thought that price rises were a very big problem, already quite a large percentage. However, this increased to 54.6 per cent in August 2022 and then again to 56.9 per cent in October 2022. In January 2022, there were still 15.9 per cent of Australians who thought that price rises were either not a problem at all or a small problem. This had decreased by more than two-thirds by October 2022 such that less than one-in-twenty Australians thought that rising prices were only a small problem.

Figure 14 Perceptions of price rises as a problem, Australia, January, August, and October 2022



Source: ANUpoll: January, August, and October 2022

5.2 Who has been impacted by rising prices?

Not everyone appears to have had the same experience with rising prices. In Appendix Table A4, we present regression model estimates of the factors associated with the extent to which Australians thinks that rising prices are a problem. The relationship is estimated using an ordered probit model, and a positive coefficient indicates that a person with that particular characteristic is more likely to think that rising prices are a problem compared to a person with the base case characteristics (described under the table), holding all else constant.

Females are more likely to think rising prices are a problem than males. This result holds in the regression analysis (where we hold constant other observable characteristics), but can also be seen when we make a simple comparison between the per cent of males who think that rising prices are a very big problem (52.5 per cent) and the per cent of females who think so (61.2 per cent).

Older Australians are less likely to think that rising prices are a problem. There are also quite large differences by language spoken at home and broad country of birth. Those who were born overseas in a non-English speaking country were the least likely to think that rising prices were a very big problem, whereas when we hold constant country of birth those who speak a language other than English at home are more likely to think rising prices are a problem than those who speak English only.

There were also quite large differences by education. Those who had not completed Year 12 were the most likely to think that rising prices were a very big problem (64.6 per cent). Those with a Certificate III/IV but no university qualification were also more likely to think that rising prices were a very big problem (60.4 per cent), but there were fewer differences between those who had completed Year 12 but did not have a qualification (53.9 per cent) those who had an undergraduate degree (53.2 per cent) and those with a postgraduate degree (48.9 per cent).

Those who live in the second most and most advantaged areas were the least likely to think that rising prices were a very big problem, with some weak evidence that those in the most disadvantaged areas were less likely to think they were a problem compared to those in the middle (SEIFA) quintile. Interestingly, and perhaps surprisingly, there were no major differences between those in capital cities and non-capital cities and across the income distribution. There is some evidence that the very top of the income distribution (the fifth quintile) are less likely to think that rising prices are a very big problem

5.3 The relationship between income, price rises and wellbeing

Throughout the data collection period for the CSRM COVID-19 Impact Monitoring Survey Series, we have been documenting the relationship between COVID-19 related variables and subjective wellbeing (particularly as measured by life satisfaction). We have shown that people's own experiences with COVID-19 infection, the policy settings in the area in which they live, and local case numbers are all associated with changes in life satisfaction through time and variation in life satisfaction at a particular point in time. It is likely to be true that the pandemic is still having ongoing impacts on wellbeing, despite very few restrictions still being in place. As shown in Figure 1, life satisfaction in October 2022 is still well below what it was in October 2019, prior to the Black Summer bushfires and the start of the pandemic.

Increasingly, however, other economic concerns are likely to be as important in explaining general wellbeing. It is true that some of these economic circumstances are an after effect of the pandemic and some may reflect ongoing pandemic policies in Australia's trading partners (particularly China). However, some of these economic pressures have emerged only recently and are in part separate from the pandemic (including arguably the illegal invasion of Ukraine by Russia).

We can see this relationship in Appendix Table A5 which summarises regression analyses of the factors associated with life satisfaction in October 2022. For the first model, we include the same demographic, socioeconomic, and demographic factors as before and estimate the relationship in April 2020 in the first month of the pandemic in Australia. In the second model, we re-estimate the relationship using data from October 2022. Finally, in the third model we re-estimate for October 2022, but also include two additional variables to help us capture the impact of price increases. Specifically, we include the level of life satisfaction a person had in January 2022 (prior to the rapid increase in prices) as well as a dummy variable for whether or not the person thinks that rising prices are a very big problem in Australia (as of October 2022). While this model does not completely demonstrate a causal relationship, it can be used to understand the factors associated with a change in wellbeing since January 2022.

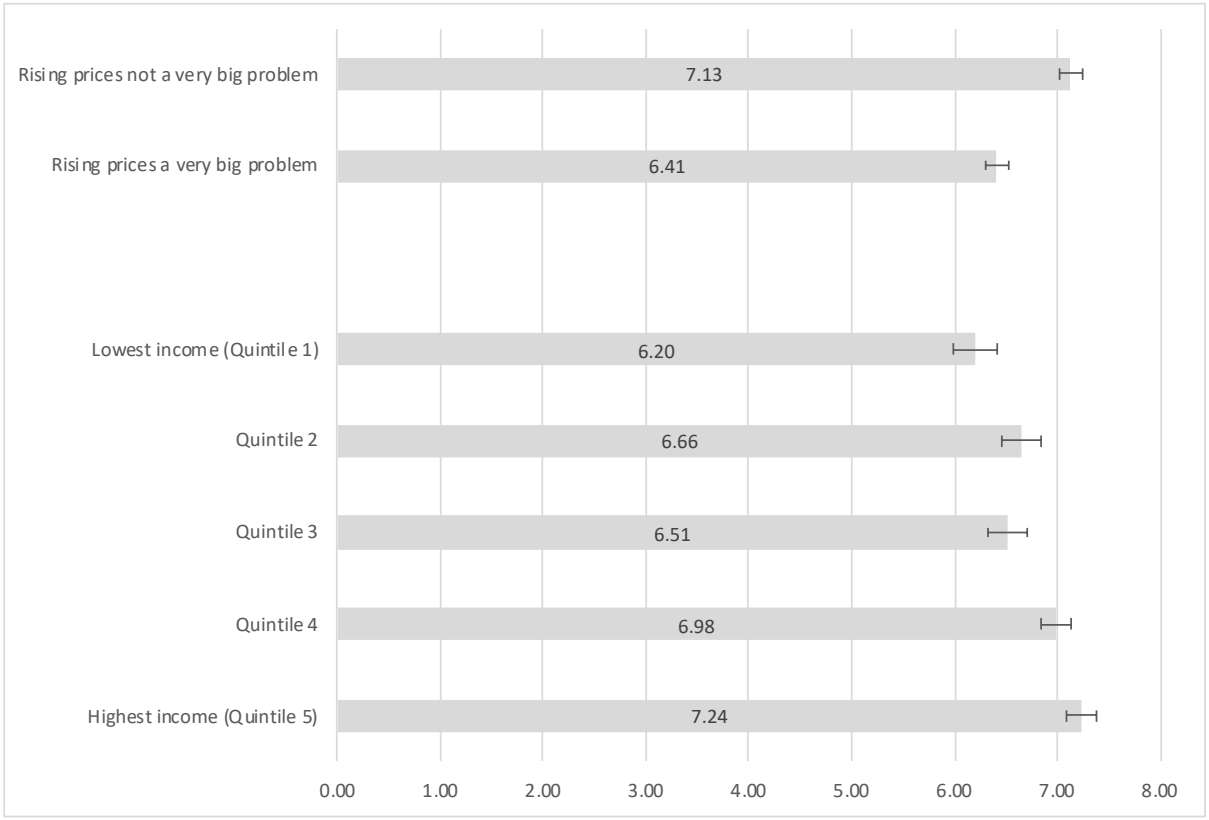
Focusing on Models 1 and 2, In April 2020 there was no significant difference in life satisfaction between the middle and the bottom of the income distribution. Furthermore, the estimated difference between the middle and the top of the distribution was relatively small (0.62). By October 2022, a very large difference had opened up between the bottom of the income

distribution and the middle (-0.65), and the difference between those at the top of the distribution and the middle had widened (0.87). Income matters far more for life satisfaction than it did early in the pandemic.

Focusing on Model 3 and leaving aside the economic variables for now, we can see from Appendix Table A5 that life satisfaction has increased for older Australians, decreased for Aboriginal and Torres Strait Islander Australians, and increased for those who live in the second and fourth quintiles in terms of area-level socioeconomic advantage/disadvantage. There were also large differences by price perceptions and by household income.

The differences by economic characteristics hold when we control for other observable characteristics including life satisfaction in January 2022, but can also be demonstrated in Figure 15 with a comparison of averages. Life satisfaction in October 2022 was 10 per cent lower for those who thought that rising prices were a very big problem compared to those who did not (6.41 compared to 7.13) and 14 per cent lower for those in the bottom income quintile compared to those in the top income quintile (6.20 compared to 7.24). These differences were far larger than the differences between life satisfaction in October 2019 and April 2020 when restrictions were greatest across the country and there was substantial uncertainty as to what the mortality rates from COVID-19 would end up being in Australia.

Figure 15 Life satisfaction by income and perceptions of prices, and October 2022



Source: ANUpoll: October 2022

6 Concluding comments

Australia is facing one of the most challenging set of economic circumstances in a number of years, with global supply chain shocks and international conflict leading to large price increases for a range of goods and services. Real wages are flat or declining for many, and large budget

deficits and accumulated debt due to the pandemic are giving governments fewer options to intervene than they may have had previously. On the other hand though, the labour market in Australia is tighter than it has been for decades with rates of unemployment and underemployment not seen in over a generation.

It is an interesting time, therefore, for the incoming Labor government to have made wellbeing a central focus of their first budget. Wellbeing has many dimensions, and in this paper we have analysed how many relevant measures have varied over the last two and a half years and how they vary across the Australian population as of late 2022. Like the macroeconomic circumstances, we have shown a very mixed picture, with quite complicated policy pressures.

Average hours worked per person are now above what they were pre-pandemic, and far fewer Australians are worried about losing their jobs than they were in 2017. However, there are certain groups within the population who are more concerned than others including those in the middle part of the age distribution, those born overseas in a non-English speaking country, those with low education, and those with low income. The very tight labour market may not be bringing the same benefits to these groups as it is to the rest of the population.

Because of high rates of inflation, average household income is still below what it was pre-pandemic. In relative terms, the decline has been greatest at the bottom of the distribution, and lowest at the middle part of the distribution. Middle-income Australians now have an income that is higher relative to the bottom of the distribution than it was pre-pandemic, but also higher than it was relative to the top of the distribution. However, it is still at the top of the distribution where people are least likely to think that their income is not sufficient to meet their needs, with that gap widening over the pandemic period.

As COVID-19 restrictions have eased, the factors that impact on a person's life satisfaction have also shifted. In April 2020 there was no significant difference in life satisfaction between the middle and the bottom of the income distribution. By October 2022, a very large difference had opened up, and the difference between those at the top of the distribution and the middle had widened. Furthermore, one of the key determinants of life satisfaction now is peoples experiences of price increases. If Health Ministers and Premiers were the focus of public policy in 2020 and 2021, by late 2022 Treasurers had well and truly returned to be the key to government success or failure.

References

Diris, R. and O. van Vliet (2022). 'The relation between skills and job security: Identifying the contractual return to skills.' *IZA DP No. 15513*, IZA Institute of Labor Economics, Bonn.

Jarosch, G. (2021). 'Searching for job security and the consequences of job loss.' NBER Working Paper No. 28481, National Bureau of Economic Research, Cambridge, MA.

Kessler, R.C., G. Andrews, L.J. Colpe, E. Hiripi, D.K. Mroczek, S.L. Normand, E.E., Walters and A.M. Zaslavsky, (2002). 'Short screening scales to monitor population prevalences and trends in non-specific psychological distress.' *Psychological Medicine*, 32(6): 959-976.

Phillips, B., M. Gay, C. Joseph and R. Webster (2022). 'Distributional modelling of 2022/23 Federal Budget.'" Research Note, Centre for Social Research Methods, The Australian National University, Canberra.

Appendix 1 Describing the data

In April 2020, the Social Research Centre on behalf of the ANU Centre for Social Research and Methods collected the first wave of data as part of the centre's COVID-19 Impact Monitoring Series.[7] Since that first wave of data collection, surveys have been undertaken a further 12 times, with the most recent wave of data collection undertaken in October 2022.

Between the 1st and 13th wave of data collection for the COVID-19 Impact Monitoring series, there have been 6,537 adult Australians that have answered at least one of the surveys, with 1,341 answering all surveys.

Surveys have also been conducted with the same group of respondents in January and February 2020, just before the COVID-19 pandemic started in Australia, as part of the ANUpoll and Australian Social Survey International-ESS (AUSSI-ESS) surveys respectively.[8] This allows us to track outcomes for the same group of individuals from just prior to COVID-19 impacting Australia through to two-and-a-bit years since COVID-19 first reached Australia.

The October 2022 survey collected data from 3,468 Australians aged 18 years and over.[9] Data collection for this most recent ANUpoll commenced on the 10th of October 2022 with a pilot test of telephone respondents. The main data collection commenced on the 11th and concluded on the 24th of October. 57.3 per cent of the sample had completed the survey by the 13th of October and the average interview duration was 27.4 minutes.

The Social Research Centre collected data online and through Computer Assisted Telephone Interviewing (CATI) in order to ensure representation from the offline Australian population. Around 2.8 per cent of interviews were collected via CATI.[10] A total of 4,280 panel members were invited to take part in the October 2022 survey, leading to a wave-specific completion rate of 81.0 per cent.[11]

Data in the paper is weighted to population benchmarks. For Life in Australia™, the approach for deriving weights generally consists of the following steps:

1. Compute a base weight for each respondent as the product of two weights:
    a. Their enrolment weight, accounting for the initial chances of selection and subsequent post-stratification to key demographic benchmarks
    b. Their response propensity weight, estimated from enrolment information available for both respondents and non-respondents to the present wave.
2. Adjust the base weights so that they satisfy the latest population benchmarks for several demographic characteristics.

Across all thirteen surveys undertaken during the COVID-19 period, there were 6,690 respondents that completed at least one of the waves of data collection. 18.3 per cent of these completed one wave of data collection only, with a further 7.4 per cent having completed two waves. At the other end of the distribution, 20.5 per cent of the cumulative respondents completed all thirteen waves of data collection and a further 6.3 per cent completed twelve of the thirteen waves.

Table 1 gives the number of respondents for each of the thirteen waves of data collection during the COVID-19 period, as well as the two pre-COVID waves. The table also gives the survey window for the data collection, and the per cent of January 2020 respondents who completed that particular wave. In between the April and August 2022 surveys, the

Comparative Study of Electoral Systems (CSES) survey was undertaken on the Life in Australia™ panel, with a limited range of data items available for analysis in this paper.

Table A1 Survey participation – January 2020 to April 2022

Wave	Survey window	Sample size	Per cent of January 2020 survey that completed wave
January 2020	20th January to 3rd February, 2020	3,249	100
February 2020	17th February to 2nd March, 2020	3,228	91.4
1 – April 2020	14th to 27th April, 2020	3,155	88.8
2 – May 2020	11th to 25th May, 2020	3,249	91.0
3 – August 2020	10th to 24th August, 2020	3,061	85.9
4 – October 2020	12th to 26th October, 2020	3,043	85.5
5 – November 2020	9th to 23rd November, 2020	3,029	84.9
6 – January 2021	18th January to 1st February, 2021	3,459	83.8
7 – April 2021	12th to 26th April, 2021	3,286	80.8
8 – August 2021	10th to 23rd August, 2021	3,135	71.1
9 – October 2021	12th to 26th October, 2021	3,474	68.6
10 – January 2022	17th to 30th January, 2022	3,472	63.4
11 – April 2022	11th to the 24th of April, 2022	3,587	64.0
CSES	23rd May to 5th June, 2022	3,556	63.5
12 – August 2022	8th to 22nd August, 2022	3,510	62.7
13 – October 2022	10th to 24th October, 2022	3,468	62.4

Appendix 2 Regression tables

Table A1 Factors associated with life satisfaction, October 2019 to October 2022

Explanatory variables	Coeff.	Signif.
Hours worked	0.005	***
Female	0.063	
Aged 18 to 24 years	-0.067	
Aged 25 to 34 years	-0.095	
Aged 45 to 54 years	-0.054	
Aged 55 to 64 years	0.217	***
Aged 65 to 74 years	0.663	***
Aged 75 years plus	0.970	***
Indigenous	-0.469	***
Born overseas in a main English-speaking country	0.053	
Born overseas in a non-English speaking country	0.045	
Speaks a language other than English at home	0.000	
Has not completed Year 12 or post-school qualification	-0.102	
Has a post graduate degree	0.169	**
Has an undergraduate degree	0.227	***
Has a Certificate III/IV, Diploma or Associate Degree	0.045	
Lives in the most disadvantaged areas (1st quintile)	-0.089	
Lives in next most disadvantaged areas (2nd quintile)	-0.015	
Lives in next most advantaged areas (4th quintile)	0.123	**
Lives in the most advantaged areas (5th quintile)	0.124	**
Data collected in January 2020	0.369	***
Data collected in May 2020	0.344	***
Data collected in August 2020	0.051	*
Data collected in November 2020	0.481	***
Data collected in January 2021	0.507	***
Data collected in April 2021	0.469	***
Data collected in August 2021	0.086	***
Data collected in October 2021	0.164	***
Data collected in January 2022	0.040	
Data collected in April 2022	0.220	***
Data collected in August 2022	0.302	***
Data collected in October 2022	0.251	***
Constant	6.095	***
Samples size – Observations	40,677	
Sample size – Individuals	6,293	

Notes: Random effects linear model. The base case individual is male; aged 35 to 44 years; non-Indigenous; born in Australia; does not speak a language other than English at home; has completed Year 12 but does not have a post-graduate degree; and lives in neither an advantaged or disadvantaged suburb (third quintile). Further, the base case observation was from April 2020

Coefficients that are statistically significant at the 1 per cent level of significance are labelled ***; those significant at the 5 per cent level of significance are labelled **, and those significant at the 10 per cent level of significance are labelled *

Source: ANUpoll, Oct 2019; January, April, May, August, October, and November 2020; January, April, August, October 2021; and January, April, May, August, and October 2022.

Table A2 Factors associated with perceived probability of losing one's job, employed Australians, October 2022

Explanatory variables	Coeff.	Signif.
Female	-7.615	***
Aged 18 to 24 years	-8.414	
Aged 25 to 34 years	1.288	
Aged 45 to 54 years	-2.823	
Aged 55 to 64 years	-5.254	
Aged 65 to 74 years	-22.633	***
Aged 75 years plus	-47.658	***
Indigenous	13.683	
Born overseas in a main English-speaking country	-5.271	
Born overseas in a non-English speaking country	2.208	
Speaks a language other than English at home	1.146	
Has not completed Year 12 or post-school qualification	6.965	
Has a post graduate degree	7.313	
Has an undergraduate degree	1.381	
Has a Certificate III/IV, Diploma or Associate Degree	1.941	
Lives in the most disadvantaged areas (1st quintile)	8.428	*
Lives in next most disadvantaged areas (2nd quintile)	2.090	
Lives in next most advantaged areas (4th quintile)	0.577	
Lives in the most advantaged areas (5th quintile)	0.092	
Lives outside of a capital city	-11.627	***
Lives in lowest income household (1st quintile)	15.067	**
Lives in next lowest income household (2nd quintile)	7.599	
Lives in next highest income household (4th quintile)	-3.340	
Lives in highest income household (5th quintile)	-8.724	**
Constant	13.930	**
Sample size	1,809	

Notes: Tobit regression model. The base case individual is male; aged 35 to 44 years; non-Indigenous; born in Australia; does not speak a language other than English at home; has completed Year 12 but does not have a post-graduate degree; lives in neither an advantaged nor disadvantaged suburb (third quintile), lives in a capital city, and lives in neither a high-income nor low-income household (third quintile).

Coefficients that are statistically significant at the 1 per cent level of significance are labelled ***; those significant at the 5 per cent level of significance are labelled **, and those significant at the 10 per cent level of significance are labelled *

Source: ANUpoll, October 2022.

Table A3a Factors associated with specific labour market concerns, October 2022

Explanatory variables	Employer finds someone in Australia who is willing to do your job for less money		Employer finds someone overseas who is willing to do your job for less money		Aren't able to keep up with the technical skills required to do job	
	Coeff.	Signif.	Coeff.	Signif.	Coeff.	Signif.
Female	-0.018		-0.045		-0.099	
Aged 18 to 24 years	-0.071		-0.118		-0.171	
Aged 25 to 34 years	-0.028		0.002		-0.015	
Aged 45 to 54 years	0.065		0.140		-0.204	**
Aged 55 to 64 years	-0.123		-0.036		-0.179	*
Aged 65 to 74 years	-0.376	**	-0.265		-0.396	**
Aged 75 years plus	-1.174	***	-0.857	**	-0.616	**
Indigenous	0.155		0.441		-0.113	
Born overseas in a main English-speaking country	0.043		0.161		-0.066	
Born overseas in a non-English speaking country	0.282	**	0.365	***	0.078	
Speaks a language other than English at home	0.189	*	0.197	*	0.216	**
Has not completed Year 12 or post-school qualification	-0.024		-0.010		-0.199	
Has a post graduate degree	-0.055		0.057		-0.038	
Has an undergraduate degree	-0.065		-0.009		-0.050	
Has a Certificate III/IV, Diploma or Associate Degree	0.005		-0.006		-0.136	
Lives in the most disadvantaged areas (1st quintile)	0.078		0.255	**	0.041	
Lives in next most disadvantaged areas (2nd quintile)	-0.021		0.028		-0.161	
Lives in next most advantaged areas (4th quintile)	0.031		0.213	*	-0.097	
Lives in the most advantaged areas (5th quintile)	-0.148		-0.162		-0.117	
Lives outside of a capital city	-0.277	***	-0.267	***	-0.080	
Lives in lowest income household (1st quintile)	0.148		0.247		0.356	**
Lives in next lowest income household (2nd quintile)	0.197	*	0.183		0.281	**
Lives in next highest income household (4th quintile)	-0.270	***	-0.294	***	-0.137	
Lives in highest income household (5th quintile)	-0.204	*	-0.229	**	-0.115	
Cut-point 1	0.058		0.445		-0.156	
Cut-point 2	0.980		1.233		0.816	
Cut-point 3	1.686		1.873		1.790	
Sample size	1,809		1,809		1,809	

Notes: Ordered Probit Regression Model. The base case is male; aged 35 to 44 years; non-Indigenous; born in Australia; does not speak a language other than English at home; has completed Year 12 but does not have a post-graduate degree; lives in neither an advantaged nor disadvantaged suburb (third quintile); lives in a capital city; lives in neither a high-income nor low-income household (third quintile).

Coefficients that are statistically significant at the 1 per cent level of significance are labelled ***; those significant at the 5 per cent level of significance are labelled **, and those significant at the 10 per cent level of significance are labelled *

Source: ANUpoll: October 2022

Table A3b Factors associated with specific labour market concerns, October 2022

Explanatory variables	Employer uses machines or computer programs to replace human workers		Overall industry is shrinking		Company is poorly managed	
	Coeff.	Signif.	Coeff.	Signif.	Coeff.	Signif.
Female	-0.069		-0.063		-0.091	
Aged 18 to 24 years	-0.100		-0.253	*	-0.289	**
Aged 25 to 34 years	-0.100		-0.004		0.011	
Aged 45 to 54 years	0.021		-0.024		-0.162	*
Aged 55 to 64 years	-0.149		-0.159		-0.416	***
Aged 65 to 74 years	-0.302	*	-0.564	***	-0.685	***
Aged 75 years plus	-0.632	**	-1.150	***	-1.351	***
Indigenous	0.066		-0.214		0.082	
Born overseas in a main English-speaking country	0.035		0.001		-0.071	
Born overseas in a non-English speaking country	0.243	**	0.409	***	0.165	
Speaks a language other than English at home	0.178		0.062		0.037	
Has not completed Year 12 or post-school qualification	-0.021		-0.032		-0.135	
Has a post graduate degree	-0.119		0.067		0.037	
Has an undergraduate degree	-0.123		-0.073		-0.173	*
Has a Certificate III/IV, Diploma or Associate Degree	-0.164		0.046		-0.057	
Lives in the most disadvantaged areas (1st quintile)	0.090		0.017		-0.121	
Lives in next most disadvantaged areas (2nd quintile)	-0.150		-0.045		-0.186	*
Lives in next most advantaged areas (4th quintile)	0.010		-0.042		-0.213	**
Lives in the most advantaged areas (5th quintile)	-0.279	**	-0.138		-0.263	***
Lives outside of a capital city	-0.197	**	-0.146	*	-0.108	
Lives in lowest income household (1st quintile)	0.299	*	0.554	***	0.041	
Lives in next lowest income household (2nd quintile)	0.064		0.244	**	0.076	
Lives in next highest income household (4th quintile)	-0.234	**	-0.094		-0.174	*
Lives in highest income household (5th quintile)	-0.228	**	-0.053		-0.237	***
Cut-point 1	0.102		-0.010		-0.808	
Cut-point 2	0.912		0.804		0.004	
Cut-point 3	1.577		1.654		0.803	
Sample size	1,809		1,809		1,809	

Notes: Ordered Probit Regression Model. The base case is male; aged 35 to 44 years; non-Indigenous; born in Australia; does not speak a language other than English at home; has completed Year 12 but does not have a post-graduate degree; lives in neither an advantaged nor disadvantaged suburb (third quintile); lives in a capital city; lives in neither a high-income nor low-income household (third quintile).

Coefficients that are statistically significant at the 1 per cent level of significance are labelled ***; those significant at the 5 per cent level of significance are labelled **, and those significant at the 10 per cent level of significance are labelled *

Source: ANUpoll: October 2022

Table A4 Factors associated with price concerns, October 2022

Explanatory variables	Coeff.	Signif.
Female	0.140	**
Aged 18 to 24 years	-0.094	
Aged 25 to 34 years	-0.081	
Aged 45 to 54 years	-0.038	
Aged 55 to 64 years	-0.081	
Aged 65 to 74 years	-0.241	**
Aged 75 years plus	-0.471	***
Indigenous	0.022	
Born overseas in a main English-speaking country	-0.064	
Born overseas in a non-English speaking country	-0.170	*
Speaks a language other than English at home	0.145	
Has not completed Year 12 or post-school qualification	0.327	***
Has a post graduate degree	-0.094	
Has an undergraduate degree	-0.025	
Has a Certificate III/IV, Diploma or Associate Degree	0.180	**
Lives in the most disadvantaged areas (1st quintile)	-0.093	
Lives in next most disadvantaged areas (2nd quintile)	-0.056	
Lives in next most advantaged areas (4th quintile)	-0.134	
Lives in the most advantaged areas (5th quintile)	-0.206	**
Lives outside of a capital city	0.021	
Lives in lowest income household (1st quintile)	0.027	
Lives in next lowest income household (2nd quintile)	-0.031	
Lives in next highest income household (4th quintile)	0.025	
Lives in highest income household (5th quintile)	-0.105	
Cut-point 1	-3.055	
Cut-point 2	-1.764	
Cut-point 3	-0.243	
Sample size	3,132	

Notes: Ordered Probit Regression Model. The base case is male; aged 35 to 44 years; non-Indigenous; born in Australia; does not speak a language other than English at home; has completed Year 12 but does not have a post-graduate degree; lives in neither an advantaged nor disadvantaged suburb (third quintile); lives in a capital city; lives in neither a high-income nor low-income household (third quintile).

Coefficients that are statistically significant at the 1 per cent level of significance are labelled ***; those significant at the 5 per cent level of significance are labelled **, and those significant at the 10 per cent level of significance are labelled *

Source: ANUpoll: October 2022

Table A5 Factors associated with life satisfaction, April 2020 and October 2022

Explanatory variables	Model 1 – April 2020		Model 2 – October 2022		Model 3 – October 2022 with additional controls	
	Coeff.	Signif.	Coeff.	Signif.	Coeff.	Signif.
Life satisfaction in January 2022					0.514	***
Thinks increases in prices a very big problem					-0.363	***
Female	0.088		0.078		0.075	
Aged 18 to 24 years	-0.123		0.348	*	0.055	
Aged 25 to 34 years	-0.217		0.071		-0.006	
Aged 45 to 54 years	-0.010		0.007		-0.097	
Aged 55 to 64 years	0.304	*	0.414	***	0.247	**
Aged 65 to 74 years	1.000	***	1.330	***	0.750	***
Aged 75 years plus	1.582	***	1.651	***	0.945	***
Indigenous	0.019		-0.759	*	-0.459	
Born overseas in a main English-speaking country	0.181		-0.029		0.035	
Born overseas in a non-English speaking country	0.003		0.200		0.169	
Speaks a language other than English at home	0.434	**	-0.037		-0.095	
Has not completed Year 12 or post-school qualification	-0.090		-0.276	*	-0.224	
Has a post graduate degree	0.129		0.033		-0.057	
Has an undergraduate degree	0.234		0.272	**	0.138	
Has a Certificate III/IV, Diploma or Associate Degree	0.147		-0.020		-0.094	
Lives in the most disadvantaged areas (1st quintile)	0.160		0.095		0.123	
Lives in next most disadvantaged areas (2nd quintile)	0.059		0.234	*	0.276	**
Lives in next most advantaged areas (4th quintile)	0.205		0.318	***	0.293	**
Lives in the most advantaged areas (5th quintile)	0.126		-0.034		0.044	
Lives outside of a capital city	0.333	***	0.213	**	0.095	
Lives in lowest income household (1st quintile)	-0.142		-0.655	***	-0.260	*
Lives in next lowest income household (2nd quintile)	-0.147		-0.194		-0.023	
Lives in next highest income household (4th quintile)	0.279	*	0.588	***	0.506	***
Lives in highest income household (5th quintile)	0.620	***	0.867	***	0.507	***
Constant	5.666	***	5.941	***	3.049	***
Sample size	2,798		3,139		2,117	

Notes: Linear Regression Model. The base case is male; aged 35 to 44 years; non-Indigenous; born in Australia; does not speak a language other than English at home; has completed Year 12 but does not have a post-graduate degree; lives in neither an advantaged nor disadvantaged suburb (third quintile); lives in a capital city; lives in neither a high-income nor low-income household (third quintile).

Coefficients that are statistically significant at the 1 per cent level of significance are labelled ***; those significant at the 5 per cent level of significance are labelled **, and those significant at the 10 per cent level of significance are labelled *

Source: ANUpoll: April 2020, January 2022; and October 2022

Endnotes

1 https://budget.gov.au/2022-23-october/content/overview/download/budget_overview.pdf

2 https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia/latest-release

3 https://budget.gov.au/2022-23-october/content/bp1/download/bp1_bs-4.pdf

4 Many of these are documented in the ANU Centre for Social Research and Methods' COVID-19 publications series - https://csrm.cass.anu.edu.au/research/publications/covid-19

5 The ANUpoll series of surveys is collected on a probability-based, longitudinal panel (Life in Australia™). By using probability-based recruiting (predominantly telephone-based) the unknown and unquantifiable biases inherent in opt-in (non-probability) panels are minimised and it is also possible to quantify the uncertainty around the estimates due to sampling error using standard statistical techniques. This is not possible with non-probability surveys.

6 For the interval regression, the natural log of the lower and upper bound of the income categories is the relevant dependent variable, and we use the same demographic, socioeconomic and geographic measures in the regression equations presented elsewhere in this paper. The predictions from the model are constrained to be in the same income category as they are observed to fall into.

7 https://csrm.cass.anu.edu.au/research/publications/covid-19

8 The ANUpoll series of surveys is collected on a probability-based, longitudinal panel (Life in Australia™). By using probability-based recruiting (predominantly telephone-based) the unknown and unquantifiable biases inherent in opt-in (non-probability) panels are minimised and it is also possible to quantify the uncertainty around the estimates due to sampling error using standard statistical techniques. This is not possible with non-probability surveys.

9 The unit record survey data is available for download through the Australian Data Archive (DOI: 10.26193/WBJE1K).

10 The contact methodology adopted for the online Life in Australia™ members is an initial survey invitation via email and SMS (where available), followed by multiple email reminders and a reminder SMS. Telephone follow up of panel members who have not yet completed the survey commenced in the second week of fieldwork and consisted of reminder calls encouraging completion of the online survey. The contact methodology for offline Life in Australia™ members was an initial SMS (where available), followed by an extended call-cycle over a two-week period. A reminder SMS was also sent in the second week of fieldwork.

11 Taking into account recruitment to the panel, the cumulative response rate for this survey is around 5.0 per cent.