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Working Paper:

Relative income poverty: levels, trends, context and issues
HILDA Wave 22

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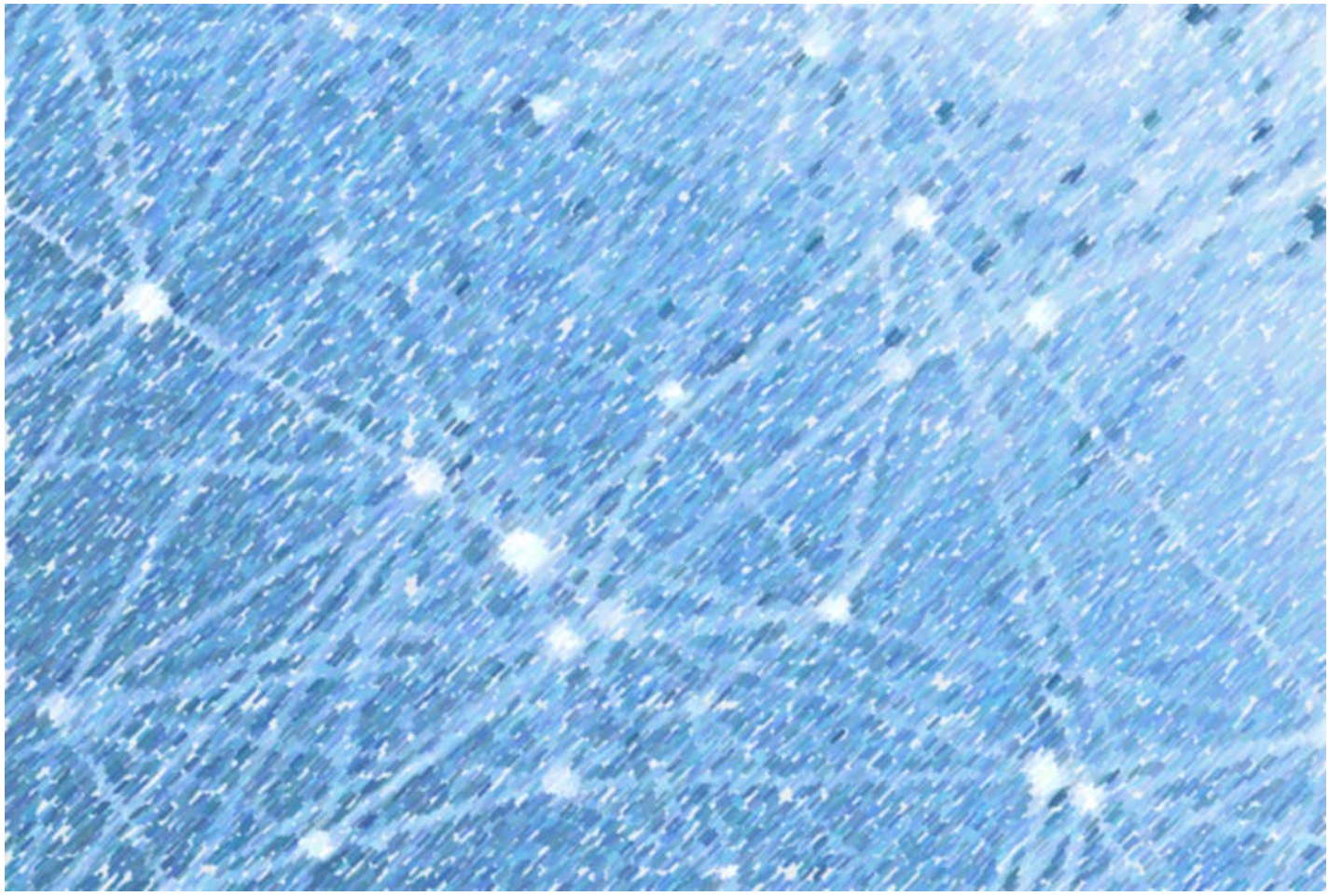

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Abstract

There are many conceptions of what poverty means in contemporary western societies, and an array of ways of seeking to measure its incidence. Data from the Household, Income, and Labour Dynamics Australia (HILDA) survey is used here to consider these issues and analyse trends over the past 21 years to 2022, focusing on the most frequently used measure, relative income poverty, with the poverty line drawn at the 50 per cent of median income level. The rich set of other indicators of wellbeing and deprivation in the HILDA survey are also considered. Over the past two years there has been a marked increase in inequality in Australia, and an increase in measured poverty. More generally the analysis points to extensive disjunctures between measured relative income poverty and other measures of hardship, and the perceptions of people themselves. While there is a tendency for higher levels of adverse outcomes for those identified as being in poverty, generally those identified using relative income poverty measures do not report such occurrences.

Contents

Abstract i
Contents iii
Tables iv
Figures v
Appendix tables vii
Glossary ix
1. Introduction and some technical matters 1
1.1. Concepts of poverty 1
1.1.1. Absolute or relative 1
1.1.2. Income based relative measures 2
1.1.3. Deprivation or outcome approaches 3
1.1.4. Sen's capability approach 4
1.1.5. Social values and behaviour 5
1.2. The use of relative income poverty 5
1.3. Components of relative income poverty measurement 6
1.3.1. Unit of analysis 6
1.3.2. Income 7
1.3.3. Equivalisation 8
1.3.4. Choice of poverty line cut-off 10
1.4. The HILDA Survey 10
1.5. Impact of COVID-19 11
1.6. Summary 12
2. Trends in relative income poverty 15
2.1. Incidence of relative income poverty 15
2.1.1. Different relative measures 15
2.1.2. Statistical estimation 16
2.1.3. Benchmarking 17
2.2. Person type 19
2.3. Incomes of those in poverty 19
2.4. Household/Family type 21
2.5. Households 24
2.6. State and location 25
2.6.1. State 25
2.6.2. Location 25
2.7. Housing characteristics 26
2.7.1. Income poverty estimation and housing costs 26
2.7.2. Trends by tenure 27
2.7.3. Measuring poverty using after-housing costs 28
2.8. Summary 31
3. Trends in income 33
3.1. Trends in real income 33

3.2. Measures of inequality 35
3.2.1. Lorenz and Gini 36
3.2.2. Atkinson 38
3.2.3. Generalised Entropy 39
3.2.4. Income shares and ratios 40
3.3. Summary 42
4. Income poverty and wealth 43
4.1. Trends in wealth 43
4.2. Income poverty and wealth 44
4.3. Older persons, poverty and wealth 46
4.4. Summary 48
5. The dynamics of relative income poverty 49
5.1. Poverty transitions 49
5.2. Poverty persistence 50
5.2.1. European persistent at risk of poverty rate 50
5.3. 'Real' relative income poverty – fixed poverty lines 51
5.3.1. The value of the poverty line 51
5.3.2. Looking forwards – 2001 poverty line 52
5.3.3. Looking backwards – 2022 poverty line 53
5.4. Summary 54
6. Placing relative income poverty in context 55
6.1. Self-perceived levels of wellbeing 55
6.1.1. Perception of prosperity 55
6.1.2. Satisfaction with financial situation 57
6.1.3. Life satisfaction 57
6.2. Psychological distress 58
6.3. Incidence of financial stress 59
6.4. Consensual standards 63
6.5. Summary 67
7. Conclusion 69
References 71
Data Appendix 75

Tables

Table 1. Persons, poverty rate, numbers and distribution (relative income , 50 per cent median), by household/family type, 2022 22
Table 2. Persons, poverty rate (relative income, before and after-housing costs, 50 per cent median), 2022 29
Table 3. Persons, poverty rate (relative income, before and after-housing costs, 50 per cent median), by household/family type, 2022 30
Table 4. Persons, poverty rate (relative income, before and after-housing costs, 50 per cent median), by housing tenure, 2022 30

Table 5. Persons, real equivalised disposable income, selected analytical characteristics, by income decile, 2022 34
Table 6. Persons, real equivalised disposable income, selected analytical characteristics, by household family type, 2022 35
Table 7. Persons, equivalised disposable incomes, selected income ratios and income shares, 2001 and 2022 42
Table 8. Real household net wealth, by person weighted household wealth decile, 2002 to 2022 44
Table 9. Persons, poverty rate and distribution (relative income, 50 per cent median), by household, and per capita, net wealth decile, 2022 45
Table 10. Persons aged 65 years and over, poverty rate and distribution (relative income, 50 per cent median), by household wealth decile, 2022 46
Table 11. Persons, total number of years recorded as being in poverty (relative income, 50 per cent median) over the period 2001 to 2022 47
Table 12. Persons aged 65 years and over, distribution of wealth held in bank deposits and superannuation by whether in relative income poverty, 50 per cent median, 2022 47
Table 13. Persons, total number of years recorded as being in poverty (relative income, 50 per cent median) over the period 2001 to 2022 50
Table 14. Nominal and real value of 50 per cent median equivalised disposable income poverty line 2001 to 2022 52
Table 15. Persons aged 15 years and over, satisfaction with financial situation and life satisfaction, by whether in 50 per cent median relative income poverty, , 2022 58
Table 16. Persons aged 15 years and over, incidence of financial stress, by whether in poverty (relative income 50 per cent median), 2022 60
Table 17. Persons aged 15 years and over, distribution of number of financial stress items, by whether in poverty (relative income 50 per cent median), 2022 61
Table 18. Person weighted households, material deprivation items, proportion agreeing they are essential, 2014 to 2022 64
Table 19. Person weighted households, material deprivation items, whether have or cannot afford items, 2022 65
Table 20. Person weighted households, material deprivation items, distribution of the number of items, by whether in poverty (relative income, 50 per cent median), 2014, 2018 and 2022 67

Figures

Figure 1. Sen's capability approach 5
Figure 2. Persons, poverty rate (relative income, 50 and 60 per cent median, and 50 per cent average), 2001 to 2022 16
Figure 3. Persons, poverty rate (relative income, 50 per cent median) and confidence interval on estimate, 2001 to 2022 16
Figure 4. Persons, poverty rate (relative income, 50 per cent median), comparison of ABS SIH & HILDA, and different SIH income definitions, 2001 to 2022 17
Figure 5. Persons, poverty rate (relative income, 50 per cent median), by person type, comparison of SIH & HILDA, 2020 18
Figure 6. Persons, poverty rate (relative income, 50 per cent median), by person type, 2001 to 2022 19
Figure 7. Persons in poverty (relative income, 50 per cent median), real value of poverty line and real median and average equivalised disposable incomes , 2001 to 2022 20
Figure 8. Persons in poverty (relative income, 50 per cent median), cumulative distribution of equivalised disposable income, 2022 21

Figure 9. Persons, poverty rate (relative income, 50 per cent median), by person household/family type, 2022 22
Figure 10. Persons, poverty rate (relative income, 50 per cent median), by household/family type, 2001 to 2022 23
Figure 11. Persons and households, poverty rate (relative income, 50 per cent median), 2001 to 2022 24
Figure 12. Persons, poverty rate (relative income, 50 per cent median), by state using national and state specific median incomes, 2022 25
Figure 13. Persons, poverty rate (relative income, 50 per cent median), by SEIFA decile, 2022 26
Figure 14. Persons, poverty rate (relative income, 50 per cent median), by housing tenure, 2001 to 2022 28
Figure 15. Average real equivalised income, by income decile, 2001 to 2022 33
Figure 16. Average real equivalised income, deciles 1 and 2, and median, 2001 to 2022 34
Figure 17. Lorenz curves, equivalised real disposable incomes, 2001 and 2020 37
Figure 18. Equivalised real disposable incomes, Gini coefficient 2001 to 2022 38
Figure 19. Equivalised real disposable incomes, Atkinson measure of inequality, 2001 to 2022 39
Figure 20. Equivalised real disposable income, Generalised Entropy measures of inequality, 2001 to 2022 40
Figure 21. Equivalised disposable incomes, selected income ratios, 2001 to 2022 41
Figure 22. Equivalised disposable incomes, selected income shares, 2001 to 2022 41
Figure 23. Persons, poverty rate (relative income, 50 per cent median), by household net wealth decile, 2022 44
Figure 24. Distribution of persons in relative income poverty, 50 per cent median, by aggregated household net wealth decile, 2002-22 45
Figure 25. Persons in poverty (relative income, 50 per cent median), transitions from previous year, 2002 to 2022 49
Figure 26. Persons, poverty rates using EU 'at risk of poverty' and 'persistent at risk' (60% median) measures, 2003 to 2022 51
Figure 27. Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2001 real value, 2001 to 2022 53
Figure 28. Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2022 real value, 2001 to 2022 53
Figure 29. Persons aged 15 years and over, self-rated prosperity, 2001 to 2022 55
Figure 30. Persons aged 15 years and over, distribution of populations in, and not in, 50 per cent median relative income poverty, by self-reported prosperity, 2022 56
Figure 31. Persons aged 15 years and over in 50 per cent median relative income poverty, distribution by age grouping, by self-reported prosperity, 2022 57
Figure 32. Persons aged 15 years and over, distribution of level of psychological distress by whether in 50 per cent median relative income poverty, 2021 59
Figure 33. Persons aged 15 years and over, incidence of financial stress, by whether in 50 per cent median relative income poverty, 2022 60
Figure 34. Persons aged 15 years and over, incidence of multiple financial stress items, 2001 to 2022 62
Figure 35. Persons aged 15 years and over, incidence of multiple financial stress items, by equivalised disposable income vigintile, 2022 62
Figure 36. Person weighted households, incidence of multiple material deprivation, by equivalised disposable income vigintile, 2022 67

Appendix tables

Table A.1.Persons, poverty rate (relative income, 50 and 60 per cent median, and 50 per cent average), 2001 to 2022 75
Table A.2.Persons, poverty rate (relative income, 50 per cent median) and confidence interval on estimate, 2001 to 2022 76
Table A.3.Persons, poverty rate (relative income, 50 per cent median), comparison of ABS SIH & HILDA, and different SIH income definitions, 2001 to 2022 77
Table A.4.Persons, poverty rate (relative income, 50 per cent median), by person type, comparison of SIH & HILDA, 2020 78
Table A.5.Persons, poverty rate (relative income, 50 per cent median), by person type, 2001 to 2022 78
Table A.6.Persons in poverty (relative income, 50 per cent median), real value of poverty line and real median and average equivalised disposable incomes, 2001 to 2022 79
Table A.7.Persons, poverty rate (relative income, 50 per cent median), by household/family type, 2001 to 2022 80
Table A.8.Persons and households, poverty rate (relative income, 50 per cent median) and household size, 2001 to 2022 81
Table A.9.Persons, poverty rate (relative income, 50 per cent median), by state using national and state specific median incomes, 2022. 81
Table A.10.Persons, poverty rate (relative income, 50 per cent median), by SEIFA decile, 2022 82
Table A.11.Persons, poverty rate (relative income, 50 per cent median), by housing tenure, 2001 to 2022 82
Table A.12.Average real equivalised income, by income decile, 2001 to 2022 83
Table A.13.Average real equivalised income, deciles 1 and 2, and median, 2001 to 2022 84
Table A.14.Equivalised real disposable incomes, Gini coefficient 2001 to 2022 85
Table A.15.Equivalised real disposable incomes, Atkinson measure of inequality, 2001 to 2022 86
Table A.16.Equivalised real disposable income, Generalised Entropy measures of inequality, 2001 to 2022 87
Table A.17.Equivalised disposable incomes, selected income ratios and income shares, 2001 to 2022 88
Table A.18.Persons, distribution of those in poverty (relative income, 50 per cent median), by aggregated household net wealth decile, 2002-22 88
Table A.19.Persons in poverty (relative income, 50 per cent median), transitions from previous year, 2002 to 2022 89
Table A.20.Persons, poverty rates using EU 'at risk of poverty' and 'persistent at risk' (60% median) measures, 2003 to 2022 90
Table A.21.Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2001 real value, 2001 to 2022 91
Table A.22.Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2022 real value, 2001 to 2022 92
Table A.23.Persons aged 15 years and over, self-rated prosperity, 2001 to 2022 93
Table A.24.Persons aged 15 years and over, distribution of populations in, and not in, 50 per cent median relative income poverty, by self-reported prosperity, 2022 93
Table A.25.Persons aged 15 years and over in 50 per cent median relative income poverty, distribution by age grouping, by self-reported prosperity, 2022 94
Table A.26.Persons aged 15 years and over, distribution of level of psychological distress by whether in 50 per cent median relative income poverty, 2021 94
Table A.27.Persons aged 15 years and over, incidence of financial stress, by whether in 50 per cent median relative income poverty, 2022 95
Table A.28.Persons aged 15 years and over, incidence of multiple financial stress items, 2001 to 2022 96

Table A.29. Persons aged 15 years and over, incidence of multiple financial stress items, by equivalised disposable income vigintile, 2022 97
Table A.30. Person weighted households, incidence of multiple material deprivation, by equivalised disposable income vigintile, 2022 98

Glossary

ABS	Australian Bureau of Statistics
AH	After Housing
AHC	After Housing Cost
CPI	Consumer Price Index
CURF	Confidentialised Unit Record File
DSS	Department of Social Security, to 1998
	Department of Social Services, from 2013
FaCS	Department of Families and Community Services
GE	Generalised Entropy
HECS-HELP	Higher Education Contribution Scheme – Higher Education Loan Programme
HILDA	Household Income and Labour Dynamics Australia
LICO	Low Income Cut-Off
LIS	Luxembourg Income Study
OECD	Organisation for Economic Cooperation and Development
RA	Rent Assistance
SEIFA	Socio-Economic Indexes for Areas
SIH	Survey of Income and Housing (Costs)
STIK	Social Transfers in Kind
UNDP	United Nations Development Programme

1. Introduction and some technical matters

This paper seeks to track trends in relative income poverty in Australia over the past 21 years using data from the Household Income and Labour Dynamics (HILDA) survey, while also placing this approach to the measurement of poverty in the context of other measures of inequality, disadvantage, and deprivation.[1]

1.1. Concepts of poverty

While most people have a mental model of what 'poverty' means, and a set of values as to how they regard its existence, articulating these is frequently more difficult, and consensus around its meaning and measurement is missing.

This has led to an array of different approaches to the measurement of poverty. While some of these seek to measure poverty in terms of the resources available to a person or a household, most frequently in terms of income, others focus more directly on measures of outcomes. Within each of these broad classifications there are a myriad of more specific approaches, as well as those which draw from both traditions, and those introducing additional factors.[2]

These differences in approach do not just raise technical or conceptual questions but have real implications for the results of any analysis, in particular as to who is identified as being in poverty. That is, the different approaches frequently lead to quite different levels of measured poverty and trends over time, and perhaps more importantly, identify quite different populations as being in poverty.

Complementing these issues, a further concern relates to the need for, and the nature of, any response. These latter are outside the scope of this discussion.

1.1.1. Absolute or relative

While poverty is often seen as being an absolute state of inadequate outcomes, in most measures it is recognised that such an assessment is in fact relative, in particular relative to the living standards of the society in which a person lives.

This concept of relative deprivation as an indicator of poverty is long standing. Adam Smith declared in 1776:

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[1] The Melbourne Institute regularly reports a number of the aggregates considered here in the series of 'Annual Statistical Reports' (most recently Wilkins et al (2024)). The measurement of poverty and related concepts using the survey has been conducted by a large number of researchers over time. This includes an early comparative study of different measures by Marks (2007).

[2] Only a brief summary is presented here. Some useful general introductions and discussions of a number of the approaches include: Social Welfare Policy Secretariat (1981); Alcock (1997); Spicker (2007) and Nolan and Marx (2009). These are however just a few of the extensive array of literature on the question of conceptualisation and measurement. In considering this it is also worthwhile noting the conclusion drawn by Piachaud and Sutherland: "The definition of poverty has been subject to extensive, occasionally useful, discussion" (2000, 2).

> By necessaries I understand not only the commodities which are indispensably necessary for the support of life, but whatever the customs of the country renders it indecent for creditable people, even the lowest order, to be without. A linen shirt, for example, is, strictly speaking, not a necessary of life. …. But in the present times, through the greater part of Europe, a creditable day-labourer would be ashamed to appear in public without a linen shirt, the want of which would be supposed to denote that disgraceful degree of poverty which, it is presumed, nobody can well fall into, without extreme bad conduct. (Smith 1994 [1776], 938-939)[3]

The link between this concept and income was summarised by Sen as: "Relative deprivation in the space of incomes can yield absolute deprivation in the space of capabilities" (1992, 115).

Notwithstanding this, a number of poverty measures effectively use an absolute approach, such as the World Bank 'Extreme Poverty Line'[4] and a related set of calorific or food poverty lines (see for example Government of Myanmar and World Bank (2017), Bellù and Liberati (2005), and Arifullah et al (2008)).

Somewhat related to these is the United States official poverty measure which uses an income level equal to three times the cost of a minimum food diet in 1963 adjusted for price changes (US Census Bureau 2017).

Notwithstanding the more general understanding of poverty as being a relative concept, related to the standards of the society in which a person lives, absolute measures can be a useful tool for understanding change, especially over shorter periods of time.

1.1.2. Income based relative measures

These are perhaps the most commonly used measures. Essentially considering that a person or household is in poverty if they have an income below a 'poverty line', with this line typically being adjusted for changes in community living standards.

The two main ways in which such a line can be derived are a range of 'expert' and 'budget lines' primarily focused on levels of required household spending, and relative income measures:

- **'Expert' and 'budget' lines:** These include approaches such as 'budget standards' where a normalised minimum household budget is established, 'expert' lines, community based consensual budget lines, or quasi-expert derived lines.

  Budget standards (see for example Saunders et al (1998), and Bedford, Bradbury and Naidoo (2023)), can be used to both define a poverty line, or a set of levels of affluence. They establish a household budget itemising in detail the range of goods and services needed to achieve a certain level of living; obtaining price information on these; and then

[3] In writing this Smith was not concerned with attempting to define poverty, but rather was setting out an argument as to what items he considered it was appropriate to tax.

[4] The World Bank Extreme Poverty Line is set at $US2.15 per person per day in 2017 prices. This poverty line is derived from the national poverty lines of the poorest 15 countries, which in turn "usually reflects the amount below which a person's minimum nutritional, clothing, and shelter needs cannot be met in that country" (World Bank 2022). While this measure is regularly updated, this is primarily concerned with taking account of price changes.

summating this to provide an estimate of the income such a household needs. The construction of the elements of the budget tends to draw on information on what goods and services households actually consume, on what experts consider they should, and potentially through focus groups and surveys of consumers.

Expert lines, typified in Australia by the Henderson Poverty Line[5], are set by an expert (or group of experts) on the basis of their expertise as to the minimum level of income a household requires to meet expected community standards, or at least a community minimum standard. Community consensual lines typically derive a line from surveys asking households what they consider the minimum income level a household needs (Goedhart et al (1977), Saunders and Bradbury (1991)). The quasi-expert derived lines encompass measures such as the Canadian Low Income Cut-Offs (LICO) which is derived from statistical analysis based on food shares of household budgets (Statistics Canada 2015) drawing upon Engel's Law – that as household income increases, while the level of food expenditure increases, the proportion of spending on food declines.

  - These lines are usually updated on the basis of changing household living standards. This may involve a repeat of the actual derivation of the measure, or adjustment by an index which seeks to track this.[6]

- **Relative income poverty lines:** These typically set a poverty line as an arbitrary proportion of a moment or a quantile of the distribution of incomes. This is perhaps the most frequently used approach, with the poverty line, as discussed further below, typically being set at a percentage of median income.

1.1.3. Deprivation or outcome approaches

These approaches rather than focusing on the inputs available to a household, individual or family, are concerned with outcomes, most usually in terms of not having items which are seen as being necessary within the community, or facing particular stresses in achieving these. Two approaches which can be operationalised using HILDA are considered in sections 6.3 and 6.4.

Central to these measures are the range of items which should be included as potential areas where a person or household may be deprived – and the extent to which these can be considered as a basic community standard. Additionally there are questions as to whether it is the mere absence of one of these which counts as deprivation, or whether it is only when the absence is as a result of insufficient resources,[7] and what level of deprivation should be considered as being evidence of poverty.

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[5] The Henderson Poverty Line was set in 1966 at a level equal to the value of "the basic wage plus child endowment", and was deemed to be "a definition of poverty so austere as, we believe, to make it unchallengeable. No one can seriously argue that those we define as being poor are not so." (Downing 1970, 1).

[6] The Henderson Poverty Line is updated quarterly using "an index of per capita household disposable income" (Melbourne Institute 2023, 1).

[7] While the concept of 'enforced deprivation due to a shortage of money' approach can be seen as being an approach to address this, it may have limitations as a measure where people have circumscribed aspirations. If a person does not aspire to having an item because it is outside of their financial reach (or they identify it as an item which a person in their circumstances does not have), they may not identify its absence as being due to a lack of money.

The systematic use of these types of measures in poverty research largely commenced with the work of Townsend (1979), and the tradition continues today internationally including in the Poverty and Social Exclusion in the UK Project (Gordon 2017), and Australia (Saunders, Naidoo and Wong 2022). For a brief introduction to the initial development of these approaches see Bray (2001, 73-79).

Internationally the EU regularly collects data using a 13 item measure of "material and social deprivation (Eurostat 2023), while New Zealand uses an extensive "material wellbeing index". In contrast to most approaches to 'deprivation' this NZ scale has been developed so that it "allows comparisons across the spectrum from low to high material living standards, rather than just focussing on the low end" (Perry 2021). A wider approach which is focused on severe deprivation is the UNDP Multidimensional Poverty Index.[8]

While most approaches are primarily concerned with material wellbeing broader approaches also exist. Weston, Millward and Lazzarini (1995) report on a measure which addressed access to information, social participation and family relationships, as well as personal wellbeing.

1.1.4. Sen's capability approach

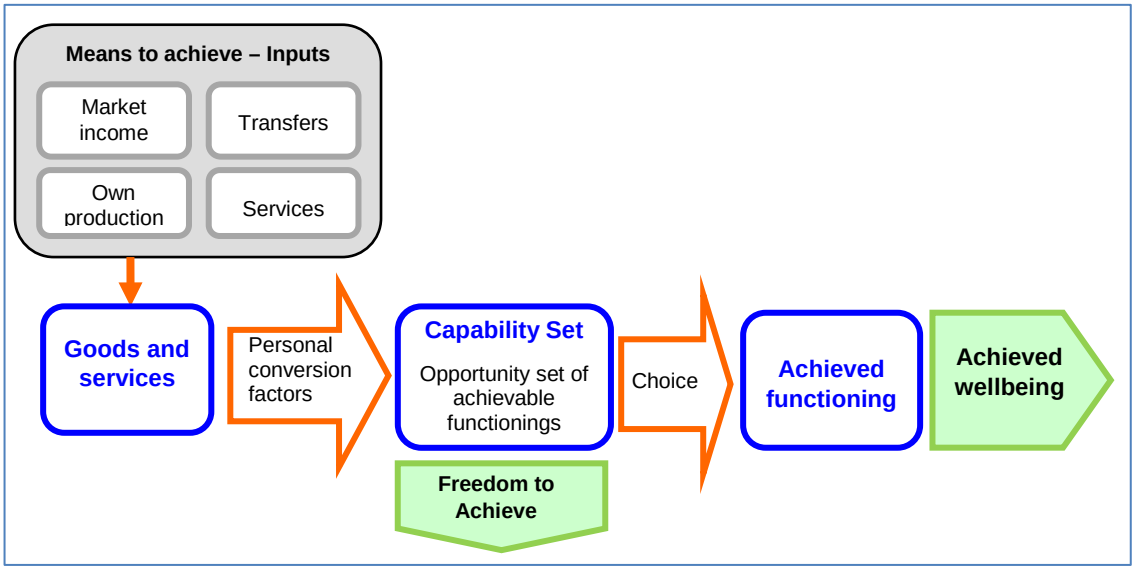
Sen takes a specific approach to considering outcomes which is both philosophical and draws upon the nature of societies. Underlying the concept is whether people have the capability to obtain those outcomes – in his language 'functionings', the ability to do and have things – which they value, including their ability to achieve social functioning consistent with the standards of the community in which they live, and taking into account any individual impediments which may make achieving this harder, and paying attention to the rights as well as the financial capacity of people to achieve these capabilities.

As illustrated in Figure 1, this approach includes consideration of the level of means to achieve; the array of goods and services these can be converted to; personal conversion factors which address the extent to which people may, due to their personal characteristics – for example health – require more resources; these in turn define a capability set which reflects the range of items a person could consume or do; and through the choices they make in selecting from these; the final set of functionings they achieve. This latter can be considered as their achieved wellbeing. As however also noted, the approach includes a second outcome – which is their freedom to achieve. That is, what is the capability set they have choice about. This is as important in his approach as the actual capabilities they choose.[9]

[8] In this measure, for example, "a household and all people living in it are deprived if any child is stunted or any child or adult for whom data are available is underweight; if any child died in the past five years; if any school-aged child is not attending school up to the age at which he or she would complete class 8 or no household member has completed six years of schooling; or if the household lacks access to electricity, an improved source of drinking water within a 30 minute walk round trip, an improved sanitation facility that is not shared, nonsolid cooking fuel, durable housing materials, and basic assets such as a radio, animal cart, phone, television, computer, refrigerator, bicycle or motorcycle. (UNDP 2023, 4).

[9] The question of freedom is intrinsic to Sen's approach. Examples of where constraints may occur can be seen in the case of a homeless person who may be able to obtain adequate food from a soup kitchen, but from no other source. In some societies such limitations may arise from custom or social expectations.

Figure 1. Sen's capability approach



Source: Adapted from Robeyns (2017, 83)

1.1.5. Social values and behaviour

Across a number of these measures there are also questions about the impact of individual behaviours. In the case of budget standards where specific household budgets are constructed, this often centres around whether or not the budget should make any provision for expenditure on alcohol or tobacco – even in cases where the consumption of these are part of a social norm.

For some the focus on available resources, for example measuring poverty on the basis of income, is preferred to outcome approaches in that it provides a measure of potential consumption regardless of whether or not people may have what might be considered as deprivation, because of say, low expectations, or their expenditure choices. Others would seek to incorporate value judgements on the reasons why a person has low income, or poor outcomes, into their assessment of poverty, for example Sullivan (2000).

1.2. The use of relative income poverty

As noted, relative income poverty lines are perhaps the most pervasive form of poverty analysis both in Australia and in developed economies.[10] These assess a person as being in poverty if their household income is below a reference point derived from the distribution of household incomes, most frequently a proportion of median income – that is the income point where half of the population has a higher income and half have a lower income.[11]

[10] With the exception of the United States. For a recent review of approaches to the measurement of poverty in the US see National Academies of Sciences, Engineering, and Medicine (2023).

[11] Some approaches use average income as a reference point. The adoption of such a measure can be considered as more problematic in terms of conceptualising poverty as a living standard below the community norm, especially where the income distribution is highly skewed. For example it would suggest that poverty in a society increases if the income of the richest person increases, regardless of the fact that the incomes of all other people remain the same.

A number of reasons can be suggested as to why this approach to poverty measurement is popular. These include:

- It is easy to undertake. Most western, and many other countries, have regular household surveys which include income data and for which unit record level data is available, and the actual derivation of counts of those 'in poverty' requires only basic computer programming.
- This in turn allows the measure to be used easily in international comparisons.[12]
- The measure presents as being 'neutral' and 'scientific' without requiring value judgments by the analyst. (This though, as discussed below, ignores the implicit decisions made in specifying and operationalising the measure.)
- As this is perhaps the most commonly used measure, it is seen as credible.
- For some users the measure is preferred in that through focusing on poverty in terms of relative incomes, it has an implicit solution to poverty, that of increasing the incomes (potentially through welfare payments) of those below the poverty line.

Each of these reasons can be seen as also incorporating reasons for being cautious in the use of the measure.

1.3. Components of relative income poverty measurement

Relative poverty analysis relies upon a series of 'technical' decisions with regard to methodology. Essentially each of these represents a 'best choice' out of a set of alternatives, with all of the approaches involving some quite severe assumptions. Recognising this, these measures need to be considered as being crude, but pragmatic.

1.3.1. Unit of analysis

The analysis presented here is based upon households as the unit of analysis, with results presented at the person level. This is the most common approach.

The choice of a unit of analysis has implications with regard to individual's actual access to resources. That is, the unit of analysis brings with it an assumption that the total resources available to the unit are shared equally, relative to the person's needs within the unit.

This assumption is unlikely to be valid because:

- It is known that resources are not necessarily equally distributed, even within family only households. Research indicates that this can be a particular issue with respect to the circumstances of women.[13]
- The assumption is even less likely to be valid in group households.

While an alternative approach of using an 'income unit', typically treating parents and their dependent children as one income unit, and any other persons in the household as a series of independent income units is, on occasion, used by some analysts. This brings with it a specific

[12] The Luxembourg Income Study, for example, holds and provides access to data for some 53 countries from which relative income poverty measures can be derived (LIS 2024).

[13] See discussion in Ponthieux and Meurs (2015, section 12.2) and Bennett (2013) who provided a good introduction to the issues and research in this field.

assumption that no resources at all are shared between these income units. This is again unrealistic in that most of these households share specific resources, for example access to TVs and other items, and, in the context of individuals in receipt of income support payments, it ignores the extent to which this is built into some payments in terms of separate rates and access to rent assistance, and whether this in fact reflects a community norm.[14] It also does not address the fundamental assumptions of within family sharing and the outcome for women.[15]

While households form the unit of analysis in this study, as is standard practice, results are presented as counts of people living in these households. This not only provides for a person-focus in the analysis but is important in understanding trends over time as these can otherwise be distorted by changing household composition (see Danzinger and Taussig 1979).

1.3.2. Income

The concept of income used in most income poverty analysis, reflecting the focus on the capacity of households to consume goods and services to meet their needs, is that of disposable income. That is, income from all sources including transfers, less taxes, although as seen later in section 2.7.3, some analysis is undertaken using a measure of 'after housing cost' income.[16]

The concept of income provided in HILDA, and used here, is that of full year 'disposable regular income'. This includes wages and salaries, business and investment income, regular private and foreign pensions and transfers, government transfers and benefits, less estimated taxes. It excludes irregular income.[17]

While for most households this is a reasonable measure of the resources available to households, it has limitations. In particular for some households these irregular sources represent a major income source, including those who rely upon irregular withdrawals from superannuation, or drawing down lump sum compensation payments. Some allowance for this is made in the HILDA measure.[18] In other cases people may have negative business income,

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[14] There is also a question about the application of equivalence scales to income units within a household as these are derived, and usually specified, at the household level.

[15] As noted in FaCS (2003, 89) the choice of the unit of analysis also has marked implications for who is identified as being 'in poverty'. The analysis highlighted that the use of an income unit, rather than household, resulted in a very large increase in the number of non-dependent children living with their parents being identified as being in poverty, while more than halving the number of older single people living by themselves who were identified as being in poverty.

[16] An exception is the US Official Poverty Measure which excludes taxes and some benefits including non-cash benefits such as Supplemental Nutrition Assistance Program benefits and housing assistance.

[17] Irregular income includes redundancy and severance pay, inheritance and bequests and other irregular transfers, lump sum worker's compensation and irregular superannuation income. Using the measure of total income, which includes these elements, increases the median annual disposable incomes of households from $58,079 to $59,424 and the average from $66,963 to $71,292. Estimated 50 per cent median income poverty increases from 13.3 per cent to 13.6 per cent, and the measure results in 0.4 per cent of the population moving from being in poverty to not in poverty and 0.7 per cent moving from not in poverty to being in poverty.

[18] The treatment of superannuation lump sums over time has changed. The HILDA User Manual reports:

> Since Wave 18, respondents have been asked to separately report regular superannuation payouts (which are treated as part of regular income) and irregular lump sum superannuation payouts. For irregular lump sum payouts, respondents have also been asked what they did with the payouts. Lump sum superannuation that is not reinvested is treated as regular income if less than the

including, for example during a startup phase, or where they engage in practices such as negatively gearing property investments, which offsets their income.[19]

In other cases people may only report their incomes approximately or partially, while others may deliberately or otherwise over, or understate, their incomes. Due to non-reporting a significant proportion of records in HILDA have some imputation undertaken for the whole or part of their income. The procedure undertaken to address these is described in Summerfield et al (2023).[20]

The impact of very low reported incomes in HILDA appears to be relatively low. In Wave 22 just 0.74 per cent of people are in households with reported disposable incomes of below $5,000 per annum, and 2.3 per cent incomes below $20,000. While low proportionally to the total population, this level of incidence still however has an impact on relative income poverty analysis. The distribution of low incomes is discussed further in section 2.3.

A further issue concerns the time period over which income is measured. As noted for HILDA based analysis, annual income is used. In contrast much Australian analysis has used current weekly income as this is the most detailed and recent form provided in ABS household surveys.

While not required for relative income poverty measurement itself, both the interpretation of trends in this indicator, and ancillary approaches to measuring poverty and more generally characteristics of income over time, requires income to be adjusted to take account of changes in prices. Where this had been done, as per usual practice, the ABS All Groups Consumer Price Index (CPI) has been used.[21]

1.3.3. Equivalisation

Very obviously if a household has, say, a disposable income of $80,000, the adequacy of this to meet the needs of the household varies with the number of people in the household and

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> annualised average weekly earnings of full-time employees and as irregular income otherwise. Reinvested superannuation is treated as not income. Prior to Wave 18, superannuation payouts larger than annualised average weekly earnings of full-time employees were deemed to not be income unless similar payouts were observed over surrounding years. All superannuation payouts less than annualised average weekly earnings of full-time employees were deemed to be part of regular income–that is, no superannuation payouts could be classified as part of irregular income prior to Wave 18. (Summerfield et al 2023, 75)

[19] Given these possible factors some analysis, such as Davidson, Bradbury and Wong (2022), exclude "households containing self-employed people and households with zero or negative income" (p. 30) from their analysis.

While the exclusion of zero and negative incomes has some initial appeal, and is necessary for some forms of inequality analysis, this approach does introduce some conceptual inconsistencies, in that it would exclude a household where, for example, business losses of $100,000 fully wipe out the household's other income of say $90,000, but would include the household, with a reported income of $10,000, if their other income was $110,000.

[20] In most cases only some income components are imputed. The impact of imputation on the measurement of poverty is complex and is very dependent upon the actual factors which lead to the need for imputation and the way in which it is undertaken. In HILDA the estimated 50 per cent median poverty rate for those records with imputation was 9.4 per cent, compared to 15.2 per cent for records with no imputation. There is though no simple interpretation of this. It may, for example, be as a result of higher income households having multiple sources of income and being more prone to needing at least one of these imputed.

[21] Footnote 58 discusses some alternative approaches.

their characteristics. That is, while it may, for example, be seen as an adequate income for a single person, it would be far less so for a couple with two children.

To take account of this, household income, for the purposes of income and relative income poverty analysis and studies of inequality, is 'equivalised' to take account of household composition. There is a very extensive literature on these scales which are used to do this and approaches to their derivation,[22] with considerable variation in estimates. This variation is important as the use of different scales can significantly affect the outcomes of analysis. For example, a scale providing a heavier weight for children can result in more children, and less single person and couple only households being identified as living on low incomes or in poverty. Analysis undertaken by Förster (1994) shows that the use of different scales can also impact the relative rankings of countries in terms of income distribution and low income.

Here the 'modified OECD scale' is used (Förster 2013). This involves the division of the household's disposable income by a factor which comprises a weight of 1.0 for the first person in a household, 0.5 for any additional persons aged 15 years and over, and 0.3 for each person under the age of 15. (So that, for example, the disposable income of a couple family with two children aged under 15 years would by divided by 2.1 (1+0.5+0.3+0.3)). All discussion of income in this analysis is based on equivalised income.

While this is perhaps the most commonly used scale, in addition to the underlying assumption of income pooling or resource sharing at the household level, some limitations include:

- The scale does not take account of the costs of work, which can be significant for many households. This, for example, has an impact on the appropriateness of relativities say between retired households and those where two people are employed.
- The scale is invariant with income, assuming that the relative needs of high income households with regard to the number of members is the same as a low income family.
- It takes no account of children's ages, other than if they are under 15 years.
- It ignores all other characteristics, such as health status, disability or location, which may affect a person's or household's needs and their capacity to achieve a level of consumption equivalence with others.[23]

It is also noted that while the income data in HILDA relates to the household income in the previous financial year, the household structure used for equivalisation and reporting is that at the time of the survey, with most surveys being conducted in the final months of the calendar year.

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[22] For some reviews of the literature, and range of scales see Whiteford (1985); Nelson (1993); Deaton and Muellbauer (1980); Buhmann et. al (1988); Figini (1998); Gray (2005); Social Metrics Commission (2019); and Dudel, Garbuszus and Schmied (2021).

[23] Consideration of these issues introduces a further set of complex questions. For example, to what extent has a person chosen a location which may have higher grocery prices because of the location's amenity value? That is, adjustment is not appropriate where it is a result of utility maximising choice. Another area concerns access to concessions such as those offered to 'seniors'. More generally there is the question of the treatment of 'social transfers in kind' (STIK). These are normally excluded as they are not included in the normal bundle of goods and services for which consumption equivalence is sought, but can interact with components.

1.3.4. Choice of poverty line cut-off

The choice of the poverty cut-off line is essentially arbitrary. As noted above most frequently it is set as a proportion of median income with the rates of 40, 50 and 60 per cent being most common.

- The Luxembourg Income Study in their standard tables provides estimates based on all three of these points.
- The OECD uses 50 per cent of the median as the main reference point (OECD 2024).
- The EU uses 60 per cent of the median as an indicator for an 'at-risk-of-poverty' measure. (EU 2024).

Here a measure of having an income below 50 per cent of median equivalised disposable income has been used as the primary approach.

Reference population

Most measures of relative income poverty use a proportion of the national median. To the extent however that relative income poverty is focused on those who are potentially unable to engage with others in their community, other comparators can be considered. For example, living standards and incomes vary across Australia, which raises the question of whether the experience of having a specific level of low income is the same in a high income state/territory, such as the ACT, or the same in a state with a lower median income such as Tasmania. This is considered further in the next chapter.

Depth of poverty

Estimates of the incidence of poverty can be quite volatile where there are large numbers of people clustered either just above or below the poverty line. This can occur where the poverty line is quite close to the incomes a household may receive in social transfers and where a significant proportion of the population receive such income. This is a particular issue for Australia where major payments such as the Age Pension are paid at a flat rate, in contrast to other countries where many similar payments are made at rates related to the income a person received while working. One strategy for addressing this is to consider not just the number of people below the poverty line, but also the degree to which they are below the line. While potentially addressing the problem of the measure being distorted by a large number of people with incomes just below the line, this approach however introduces a problem in that it places more weight on those households with very low incomes, the group potentially most likely to have low reported incomes as a result of misreporting, or issues associated with negative own business income.

1.4. The HILDA Survey

The HILDA (Household Incomes and Labour Dynamics Australia) survey, is a longitudinal household survey managed by the Melbourne Institute of Applied Economic and Social Research funded by the Australian Government Department of Social Services. The first wave of the study was implemented in 2001 collecting data on households encompassing labour market and financial data for the 2000-01 financial year and household characteristics at the end of the 2001 calendar year, with successive waves being collected annually.

The initial sample was a probability sample of Australian households in private dwellings with all individuals in the population being included in subsequent waves, including any additional households they form or move into. The survey had an additional sample added in 2011 to seek to incorporate the impact of migration. The main sample has had some 7,000 or more responding households, and the top-up sample some 2,000. Survey results are weighted to ABS population benchmarks.[24, 25]

The survey, in addition to the core household and individual person survey elements, has a supplementary self-completed questionnaire which delves into individual experiences, attitudes and outcomes in more detail. It also has a number of rotating modules which collect additional information in some waves on subjects such as household wealth. While the household file provides full population estimates, the person file including the self-completed questionnaire module are for the population aged 15 years and over.

In 2021-22 the survey had 9,003 responding households with 21,732 members, 15,954 of whom were interviewed and 4,557 children. The weighted population totals were 25,508,519 persons comprising 20,709,090 'adults' (persons aged 15 years and over), and 4,799,416 children under the age of 15 years. The adult population includes 4,213,155 persons aged 65 years and over.[26]

In the analysis here references to the dates of HILDA will primarily use the final year of the financial year, which is also the most usual year for the collection of person and household information, that is reference to 2022 is for income in the financial year 2021-22.

1.5. Impact of COVID-19

In considering income and other trends in the early 2020s, attention needs to be given to the impact of COVID-19, including the role of government transfers and other policies over the period.

[24] Within HILDA there are an array of weights which are used to provide estimates of the population based upon the survey sample. These include weights for the enumerated population as a whole and for the specific survey populations which respond to specific elements of the survey. Additional to the weights for each wave for use in cross sectional analysis, there are longitudinal weights which permit longitudinal analysis. These in turn can be between two points in time, or continuously between these points. Because of the use of a number of these different weighting schemes across the analysis here, there may be some slight discrepancies in some aggregates.

A further point to note is that all HILDA weights are revised with each release, and that "some changes are expected to the weights with each new release" (Summerfield et al 2023, 102). A consequence of this is that comparisons should not be made between analysis which is based on separate data releases. For example, while analysis from the 2019 release reports a Gini coefficient of 0.304 for 2001 and 0.301 for 2019 (Wilkins et al 2022, 24) analysis from the 2021 release puts these values at 0.306 and 0.304 (Wilkins et al 2024, 55).

[25] Data from the survey is released in two forms. The first is a 'general release' which contains reduced identifiers such as geography and 'top coding' of income and wealth variables. The second is a 'restricted release' which contains actual values for these variables. The 'restricted release' has been used here.

[26] In all analysis presented in this paper the weights provided in HILDA have been rounded to the closest integer value.

Of particular note are:

- JobKeeper. This was a payment made to employers[27] who could choose to either continue to pay their employees their wage, or the equivalent value of the JobKeeper payment. The program operated between March 2020 and March 2021. The payment rates were:

Period	Full-time employees	Part-time employees
	– $ per fortnight –	
28 March – 27 September 2020	$1,500	
28 September 2020 – 3 January 2021	$1,200	$750
4 January 2021 – 28 March 2021	$1,000	$650

- Coronavirus Supplement: This supplement effectively increased the value of a number of working age income support payments (mainly JobSeeker, Youth Allowance and Parenting Payment), largely directed at the unemployed. The supplement was paid at a rate of $550 per fortnight between 27 April and 24 September 2020, $250 per fortnight between 25 September and 31 December 2020, and $150 per fortnight from 1 January to end March 2021.
  - It was followed by a permanent increase (over normal indexation increases) in the value of most working age income support payments of $55 per fortnight.
- A series of Economic Support Payments. These were primarily paid to those recipients of income support and transfer payments who were not entitled to the Coronavirus Supplement (mainly Age Pension, Disability Support Payment and Family Tax Benefit).[28] Four lump sum payments were made: $750 in both March and July 2020, and $250 in December 2020 and March 2021. (Australian Government 2024, 3.7.7)
- Access to Superannuation. People were allowed to access up to $10,000 of their superannuation between 20 April and 30 June 2020, and a further $10,000 from 1 July to 31 December 2020. There were 3.5 million and 1.4 million approved withdrawals with an average value of $7,638 per application. The total value of withdrawals was $36.4 billion (APRA, 2021).

As such incomes in 2019-20 and 2020-21 may be impacted by these, and changes between these years and 2021-22, the primary year considered here, may reflect their effect, as well as the wider impact of COVID-19.

1.6. Summary

Poverty is usually conceived of in relative terms with regard to the living standards of the community a person lives in. There are two main strands of poverty measurement, one which seeks to directly identify those who experience deprivations which result in them living at standards below community norms, the other is indirect where assessment is made as to whether they lack the resources to meet these norms. This latter is usually seen in terms of disposable income, and is the more frequently used approach.

[27] The payment had a range of conditions including a reduction in turnover and excluded some groups of casual employees.

[28] The initial payment was made more broadly and included working age payments.

In most cases this assessment uses a ‘poverty line’ which is set relative to a point in the income distribution, although alternative approaches exist. These include expert views and budget standards.

While appearing to be objective, such relative income poverty measurement involves an arbitrary, or value, decision on where the poverty line is set and a range of associated ‘technical’ decisions, including the use of an equivalence scale to account for the size and composition of the household. They also embody arbitrary or value decisions, and also effectively impose crude general rules across a set of diverse actual circumstances.

2. Trends in relative income poverty

As discussed in Chapter 1, the approach used to measure poverty adopted here is that of relative income poverty. While there are good reasons to consider this measure, at best, as "potential poverty" or "at risk of poverty", rather than actually being in a state of poverty, this has not been done, primarily because this language becomes repetitious, and given the breadth of the analysis presented in this, and the following chapters, it is considered that this paper provides readers with a strong set of complementary material which they can use to determine the weight they wish to apply to this particular measure.

2.1. Incidence of relative income poverty

As discussed, a range of different approaches can be used to derive estimates of relative income poverty, and estimates can be derived from a number of sources. The focus here is on 50 per cent median relative income poverty as derived from HILDA, complemented with some of the alternatives.

2.1.1. Different relative measures

In 2022 HILDA indicates that an estimated 3,386,882 people lived in households with an equivalised disposable income less than *50 per cen*t of the *median* equivalised disposable annual income of $58,080. An estimated 5,029,900 people lived in households with less than *60 per cent* of this income point, and 4,640,419 lived in households with an equivalised disposable income less than *50 per cent* of the *average* equivalised disposable annual income of $66,963.

Using these cut-offs as a measure of poverty provides estimated poverty rates of:

- 13.3 per cent of the Australian population using 50 per cent of median equivalised disposable income.
- 19.7 per cent of the Australian population using 60 per cent of median equivalised disposable income.
- 18.2 per cent of the Australian population using 50 per cent of average equivalised disposable income.

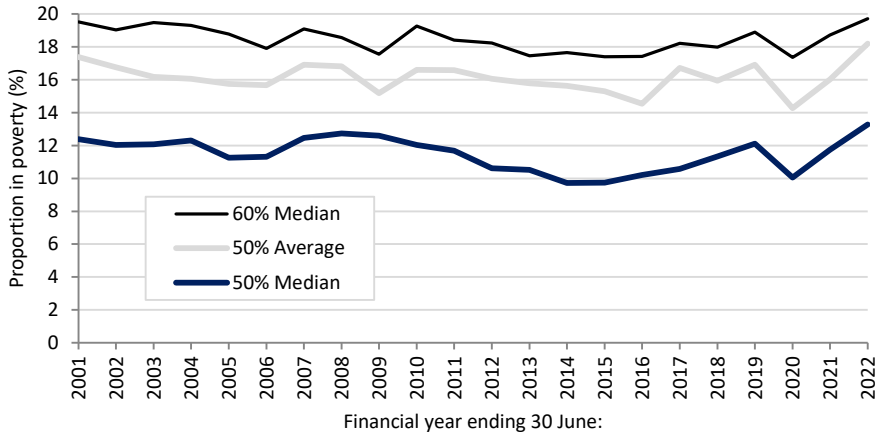
Changes in these rates over the period since 2001 are illustrated in Figure 2.

While it can be considered that the broad trends across the three measures are much the same over time, across more specific time periods not all series move in the same direction. For example, between 2009 and 2010 while the 50 per cent median rate fell, it increased for the other two measures. Between 2013 and 2014 there were again differences, but the pattern also differed. The rate fell for both the 50 per cent median and 50 per cent average measure, but increased for poverty measured at 60 per cent of the median.

There are also very clear differences in the magnitude in the results derived from these measures, in both the rate and the number of people considered to be in poverty. This has

strong implications if the measures are being used to determine the need for, and scope of, any policy intervention.

Figure 2. Persons, poverty rate (relative income, 50 and 60 per cent median, and 50 per cent average), 2001 to 2022



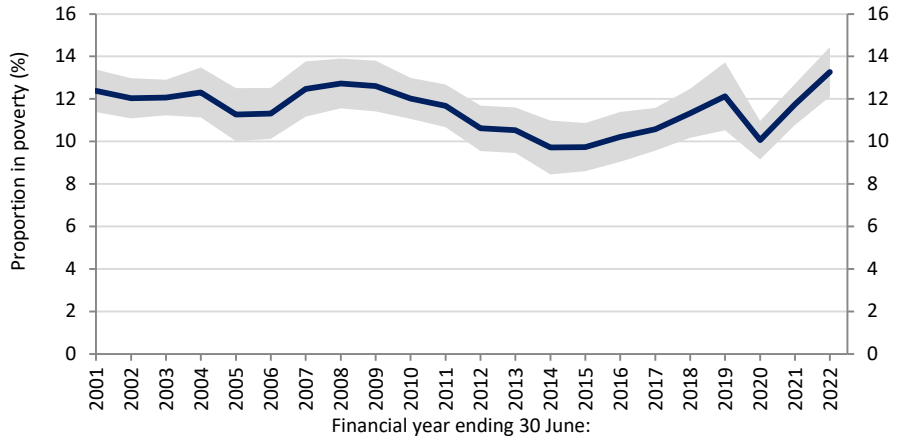
Source: Table A.1

2.1.2. Statistical estimation

HILDA is a sample survey which means that measures such as the proportion of the population in poverty are estimates, subject to sampling error. A consequence of this is that while the poverty rate in 2022 is reported as 13.3 per cent, this actually means there is a 95 per cent chance that the rate is in the range from 12.1 per cent to 14.4 per cent.

Figure 3 illustrates the 95 per cent confidence interval around the estimated poverty rate between 2001 and 2022.

Figure 3. Persons, poverty rate (relative income, 50 per cent median) and confidence interval on estimate, 2001 to 2022



Notes: Shaded band indicates 95% confidence interval
Source: Table A.2

Taking this into account:

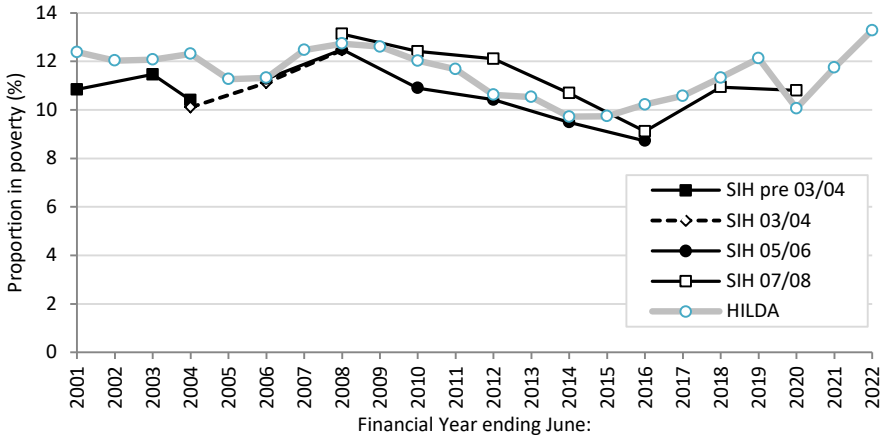
- The estimated rate of 13.3 per cent in 2022 is not statistically significantly higher at the 95 per cent level than the rate in 2021, but is higher than that in 2020, and for the period 2012 to 2017.
- The 2022 rate is not statistically different, again at the 95 per cent confidence level relative to the rate in the period 2001 to 2011.

That is, while the 50 per cent median income poverty rate in 2022 can be considered to be higher than that between 2012 and 2017, and higher than in 2021, it is not significantly different to that recorded in the first decade of HILDA.

2.1.3. Benchmarking

Estimates of relative income poverty can also be derived from other datasets, in particular the Survey of Income and Housing (SIH) undertaken by the Australian Bureau of Statistics (ABS). This survey is usually conducted on a biennial basis, with data comparable to HILDA being available on 11 occasions in the period 2001 to 2022, most recently in 2020. Figure 4 presents a comparison of the estimated poverty rate, using the 50 per cent of median income measure, for the two surveys.[29] As indicated in the chart, there are a series of estimated rates derived from the ABS SIH. These relate to changes in the way in which ABS have defined income in the survey with, in a number of years, a range of estimates being presented on different bases.[30]

Figure 4. Persons, poverty rate (relative income, 50 per cent median), comparison of ABS SIH & HILDA, and different SIH income definitions, 2001 to 2022



Note: The different series for the SIH relate to the income definitions that have been used in the survey, see notes to Table A.3.

Source: Table A.3

While this chart suggests a relatively close alignment of the results of the two surveys, this is not necessarily the case when the data is considered in more detail. Two key aspects of this

[29] In making this comparison while HILDA, as discussed, uses estimates of financial year income over the year prior to the survey, in contrast, the ABS SIH reports a concept of 'usual' weekly income in the week prior to the survey, with the actual survey data collection being spread across the financial year.

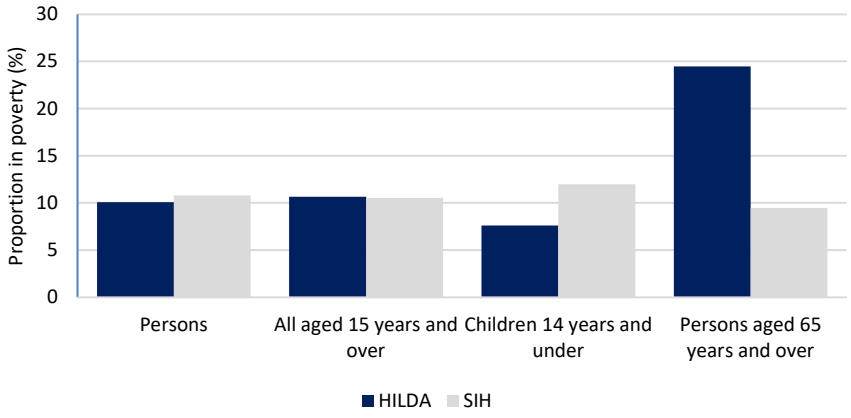
[30] These results also serve to illustrate the extent to which various technical elements in the specification of the data used, and in its collection, can markedly affect estimated levels of poverty.

are some of the specific time trends in the short term, and the composition of the population identified as being in poverty.

With regard to the first, the chart shows two time periods when the direction of change differs. The first is between 2004 and 2006 when the SIH based estimate increases by 1.0 percentage point, while the HILDA estimate falls by the same amount. The second is between 2014 and 2016 with poverty estimated from the SIH falling by 1.6 percentage points, while that from HILDA increased by 0.5 percentage points.[31]

The second is illustrated in Figure 5 which presents the poverty rates derived from the two surveys for the total population and three sub-populations, in 2020. This shows that while the two surveys show close alignment in their estimates of the poverty rate for all persons, and for persons aged 15 years and over, they show a marked discrepancy for children aged under 15 years and for persons aged 65 years and over.

Figure 5. Persons, poverty rate (relative income, 50 per cent median), by person type, comparison of SIH & HILDA, 2020



Source: Table A.4

This pattern which has persisted in comparisons between the two data collections over time, does not appear to have a straightforward explanation.[32] Its existence, however, again

[31] Given that both sets of estimates are derived from sample surveys, it could well be that these differences are simply due to sampling error, rather than representing any substantive change.

[32] One potential reason for HILDA's higher rate of poverty amongst older persons is that the survey reports a higher median equivalised disposable income than the SIH for 2020 ($50,009 SIH and $53,358 HILDA). As can be seen in the table below, these in turn generate poverty lines which are quite close to what an Age Pensioner would receive, depending upon if they are a single person or a couple, and whether or not they receive Rent Assistance (RA). Given the relatively large number of Age Pensioner households, many of whom have relatively little non-pension income, the closeness of the estimates of the poverty line and the pension rates can lead to significant numbers of this population either being just above, or just below, any specific poverty line.

Age Pensioners, Pension Rate and estimated relative income poverty lines 2020

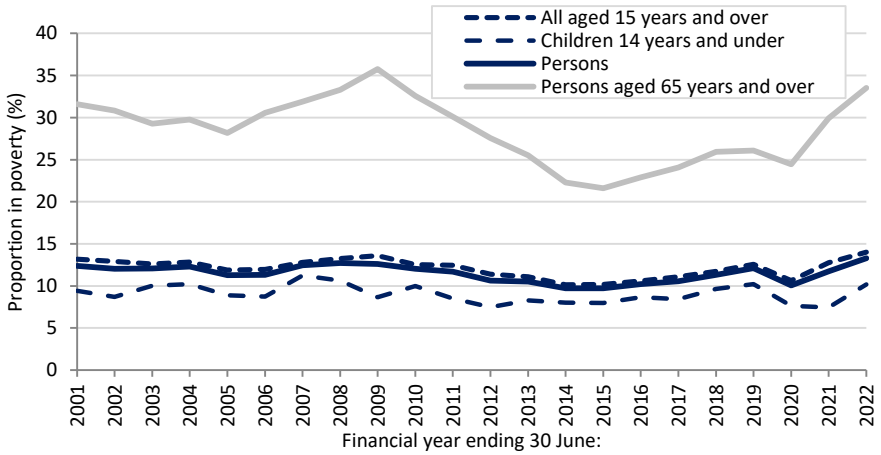
	Single person	Couple
	$	
Age Pension (a)	24,268	36,582
Incl RA	27,856	39,962
Poverty line (b)		
SIH	25,004	37,507
HILDA	26,679	40,019

highlights the need for caution with the use of these types of income poverty estimates, and reliance upon household surveys. The reasons for this are clear if one seeks to use this data to determine priority policy responses. Analysis based on the SIH would suggest resources should be directed at families with children. Alternatively using HILDA would suggest older Australians have the more urgent need.

2.2. Person type

As noted above, HILDA generates very high estimates of poverty for older Australians, with an estimated 33.5 per cent of persons aged 65 years and over living in households with less than 50 per cent median income in 2022. Between 2001 and 2022 the rate has varied from 21.6 per cent in 2015 and 35.8 per cent in 2009, see Figure 6.

Figure 6. Persons, poverty rate (relative income, 50 per cent median), by person type, 2001 to 2022



Source: Table A.5

In contrast the HILDA based rates for children have been much lower, 10.2 per cent in 2022, and varying between 7.5 and 11.2 per cent over the period.

Comparing the series over time suggests that while overall the broad trends are similar over the period as a whole, there is much less consistency in specific year on year changes.

2.3. Incomes of those in poverty

As a relative income poverty line the poverty line had shifted along with changes in community wellbeing, to the extent these have been reflected in changes in the level of the median income over time.

(a) As at I January 2020

(b) For year ending 30 June 2020.

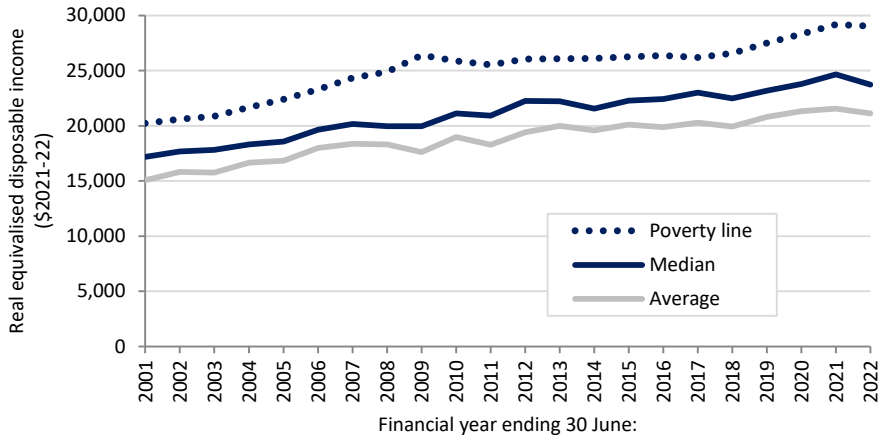
However while this explanation would appear to be initially feasible as an explanation of this specific outcome, a review of the SIH data using the higher 60 per cent poverty line still generates results which show child poverty rate of 19.1 per cent, well above those of persons aged 65 years and over of 15.0 per cent.

The recording of higher incomes is noted in the HILDA User Manual “Compared to the ABS Survey of Income and Housing Costs, HILDA reports higher wages and salaries, and investment income” (Summerfield et al 2023, 123).

As this has occurred, not only does it lead to changes in the population identified as being in poverty but also potentially changes to the incomes of those defined as being in poverty. This is illustrated in Figure 7 which details the real level of average and median income of those in poverty between 2001 and 2022, along with the actual real value of the 50 per cent median equivalised disposable income poverty line. Over the period of HILDA the real value of the poverty line has increased by 43.6 per cent, and the real median, and average, equivalised disposable incomes (with negative incomes set to zero) of those identified as being in poverty have increased by 38.2 per cent and 40.3 per cent respectively.

While the three series show much the same trend, year on year differences do emerge.

Figure 7. Persons in poverty (relative income, 50 per cent median), real value of poverty line and real median and average equivalised disposable incomes , 2001 to 2022



Note: Negative incomes have been set to zero.
Source: Table A.6

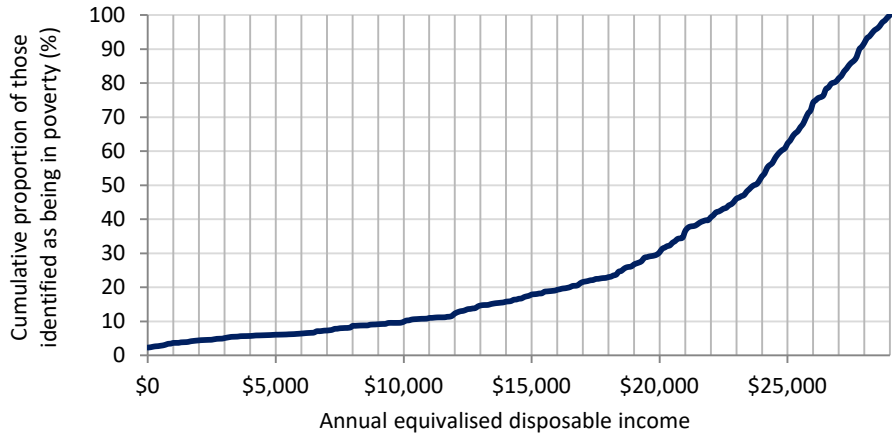
At the household level 67.1 per cent of those in relative income poverty in 2022 have government transfers as their main source of income, followed by 18.6 per cent mainly reliant upon wage and salary income, 6.4 per cent private pensions, 4.1 per cent investment income 3.1 per cent business income and 0.9 per cent private transfers. Looking at the incidence of relative income poverty across these sources of income at the population level, poverty rates were 57.5 per cent for those mainly reliant upon government transfers, 33.8 per cent for those relying upon private transfers, 23.9 per cent for investment income as a main source, 17.2 per cent for private pensions and 3.3 per cent for wages and salaries.

The distribution of the incomes by those identified as being in relative income poverty in 2022 is shown in Figure 8. This is presented as a cumulative density distribution, showing the proportion of persons within the sub-population with equivalised disposable incomes below any specific point in the distribution of incomes. As illustrated, half of those in poverty have an equivalised disposable income of under $23,700 per annum.[33]

[33] Although, as noted, low reported incomes might occur where households report business and related losses which offset other sources of income, the magnitude of this appears to be low. Only 3.2 per cent of the those in relative income poverty report a business or an investment loss at the household level. This proportion increases marginally to 3.5 per cent when the focus in on whether any individual within the household has this type of loss.

While there is an increasing share of the population with incomes close to the poverty line, there is relatively little suggestion of a significant cluster just below. There is similarly little evidence of any marked steps associated with the rates of payment of income support payments[34].

Figure 8. Persons in poverty (relative income, 50 per cent median), cumulative distribution of equivalised disposable income, 2022



Notes: Negative incomes have been set to zero.
Source: Author's calculations using HILDA Wave 22.

2.4. Household/Family type

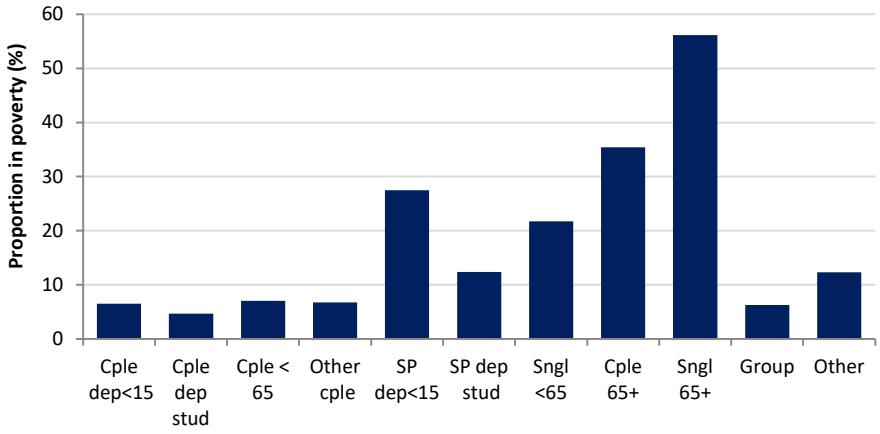
Figure 9 and Table 1 present estimates of relative income poverty in 2022 by household demographic characteristics. In contrast with the above results which consider individual characteristics, eg if an individual is aged 65 years and over regardless of their living arrangements, the household classification refers to the characteristics of the household as a whole, with age only being identified for couples and singles living as independent households with no other people. In such couples the age relates to the older member of the couple.

This data highlights four types of households with estimated poverty rates of over twenty per cent. These are: Single older person households, where over half (56.1 per cent) are identified as being in relative income poverty; older couples (35.4 per cent); younger single person households (21.8 per cent); and single parent households with at least one child aged under 15 years (27.1 per cent).

In contrast couple families with children have relatively low rates, 4.7 per cent where the youngest child is a dependent student aged 15 years and over, and 6.5 per cent for those with younger children. While this rate is relatively low, people in this family type still account for 16.9 per cent of all persons identified as being in poverty under this measure.

[34] As of 20 September 2021 the annual rate of payment for a single person living independently was $13,325 for Youth Allowance, $16,367 for Jobseeker, and $25,155 for the Age Pension. In addition, persons on these payments may be eligible for Rent Assistance of up to $3,713 if they are renting privately and paying a sufficient level of rent (Services Australia 2021).

Figure 9. Persons, poverty rate (relative income, 50 per cent median), by person household/family type, 2022



Notes:

Cpl < 65:	Couple only aged under 65 years.
Cple 65+:	Couple only aged 65 years and over.
Cple dep<15:	Couple with dependent child aged under 15 years.
Cple dep stud:	Couple with dependent student children only.
Other cple:	Other couples.
SP dep<15:	Single Parent with dependent child aged under 15 years.
SP dep stud:	Single Parent with dependent student children only.
Sngl <65:	Single Person aged under 65 years.
Sngl 65+:	Single Person aged 65 years and over.
Group:	Group household.
Other:	Other households.

Source: Table 1

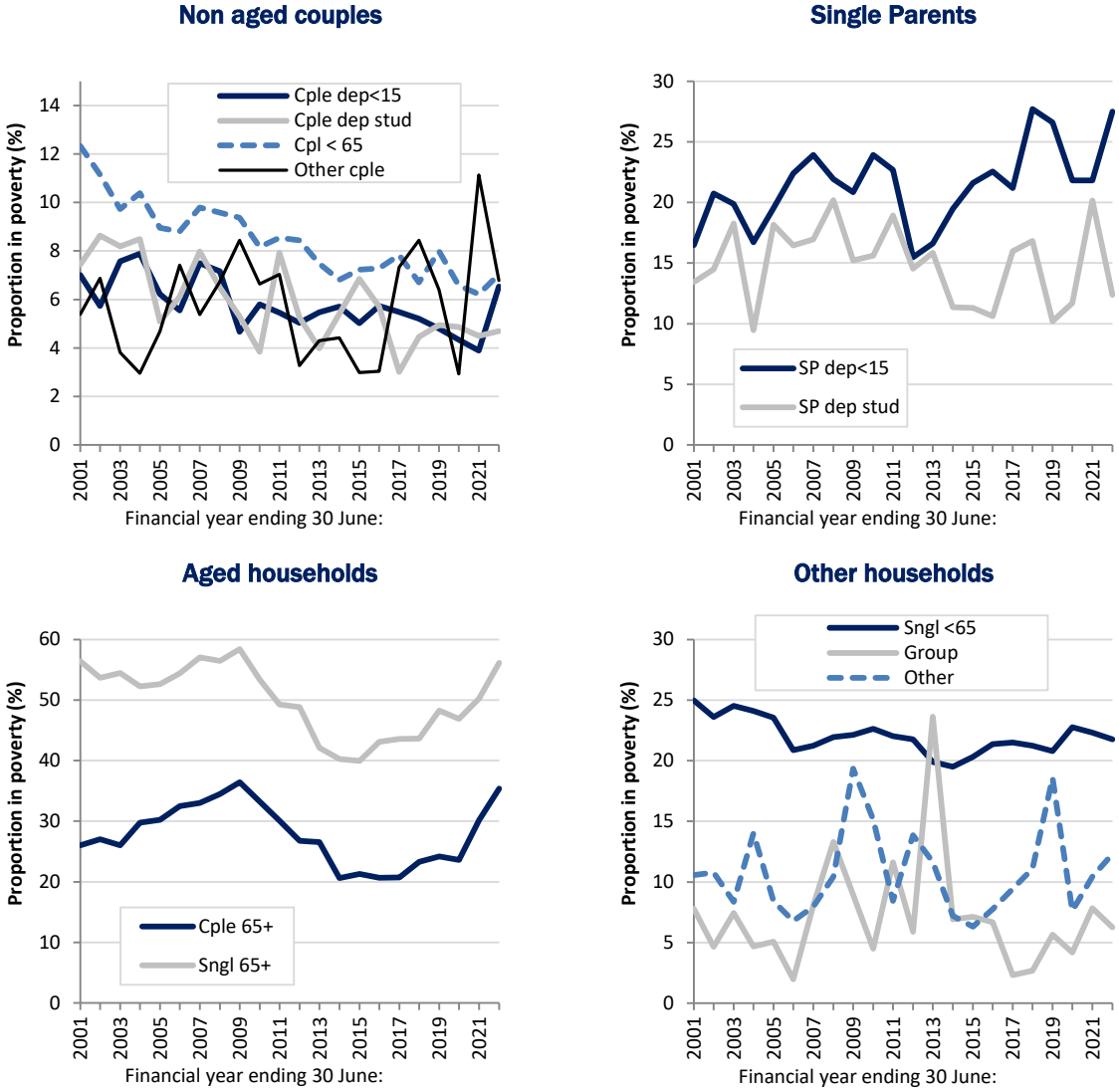
Table 1. Persons, poverty rate, numbers and distribution (relative income , 50 per cent median), by household/family type, 2022

Household/Family type	Persons in poverty	Poverty rate	Share of those in poverty
		– % –	
Couple with dependent child aged under 15 yrs	573,594	6.5	16.9
Couple with dependent student children only	81,108	4.7	2.4
Couple only aged under 65 yrs	224,250	7.0	6.6
Other couples	179,020	6.8	5.3
Single Parent with dependent child aged under 15 yrs	380,537	27.5	11.2
Single Parent with dependent student children only	52,002	12.4	1.5
Single Person aged under 65 yrs	388,696	21.8	11.5
Couple only aged 65 yrs and over	653,085	35.4	19.3
Single Person aged 65 yrs and over	519,547	56.1	15.3
Group household	11,782	6.3	0.3
Other households	323,261	12.3	9.5
Total	3,386,882	13.3	100.0

Source: Author's calculations using HILDA Wave 22

Time trends in the incidence of relative income poverty for these household/family types, Figure 10, are quite complex. Additionally most show considerable volatility which is likely to be as a result of sampling variability, given the smaller number of records upon which the estimates are based when the sample is split into a number of categories. This latter suggests a need for caution in the interpretation of these estimates for any single wave of the survey.

Figure 10. Persons, poverty rate (relative income, 50 per cent median), by household/family type, 2001 to 2022



Notes: See Figure 9 for abbreviations.
Source: Table A.7

Specifically the data suggests:

- For non-aged couples there has been a general decline in the incidence of poverty for couple only households, and those where the couple has a dependent student but no other children aged under 15 years. While there was a similar, but more muted pattern of decline for couples with a dependent child aged under 15 years up until 2021, a strong increase is recorded for this group in 2022. The category of 'other couples', which primarily involves families with non-dependent children, is highly volatile over the period.
- The poverty rate although volatile for single parents reflecting the smaller sample size, suggests a pattern of general stability for those with dependent student children only, and an increase over the period for those with children aged under 15 years.

- Older households show a distinct pattern of increasing rates of relative income poverty to 2009, a decline until the mid-2010s, and an accelerating increase since.

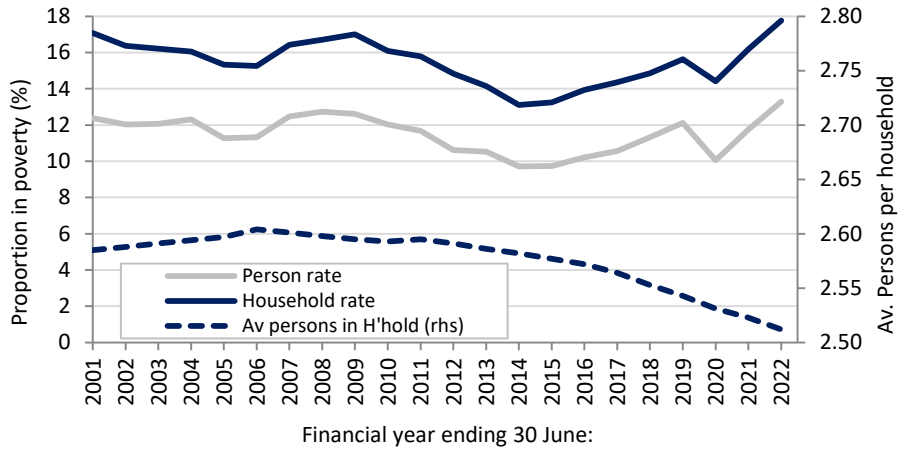
Group and 'other' households are quite volatile over the period showing no consistent trends, while single person households aged under 65 years had an initial decline until 2006 and are broadly stable since then.

2.5. Households

While the incidence of poverty is calculated at a household level, the above analysis, as is usual practice, has been presented on the basis of the persons living in the households. As seen above, the incidence of poverty tends to be higher for a number of types of single person households relative to couple households, including couples with children.

A consequence of this is that the proportion of households identified as being in relative income poverty is higher than that of persons. In 2022 while an estimated 3,386,882 people out of the population of 25,508,519, were identified as being in relative income poverty at the 50 per cent median level, this poverty occurs in 1,803,918 households out of an estimated total 10,155,514, as a consequence giving a household poverty rate of 17.8 per cent, relative to the population rate of 13.3 per cent. Underlying this is that the average size of a household which is identified in poverty is 1.88 compared to 2.65 for those not in poverty. Trends in this household rate are shown in Figure 11.

Figure 11. Persons and households, poverty rate (relative income, 50 per cent median), 2001 to 2022



Source: Table A.8.

As illustrated, over time the two series have moved in relatively consistent ways, although there has been some volatility. While difficult to fully identify because of this volatility, in broad terms the size of households, both in and not in poverty, has declined over the period. The average number of people per household for the full population, after showing a rise to a peak in 2006, has since declined.

Because of these sorts of shifts in household size, this measure is rarely used as it can distort trends where there are inconsistent patterns of change in household size.

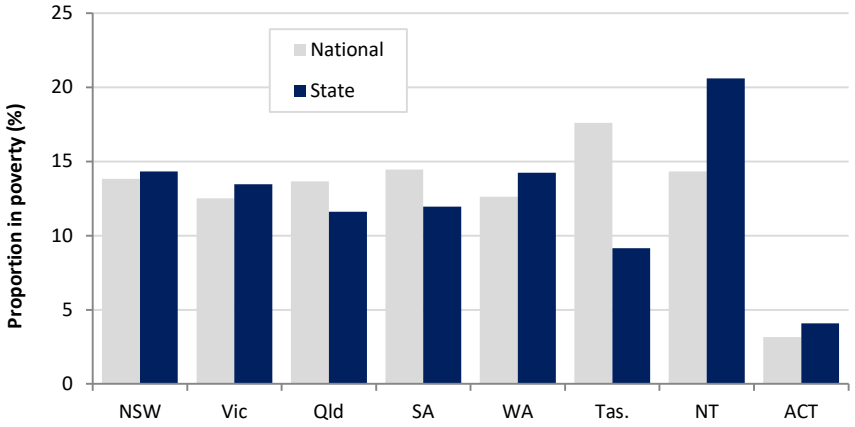
2.6. State and location

2.6.1. State

Using the standard national approach to relative income poverty, the rate of poverty in 2022 varies across states and territories from a low of 3.2 per cent in the ACT, to 17.6 per cent in Tasmania, Figure 12. As discussed in section 1.3.4 however, this concept of poverty sees it as a relative state and seeks to identify those in the community who appear to lack the means to fully participate with others in their community. This in turn raises the question of which community they should be compared with? Reflecting this question the Figure includes a second series of relative income poverty estimates based upon the distribution of incomes within each of the states, rather than nationally. Taking this approach results in higher rates of poverty in NSW, Victoria, Western Australia and the two territories, and lower rates in Queensland, South Australia and Tasmania.

The largest difference between the two approaches is for Tasmania. Whereas it is estimated that 17.6 per cent of Tasmanians are in relative income poverty when compared with Australians as a whole, this rate falls to 9.2 per cent when the comparison group is restricted simply to those living in Tasmania.

Figure 12. Persons, poverty rate (relative income, 50 per cent median), by state using national and state specific median incomes, 2022



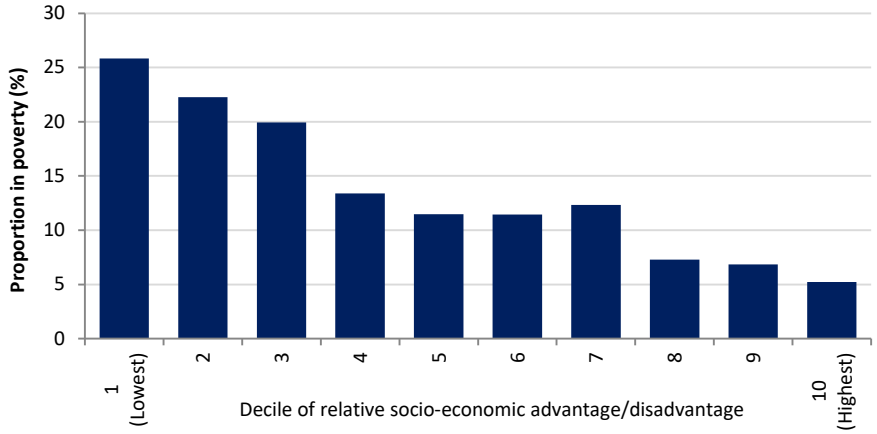
Source: Table A.9

2.6.2. Location

The incidence of poverty varies also across a number of other geographic classifications. Using the 2001 ARIA classification, the rate was 11.7 per cent in major cities, 14.3 per cent in inner regional Australia, 21.9 per cent in outer regional, and 18.1 per cent in remote locations. Figure 13, shows the incidence by the SEIFA decile of their location.

This shows a distinct pattern, with particularly high rates of poverty being recorded in the lowest three deciles – from 19.9 per cent to 25.8 per cent, then a drop for the middle four deciles with rates between 11.4 per cent and 13.4 per cent, and then a further fall for the top three deciles of locations, although even in these locations the data indicates that between 5.2 per cent and 7.3 per cent of the population were in poverty.

Figure 13. Persons, poverty rate (relative income, 50 per cent median), by SEIFA decile, 2022



Source: Table A.10

2.7. Housing characteristics

Housing has a strong inter-relationship with many concepts of poverty, including the extent to which people are living in inadequate housing conditions, because of the physical characteristics of the dwelling, because of the nature of the neighbourhood, due to over-crowding in the dwelling, or because of insecurity of tenure, including homelessness. It also has implications for household costs.

2.7.1. Income poverty estimation and housing costs

The question of how to take account of housing costs and amenities in estimating poverty rates is vexed (see for example Mullan, Sutherland and Zantomio (2011)). Several approaches can be used:

- Considering income on an after-housing cost basis, that is, deducting the cost of housing from income before analysis. In such an approach housing costs include the rent, or home loan repayments, along with potentially other costs such as rates and maintenance. An issue however with this is that home loan repayments contain both an interest and repayment element. The preferred approach is to only include the interest component, as capital repayments can be seen as contributing to an increase in wealth, that is, they represent savings and not a housing expenditure.
- Seeking to estimate an imputed value of housing and including this as income. In the case of home owners and purchasers this would be net of interest repayments, rates and strata or related fees and so forth. For public housing tenants who are on concessional rents this would be the difference between the imputed (market) rent for their property and their actual concessional rental payments.
- Considering that the drawback of each of these treatments is high, and recognising that housing itself involves consumption trade-offs, for example paying higher rent for a location which has good and cheap public transport links, relative to purchasing a motor vehicle and incurring operating costs, simply focusing on income.

In addition, the choice of approach is often limited, as is the case in HILDA, by the data available to make this type of adjustment.[35]

As well as these issues in approaches which seek to use an after-housing measure, an additional question concerns the choice of equivalence scales. This arises as most of these are based on household total consumption, but in this analysis are needing to be applied to a consumption bundle which excludes housing costs – perhaps the largest element of economies of scale for households.[36]

Here the focus is on the third approach, as however will be seen below, this has a particular impact on social housing renters where the significant value of rental concessions is excluded from their resource bundle.[37] Section 2.7.3 provides a comparison between the standard relative income poverty and a measure based on after-housing costs.

2.7.2. Trends by tenure

There is a marked hierarchy in the incidence of relative income poverty by housing tenure. In 2022 the estimated rate for those who were home purchasers was 3.5 per cent, for private renters 14.3 per cent, homeowners 19.9 per cent, other tenures (which includes people living rent-free and those renting from an employer and living in caravan parks) 27.3 per cent, and social housing renters (renting from state housing authorities and community or co-operative housing groups) 53.3 per cent.

These results reflect a number of features of the population and the data. Specifically the low rate for home purchasers reflects the generally higher incomes these households require to be able to purchase property including to access housing finance. The high rate for social housing residents can in part be attributed to the omission from income of the significant value of the rental concessions they receive in that tenure[38] and that, while this group is largely dependent upon transfer payments, they are not eligible for Rent Assistance, although this component is paid to those on these payments who are private renters and included as income for them. The relatively high rate for homeowners is particularly driven by older person households.

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35 Indeed a wide range of issues need to be considered. While an imputed rent can be estimated on the basis of dwelling characteristics and location, such estimates are only approximations for any particular dwelling. There are also questions as to whether the amenity value of an owner-occupied house reflects the market rental value, or whether a value also needs to be imputed for the security of tenure for an owner-occupied dwelling, There are also circumstances, such as some older owner occupiers who defer maintenance, which argue for account to be taken of this in terms of a depreciated value. Another consideration is whether accurate imputed rents can be approximated by what is at times a thin rental market.

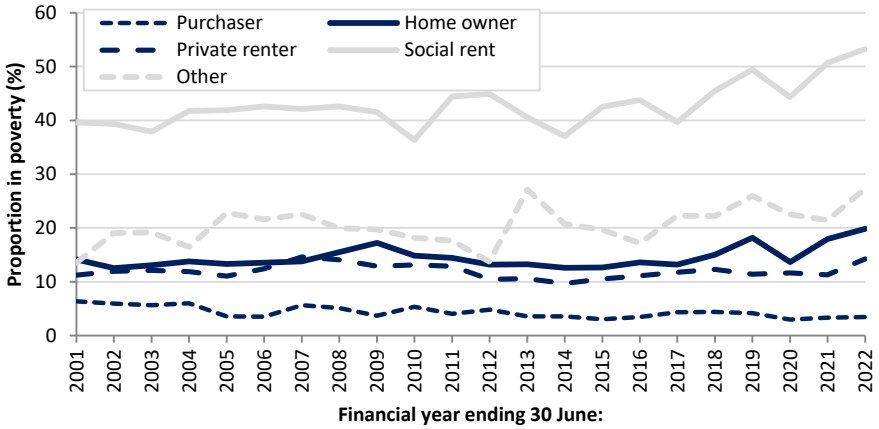
36 Some after-housing cost equivalence scales have been used in the UK but appear to have limited other use internationally. These are discussed in a Social Metrics Commission (2019) technical paper, but with little information on their derivation or assessment. Here what is called the "OECD modified, AHC" (p. 22) has been used. This utilises a weight of 1 for a single adult, 0.72 for an additional adult, and 0.42 for a child.

37 While each of the methods has its draw-backs, the use of an imputed rent approach for owners, and social housing and others with concessional rents (to enable the effective rent subsidies to be derived), along with the interest component only of mortgage payments for purchases, as well as rates and related charges where applicable, can be considered to be the most appropriate treatment. While possible with detailed data such as that in the ABS Household Expenditure Survey, this is not able to be directly undertaken with HILDA.

38 In NSW, for example, "Rent payable is between 25% and 30% of income, depending on how far the household income is above the moderate income limit" (NSW Government 2023).

Over time this hierarchy has remained relatively stable, although trends by tenure have varied. Most marked is the rise in the estimated relative income poverty rate for those in social housing since the mid-2010s, a trend which is echoed to a lesser degree by the 'other' tenure groups. Additionally, while most tenures show higher rates in 2022 relative to those in the early 2000s, the one exception is home purchasers where there has been a marked decline.

Figure 14. Persons, poverty rate (relative income, 50 per cent median), by housing tenure, 2001 to 2022



Source: Table A.11

2.7.3. Measuring poverty using after-housing costs

As discussed above, while measuring poverty on the basis of income excluding the cost of housing is used by some (for example Davidson, Bradbury and Wong 2022), it is an approach which also has a number of limitations. Here estimates are derived from HILDA for the financial year ending 30 June 2022. In deriving these:

- Housing costs are estimated at 12 times the variable 'Rent usual payments $ per month' and 'Mortgage usual repayments $ per month', along with 'Household annual expenditure - Local council rates for your home' and 'Household annual expenditure - Owners corporation or strata fees for your home'. As such the costs for an owner include both capital and interest repayments on a mortgage, and hence over-state housing costs. Although HILDA also includes a variable reporting on costs of repairs, renovations and maintenance to a home, this is excluded as renovations frequently add to the capital value of the home, and expenditure on these items can be lumpy.
- The Social Metrics Commission (2019, 22) "OECD modified, AHC" equivalence scale has been used. This utilises a weight of 1 for a single adult, 0.72 for an additional adult, and 0.42 for a child.
- Due to the deduction of these housing costs, and the use of an equivalence scale which is more heavily weighted to additional household members, the median equivalised after-housing annual disposable income is around $39,900, compared to $58,100 for median equivalised disposable income. The poverty line is set at 50 per cent of this specific median.

The results of this type of approach, by person type, are at Table 2. This shows that this after-housing cost approach produces a slightly higher estimate of the proportion of the population

in poverty, 14.1 per cent compared to 13.3 per cent. The differences are however much more marked for some population groups. In particular:

- The after-housing cost approach reduces estimated poverty, at the 50 per cent median income level, from 33.5 per cent to 23.1 per cent for people aged 65 years and over.
- It increases the rate for children from 10.2 per cent to 15.9 per cent.

Also shown in the table are the cross overs between the two approaches. This illustrates how the differences in poverty rates reflect the net effect of both flows into, and out of, being classified as being in poverty. For example, the difference between the overall rates of 13.3 per cent and 14.1 per cent comprises 3.2 per cent of the population who were in relative income poverty only, and hence are considered as not being in poverty using the after-housing relative method, and 4.0 per cent of those who are in the reverse situation, that is only being identified as being in poverty using the after housing cost approach.

Table 2. Persons, poverty rate (relative income, before and after-housing costs, 50 per cent median), 2022

Whether in poverty using the different measures:	Adults		Children	Total
	All	65 yrs & over		
	Distribution (%)			
Neither	82.6	63.8	83.2	82.7
Income only	3.7	13.2	0.9	3.2
After-housing only	3.4	2.7	6.7	4.0
Both	10.3	20.3	9.3	10.1
Total	100.0	100.0	100.0	100.0
Poverty rates (%)				
Relative income poverty	14.0	33.5	10.2	13.3
Relative AH income poverty	13.7	23.1	15.9	14.1

Source: Author's calculations using HILDA Wave 22

The extent of these shifts between the poverty classifications becomes even more marked when data is considered in terms of the demographic structure of the household.

- 24.9 per cent of single person households aged 65 years and over, and 14.1 per cent of persons who are in a couple only household at this age, move from being in poverty under the solely income based measure to the after-housing measure, compared to only 2.9 and 2.5 per cent who move into poverty using the after-housing measure.
- There is a marked increase in single parent families identified as being in poverty, in particular those with a youngest child under the age of 15 years, where while 25.5 per cent are classified as being in poverty under both measures, the after-housing approach adds an additional 10.1 per cent, compared to just 2.0 per cent for those who are only identified under the income only measure.

Table 3. Persons, poverty rate (relative income, before and after-housing costs, 50 per cent median), by household/family type, 2022

Family/Household type	Distribution within family/household type:					Composition by family/household of categories of cross identification:				
	Neither	Income only	AH only	Both	Total	Neither	Income only	AH only	Both	Total
	– % –									
Couple only aged under 65 yrs	90.8	1.5	2.2	5.6	100.0	13.7	5.7	6.7	6.9	12.5
Couple only aged 65 yrs and over	62.1	14.1	2.5	21.3	100.0	5.4	32.0	4.6	15.3	7.2
Couple with dependent child aged under 15 yrs	87.8	0.7	5.7	5.8	100.0	36.5	7.6	48.3	19.9	34.4
Couple with dependent student children only	93.7	0.2	1.6	4.6	100.0	7.7	0.3	2.6	3.1	6.8
Other couples	91.7	1.0	1.5	5.8	100.0	11.5	3.2	3.8	5.9	10.4
Single Parent with dependent child aged under 15 yrs	62.4	2.0	10.1	25.5	100.0	4.1	3.4	13.6	13.7	5.4
Single Parent with dependent student children only	78.6	1.1	9.0	11.3	100.0	1.6	0.6	3.7	1.8	1.7
Single Person aged under 65 yrs	74.2	4.1	4.1	17.7	100.0	6.3	8.9	7.1	12.3	7.0
Single Person aged 65 yrs and over	41.0	24.9	2.9	31.2	100.0	1.8	28.4	2.6	11.2	3.6
Group household	92.9	0.7	0.8	5.6	100.0	0.8	0.2	0.2	0.4	0.7
Other households	85.0	3.0	2.7	9.3	100.0	10.6	9.8	7.0	9.5	10.3
Total	82.7	3.2	4.0	10.1	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Categories relate to the cross-classification of before and after-housing income poverty.
Neither: Neither measure identified the person as being in poverty;
Income only: Only identified as being in poverty using the before housing approach;
AH only: Only identified as being in poverty using the After-housing measure;
Both: Identified as being in poverty under both measures.

Source: Author's calculations using HILDA Wave 22

This type of shift is also seen when household tenure is considered, Table 4. Specifically the number of homeowners recorded as being in poverty falls, while the number of purchasers and renters increases. As though noted, the increase amongst purchasers is likely to be exaggerated as total mortgage payments are included, rather than just the interest component. Somewhat surprisingly there are shifts both in and out, of roughly similar magnitudes, when the two measures for those in social housing are compared.

Table 4. Persons, poverty rate (relative income, before and after-housing costs, 50 per cent median), by housing tenure, 2022

Tenure	Distribution within tenure type:					Composition by tenure type of categories of cross identification:				
	Neither	Income only	AH only	Both	Total	Neither	Income only	AH only	Both	Total
	– % –									
Home owner	79.6	8.4	0.5	11.4	100.0	28.5	78.6	3.9	33.5	29.6
Purchaser	92.4	0.1	4.2	3.3	100.0	43.3	1.4	40.3	12.8	38.8
Private rent	77.6	0.3	8.1	14.0	100.0	24.0	2.6	51.5	35.4	25.6
Social	41.8	4.1	4.9	49.2	100.0	1.5	3.8	3.6	14.2	2.9
Other	71.7	13.9	1.0	13.4	100.0	2.7	13.6	0.8	4.1	3.1
Total	82.7	3.2	4.0	10.1	100.0	100.0	100.0	100.0	100.0	100.0

Notes: See Table 3

Source: Author's calculations using HILDA Wave 22.

2.8. Summary

The estimated 50 per cent median poverty rate for Australia from the HILDA survey in 2022 was 13.3 per cent of the Australian population. This was statistically significantly higher than what was recorded in 2020, and in the period 2012 to 2017. While the aggregate level of poverty derived from HILDA is similar to that from the ABS household surveys, as were the broad time trends in the two series, there were very marked differences in who were identified as being in poverty.

HILDA produces particularly high rates of poverty – 56.1 per cent for single persons aged over 65 years and for couples above this age, 35.4 per cent. In contrast the rates for a couple with children under 15 was 6.5 per cent and those with a dependent student child only 4.7 per cent. It was high, 53.3 per cent, for those in social housing. While the approach is limited, estimated after-housing poverty was slightly higher at 14.1 per cent, with the poverty rate falling for older people but increasing for children.

There was considerable variation in the poverty rates by state, with the highest rate in Tasmania and lowest in the ACT. If however the analysis estimates poverty based upon state specific median incomes, the poverty rate for Tasmania reduces from 17.6 per cent to 9.2 per cent.

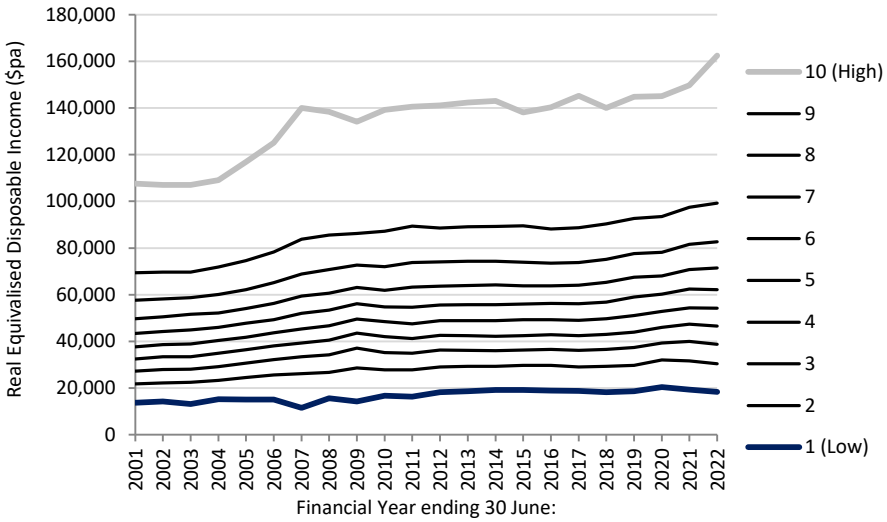
3. Trends in income

Underlying the trends in relative income poverty are trends in the level and distribution of income. In considering these trends it is emphasised that while changes in wages are a contributor to household disposable income, this measure is also affected by: the number of earners within a household, and the volume of work they undertake; the impact of taxes and government transfers; changes in other sources of income such as investments; and the number of people in the household and their age, as the data is equivalised. The issue of wage inequality while a potential contributor, as such, is not considered here.

3.1. Trends in real income

HILDA reports widespread real income growth, using the measure of real equivalised disposable income, over the period between 2001 and 2022, see Figure 15. However not all households have experienced the same growth and growth has been uneven across the income distribution. As illustrated in the chart, and detailed later in Table 5, while the average real incomes of the populations in deciles[39] 2 to 9 of equivalised disposable income have increased by amounts between 40.1 per cent and 44.2 per cent over the 21 year period, the average real equivalised disposable income for the bottom decile has grown by 34.8 per cent, and for the top by 51.0 per cent.[40]

Figure 15. Average real equivalised income, by income decile, 2001 to 2022



Source: Table A.12

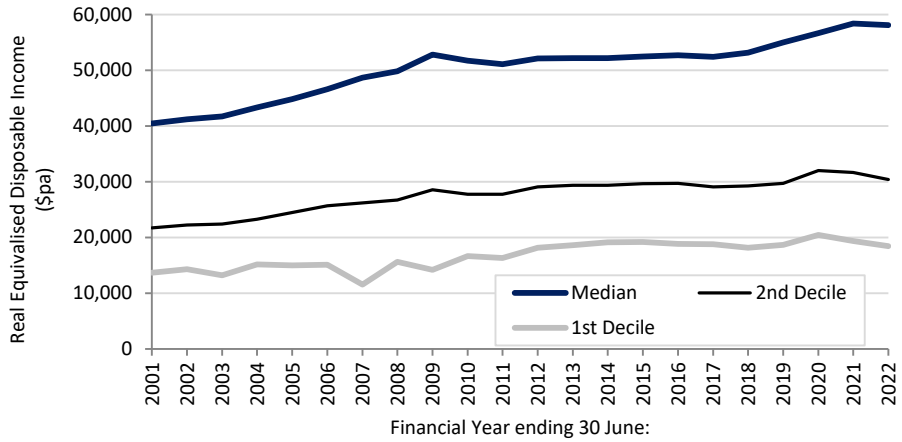
An expanded view of the trends for the lowest two deciles, along with the population median income, is in Figure 16. Specifically:

39 Deciles are 10 per cent groupings of the population ranked by equivalised disposable income.

40 This analysis is cross-sectional, not longitudinal, and as such does not track the experience of any one individual or household.

- While the lowest decile shows considerable volatility, the only substantial period of sustained growth was between 2009 and 2015.
- Both of the lower two deciles have had a marked fall in real average equivalised disposable incomes between 2020 and 2022. As detailed in Table 5, this was particularly large for the lowest decile, a fall of $2,042 which reduced the average to $18,400. Over this period a decline was also recorded by the third decile.
- In contrast median earnings have grown more strongly and the average equivalised disposable income of the bottom decile has fallen from 33.8 per cent to 31.7 per cent of the median over the period between 2001 and 2022, and that of the second lowest decile from 53.6 per cent to 52.3 per cent, taking this average quite close to the 50 per cent median poverty line.

Figure 16. Average real equivalised income, deciles 1 and 2, and median, 2001 to 2022



Source: Table A.13

The 2022 levels of income and pattern of income growth by decile are detailed in Table 5. On average the highest decile of the population have an income 8.8 times that of those in the lowest decile. The table also reports declining real equivalised incomes over the year to 2022 for the bottom six deciles.

Table 5. Persons, real equivalised disposable income, selected analytical characteristics, by income decile, 2022

	Equivalised Disposable Income Decile									
	1 (Low)	2	3	4	5	6	7	8	9	10 (High)
2022 Real Equivalised Disposable Income	18,400	30,395	38,782	46,551	54,262	62,191	71,384	82,719	99,267	162,412
					Income growth (%)					
2001-2022	34.8	40.1	42.1	43.8	44.2	43.4	43.5	43.6	43.0	51.0
					Real change ($)					
2021-2022	-919	-1,270	-1,140	-854	-136	-218	599	1,153	1,879	12,687
2020-2022	-2,042	-1,581	-546	625	1,383	1,968	3,315	4,575	5,781	17,257

Source: Author's calculations using HILDA Wave 22

Marked differences in the pattern of income growth are also present when household/family types are considered, Table 6. These differences relate not just to different rates of growth

between family/household types, but also to how these rates vary, depending upon the point of the distribution which is used for comparison, that is the median and the mean.

This latter variation in turn informs about the nature of the shift in the distribution of earnings. For example, while the real equivalised median income of those households which comprise a single parent with dependent student children in 2022, was 20.3 per cent higher than that of this family type in 2001, the average income of this type of household increased by 68.5 per cent. More detailed analysis suggests that this growth in average incomes is highly volatile between waves of the survey and is impacted by a small number of very high income earners. As indicated in the final column, the rate of growth in this population is also very high compared to the other types of households, suggesting some underlying structural change.

Overall growth has been strongest, and more consistent between growth at the mean and the median, for the various types of couple families, although even for these there are some quite noticeable differences.

Table 6. Persons, real equivalised disposable income, selected analytical characteristics, by household family type, 2022

Household/ Family Type (a)	Average		Median		Population	
	Equivalised disposable income 2022 ($)	Growth 2001-2022 (%)	Equivalised disposable income 2022 ($)	Growth 2001-2022 (%)	Persons 2022	Growth 2001-2022 (%)
Cpl < 65	85,110	43.3	80,307	46.7	3,187,660	17.8
Cple 65+	49,461	58.6	35,953	40.1	1,845,147	92.1
Cple dep<15	70,363	59.0	60,316	49.4	8,776,603	24.8
Cple dep stud	80,512	60.0	73,928	53.5	1,725,555	40.0
Other cple	72,906	38.1	67,003	36.6	2,641,244	49.1
SP dep<15	40,817	26.8	38,276	29.4	1,383,988	1.6
SP dep stud	67,508	68.5	46,042	20.3	420,305	87.0
Sngl <65	61,237	33.1	55,016	32.1	1,786,435	53.7
Sngl 65+	37,203	48.0	27,137	42.0	925,801	48.8
Group (b)	64,121	14.1	59,819	17.2	188,132	-60.4
Other	59,277	36.4	52,736	37.4	2,627,649	106.0

Notes:

(a) See Figure 9 for abbreviations

(b) Some caution is required in considering the apparent very low income growth rate for group households, given the large decline in the population reported as living in this type of household. This suggests these households may be considerably different in 2022 when compared to 2001 and that the reported income growth is more likely to reflect this compositional shift rather than trends in income.

Source: Author's calculations using HILDA Wave 22

3.2. Measures of inequality

The above trends point to changes in the income distribution. A range of inequality measures, exist which seek to identify these changes in a summary form. Three are considered here: the Gini coefficient, the Atkinson measure, and Generalised Entropy measures. In addition income shares and percentile ratios are addressed.[41]

Underlying the range measures, and the use of the Lorenz curve which is also illustrated, is the fact that distributions of income can be unequal in different ways, and the various measures attempt to respond to this. The nature of differences in distributional patterns can be

[41] The relative income poverty line can also be thought of as a special form of inequality measurement as it simply comprises a comparison of two components of the income distribution.

seen, for example, in comparing two populations. The first has a small group of people with relatively low incomes, with the balance of the population all having higher, but similar, incomes. The second is where most of the population have similar, but reasonable incomes, but a small number have very high incomes. Both of these are unequal. However values come into any decision on what this inequality indicates. Reflecting this, some measures include a parameter which can be adjusted to seek to make the measure more sensitive to types of inequality.

Notwithstanding the common use of these measures they are also subject to criticism for seeking to generate a single statistic to summarise a complex outcome: "By collapsing the whole rainbow of the income distribution into a single statistical point of white light, it necessarily conceals much of great interest" (Deaton and Case 2020)[42].

3.2.1. Lorenz and Gini

The Lorenz curve is a graphical way of identifying inequalities in a distribution. In this case it plots the cumulative distribution of income shares by the cumulative share of the population when ranked by income. This is illustrated in Figure 17. As incomes become more equally distributed, that is, the cumulative share of income received at any one point is matched by the cumulative share of the population, the line approaches the 45° slope marked as "equality". That is, a Lorenz curve closer to the diagonal reflects a more equal income distribution. As shown in the first panel the distribution in 2022 is further away, suggesting a tendency towards an increase in inequality.[43]

As illustrated many of the differences are relatively minor. For example, in 2001 the population up to the 25th percentile had 10.5 per cent of all income, with this falling to 10.1 per cent in 2022. Similarly the lower half of the population had 28.3 per cent of all income in 2022, down from 28.9 per cent in 2001. However larger differences emerge at the top, with the top 5 per cent of the population, as discussed in section 3.2.4, increasing their share of income from 13.9 per cent to 15.8 per cent.

The second panel shows the 'Generalised Lorenz' curve (Shorrocks 1983). This inflates the vertical axis by average incomes to give a measure which considers 'welfare dominance' between the two distributions. As illustrated in the figure, the 2022 distribution clearly dominates that in 2001 across almost all of the distribution as a consequence of the spread of real income growth over the period.[44]

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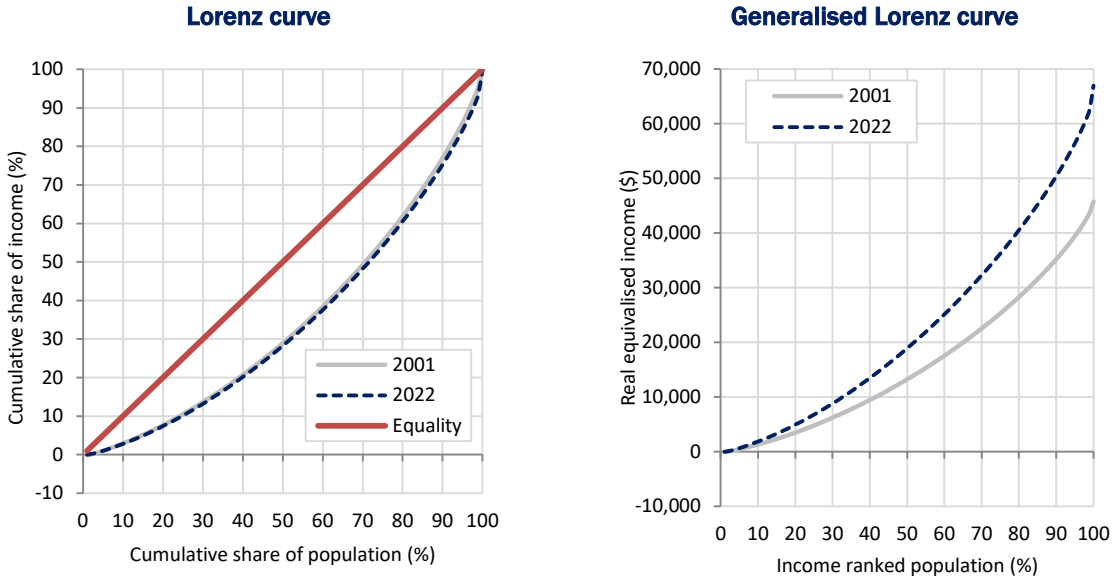
[42] Similarly Picketty (2014) writes on these measures: "They claim to summarise in a single numerical index all that a distribution can tell us about inequality – the inequality between the bottom and the middle of the hierarchy as well as between the middle and the top or between the top and the very top. This is very simple and appealing at first glance but inevitably somewhat misleading" (p. 266).

[43] While suggesting a tendency towards inequality, more detailed analysis does not point to a definitive increase as the condition of 'Lorenz dominance' where the lines do not cross at any point is not met. Rather the data suggests that up to the 5th percentile, the population held a slightly higher share of total income in 2022 than it did in 2001, with this then reversing for the rest of the distribution, hence resulting in the lines crossing. If the analysis is however restricted only to those with a positive non-zero income, the condition of Lorenz dominance is achieved (at a percentile level of aggregation), indicating an increase in inequality.

[44] The Generalised Lorenz curve for 2022 achieves dominance from the second percentile onwards.

Figure 17. Lorenz curves, equivalised real disposable incomes, 2001 and 2020



Note: Lorenz curves have been constructed and analysed on the basis of percentile points of the distribution, rather than on the basis of individual records. Zero and negative incomes have been included.

Source: Author's calculations using HILDA waves 1 & 22.

The most commonly used, although arguably not the best[45], measure of inequality is the Gini coefficient. This can be visualised in the Lorenz curve, and is the ratio of the area between the Lorenz curve and the line of total equality, relative to the area below the line of total equality.[46] When the Lorenz curve is along the line of total equality and hence there is no area between it and the line, the value of the Gini is 0, increasing to a value of 1 as inequality increases, and the Lorenz curve tracks more closely to the x-axis before finally moving to the maximal point on both axes.

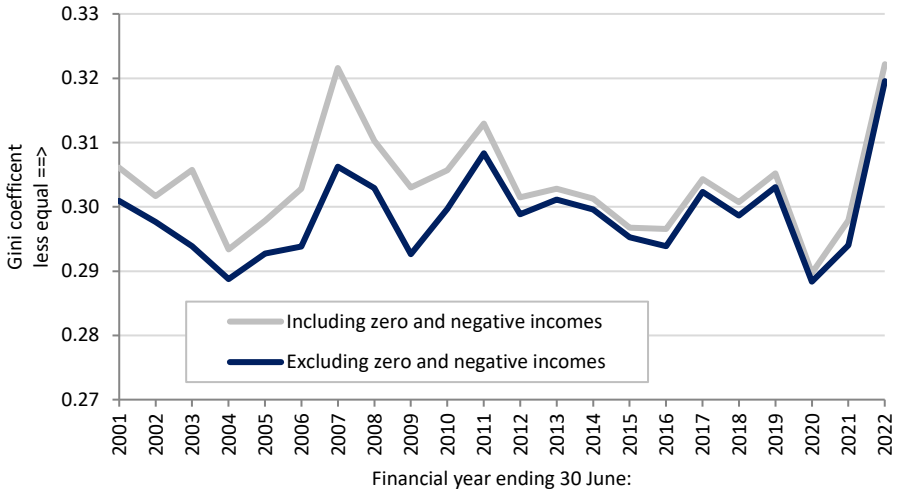
Figure 18 shows the value of the Gini coefficient for two measures of equivalised disposable income between 2001 and 2022. These are for the full population and for the population excluding those households with zero or negative incomes.

As illustrated, while the Gini has generally been around 0.3, especially for the measure excluding negative incomes, both measures have surged in 2022 reaching a value around 0.32, suggesting a significant increase in inequality. The increase is from a near historic low in 2020, with a slight rise in 2021, before a very large increase to 2022.

45 The usual criticism is that it is too sensitive to changes in the middle of the distribution, although this is contested, for example, by Gastwirth (2017). This article also provides some background on the claims which he seeks to refute.

46 It can also, and most usually is, derived mathematically from the raw data.

Figure 18. Equivalised real disposable incomes, Gini coefficient 2001 to 2022



Source: Table A.14

Two other features are that, especially over the earlier period, the inclusion of negative household incomes results in a higher Gini coefficient, and, secondly, while the Gini for the two measures of income tend to track each other, as can be seen between 2002 and 2003, this is not necessarily the case.[47]

3.2.2. Atkinson

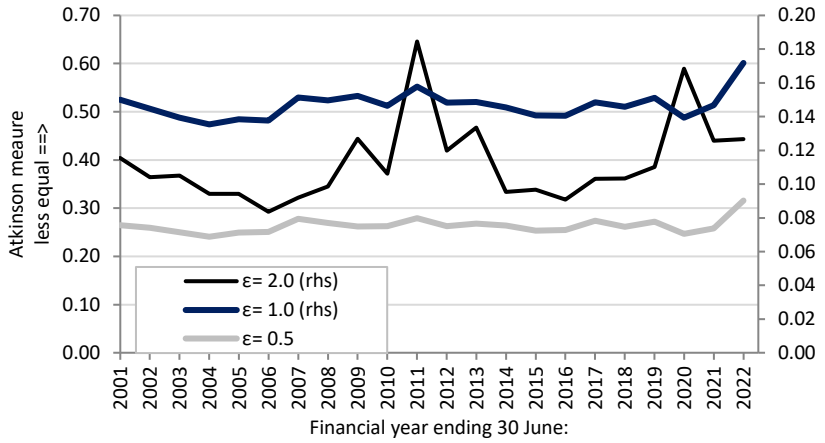
The Atkinson Measure of Inequality[48], in contrast to the Gini, is constructed as a specific measure of social welfare and contains a parameter ε which allows for the incorporation of a user specified degree of inequality aversion. Setting this parameter to a low value suggests a low level of aversion to inequality. (Based on the principle of transfers that a transfer to a person on low incomes and to a person on a high income are the same.) In contrast a higher value for the parameter attaches greater value to those at the bottom of the distribution. The measure is illustrated in Figure 19 with ε set at the values of 0.5, 1.0 and 2.0. As the absolute value of the measure varies across these different settings, two axes are used.[49]

[47] The chart also shows a decreasing discrepancy in the two measures, suggesting a decrease in the number of households with reported zero or negative incomes, or a decrease in negative incomes. This may reflect changes in actual household income, possible issues associated with the composition of attrition, or improved data reporting and collection.

[48] For a good introduction and overview of the Atkinson measure see Creedy (2023), and for a more applied approach, which also encompasses the Gini and Entropy measures, see ABS (2007, 59-67).

[49] While the relative absolute values have a meaning relative to each other, in a detailed forensic analysis of the nature of inequality and in comparison with other estimates based on the same parameter value, they have less relevance in simple time series analysis.

Figure 19. Equivalised real disposable incomes, Atkinson measure of inequality, 2001 to 2022



Source: Table A.15

This indicates, using the two measures which are more sensitive to the upper end of the distribution, that while inequality was relatively stable for most of the period, there was, reflecting what was seen in the Gini, a marked increase from 2020. The measure ($\varepsilon = 2.0$), which is sensitive to changes at the bottom of the distribution, shows much more volatility with two strong peaks in 2011 and 2020. This potentially reflects issues with changes within the population with very low reported incomes.[50]

3.2.3. Generalised Entropy

Generalised Entropy (GE) measures are another set of measures which contain a parameter to vary their sensitivity (with three specific values generating three individually identified measures of inequality[51]). They are particularly suited for some analysis as they permit additive decomposability within and between sub-populations. The parameter α impacts on sensitivity to different parts of the distribution.

Setting the parameter at $\alpha=0$ makes the distribution particularly sensitive to the lower end of the distribution, with the sensitivity towards the upper end increasing with the parameter value.

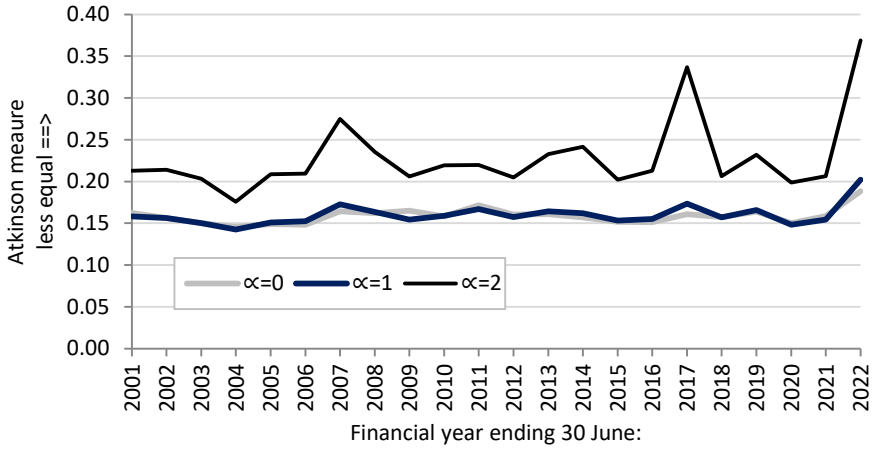
Trends in this measure, with the α parameter set at each of these levels, are detailed in Figure 20. The measures with parameter values 0 and 1, those more sensitive to the lower end of the distribution, show a relatively flat series, although with a potential upward trend, followed by a decline between 2019 and 2020, and a marked increase in the following two years, a pattern similar to that seen above in the Gini and Atkinson ($\varepsilon = 0.5$ and $\varepsilon = 1.0$) measures. In contrast

[50] The ABS noted this sensitivity when they sought to use this measure with data from the SIH which contained negative and zero values, which the measure cannot utilise. To avoid this they proposed setting these observations at a minimal value. In their analysis they used three such re-codings, at $0.01, $0.10 and $1.00. This process resulted in quite a large variation in the measure and resulted in the ABS concluding: "Given the likelihood that most of the very low incomes do not accurately represent the economic wellbeing of the respondents reporting such values, there is some doubt about the usefulness of summary indicators that are particularly sensitive to this segment of the population" (ABS 2007, 66).

[51] The three individual approaches are: when this parameter is set at: 0, a measure known as the mean log deviation, and also as Theil's T; at 1, which creates the Theil L index (frequently just referred to as the Theil Index) ; and at a value of 2, half the square of the coefficient of variation.

with α = 2, the series shows much more volatility with three peaks; in 2007, 2017 and in 2022, with these being echoed in a much more muted way in the series with a parameter value of 1.0. The spikes are not in phase with those seen in the Atkinson ε = 2.0, suggesting quite different effects at the disparate ends of the income distribution.

Figure 20. Equivalised real disposable income, Generalised Entropy measures of inequality, 2001 to 2022



Source: Table A.16

3.2.4. Income shares and ratios

Another set of tools often used in analysing trends in inequality is the examination of trends in the income shares held by sectors of the income distribution, and ratios of income at particular points. These approaches do not attempt to measure or describe the distribution and changes as a whole, but rather provide a range of indicators which illustrate aspects of the distribution and trends.

A series of income ratios are shown in Figure 21.[52] These show that in 2022:

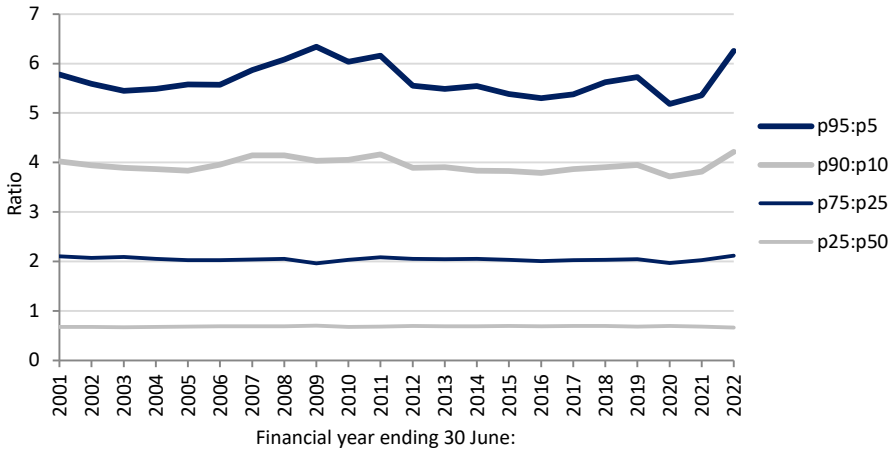
- Persons at the 95th percentile of the income distribution had an equivalised disposable income 6.3 times that of a person at the 5th decile (p95:p5 ratio).
- Those at the 90th percentile of the income distribution had an equivalised disposable income 4.2 times that of a person at the 10th decile (p90:p10 ratio).
- Persons at the 75th percentile of the income distribution had an equivalised disposable income 2.1 times that of a person at the 25th decile (p75:p25 ratio).
- Those at the 25th percentile of the income distribution had income that is 70 per cent of that of a person at the median (p25:p50 ratio).

[52] While this type of analysis often presents data for the top one per cent of the population, this has not been presented here. The reliability of the collection of this data in household surveys is difficult due to sample sizes, obtaining participation, and with the provision of full information. For this reason many studies, such as Hérault et al (2022), utilise tax records for this.

In HILDA, while the data is noisy, it suggests that the income share of this group has risen over time from levels of the low 4 per cent range to just under 5 per cent before surging in 2022 to over 6 per cent. However caution needs to be taken with these figures.

The chart also shows trends over time. While each of the series shows fluctuations, overall there are no consistent trends. The chart does however show, consistent with the other inequality indicators, a sharp rise, in particular in the p95:p5 and p90:p10 ratios over the period since 2020.

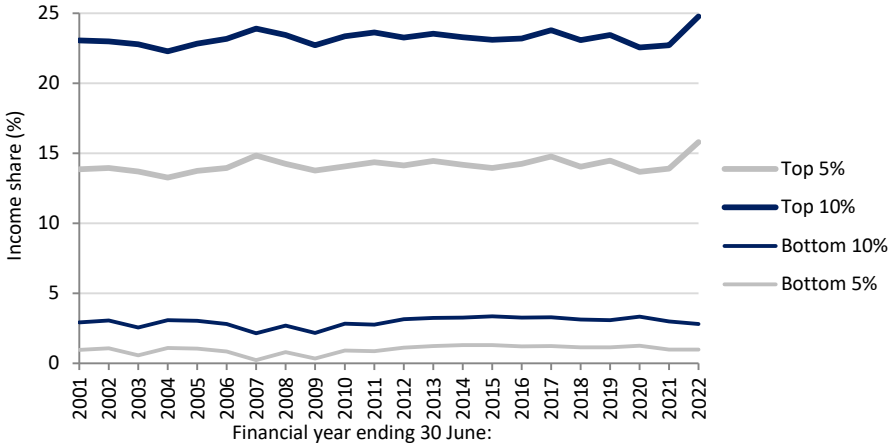
Figure 21. Equivalised disposable incomes, selected income ratios, 2001 to 2022



Source: Table A.17

The second approach, that of income shares, is illustrated in Figure 22. This indicates that in 2022 the top five per cent of the population ranked by equivalised disposable income received 15.8 per cent of the total; the top 10 per cent 24.8 per cent; and the top half 71.7 per cent. In contrast the bottom five per cent received just 1.0 per cent of equivalised disposable income, and the bottom 10 per cent, 2.8 per cent.

Figure 22. Equivalised disposable incomes, selected income shares, 2001 to 2022



Source: Table A.17

Again there appears to be no clear trend over time, with the exception of the strong surge in top incomes in 2022. This brought the top five per cent up from historical lows in 2020 to a historical high.

These patterns, in particular the extent to which 2022 represents a large increase in top incomes, need to be considered with respect to Table 7 which presents selected income ratios and income shares for 2001 and 2022.

Table 7. Persons, equivalised disposable incomes, selected income ratios and income shares, 2001 and 2022

	Income ratios at selected percentile points					
	p95:p5	p90:p10	p75:p25	p25:p50	p90:p50	p95:p50
2001	5.8	4.0	2.1	0.7	1.9	2.3
2022	6.3	4.2	2.1	0.7	1.9	2.3
	Income shares					
	Top 5%	Top 10%	Top 50%	Bottom 10%		Bottom 5%
			– % –			
2001	13.9	23.1	71.1	2.9		1.0
2022	15.8	24.8	71.7	2.8		1.0

Source: Table A.17

3.3. Summary

Since 2001 real equivalised disposable incomes in Australia have grown quite strongly. While this growth has been widespread, not all groups have shared equally. Growth has been much more rapid at the upper end of the income distribution, and more muted at the lower. It has also varied considerably across households, depending upon their family/household type.

While most measures of inequality have been relatively stable for most of the period, there is a very consistent pattern, across almost all measures, of a rapid and quite marked rise in inequality since 2020 broadly associated with top income growth, and falls at the bottom. This is largely confirmed by analysis of the Lorenz curve which points to a more unequal distribution of income in 2022 relative to 2001. However, taking into account income growth, the data suggests almost all are better off in absolute terms. Those measures which are particularly sensitive to particular parts of the distribution show a number of spikes, suggesting more specific factors at play. These results also emphasise the extent to which no single measure of inequality can fully, or potentially even adequately, measure inequality changes.

4. Income poverty and wealth

Measures of relative income poverty focus on a household's current income. This however is frequently only a partial measurement of the resources available to them, as it does not take account of their wealth and their ability to draw upon this. While this concern may be partially addressed by approaches such as taking account of housing assets through the inclusion of imputed rent, there are challenges in doing this accurately. This chapter is concerned with the interaction between measured relative income poverty and household wealth.

HILDA has collected wealth data every four years from 2002, with the latest data being available for the financial year ending in June 2022.[53] For the purpose of analysis, the measure of household wealth considered here is net wealth excluding HECS-HELP debt and, with negative net wealth bottom coded at -$1,000. The exclusion of HECS-HELP is motivated by this being an income contingent loan with debt repayments only compulsory at and above individual annual incomes of $51,550 (in 2023-24).[54]

In considering wealth in the context of this analysis which has focused on individuals living in households with well established concepts of consumption equivalence which can be applied to income, a question arises as to how to treat household wealth at an individual level. In general the level of wealth has been reported at the household level, ie the same total level of household wealth is attributed to the household and each individual within the household. This though has been supplemented with some analysis using a wealth per capita basis, that is dividing wealth equally by the number of people living in the household.

4.1. Trends in wealth

Over the past two decades wealth in Australia has increased. The median person in 2022 lived in a household with wealth of $832,800, and person-weighted average value of wealth is $1,390,900. As illustrated in Table 8, wealth has grown dramatically across all wealth deciles, although with large differences in the real level of wealth of households.

[53] Over the period there have been some minor changes in the data collection. Specifically in 2002 data was not collected on household debt, and the value of outstanding loans made to others was first collected, and included in wealth, in 2022.

[54] Data in Ey (2023) indicates that some 12 to 30 per cent of student loans are expected not to be repaid. In addition some debt reduction has been provided, for example for teachers in very remote locations, and rural and remote medical professionals. Full accounting for this would for example need to see the value of these concessions included as income.

Table 8. Real household net wealth, by person weighted household wealth decile, 2002 to 2022

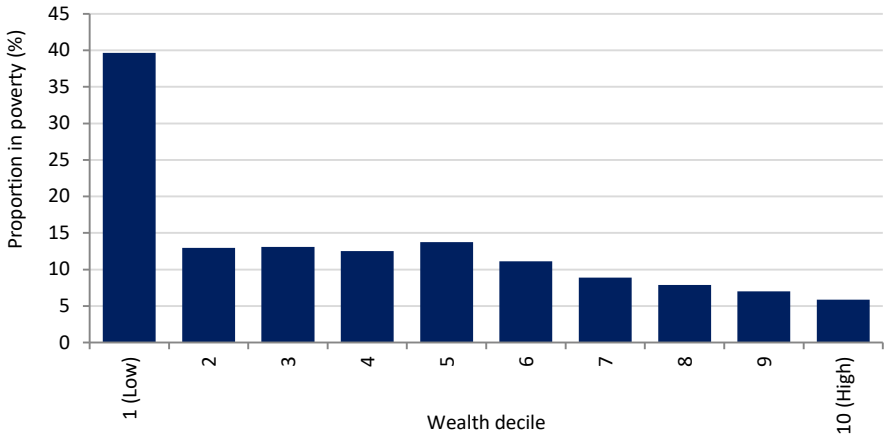
	Population-weighted net wealth deciles:									
	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
						$(June 2022)				
2002	2,925	37,022	122,160	229,152	345,692	481,975	665,875	890,279	1,275,947	3,232,534
2006	6,131	53,856	177,147	330,639	478,556	637,731	842,505	1,131,600	1,655,663	4,650,557
2010	6,870	56,261	167,633	332,118	490,911	658,158	864,913	1,160,446	1,657,843	4,088,820
2014	7,749	53,680	143,085	278,761	436,891	617,035	841,605	1,145,211	1,705,746	4,022,710
2018	10,846	70,304	185,828	347,567	520,080	732,130	1,014,079	1,387,355	2,077,686	4,811,084
2022	18,376	106,351	269,326	477,998	707,854	966,899	1,284,909	1,779,218	2,614,592	5,768,112

Notes: Net wealth excludes HECS-HELP debt and, negative net wealth bottom coded at -$1,000.
Source: Author's calculation, HILDA Wave 22.

4.2. Income poverty and wealth

The pattern of the incidence of relative income poverty by household wealth has, as illustrated in Figure 23, a distinct pattern. The lowest wealth decile has a very high poverty rate, 39.6 per cent. After this however the rate remains relatively stable at around 13 per cent for the second to fifth decile, and then declines slowly, reaching its lowest point in the top wealth decile at 5.9 per cent.

Figure 23. Persons, poverty rate (relative income, 50 per cent median), by household net wealth decile, 2022



Source: Table 9

This relationship is considered further in Table 9 which also provides data on per capita net wealth deciles. Using this measure of wealth the poverty rate shows more of a U-shape, initially declining with per capita wealth before rising from the seventh decile on. This pattern is likely to reflect the extent to which some of the high per capita wealth households are those comprising a single person aged 65 years and over, or couple only households with the oldest member being aged 65 years and over. The poverty/wealth relationship for this sub-population is considered further in section 4.3.

Overall the lowest wealth decile accounts for 29.9 per cent of those identified as being in poverty when total household wealth is considered, and for 28.3 per cent of those in poverty

when a per capita wealth measure is applied. Under both approaches just under half of the population identified as being in poverty were in the bottom three wealth deciles.

Table 9. Persons, poverty rate and distribution (relative income, 50 per cent median), by household, and per capita, net wealth decile, 2022

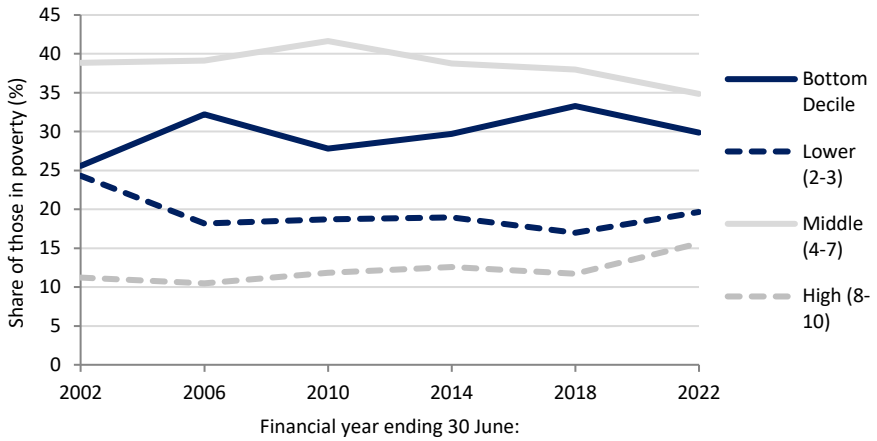
Decile(a)	Household wealth decile			Per capita wealth decile		
	In poverty	Poverty rate	Distribution of those in poverty	In poverty	Poverty rate	Distribution of those in poverty
	Persons	– % --		Persons	– % –	
1 (Low)	1,012,119	39.6	29.9	958,689	37.6	28.3
2	330,953	13.0	9.8	353,226	13.8	10.4
3	334,519	13.1	9.9	305,705	12.0	9.0
4	318,701	12.5	9.4	197,337	7.7	5.8
5	351,621	13.7	10.4	228,981	8.9	6.8
6	282,929	11.1	8.4	192,091	7.6	5.7
7	226,857	8.9	6.7	245,935	9.6	7.3
8	200,937	7.9	5.9	287,114	11.3	8.5
9	178,323	7.0	5.3	347,363	13.6	10.3
10 (High)	149,923	5.9	4.4	270,441	10.6	8.0
Total	3,386,882	13.3	100.0	3,386,882	13.3	100.0

Notes: (a) Deciles are population-weighted.

Source: Author's calculation, HILDA Wave 22.

Trends in the distribution of the population identified as being in relative income poverty by wealth decile are shown, in aggregate, in Figure 24. This suggests that there has been an overall increase in the share of those in poverty being in the bottom decile and the top two deciles, but a decline in those in the lower deciles (deciles 2 and 3) and the middle deciles (deciles 4 to 7). However, these trends have not always been consistent over time.

Figure 24. Distribution of persons in relative income poverty, 50 per cent median, by aggregated household net wealth decile, 2002-22



Source: Table A.18

4.3. Older persons, poverty and wealth

The pattern of the persistence of the incidence of relative income poverty across households by wealth is even more marked for older persons, Table 10. While there is an almost monotonic decline in the poverty rate as household wealth increases, relatively high rates are recorded for most wealth deciles. A consequence of this is that just 15.3 per cent of persons aged 65 years and over who are identified as being in poverty live in households in the bottom wealth decile, and only a further 5.0 per cent in households in the second to lowest wealth decile.

Table 10. Persons aged 65 years and over, poverty rate and distribution (relative income, 50 per cent median), by household wealth decile, 2022

Household wealth decile (a)	In poverty	Poverty rate	Share of population in poverty
	- Persons-	– % –	
1 (Low)	215,600	65.2	15.3
2	70,574	41.3	5.0
3	129,936	46.9	9.2
4	159,624	44.0	11.3
5	173,994	37.0	12.3
6	181,134	36.5	12.8
7	150,782	29.7	10.7
8	153,741	27.3	10.9
9	109,602	22.0	7.8
10 (High)	66,938	12.5	4.7
Total	1,411,925	33.5	100.0

Notes: (a) Deciles are population-weighted whole population wealth deciles.
Source: Author's calculation, HILDA Wave 22.

A key factor in this pattern is the role of housing wealth. This is considered in Table 11 which shows the distribution of all persons aged 65 years and over identified as being in relative income poverty by the tenure of the household in which they live. Two significant features of this are:

- A concentration of poverty in private and social renters who have little wealth being in the bottom decile of the wealth distribution. These account for 6.7 per cent, and 6.6 per cent, respectively, of the older population identified as being in poverty. More so persons in this age group in these tenures have relatively little presence in the higher wealth deciles.
- 71.4 per cent of those identified as being in poverty are living in owner-occupied housing with these being concentrated in the upper half of the household wealth distribution.

Table 11. Persons, total number of years recorded as being in poverty (relative income, 50 per cent median) over the period 2001 to 2022

Household net wealth decile (a)	Housing tenure (b): Home owner	Purchaser	Private rent	Social	Other	Total
			Distribution (%)			
1 (Low)	0.2	0.0	6.7	6.6	1.8	15.3
2	0.7	0.3	1.9	0.5	1.6	5.0
3	5.7	0.5	1.7	0.4	0.8	9.2
4	9.1	0.6	0.7	0.0	0.8	11.3
5	11.3	0.8	0.0	0.0	0.2	12.3
6	11.8	0.7	0.1	0.0	0.2	12.8
7	10.0	0.3	0.0	0.0	0.4	10.7
8	10.6	0.1	0.1	0.0	0.1	10.9
9	7.4	0.4	0.0	0.0	0.0	7.8
10 (High)	4.5	0.0	0.0	0.0	0.3	4.7
Total	71.4	3.7	11.2	7.5	6.1	100.0

Notes: (a) Deciles are population-weighted whole population wealth deciles
(b) Tenure relates to the dwelling in which the person lives.
Source: Author's calculation, HILDA Wave 22.

The relationship between the estimated incidence and poverty and more liquid forms of wealth is considered in Table 12. For the population of persons aged 65 years and over this presents the distribution of household savings and superannuation in terms of the value of these at points of the distribution.[55]

Table 12. Persons aged 65 years and over, distribution of wealth held in bank deposits and superannuation by whether in relative income poverty, 50 per cent median, 2022

Percentile point:	Savings in banks		Value of superannuation	
	In poverty	Not	In poverty	Not
		$		
p5	25	15	0	0
p10	100	200	0	0
p25	1,250	2,000	0	0
p50	9,400	9,151	0	93,000
p75	35,000	35,000	54,598	340,000
p90	117,000	120,000	269,330	737,500
p95	210,000	200,000	410,000	1,100,000
Persons	1,402,572	2,740,005	1,402,572	2,740,005

Source: Author's calculation, HILDA Wave 22.

With regard to savings, up to the 25th percentile of the distribution, for both those in relative income poverty and those not, most had few savings. After this the distribution for both the groups was quite similar. In the case of superannuation, while both groups had zero balances at the bottom of the distribution, there was a marked divergence at the upper end of the distribution, with the balances for those identified as being in poverty, while at times being far from insignificant, were much lower than those not recorded in poverty.

[55] The percentiles have been calculated independently, and separately for those identified as being in poverty and those not, on the value of the particular form of wealth, not overall wealth.

4.4. Summary

While just under 30 per cent of those identified as being in relative income poverty were living in households in the bottom decile of wealth, many others were living in households with very significant wealth holdings. Over time there has been an increase in the proportion of those identified in poverty who are in both the highest and the lowest wealth deciles.

Amongst older persons in relative income poverty only a smaller proportion, around 15 per cent, were in the lowest wealth decile, with this group being dominated by private renters and those in social housing. Most however were in middle and higher wealth deciles living in owned dwellings. A significant proportion however had few liquid assets, with a quarter having just over a thousand or less dollars in bank savings, and half less than $10,000. This pattern was though not that different to those of the same age group who were not in poverty.

5. The dynamics of relative income poverty

As a household's income varies, the composition of the household changes, or the overall level and distribution of income across the community changes, people in a household may move into, or out of, measured relative income poverty across time.

In this chapter two specific aspects of dynamics are considered:

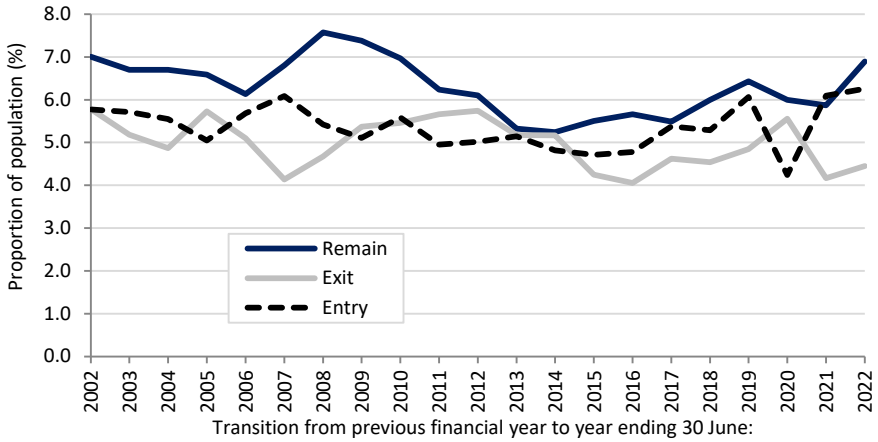
- The dynamics of being in relative income poverty over time.
- The impact of the dynamic of the poverty line as there are changes in the level and distribution of income across the population over time.

5.1. Poverty transitions

Figure 25 shows for each year since 2002, for individuals who were in HILDA for two consecutive years, their poverty status in the second year relative to that in the year before. The results are reported as 'remain', people who were in poverty in both years; 'exit', those who were in poverty in the previous but not the current year; and 'entry', those who were not identified as being in relative income poverty in the initial year but were in the second year.

On average, across all of the years, 6.3 per cent of the population are recorded as being in poverty in both years, 5.0 per cent were recorded as exits and 5.4 per cent as entries. While broadly stable the patterns show some shifts. These are however relatively subtle, but together result in the total pattern seen earlier in Figure 2.

Figure 25. Persons in poverty (relative income, 50 per cent median), transitions from previous year, 2002 to 2022



Source: Table A.19

If the higher, 60 per cent median, cut-off is used, the pattern shows a more marked pattern of persistence with, on average, 12.3 per cent of the population being in poverty in the two successive years, 6.0 per cent exiting, and 6.4 per cent entering.

5.2. Poverty persistence

Another way of considering poverty persistence is the total number of years a person is in poverty. From the HILDA survey this can be done over a period of 22 years for the more limited population who were in scope for the whole of this period and participated in the survey in all years. Over the whole period, as detailed in Table 13, the number identified as being in poverty for the whole period is negligible, and there was just 0.8 per cent of the population who were recorded as being in poverty for 19 or more years.

The results, however, equally suggest that some incidence of poverty is not unusual. For the population who were present across the waves just 47.6 per cent are recorded as never having been in poverty, with a further 15.1 per cent being recorded as having been in poverty for a single year, leaving 37.4 per cent who were recorded as being in poverty for two or more years.

Table 13. Persons, total number of years recorded as being in poverty (relative income, 50 per cent median) over the period 2001 to 2022

Years in poverty	Proportion of population	Years in poverty	Proportion of population
	– % –		– % –
None	47.6	13	0.7
1	15.1	14	0.6
2	8.3	15	0.7
3	6.6	16	0.4
4	4.9	17	0.3
5	3.1	18	0.3
6	2.4	19	0.3
7	2.0	20	0.3
8	1.7	21	0.3
9	1.5	22	0.0
10	1.2	Summary	
11	1.3	5+	22.5
12	0.7	10+	8.5

Note: This data relates to an estimated population of 14,047,830 who were able to participate in HILDA for the whole period.

Source: Author's calculations using HILDA Wave 22

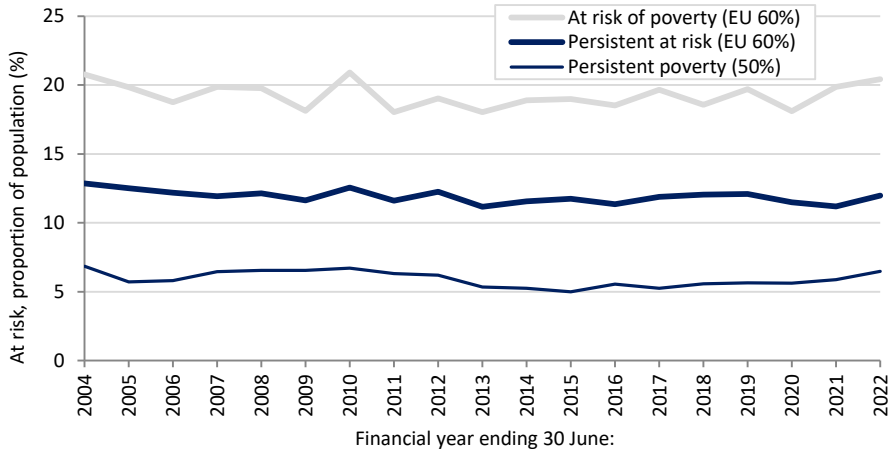
5.2.1. European persistent at risk of poverty rate

Amongst the armoury of social indicators used by the European Union is a concept of a 'persistent at-risk-of-poverty rate'. This is defined as "the percentage of the population living in households where the equivalised disposable income was below the 'at-risk-of-poverty' threshold [set at 60 per cent of median equivalised disposable income] for the current year and at least two out of the preceding three years" (Eurostat 2021).

This measure is replicated in Figure 26 for Australia. This shows that the 'persistent at-risk-of-poverty rate' has been around 12 per cent over the period, and was this rate in 2022.[56] This rate of 'persistent at risk' compares with the 'at risk' rate of 20.4 per cent in 2022.[57]

[56] While caution is needed in making international comparisons, this result compares with most recent estimates (mainly 2021 and 2022) of 5.9 per cent in Norway, 6.9 per cent Denmark, 9.0 per cent Netherlands, 9.3 per cent France, 9.4 per cent Sweden, 9.8 per cent Germany, and 13.0 per cent Italy. (Eurostat 2024)

Figure 26. Persons, poverty rates using EU 'at risk of poverty' and 'persistent at risk' (60% median) measures, 2003 to 2022



Notes: At risk of poverty (EU 60%) = 60 per cent median poverty line

Persistent at risk (EU 60%) = In At risk of poverty (EU 60%) in current year and 2 of the preceding years.

Persistent poverty (50%) = In poverty (50% median equivalised disposable income) in current year and 2 of the preceding years.

Source: Table A.20

Also shown in the chart is what the 'persistent at risk' measure would be if it were calculated on the basis of the EU methodology, but using the 50 per cent median poverty line. The rate under this measure was 6.5 per cent in 2022, a little below that in 2004.

5.3. 'Real' relative income poverty – fixed poverty lines

Relative income poverty measures focus on household incomes relative to the contemporaneous population income distribution. While informing on relative wellbeing, there is also merit in considering how the living standards of low income households change over time. The broad trends in incomes have been considered in Chapter 3. Here 'fixed', 'real', or 'anchored' relative income poverty lines are addressed. These utilise the real value[58] of the relative income poverty line in one base year as the poverty line for the assessment of poverty in other years.

5.3.1. The value of the poverty line

Between 2001 and 2022 the nominal annual value of the annual 50 per cent median equivalised disposable income poverty line has increased from $12,127 to $29,040. In real terms, as discussed in section 2.3, taking account of price changes as measured through the

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[57] This rate of 20.4 per cent is higher than the 19.7 per cent previously cited for the 60 per cent median income poverty line. This reflects the restriction to the population for which data in 4 consecutive time periods is available and the specific longitudinal weight.

[58] The 'All groups CPI' had been used to derive the real incomes over the period. While other indices can be used, over the period considered here, using these has relatively little effect on outcomes, and their specificity is not suited to the mix of household types. Based on financial year averages, the specific ABS Living Cost Indices have increased between 2001 and 2022 by: 60.7 per cent for 'Employee households'; 71.0 per cent for 'Age Pensioner households'; 73.9 per cent for 'Other government transfer recipient households'; and 66.9 per cent for 'Self-funded retiree households'. These compare with an increase in the All groups CPI of 66.8 per cent. (ABS 2023 & 2024).

CPI, the real value has increased, in 2021-22 dollar terms from $20,226 to $29,040, see Table 14. This is a real increase of 43.6 per cent, meaning that in 2022 a person at the relative income poverty line had a considerably higher capacity to purchase goods and services than the equivalent person had in 2001.

Table 14. Nominal and real value of 50 per cent median equivalised disposable income poverty line 2001 to 2022

FY ending 30 June:	Nominal	CPI year ending 30 June (2012=100)	Real ($2021-22)
2001	$12,127	73.6	$20,226
2002	$12,702	75.7	$20,596
2003	$13,245	78.0	$20,849
2004	$14,096	79.9	$21,669
2005	$14,928	81.8	$22,407
2006	$16,013	84.4	$23,289
2007	$17,229	86.9	$24,337
2008	$18,219	89.8	$24,896
2009	$19,923	92.6	$26,402
2010	$19,968	94.8	$25,860
2011	$20,333	97.7	$25,539
2012	$21,212	100.0	$26,043
2013	$21,721	102.3	$26,076
2014	$22,328	105.0	$26,096
2015	$22,838	106.8	$26,241
2016	$23,250	108.3	$26,353
2017	$23,500	110.2	$26,188
2018	$24,301	112.3	$26,567
2019	$25,552	114.1	$27,482
2020	$26,679	115.7	$28,317
2021	$27,936	117.5	$29,177
2022	$29,040	122.8	$29,040

Source: Author's calculations using HILDA Waves 1 to 22 and ABS (2024).

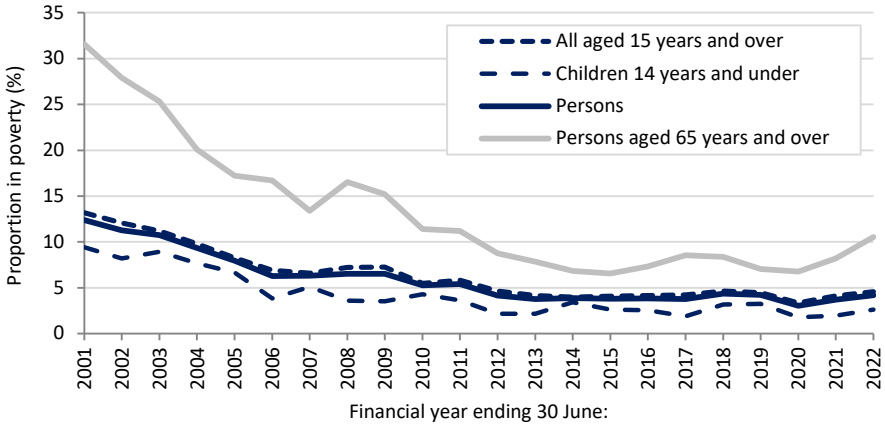
While the relative income poverty line increased in real terms in most years, this was not always the case, with the line declining between 2009 and 2011, between 2016 and 2017, and between 2021 and 2022. However in all years the nominal line has increased.

5.3.2. Looking forwards – 2001 poverty line

Using the 2001 relative income poverty line fixed in real terms, that is adjusting for prices but not overall increases in financial wellbeing, there has been a marked decline in the incidence of poverty over time, see Figure 27. Between 2001 and 2022, using this approach:

- The overall poverty rate has declined from 12.4 per cent to 4.2 per cent.
- The poverty rate for children has declined from 9.4 per cent to 2.6 per cent.
- The rate for persons aged 65 years and over has declined from 31.6 per cent to 10.5 per cent.

Figure 27. Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2001 real value, 2001 to 2022

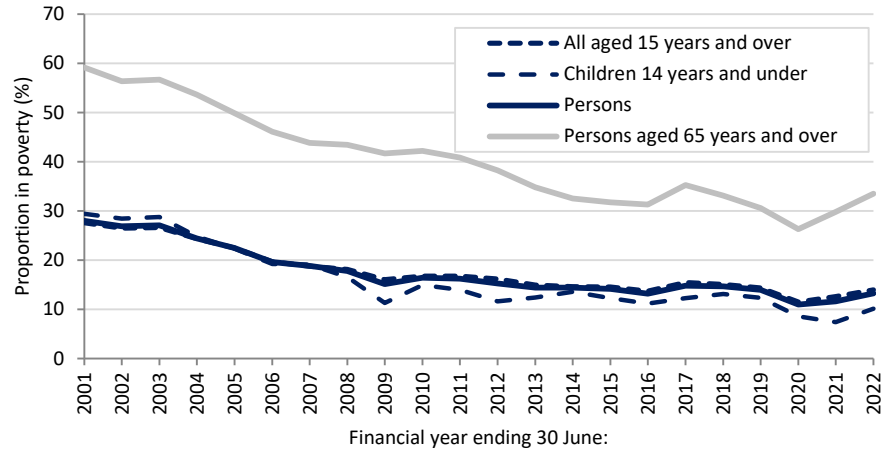


Source: Table A.21

5.3.3. Looking backwards – 2022 poverty line

It is also possible to consider the concept looking backwards – how many people would be considered to have been in poverty in earlier periods if the same real income level was used to set the poverty line as it is currently? As shown in Figure 28, the picture is dramatic with almost 60 per cent of all persons aged 65 years and over being measured as being in poverty in 2001, along with 27.6 per cent of all adults and 29.4 per cent of all children. That is, adjusting for prices and applying the 2022 poverty line to 2001, would have identified 28.0 per cent of the Australian population at that time as living in poverty.

Figure 28. Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2022 real value, 2001 to 2022



Source: Table A.22

In addition to simply illustrating how much living standards, and the way in which the values and norms of the community associated with relative income poverty lines have changed over time, these types of comparisons and applications can be considered useful to answer a range of questions:

- An anchored poverty line is useful in assessing government policies which seek to transfer resources to specific groups in need. In these cases, given that the policies may not impact the overall distribution of income, nor income growth at other points of the distribution, an anchored poverty line can inform on whether the policies have had an impact on those to whom it is directed.
- In periods in which median real incomes decline, which as illustrated in Table 14 has occurred on several occasions in the past 21 years, there is value in understanding if, for example, relative income poverty falls over the same period, whether this is as a result of the poor getting richer, or simply that their position has improved relative to the population median income which has declined.
- More broadly there are questions as to how quickly changes in living standards flow into societal comparisons. That is, does an increase in the median income of the population flow immediately into community expectations of what an adequate standard of living is, or are there lags in the formation of such views? Some dimensions of changing expectations are addressed in section 6.4.

5.4. Summary

For many who are identified as being in poverty it is a relatively transient state with significant inflows and outflows each year. On average, using the 50 per cent median equivalised disposable income poverty line, a little under half those in poverty in any one year, move out of that state in the next year. Notwithstanding this, for many it is a state which they recurrently move in and out of, with around a quarter of the continuing population estimated from HILDA spending a quarter of the past 22 years in poverty, and just over half the Australian population which has been within scope of the survey for the past 21 years, having been considered to have been in poverty for at least one year using this measure of poverty.

As a relative income poverty line the 50 per cent median equivalised disposable income line has increased with a more prosperous community and in 2022 it was 43.6 per cent higher than it was in 2001. Applying the community standards at the beginning of the period would place the current poverty rate at 4.2 per cent. Conversely applying today's standard to 2001 would see 28.0 per cent of the population at that time in poverty.

6. Placing relative income poverty in context

Relative income poverty focuses on the resources available to households, rather than actual household outcomes. This chapter is concerned with a number of different approaches to assessing wellbeing with an outcome focus.

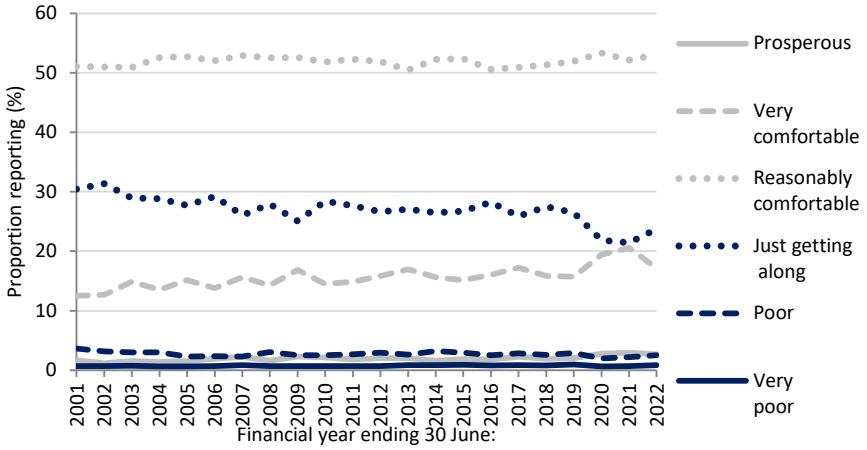
6.1. Self-perceived levels of wellbeing

One approach to this is simply to ask people how they assess their standard of living. In HILDA there are a series of questions which do this.

6.1.1. Perception of prosperity

HILDA participants are asked to report on their perceived prosperity through the question: "Given your current needs and financial responsibilities, would you say that you and your family are..." with response categories ranging from 'Prosperous' to 'Very Poor'. Across all waves of HILDA the most commonly reported response has been 'reasonably comfortable', with 53.0 per cent responding in this way in 2022.[59] This was followed by 23.8 per cent declaring they were 'just getting along', and 17.2 per cent who considered they were 'very comfortable'. Overall very few reported they were at the extremes of the distribution of financial wellbeing. Just 2.7 per cent declared they were prosperous, 2.5 per cent that they were 'poor', and just 0.9 per cent that they were 'very poor'.

Figure 29. Persons aged 15 years and over, self-rated prosperity, 2001 to 2022



Source: Table A.23

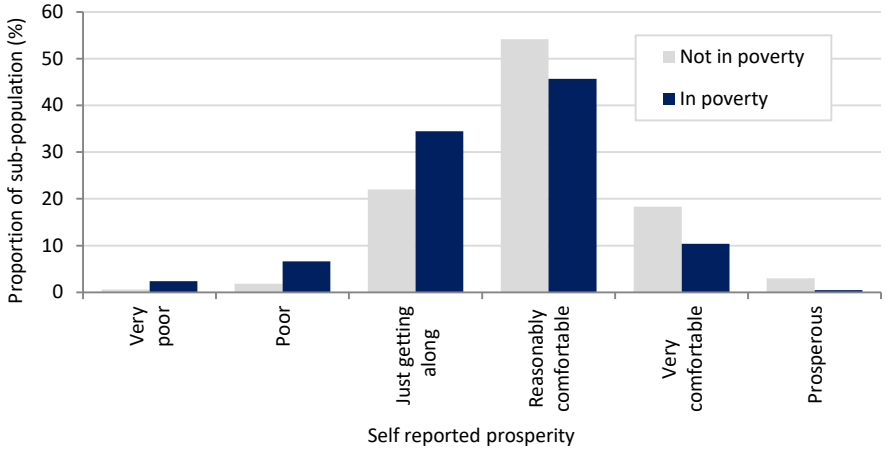
Over time, Figure 29, the main trends have been a declining proportion reporting that they were 'just getting along' and an increase in those who reported that they were 'very comfortable', although both these trends were reversed in 2022.

[59] In this chapter results are primarily for the population aged 15 years and over, the HILDA 'Responding person' population, and have all been reported on the basis of population weights in the survey adjusted to take account of actual rates of response to particular elements of the survey.

The proportion considering that they were ‘very poor’ has been consistently below 1 per cent over the whole period of HILDA, and there has been a small decline in the proportion viewing their circumstances as being ’poor’.

These self-assessments are compared with the measure of relative median income poverty in 2022 in Figure 30. This shows the distribution of responses to this question by those who are identified as being in relative income poverty, and those who are not. As seen in the chart, the distribution of those identified as being in poverty, while skewed towards the lower end of reported wellbeing, relative to those not in poverty, is still centred in line with the population as a whole, with 56.5 per cent of those identified as being in poverty considering that they are ‘reasonably comfortable’ (45.7 per cent), ‘very comfortable’ (10.4 per cent) or ‘prosperous’ (0.5 per cent). However 2.4 per cent of those in relative income poverty, relative to 0.6 per cent of those not in poverty, consider that they were ‘very poor’, along with 6.6 per cent who report being ‘poor’, compared to 1.9 per cent of those not identified as being in poverty.

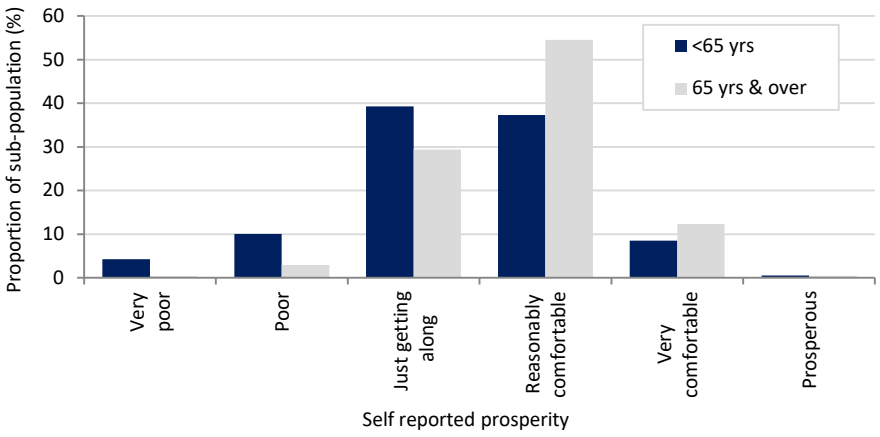
Figure 30. Persons aged 15 years and over, distribution of populations in, and not in, 50 per cent median relative income poverty, by self-reported prosperity, 2022



Source: Table A.24

The responses of those identified as being in poverty is considered further by age in Figure 31. When the population of those in relative income poverty who are aged under 65 years is considered, relative to those at or above this age, there is a clearer divide.

Figure 31. Persons aged 15 years and over in 50 per cent median relative income poverty, distribution by age grouping, by self-reported prosperity, 2022



Source: Table A.25

Of those aged under 65 years who were identified as being in poverty, over half (53.6 per cent) considered that they were at best 'just getting along', with 14.3 per cent considering they were 'poor', or 'very poor'. For the older group in relative income poverty these proportions were 32.7 per cent, and 3.3 per cent, with 67.3 per cent considering that they were in the categories from 'reasonably comfortable' to 'prosperous'. While this result may just reflect different expectations across ages, it also may reflect more fundamental issues with the measure of poverty.

6.1.2. Satisfaction with financial situation

A second question directly asks people to rate their satisfaction with their financial situation with responses on an 11 point (0-10) Likert scale, ranging from 'Totally dissatisfied' to 'Totally satisfied'.

Overall 68.9 per cent of those identified as being in poverty in 2022 reported that they were satisfied, to some degree, with their financial situation, with a further 15.4 per cent saying they were neither satisfied nor dissatisfied, leaving 15.7 per cent who said they were dissatisfied. This latter is approximately double the 7.8 per cent of those who were not identified as being in poverty who were dissatisfied, see Table 15. Only 1.9 per cent of those identified as being in poverty declared 'total dissatisfaction' with their financial situation.

Using the point value of the Likert scale chosen by respondents, the average value for those in poverty was 6.6 compared to 7.2 for those not in poverty, a gap of about half a category on the 11 point scale.

6.1.3. Life satisfaction

While much more of a general concept than these more economic spheres, people's life satisfaction provides another insight into how people view their wellbeing. In HILDA this is asked as "All things considered, how satisfied are you with your life?". These results are also shown in Table 15. In aggregate 4.9 per cent of those in relative income poverty said they were dissatisfied, 5.9 per cent that they were neither dissatisfied nor satisfied and 89.1 per cent said they were satisfied at varying degrees of satisfaction. This is six percentage points lower than the 95.1 per cent of those not identified as being in poverty. Although they were

only a small proportion of those in poverty, 1.3 per cent reported high levels of dissatisfaction (scores of 0, 1, 2), compared to 0.3 per cent of those not in poverty. At the other end of the scale 14.7 per cent of those in poverty declared that they were 'totally satisfied' which was much higher than 10.7 per cent of the group not in poverty. The difference in the average rating between these two sub-populations was relatively low, just 0.2 on the 11 point scale.

Table 15. Persons aged 15 years and over, satisfaction with financial situation and life satisfaction, by whether in 50 per cent median relative income poverty, 2022

Score		With financial situation		With your life	
		Not in poverty	In Poverty	Not in poverty	In Poverty
		– % –			
0	Totally dissatisfied	0.6	1.9	0.0	0.4
1		0.8	1.8	0.1	0.3
2		1.3	3.7	0.2	0.6
3		2.1	3.0	0.6	1.2
4		2.9	5.2	1.0	2.4
5	Neither satisfied or dissatisfied	9.0	15.4	3.1	5.9
6		10.3	11.1	5.1	6.6
7		22.1	17.2	20.0	19.4
8		27.2	20.5	36.0	29.9
9		13.0	9.8	23.3	19.2
10	Totally satisfied	10.6	10.2	10.7	14.1
Total		100.0	100.0	100.0	100.0
Summary					
Dissatisfied		7.8	15.7	1.8	4.9
Neither		9.0	15.4	3.1	5.9
Satisfied		83.2	68.9	95.1	89.1
Average score		7.2	6.6	8.0	7.7

Source: Author's calculations using HILDA Wave 22, Responding person population.

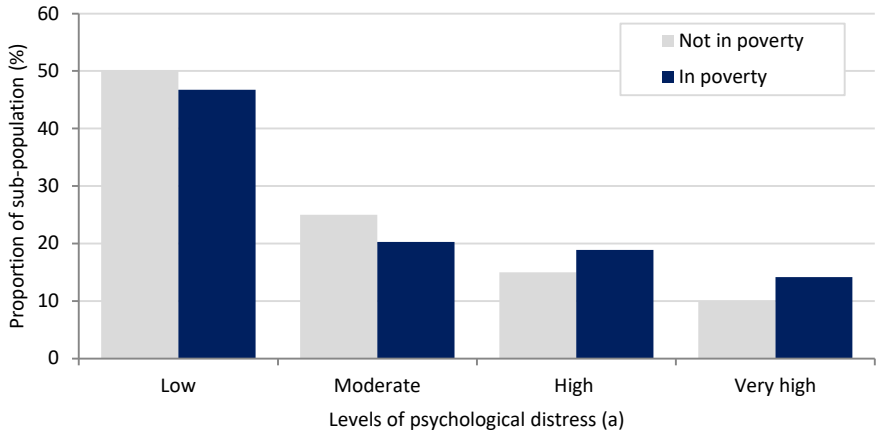
6.2. Psychological distress

Concepts of poverty often contain an element of psychological distress – either as a possible cause or as a consequence. Such distress can of course have many elements, and be manifest in different ways. One approach to measurement is the Kessler Psychological Distress Scale. The results of this are shown in Figure 32 for the population aged 15 years and over. As this question is part of a rotating module which is not conducted in every wave, the data is for 2021.[60] The distribution of scores for those in and not in relative income poverty are shown.

As with self-assessed financial wellbeing, the differences in the distribution can best be considered to be a shift in the distribution rather than a significant divide between the two populations, with 46.7 per cent of those identified as being in poverty reporting low distress, compared to 50.1 per cent of those not in poverty. At the same time however the results indicate that while just under a quarter (24.9 per cent) of the population not in relative income poverty had high or very high levels of distress, this increased to almost a third (33.0 per cent) for those who were.

[60] This is a widely used psychological distress screening tool. It is derived from a series of questions as to how often they have felt in the last 4 weeks: tired out for no good reason?/ nervous?/ so nervous that nothing could calm you down? /hopeless? / restless or fidgety? / so restless that you could not sit still?/ depressed?/ that everything was an effort?/ so sad that nothing could cheer you up?/ worthless?, with response categories ranging from 'All of the time' to 'None of the time'.?

Figure 32. Persons aged 15 years and over, distribution of level of psychological distress by whether in 50 per cent median relative income poverty, 2021



Notes (a) There are a number of different ways in which the K10 Psychological distress scale can be transformed from a continuous scale to a categorical grouping. Here the ABS categorisation has been used (ABS 2012).

Source: Table A.26

6.3. Incidence of financial stress

HILDA has included in each wave[61], in its self-complete questionnaire, a question of whether in the calendar year "did any of the following happen to you because of a shortage of money?

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

These questions are derived from those introduced in the ABS 1998-99 Household Expenditure Survey (see Bray 2001) and can be considered to reflect a combination of 'cashflow' and 'hardship' items.[62] As the HILDA question asks whether these were as a consequence of a shortage of money, they are referred to here as 'financial stress'.

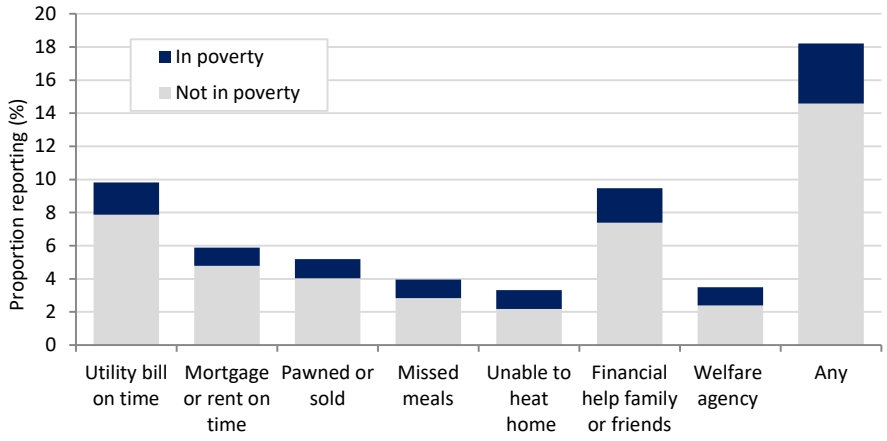
Some 18.2 per cent of the estimated Australian population aged 15 years and over reported the incidence of at least one of these in 2022. This comprised 14.6 per cent who were not identified as being in relative income poverty and 3.6 per cent who were, see Figure 33.

[61] Data for 2010 is not usable due to an error in the specification of the reference period for the question in the survey instrument.

[62] In contrast to the collection of this data in most other surveys the questions in HILDA are asked on an individual basis. The interpretation of this for couple households where reports were not necessarily consistent is discussed in Breunig and Cobb-Clark (2004). Here individual responses are used.

Across the population the most frequent events which people reported occurred due to a shortage of money were: being unable to pay an electricity, gas or telephone bill on time (9.8 per cent); and seeking financial assistance from family or friends (9.5 per cent). Less frequently reported items were: seeking assistance from a community or welfare organisation (3.5 per cent); and being unable to heat their home (3.3 per cent).[63]

Figure 33. Persons aged 15 years and over, incidence of financial stress, by whether in 50 per cent median relative income poverty, 2022



Source: Table A.27

While those identified as being in poverty accounted for 19.9 per cent of those who reported at least one item, this proportion increased to 31.7 per cent for those who sought assistance from a welfare or community organisation due to a shortage of money, and 33.9 per cent of those who reported being unable to heat their home for the same reason. This is illustrated in Table 16 which shows for the populations in and not in relative income poverty the proportion reporting the incidence of each of the financial stress questions.

Table 16. Persons aged 15 years and over, incidence of financial stress, by whether in poverty (relative income 50 per cent median), 2022

Because of a shortage of money:	Proportion population reporting, persons:		Proportion reporting in poverty
	Not poverty	Poverty	
		– % –	
Utility bill on time	9.2	13.9	19.8
Mortgage or rent on time	5.6	7.8	18.6
Pawned or sold	4.7	8.3	22.3
Missed meals	3.3	8.0	28.3
Unable to heat home	2.5	8.0	33.9
Financial help family or friends	8.6	14.9	22.0
Welfare agency	2.8	7.9	31.7

Source: Author's calculations using HILDA Wave 22, SCQ responding population.

[63] Responses to this question may also be impacted by where the person lives and their actual need for heating.

The incidence of financial stress can also be considered in terms of severity, considering how many of these particular stresses a person experiences.[64] This is illustrated in Table 17. This shows a pattern of higher incidence of a larger number of stress items amongst those identified in relative income poverty, but also that over three quarters of those in poverty have none of these financial stressors at all.

Table 17. Persons aged 15 years and over, distribution of number of financial stress items, by whether in poverty (relative income 50 per cent median), 2022

Number of financial stress items	Distribution within sub-population, persons: Not poverty	Poverty	Proportion in poverty
		– % –	
0	83.0	74.3	12.9
1	7.5	8.6	15.8
2	4.7	6.0	17.5
3	2.3	4.4	24.3
4	1.2	3.4	31.1
5	0.7	1.3	23.9
6	0.3	0.9	35.0
7	0.3	1.1	34.7
Total	100.0	100.0	14.1
Summary			
2 +	9.5	17.1	22.9
3+	4.8	11.1	27.6

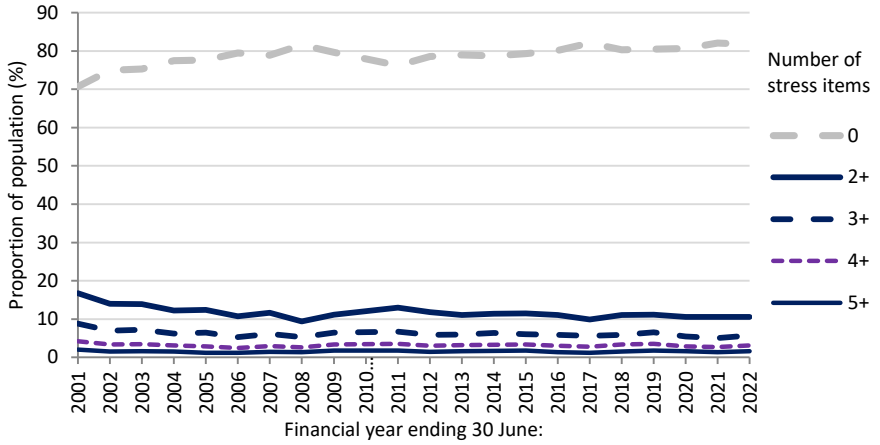
Source: Author's calculations using HILDA Wave 22, SCQ responding population.

Similarly, even for those persons who report high levels of multiple stressors, that is 6 or 7 items, only around one third are identified as being in relative income poverty. This proportion increases to around 40 per cent if the higher 60 per cent median poverty line is used. While there is also an increase in the proportion in poverty at the two or more level, and 3 or more level, if this higher poverty line is used, this still leaves the majority of those reporting these levels of financial stressors not in poverty, 65.3 per cent at the 2 or higher level and 59.6 per cent at the 3 or higher level.

Time trends suggest a declining incidence of financial stress since 2001, with most of this occurring in the period to 2009, Figure 34. In the most recent periods there have been some small increases but these are inconsistent across the levels of aggregation.

[64] Another approach to this type of summation is to more highly weight responses to those items which are comparatively less frequent and hence assessed to represent more severe events.

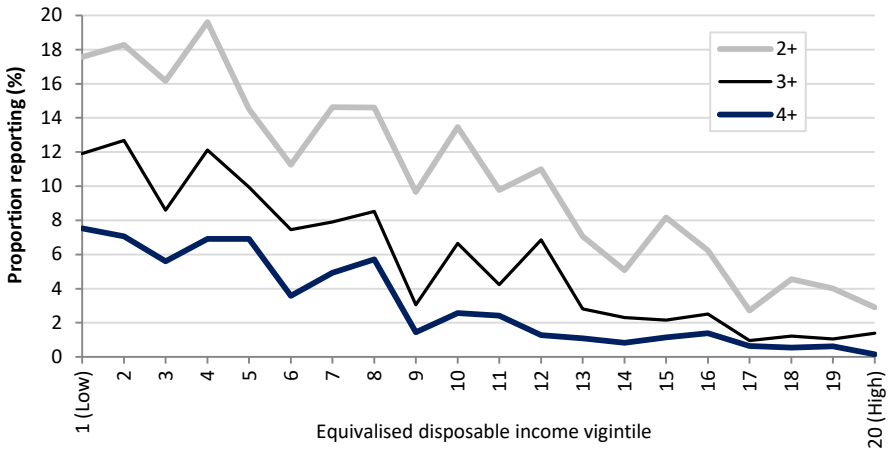
Figure 34. Persons aged 15 years and over, incidence of multiple financial stress items, 2001 to 2022



Source: Table A.28

The distribution of the incidence of multiple stress items by equivalised disposable income vigintiles (5 per cent groupings of the population ranked by income) is detailed in Figure 35. This, while clearly showing declining incidence with higher income, is however quite noisy. It is though possible to suggest some features. Looking at the most intensive incidence of financial stress, those with four or more items, rates are quite high for the first 8 vigintiles – the bottom 40 per cent of income distribution, and then drop to quite negligible rates at the 12th vigintile and above.

Figure 35. Persons aged 15 years and over, incidence of multiple financial stress items, by equivalised disposable income vigintile, 2022



Source: Table A.29

In contrast, the incidence of two or more stress items, ignoring some of the more volatile movements, is relatively flat across the first 4 vigintiles, but then falls almost monotonically for the rest of the distribution.[65]

[65] When this type of approach was initially introduced by Townsend in the late 1970s (Townsend 1979) his objective was not to directly use these outcomes as an indicator of poverty or disadvantage, but rather he hypothesised that at a point in the distribution of these by income level there would be an inflection point which could be used to scientifically define an income based poverty line.

6.4. Consensual standards

In 2014 HILDA, following the work of Saunders and others (Saunders, Naidoo and Griffiths (2008) and Saunders and Wong (2012)), started collecting, on a biennial basis, data on "material deprivation". This was seen as a means by which "the poverty status of each individual is inferred by observing whether or not they (or the household in which they are living) can afford basic items" (Wilkins 2016, 83-84).

The approach used in these questions echoes that initially introduced by Mack and Lansley (1985) and comprises two elements: determining whether an item is a 'socially perceived necessity'; and secondly, if a person lacks an item, whether this is an enforced lack – because they cannot afford it. A consequence of this is that for each item three questions are asked:

- The first is whether the population of respondents consider that the item is a necessity. This uses the question: "I want you to tell me whether you think each of these are things that are essential – things that no one in Australia should have to go without today".
- The second is to ask all respondents "whether you (and your family) have them".
- The third asks those who say they do not "Is that because you cannot afford it?".

An item is maintained in the scale if a majority of responses indicate it is a necessity, and that a person is suffering deprivation if they do not have it, and they state the reason for this is because they could not afford it.

Because of the use of a majoritarian basis for the inclusion of items in the scale this approach is called by some a 'consensual living standards' approach.

Unlike the wellbeing and financial stress discussed above, these questions are collected at a household level, rather than for each individual within the household. Results are presented at a population level, based on persons living in the household.

The 25 items included in this measure, and the extent of consensus about whether they are necessities across the three waves, are detailed in Table 18.

Table 18. Person weighted households, material deprivation items, proportion agreeing they are essential, 2014 to 2022

Items (a)	2014	2018	2022
		– % –	
Getting together with friends or relatives for a drink or meal at least once a month?	78.3	75.5	79.4
Medical treatment when needed?	99.7	99.1	99.8
Furniture in reasonable condition?	82.2	81.6	88.4
A decent and secure home?	96.8	97.2	98.6
Medicines when prescribed by a doctor?	99.0	98.6	99.5
Warm clothes and bedding, if it's cold?	99.6	99.0	99.8
A substantial meal at least once a day?	99.3	98.9	99.6
A week's holiday away from home each year?	41.9	40.4	44.4
A roof and gutters that do not leak?	85.3	85.8	91.8
A mobile phone? (b)	83.5	84.7	76.1
Home contents insurance?	61.2	56.3	64.5
A washing machine?	79.4	78.0	82.3
Access to the internet at home?	49.5	56.7	74.3
A motor vehicle?	56.6	50.8	57.4
Comprehensive motor vehicle insurance?	58.3	53.7	58.3
At least $500 in savings for an emergency?	77.9	77.3	83.0
A home with doors and windows that are secure?	94.5	94.5	97.2
Dental treatment when needed?	97.5	97.0	98.0
Buying presents for immediate family or close friends at least once a year?	47.2	42.8	47.9
When it is cold, able to keep at least one room of the house adequately warm?	95.8	95.4	97.1
A separate bed for each child?	78.9	75.3	79.8
A yearly dental check-up for each child?	93.9	93.5	94.9
A hobby or a regular leisure activity for children?	82.6	80.4	83.3
New school clothes for school-age children every year?	56.0	52.6	59.3
Children being able to participate in school trips and school events that cost money?	82.7	82.1	86.6

Notes: Person weighted household responses.

(a) A television was included in the first wave of questions

(b) In the first two waves this was a telephone, 'mobile or landline', in the third wave it was a 'mobile' telephone.

Source: Author's calculations using HILDA Waves 14, 18 & 22, Household survey.

As illustrated all items, except for a week's holiday away from home each year, and buying presents for immediate family and close friends at least once a year, meet the criteria of being seen as essential by at least half the population in 2022, although having the internet at home failed to do so in 2014. Two other features are:

- For some items there is a strong time trend in the proportion of the population seeing it as a necessity. This is particularly marked with respect to having the internet at home. Whereas only 49.5 per cent saw this as essential in 2014, this proportion rose to 74.3 per cent in 2022. This is a clear illustration of how social norms change over time and the importance of considering relative living standards.
- That while the majoritarian position is adopted in determining the scale, there are questions as to whether this approach is sufficient to justify the inclusion of an item as being a necessity. A case in point is having a motor vehicle and comprehensive insurance

where less than 60 per cent agree on this being essential, with volatility and no marked trend in responses.[66]

The results of the second and third phase of the questions are shown in Table 19, along with the incidence of 'do not have' and 'can't afford', by whether or not people are identified as being in relative income poverty.

Table 19. Person weighted households, material deprivation items, whether have or cannot afford items, 2022

	Has	Does not have		Does not have and cannot afford by whether in relative income poverty	
		Other reasons	Can't afford	Not	In poverty
			– % –		
Getting together with friends or relatives for a drink or meal at least once a month?	87.1	10.3	2.6	2.3	4.0
Medical treatment when needed?	98.5	0.6	1.0	0.9	1.2
Furniture in reasonable condition?	99.3	0.3	0.4	0.2	1.6
A decent and secure home?	99.4	0.3	0.3	0.2	1.3
Medicines when prescribed by a doctor?	99.3	0.4	0.3	0.3	0.7
Warm clothes and bedding, if it's cold?	99.8	0.1	0.1	0.1	0.3
A substantial meal at least once a day?	99.7	0.1	0.2	0.1	1.1
A week's holiday away from home each year?	70.2	18.0	11.8	10.1	23.4
A roof and gutters that do not leak?	93.7	4.6	1.7	1.5	2.9
A mobile phone?	98.8	0.9	0.3	0.2	0.8
Home contents insurance?	78.6	13.7	7.7	6.1	18.2
A washing machine?	99.3	0.5	0.2	0.2	0.5
Access to the internet at home?	97.6	1.9	0.6	0.4	1.7
A motor vehicle?	95.8	2.8	1.4	0.9	5.3
Comprehensive motor vehicle insurance?	90.9	4.7	4.5	3.1	14.3
At least $500 in savings for an emergency?	91.5	1.0	7.4	5.7	18.7
A home with doors and windows that are secure?	98.6	0.9	0.5	0.4	0.9
Dental treatment when needed?	94.9	1.0	4.1	3.6	7.6
Buying presents for immediate family or close friends at least once a year?	95.0	3.4	1.6	1.0	5.3
When it is cold, able to keep at least one room of the house adequately warm?	98.9	0.4	0.7	0.5	2.0
A separate bed for each child?	97.7	1.9	0.4	0.2	2.5
A yearly dental check-up for each child?	88.2	10.7	1.1	0.9	2.6
A hobby or a regular leisure activity for children?	86.1	11.6	2.3	1.9	6.1
New school clothes for school-age children every year?	67.2	30.0	2.8	2.6	4.7
Children being able to participate in school trips and school events that cost money?	98.6	0.9	0.5	0.4	1.4

Notes: Person weighted household responses.

Source: Author's calculations using HILDA Waves 14, 18 & 22, Household survey.

Overall, of the consensus items, there are relatively few items which have significant numbers reporting they did not have an item because they could not afford it. The two most frequently identified items were home contents insurance (7.7 per cent) and not having at least $500 in

[66] This raises more generally the question of the normative construction of the items and the extent to which it is possible to construct a measure which is consistent across a socially and culturally diverse population living across a range of different physical and urban locations. Additionally, while the scale is 'consensual' with respect to the assessment of items which are included in the initial instrument, there is an additional question as to what items are actually listed in this.

savings for an emergency (7.4 per cent). In both these cases the population identified as being in relative income poverty reported a higher level of incidence than those who were not: 18.2 per cent compared to 6.1 per cent for insurance, and 18.7 per cent compared with 5.7 per cent for savings.

While it did not qualify as part of the consensus questions, there were high levels of reporting that people could not afford the week's holiday away from home.

Although deprivation with respect to specific elements provides insight, the more usual way in which this data is used, as with the financial stress measures, is to derive a scale of intensity using a count of the number of deprivations the person faces. Following Saunders, Naidoo and Wong (2022) this data has been categorised into those with no items which they report they do not have because they cannot afford them, those with 3 or more, and those with 5 or more, see Table 20.

In 2022 85.4 per cent of people who were not in relative income poverty reported no items, and just 1.0 per cent five or more. For those in poverty the proportions were 64.1 per cent, and 2.8 per cent. While those in relative income poverty reported an average of 0.85 items, for others the average was 0.29. 34.2 per cent of those reporting 3 or more items were also recorded as being in poverty, as were a slightly lower 30.3 per cent of those reporting 5 or more items. This indicates that most of those with these elevated levels of deprivation were not in poverty as defined by the 50 per cent median income poverty line. If the higher 60 per cent of median income level is used the proportions identified as being in poverty increase to 50.0 per cent and 49.6 per cent. This still results in the identification of half the population with these elevated levels of deprivation as not being in poverty even at this higher benchmark, and increases the proportion in poverty with no adverse outcomes to 64.8 per cent.

Over the three waves there has been a marked fall in the reported incidence of deprivation, with this being particularly marked for those in relative income poverty where the proportion with no deprivation reported has increased from 54.1 per cent to 64.0 per cent, with a lesser improvement from 80.3 per cent to 85.4 per cent for those who are not in relative income poverty.

Table 20. Person weighted households, material deprivation items, distribution of the number of items, by whether in poverty (relative income, 50 per cent median), 2014, 2018 and 2022

Number of deprivation items:	Not relative income poverty			In relative Income poverty			Total		
	2014(a)	2018	2022	2014(a)	2018	2022	2014(a)	2018	2022
					– % –				
None	80.3	82.7	85.4	54.1	56.0	64.0	77.7	79.6	82.5
>=3	5.5	4.8	3.8	18.7	19.3	13.0	6.8	6.5	5.0
>=5	1.6	1.7	1.0	6.0	5.6	2.8	2.0	2.2	1.2
Mean score (b)	0.41	0.37	0.29	1.17	1.15	0.85	0.49	0.46	0.36

Notes: Person weighted household responses.

(a) While technically Access to the internet at home should not be included for 2014, as it did not gain majority support, it has been included in these counts so as to ensure a constant number of items in the scale.

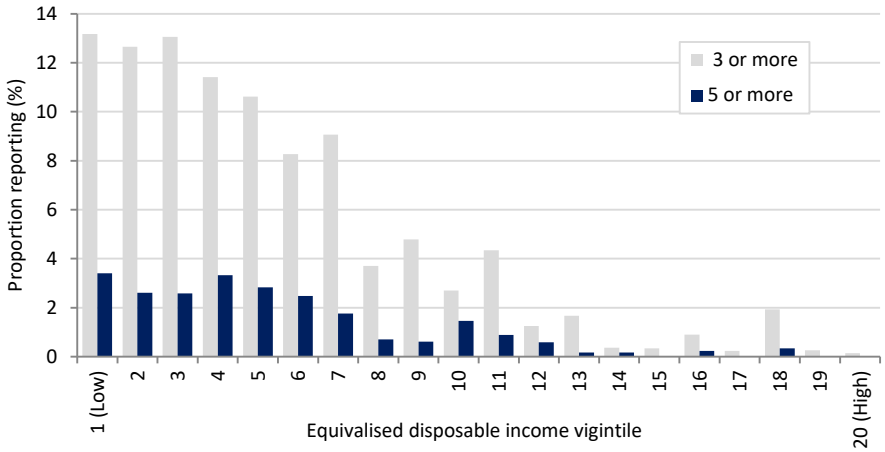
(b) Average number of items reported.

Source: Author's calculations using HILDA Waves 14, 18 & 22, Household survey.

As with the financial stress measure, the level of incidence of this measure of deprivation can be plotted across the income distribution, Figure 36. The incidence of 3 or more items is relatively elevated across the first 7 vigintiles, before falling by some 50 per cent for the 8th to 11th, with negligible rates above this. The more intense measure, having 5 or more deprivations, shows a similar pattern, although the higher incidence in largely restricted to the first six vigintiles.

These results suggest that the incidence of these forms of deprivation, while only affecting relatively small shares of the population, are relatively persistent across the bottom third of the income distribution.

Figure 36. Person weighted households, incidence of multiple material deprivation, by equivalised disposable income vigintile, 2022



Source: Table A.30

6.5. Summary

'Direct' measurement of poverty is concerned with the actual outcomes people experience rather than their resources. A number of indicators of outcomes are collected in HILDA. While some of these can be considered to directly address experiences of disadvantage, others

act to provide some insight. In general while these generally point to worse outcomes for those who are identified as being in relative income poverty, this is most frequently a form of small shift in outcomes, and most definitely does not point to a major divide. Under most measures those in poverty do not report adverse outcomes.

Specifically of those identified as being in poverty on the basis of the 50 per cent median disposable income measure in 2022:

- Just under half report their level of prosperity as 'reasonably comfortable' along with 10.8 per cent who consider it to be 'very comfortable' or 'prosperous'. Only 9.0 per cent perceive themselves as 'poor' or 'very poor'.
- Three-quarters do not report any of the financial stress indicators, and only 17.1 per cent report two or more. Those in poverty under this measure account for just 22.9 per cent of the population reporting having two or more stressors.
- There was an elevated incidence of psychological distress, with 14.1 per cent of those in relative income poverty at this rate reporting very high distress, compared to 9.9 per cent of those not in poverty, although there was a similar proportion to that of the population overall reporting low levels of stress.
- While the intensity of material deprivation using a consensual scale was higher, with 13.0 per cent of those in relative income poverty reporting having three or more deprivations, compared to just 3.8 per cent of those not in poverty, the group in poverty only account for a little over a third of all reporting such an outcome. More generally 64.0 per cent of those identified as being in poverty report having no deprivations.

Even when a higher poverty line is tested which significantly increases the number of persons classified as being in poverty, this generally leaves the majority of persons with negative outcomes in the 'not in poverty' classification.

7. Conclusion

The most commonly used measure of poverty is relative income poverty. Using this approach and data from the Household, Income and Labour Dynamics Australia (HILDA) survey an estimated 13.3 per cent of Australians were in poverty, using a 50 per cent median poverty line, in 2022. Although rates have fluctuated over the past 20 years this is significantly higher than what has prevailed over much of the period.

At the same time the real value of the poverty line has increased, outstripping increases in prices since 2001 by 43.6 per cent. Those in poverty in 2022 had, on average, real incomes 40.3 per cent higher than those in poverty in 2001.

Over time there is evidence of both volatility and persistence. Using the 50 per cent median poverty line, around half those identified as being in poverty in any one year are either entering or exiting each year. At the same time there is relatively high persistence, with around half being in poverty under this measure in the current year, also being identified as being in poverty in 2 out of the 3 preceding years. Of those in HILDA for all 22 waves 8.5 per cent were recorded as being in poverty for 10 or more years, however only 47.6 per cent were identified as never having been in poverty using this measure.

The question is how robust is this measurement and how well does it identify the populations which we see as being poor?

- While the aggregate results from HILDA match those derived from household surveys conducted by the ABS, there is considerable divergence in the composition of who is identified as being in poverty.
- Comparisons with alternative approaches, primarily focused on outcomes, while generally identifying higher levels of adverse outcomes amongst those identified as being income poor, in most cases only do so to a degree, and overall tend to identify more people with these poor outcomes in the ‘non-poor’ population, relative to the ‘poor’, when relative income poverty measures are used to define these.
- The actual construction of the measure, and its application to survey data, requires arbitrary decisions, the application of broad generalised adjustments across the population, and questions as to how well reported incomes reflect the resources available to households.

These issues are not new, nor restricted to HILDA, nor to Australia. The issue of inconsistency in identification between measures has been considered by a range of researchers, with different perspectives on their value in seeking to identify those at most disadvantage. For example, from his comparative analysis, Marks (2007) reported:

> The low correspondence between the three dimensions of financial disadvantage undermines attempts at using these measures to identify the ‘truly disadvantaged’. Not only are the inter-correlations lower than expected, they differ in their relationships with other factors such as, gender, age, education, income, wealth and debt. This suggests that three dimensions are to a large extent conceptually distinct.

> Income poverty is about relatively low annual incomes, subjective poverty is a psychological judgement that gives more weight to wealth than to income, and financial stress is about not balancing expenditure with income. (p. vi)

In contrast Saunders, Naidoo and Wong (2022) conclude from their comparative analysis of relative income poverty and deprivation approaches that:

> The results suggest that each has a positive role to play in better understanding the nature of poverty and identifying the factors driving change over time. (p. 1365)

While the differences in findings between the various approaches can be considered as less of an issue, when they are used as a set of very broad indicators tracking social outcomes, they do however become critical if the measures are used in a policy or program environment. The extent of the differences, for example, in the characteristics of who is classified as poor, or disadvantaged, means that targeting a policy or a program at the group identified under one measure, may entirely miss the target population if this was identified under a different, and potentially, as valid, measure.

Although composite measures may be seen as combining the strengths of several approaches, the area of overlap between the measures is frequently quite small. Yet expanding the leniency of cut-offs, for example such as a higher income poverty line, tends to dilute the fundamental rationale for the measure.

Notwithstanding this, some directions do seem valuable. First and foremost is that any measure does require the inclusion of both income and wealth. Secondly measuring outcomes in terms of the experience of poor living standards is important. Thirdly HILDA plays an important role, both in terms of the rich set of covariates it contains, and with regard to its longitudinal structure which allows for consideration of dynamics in these outcomes over time.

Most important is however that the issues considered here are approached cautiously. While we do attach strong moral values and attitudes to the concept of poverty, measures of relative income poverty do not appear to provide a strong basis for determining either the ‘how many’, or the ‘who’. Indeed at best these measures should, as is done by the EU, be considered as being at best measures of being ‘at risk’ of poverty.

There is also a need to better understand the differences in income reporting and recording in HILDA and in the ABS household surveys. This includes attention to the differences in the composition of those identified as being in relative income poverty.

Notwithstanding these broader questions, the data considered here however does point to deterioration in a number of the measures over the most recent period. This includes measured relative income poverty – or as discussed being ‘at risk’ of poverty, and inequality. It is also reflected in perceptions of wellbeing, although not in any consistent way with regard to measures of adverse outcomes.

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Data Appendix

Table A.1. Persons, poverty rate (relative income, 50 and 60 per cent median, and 50 per cent average), 2001 to 2022

Year ending 30 June:	Poverty line set at: 50% Median	60% Median	50% Average
		– % –	
2001	12.4	19.5	17.4
2002	12.0	19.0	16.8
2003	12.1	19.5	16.2
2004	12.3	19.3	16.1
2005	11.3	18.8	15.7
2006	11.3	17.9	15.7
2007	12.5	19.1	16.9
2008	12.7	18.6	16.8
2009	12.6	17.6	15.2
2010	12.0	19.3	16.6
2011	11.7	18.4	16.6
2012	10.6	18.2	16.1
2013	10.5	17.5	15.8
2014	9.7	17.7	15.6
2015	9.7	17.4	15.3
2016	10.2	17.4	14.5
2017	10.6	18.2	16.7
2018	11.3	18.0	15.9
2019	12.1	18.9	16.9
2020	10.1	17.4	14.3
2021	11.7	18.7	16.0
2022	13.3	19.7	18.2

Notes: Based on equivalised disposable income.
Source: HILDA, Wave 22, Restricted release.

Table A.2. Persons, poverty rate (relative income, 50 per cent median) and confidence interval on estimate, 2001 to 2022

Year ending 30 June:	Poverty rate estimate	95% confidence interval		Standard error
		Lower	Upper	
		- percentage points-		
2001	12.38	11.38	13.39	0.497
2002	12.03	11.09	12.98	0.469
2003	12.07	11.23	12.91	0.415
2004	12.31	11.13	13.48	0.583
2005	11.27	10.02	12.51	0.618
2006	11.32	10.12	12.52	0.595
2007	12.47	11.17	13.77	0.644
2008	12.73	11.56	13.90	0.580
2009	12.61	11.42	13.80	0.592
2010	12.03	11.06	12.99	0.478
2011	11.68	10.67	12.68	0.498
2012	10.62	9.55	11.69	0.530
2013	10.53	9.46	11.60	0.532
2014	9.72	8.45	10.98	0.629
2015	9.74	8.60	10.87	0.562
2016	10.22	9.05	11.39	0.582
2017	10.57	9.57	11.58	0.498
2018	11.33	10.17	12.48	0.573
2019	12.12	10.53	13.72	0.792
2020	10.06	9.16	10.97	0.449
2021	11.75	10.78	12.71	0.479
2022	13.28	12.11	14.44	0.578

Notes: Confidence intervals and standard error derived through jacknife using 45 replicate weights.
Source: HILDA, Wave 22, Restricted release.

Table A.3. Persons, poverty rate (relative income, 50 per cent median), comparison of ABS SIH & HILDA, and different SIH income definitions, 2001 to 2022

Year ending 30 June:	SIH Income definition:				HILDA
	SIH pre 03/04	SIH 03/04	SIH 05/06	SIH 07/08	
			– % –		
2001	10.8	-	-	-	12.4
2002	-	-	-	-	12.0
2003	11.5	-	-	-	12.1
2004	10.4	10.1	-	-	12.3
2005	-	-	-	-	11.3
2006	-	11.1	11.3	-	11.3
2007	-	-	-	-	12.5
2008	-	12.5	12.5	13.1	12.7
2009	-	-	-	-	12.6
2010	-	-	10.9	12.4	12.0
2011	-	-	-	-	11.7
2012	-	-	10.4	12.1	10.6
2013	-	-	-	-	10.5
2014	-	-	9.5	10.7	9.7
2015	-	-	-	-	9.7
2016	-	-	8.7	9.1	10.2
2017	-	-	-	-	10.6
2018	-	-	-	10.9	11.3
2019	-	-	-	-	12.1
2020	-	-	-	10.8	10.1
2021	-	-	-	-	11.7
2022	-	-	-	-	13.3

Notes: Main Differences in ABS SIH Income Definitions

1994-95 Used previous financial year own business and investment income (pre 03/04)

2003-04 Switched to using current year estimates for own business and investment.

2005-06 Deliberately sought to collect and count salary sacrifice amounts as income (but only net effect) and better FTB modelling.

2007-08 Wider employee income (irregular overtime etc), interest netted off investments, better and wider collection of interhousehold transfers.

Source:

ABS Surveys, estimates derived from CURF files

2001: 2000-01 Survey of Income and Housing Costs Australia – Confidentialised Unit Record File

2003: 2002-03 Survey of Income and Housing - Basic Confidentialised Unit Record File

2004: 2003-04 Survey of Income and Housing – Basic Confidentialised Unit Record File

2006: 2005-06 Survey of Income and Housing – Basic Confidentialised Unit Record File

2008: 2007-08 Survey of Income and Housing – Basic Confidentialised Unit Record File

2010: 2009-10 Survey of Income and Housing – Basic Confidentialised Unit Record File

2012: 2011-12 Survey of Income and Housing – Basic Confidentialised Unit Record File

2014: 2013-14 Survey of Income and Housing – Basic Confidentialised Unit Record File

2016: 2015-16 Survey of Income and Housing – Basic Confidentialised Unit Record File

2018: 2017-18 Survey of Income and Housing – Basic Confidentialised Unit Record File

2020: 2019-20 Survey of Income and Housing – Basic Confidentialised Unit Record File

HILDA, Wave 22, Restricted release.

Table A.4. Persons, poverty rate (relative income, 50 per cent median), by person type, comparison of SIH & HILDA, 2020

Survey source	Persons	All aged 15 years and over	Children 14 years and under	Persons aged 65 years and over
		– % –		
HILDA	10.1	10.6	7.6	24.5
SIH	10.8	10.5	12.0	9.5

Source:
HILDA: HILDA, Wave 22, Restricted release.
ABS SIH: 2019-20 Survey of Income and Housing – Basic Confidentialised Unit Record File

Table A.5. Persons, poverty rate (relative income, 50 per cent median), by person type, 2001 to 2022

Year ending 30 June:	Persons	All aged 15 years and over	Children 14 years and under	Persons aged 65 years and over
		– % –		
2001	12.4	13.2	9.4	31.6
2002	12.0	12.9	8.7	30.8
2003	12.1	12.6	10.0	29.3
2004	12.3	12.8	10.2	29.8
2005	11.3	11.9	8.9	28.2
2006	11.3	12.0	8.7	30.6
2007	12.5	12.8	11.2	31.9
2008	12.7	13.3	10.6	33.3
2009	12.6	13.6	8.6	35.8
2010	12.0	12.5	10.0	32.6
2011	11.7	12.4	8.5	30.1
2012	10.6	11.4	7.5	27.6
2013	10.5	11.1	8.3	25.5
2014	9.7	10.1	8.0	22.3
2015	9.7	10.2	8.0	21.6
2016	10.2	10.6	8.6	22.9
2017	10.6	11.1	8.4	24.1
2018	11.3	11.7	9.7	25.9
2019	12.1	12.6	10.2	26.1
2020	10.1	10.6	7.6	24.5
2021	11.7	12.8	7.5	29.9
2022	13.3	14.0	10.2	33.5

Source: HILDA, Wave 22, Restricted release.

Table A.6.Persons in poverty (relative income, 50 per cent median), real value of poverty line and real median and average equivalised disposable incomes, 2001 to 2022

Year ending 30 June:	Average	Median	Poverty line
		$ (2021-22)	
2001	15,061	17,170	20,226
2002	15,819	17,682	20,596
2003	15,750	17,824	20,849
2004	16,662	18,303	21,669
2005	16,831	18,576	22,407
2006	17,989	19,634	23,289
2007	18,377	20,180	24,337
2008	18,321	19,969	24,896
2009	17,606	19,962	26,402
2010	18,984	21,118	25,860
2011	18,286	20,934	25,539
2012	19,419	22,253	26,043
2013	19,987	22,209	26,076
2014	19,598	21,549	26,096
2015	20,102	22,281	26,241
2016	19,864	22,415	26,353
2017	20,290	22,992	26,188
2018	19,932	22,470	26,567
2019	20,810	23,191	27,482
2020	21,322	23,779	28,317
2021	21,564	24,669	29,177
2022	21,124	23,733	29,040

Notes: Real $2021-22 based on financial year average ABS CPI.
Source: HILDA, Wave 22, Restricted release.

Table A.7.Persons, poverty rate (relative income, 50 per cent median), by household/family type, 2001 to 2022

Year ending 30 June:	Household/family type										
	Cple dep<15	Cple dep stud	Cpl < 65	Other cple	SP dep <15	SP dep stud	Cple 65+	Sngl 65+	Sngl <65	Group	Other
	Poverty rate (%)										
2001	7.0	7.4	12.3	5.4	16.5	13.4	26.0	56.4	25.0	7.8	10.6
2002	5.7	8.6	11.1	6.9	20.8	14.5	27.0	53.7	23.6	4.7	10.8
2003	7.6	8.2	9.7	3.8	19.9	18.3	26.0	54.4	24.5	7.4	8.4
2004	7.9	8.5	10.4	3.0	16.7	9.5	29.8	52.2	24.1	4.7	14.0
2005	6.2	5.1	9.0	4.7	19.5	18.2	30.2	52.6	23.6	5.1	8.4
2006	5.5	6.1	8.8	7.4	22.4	16.5	32.5	54.4	20.9	2.0	6.8
2007	7.5	8.0	9.8	5.4	23.9	17.0	33.0	57.0	21.2	8.1	8.0
2008	7.2	6.5	9.6	6.7	21.9	20.2	34.5	56.4	21.9	13.3	10.4
2009	4.7	5.3	9.4	8.4	20.9	15.2	36.4	58.4	22.1	8.9	19.3
2010	5.8	3.8	8.2	6.6	23.9	15.6	33.2	53.4	22.6	4.5	15.1
2011	5.5	7.9	8.5	7.0	22.7	18.9	30.1	49.3	22.0	11.6	8.5
2012	5.0	5.3	8.4	3.3	15.5	14.5	26.8	48.9	21.8	5.9	13.9
2013	5.5	4.0	7.5	4.3	16.6	15.8	26.5	42.1	19.9	23.6	11.6
2014	5.7	5.4	6.8	4.4	19.5	11.4	20.6	40.3	19.5	6.9	7.2
2015	5.0	6.9	7.2	3.0	21.6	11.3	21.3	40.0	20.3	7.1	6.3
2016	5.7	5.7	7.3	3.0	22.6	10.6	20.7	43.1	21.4	6.7	7.8
2017	5.5	3.0	7.8	7.3	21.2	16.0	20.7	43.6	21.5	2.3	9.4
2018	5.2	4.5	6.7	8.4	27.7	16.8	23.3	43.6	21.2	2.7	11.1
2019	4.8	4.9	8.0	6.4	26.6	10.2	24.2	48.3	20.8	5.7	18.6
2020	4.3	4.9	6.6	2.9	21.8	11.7	23.6	46.9	22.8	4.2	7.6
2021	3.9	4.5	6.2	11.1	21.8	20.2	30.2	50.3	22.3	7.8	10.4
2022	6.5	4.7	7.0	6.8	27.5	12.4	35.4	56.1	21.8	6.3	12.3

Notes:
- Cpl < 65: Couple only aged under 65 years.
- Cple 65+: Couple only aged 65 years and over.
- Cple dep<15: Couple with dependent child aged under 15 years.
- Cple dep stud: Couple with dependent student children only.
- Other cple: Other couples.
- SP dep<15: Single Parent with dependent child aged under 15 years.
- SP dep stud: Single Parent with dependent student children only.
- Sngl <65: Single Person aged under 65 years.
- Sngl 65+: Single Person aged 65 years and over.
- Group: Group household.
- Other: Other households.

Source: HILDA, Wave 22, Restricted release.

Table A.8.Persons and households, poverty rate (relative income, 50 per cent median) and household size, 2001 to 2022

Year ending 30 June:	Poverty rate (50% median)		Average number of persons in Household		
	Person rate	Household rate	All households	Not in poverty	In poverty
	– % –			– persons –	
2001	12.4	17.1	2.59	2.73	1.88
2002	12.0	16.4	2.59	2.72	1.90
2003	12.1	16.2	2.59	2.72	1.93
2004	12.3	16.1	2.59	2.71	1.99
2005	11.3	15.3	2.60	2.72	1.91
2006	11.3	15.3	2.60	2.73	1.93
2007	12.5	16.4	2.60	2.72	1.97
2008	12.7	16.7	2.60	2.72	1.98
2009	12.6	17.0	2.60	2.73	1.92
2010	12.0	16.1	2.59	2.72	1.94
2011	11.7	15.8	2.60	2.72	1.92
2012	10.6	14.8	2.59	2.72	1.85
2013	10.5	14.1	2.59	2.70	1.92
2014	9.7	13.1	2.58	2.68	1.91
2015	9.7	13.3	2.58	2.68	1.89
2016	10.2	13.9	2.57	2.68	1.89
2017	10.6	14.4	2.56	2.68	1.89
2018	11.3	14.9	2.55	2.66	1.95
2019	12.1	15.6	2.54	2.65	1.97
2020	10.1	14.4	2.53	2.66	1.77
2021	11.7	16.2	2.52	2.66	1.83
2022	13.3	17.8	2.51	2.65	1.88

Source: HILDA, Wave 22, Restricted release.

Table A.9.Persons, poverty rate (relative income, 50 per cent median), by state using national and state specific median incomes, 2022.

State/Territory	National poverty line	State poverty line
	Poverty rate (%)	
New South Wales	13.8	14.3
Victoria	12.5	13.5
Queensland	13.7	11.6
South Australia	14.5	12.0
Western Australia	12.6	14.3
Tasmania	17.6	9.2
Northern Territory	14.3	20.6
Australian Capital Territory	3.2	4.1

Source: HILDA, Wave 22, Restricted release.

Table A.10. Persons, poverty rate (relative income, 50 per cent median), by SEIFA decile, 2022

SEIFA Decile (a)	Proportion in poverty (poverty rate)	Distribution of those in poverty
	– % –	
1 (Lowest)	25.8	17.5
2	22.3	15.8
3	19.9	14.6
4	13.4	9.4
5	11.5	9.5
6	11.4	8.0
7	12.3	9.5
8	7.3	6.3
9	6.9	5.2
10 (Highest)	5.2	4.2
Total	13.3	100

Notes: (a) ABS 2021 Index of relative socio-economic advantage/disadvantage

Source: HILDA, Wave 22, Restricted release.

Table A.11. Persons, poverty rate (relative income, 50 per cent median), by housing tenure, 2001 to 2022

Year ending 30 June:	Housing tenure				
	Home owner	Purchaser	Private rent	Social rent	Other
	Poverty rate (%)				
2001	14.1	6.4	11.3	39.6	13.6
2002	12.6	6.0	11.9	39.3	19.1
2003	13.1	5.6	12.1	37.9	19.2
2004	13.8	6.0	11.9	41.7	16.5
2005	13.3	3.6	11.1	41.9	22.8
2006	13.5	3.5	12.4	42.6	21.6
2007	13.8	5.6	14.6	42.1	22.5
2008	15.5	5.1	14.1	42.6	20.0
2009	17.2	3.7	12.9	41.5	19.7
2010	14.8	5.4	13.2	36.3	18.2
2011	14.4	4.1	12.9	44.4	17.7
2012	13.2	4.8	10.5	44.9	13.8
2013	13.3	3.6	10.6	40.6	27.2
2014	12.6	3.6	9.7	37.1	20.8
2015	12.7	3.0	10.5	42.6	19.7
2016	13.6	3.4	11.1	43.8	17.2
2017	13.2	4.4	11.8	39.7	22.3
2018	15.1	4.4	12.3	45.5	22.3
2019	18.2	4.2	11.4	49.4	25.9
2020	13.7	3.0	11.6	44.3	22.5
2021	18.0	3.4	11.3	50.7	21.5
2022	19.9	3.5	14.3	53.3	27.3

Source: HILDA, Wave 22, Restricted release.

Table A.12. Average real equivalised income, by income decile, 2001 to 2022

Year ending 30 June:	Equivalised disposable income decile									
	1 (Low)	2	3	4	5	6	7	8	9	10 (High)
	Average annual income – $2021-22									
2001	13,655	21,694	27,288	32,381	37,624	43,367	49,747	57,595	69,415	107,579
2002	14,296	22,233	27,921	33,353	38,560	44,253	50,455	58,119	69,655	107,047
2003	13,178	22,398	28,009	33,369	38,837	44,892	51,541	58,742	69,733	107,050
2004	15,133	23,271	29,214	34,897	40,438	46,036	52,086	60,081	71,873	109,069
2005	15,002	24,463	30,591	36,359	41,771	47,725	54,027	62,139	74,579	116,890
2006	15,099	25,643	32,170	38,065	43,666	49,311	56,194	65,163	78,277	125,067
2007	11,542	26,203	33,444	39,285	45,360	52,054	59,352	68,806	83,799	139,960
2008	15,634	26,703	34,172	40,496	46,714	53,311	60,637	70,777	85,541	138,351
2009	14,191	28,554	37,146	43,510	49,600	56,126	63,102	72,619	86,286	134,114
2010	16,636	27,755	35,211	42,012	48,485	54,738	61,855	71,948	87,222	139,246
2011	16,309	27,744	34,964	41,262	47,497	54,620	63,298	73,745	89,438	140,557
2012	18,151	29,046	36,214	42,567	48,844	55,580	63,637	74,032	88,566	141,111
2013	18,603	29,345	36,175	42,493	48,884	55,656	63,893	74,287	89,133	142,341
2014	19,110	29,345	35,964	42,163	48,913	55,695	64,170	74,317	89,244	142,989
2015	19,194	29,645	36,307	42,462	49,249	55,999	63,799	73,924	89,475	138,063
2016	18,849	29,671	36,549	42,898	49,311	56,270	63,789	73,536	88,120	140,264
2017	18,793	29,043	36,087	42,363	49,058	56,154	64,098	73,829	88,657	145,214
2018	18,158	29,254	36,560	42,964	49,746	56,839	65,306	75,181	90,283	139,983
2019	18,627	29,675	37,314	43,906	51,056	59,024	67,485	77,577	92,663	144,833
2020	20,442	31,975	39,328	45,925	52,879	60,223	68,069	78,143	93,485	145,155
2021	19,319	31,664	39,923	47,405	54,398	62,409	70,785	81,565	97,388	149,725
2022	18,400	30,395	38,782	46,551	54,262	62,191	71,384	82,719	99,267	162,412

Notes: Person weighted
Real $2021-22 based on financial year average ABS CPI.
Source: HILDA, Wave 22, Restricted release.

Table A.13. Average real equivalised income, deciles 1 and 2, and median, 2001 to 2022

Year ending 30 June:	Average income: 1st Decile	2nd Decile	Population Median
	$(2021-22) per annum		
2001	13,655	21,694	40,451
2002	14,296	22,233	41,192
2003	13,178	22,398	41,697
2004	15,133	23,271	43,337
2005	15,002	24,463	44,814
2006	15,099	25,643	46,578
2007	11,542	26,203	48,673
2008	15,634	26,703	49,792
2009	14,191	28,554	52,803
2010	16,636	27,755	51,720
2011	16,309	27,744	51,078
2012	18,151	29,046	52,086
2013	18,603	29,345	52,151
2014	19,110	29,345	52,191
2015	19,194	29,645	52,482
2016	18,849	29,671	52,705
2017	18,793	29,043	52,376
2018	18,158	29,254	53,133
2019	18,627	29,675	54,964
2020	20,442	31,975	56,634
2021	19,319	31,664	58,353
2022	18,400	30,395	58,080

Notes: Person weighted
Real $2021-22 based on financial year average ABS CPI.
Source: HILDA, Wave 22, Restricted release.

Table A.14. Equivalised real disposable incomes, Gini coefficient 2001 to 2022

Year ending 30 June:	Including negative and zero incomes	Excluding negative and zero incomes
	Gini	
2001	0.308	0.303
2002	0.323	0.319
2003	0.330	0.318
2004	0.311	0.307
2005	0.318	0.314
2006	0.333	0.325
2007	0.335	0.320
2008	0.327	0.320
2009	0.317	0.307
2010	0.324	0.318
2011	0.328	0.324
2012	0.326	0.324
2013	0.322	0.321
2014	0.324	0.322
2015	0.325	0.323
2016	0.328	0.325
2017	0.327	0.326
2018	0.327	0.325
2019	0.337	0.335
2020	0.331	0.330
2021	0.355	0.351
2022	0.349	0.346

Notes: Gini including zero and negative incomes Stata module ineqdec0.
Gini excluding: zero and negative incomes Stata module ineqdeco.

Source: HILDA, Wave 22, Restricted release.

Table A.15. Equivalised real disposable incomes, Atkinson measure of inequality, 2001 to 2022

Year ending 30 June:	Atkinson measure		
	ε= 0.5	ε= 1.0	ε= 2.0
	Index value		
2001	0.076	0.151	0.399
2002	0.087	0.164	0.385
2003	0.087	0.162	0.392
2004	0.079	0.151	0.345
2005	0.085	0.158	0.351
2006	0.094	0.168	0.323
2007	0.087	0.163	0.334
2008	0.088	0.165	0.347
2009	0.083	0.164	0.452
2010	0.086	0.162	0.384
2011	0.089	0.170	0.410
2012	0.091	0.171	0.442
2013	0.088	0.166	0.485
2014	0.089	0.166	0.358
2015	0.089	0.166	0.363
2016	0.094	0.169	0.347
2017	0.093	0.169	0.384
2018	0.091	0.169	0.386
2019	0.097	0.180	0.416
2020	0.102	0.180	0.617
2021	0.115	0.202	0.478
2022	0.108	0.197	0.465

Notes:

Excludes Zero and negative incomes.

Calculated using Stata module ineqdeco.

Source: HILDA, Wave 22, Restricted release.

Table A.16. Equivalised real disposable income, Generalised Entropy measures of inequality, 2001 to 2022

Year ending 30 June:	General entropy measure: ∝=0	∝=1	∝=2
	Index Value		
2001	0.163	0.160	0.216
2002	0.179	0.192	0.309
2003	0.177	0.195	0.344
2004	0.163	0.170	0.235
2005	0.172	0.190	0.332
2006	0.183	0.229	0.720
2007	0.178	0.195	0.326
2008	0.181	0.198	0.363
2009	0.179	0.176	0.256
2010	0.177	0.189	0.295
2011	0.186	0.192	0.288
2012	0.187	0.204	0.425
2013	0.181	0.195	0.320
2014	0.181	0.200	0.352
2015	0.181	0.200	0.317
2016	0.185	0.222	0.584
2017	0.186	0.216	0.500
2018	0.186	0.204	0.367
2019	0.198	0.218	0.368
2020	0.198	0.262	1.214
2021	0.225	0.283	0.668
2022	0.219	0.255	0.554

Notes:

Excludes Zero and negative incomes.

Calculated using Stata module ineqdeco.

Source: HILDA, Wave 22, Restricted release.

Table A.17. Equivalised disposable incomes, selected income ratios and income shares, 2001 to 2022

Year ending 30 June:	Percentile comparisons						Income Shares				
	p95:p5	p90:p10	p75:p25	p25:p50	p90:p50	p95:p50	Top 5	Top 10	Top 50	Bottom 10	Bottom 5
	ratio						– % –				
2001	5.8	4.0	2.1	0.7	1.9	2.3	13.9	23.1	71.1	2.9	1.0
2002	5.6	3.9	2.1	0.7	1.9	2.3	14.0	23.0	70.7	3.1	1.1
2003	5.5	3.9	2.1	0.7	1.9	2.2	13.7	22.8	71.1	2.5	0.6
2004	5.5	3.9	2.1	0.7	1.8	2.2	13.3	22.3	70.2	3.1	1.1
2005	5.6	3.8	2.0	0.7	1.8	2.2	13.7	22.8	70.4	3.0	1.1
2006	5.6	4.0	2.0	0.7	1.9	2.3	14.0	23.2	70.6	2.8	0.8
2007	5.9	4.1	2.0	0.7	1.9	2.3	14.8	23.9	71.7	2.2	0.2
2008	6.1	4.1	2.0	0.7	1.9	2.3	14.3	23.4	71.1	2.7	0.8
2009	6.3	4.0	2.0	0.7	1.8	2.2	13.8	22.7	70.5	2.2	0.3
2010	6.0	4.1	2.0	0.7	1.9	2.3	14.1	23.3	70.7	2.8	0.9
2011	6.2	4.2	2.1	0.7	2.0	2.4	14.4	23.6	71.4	2.8	0.9
2012	5.6	3.9	2.1	0.7	1.9	2.3	14.1	23.3	70.6	3.2	1.1
2013	5.5	3.9	2.0	0.7	1.9	2.3	14.5	23.5	70.6	3.2	1.2
2014	5.5	3.8	2.1	0.7	1.9	2.3	14.2	23.3	70.6	3.3	1.3
2015	5.4	3.8	2.0	0.7	1.9	2.3	14.0	23.1	70.3	3.4	1.3
2016	5.3	3.8	2.0	0.7	1.9	2.2	14.2	23.2	70.2	3.3	1.2
2017	5.4	3.9	2.0	0.7	1.9	2.3	14.8	23.8	70.7	3.3	1.2
2018	5.6	3.9	2.0	0.7	1.9	2.3	14.0	23.1	70.6	3.1	1.1
2019	5.7	3.9	2.0	0.7	1.9	2.2	14.5	23.4	70.9	3.1	1.1
2020	5.2	3.7	2.0	0.7	1.9	2.2	13.7	22.6	69.8	3.3	1.3
2021	5.4	3.8	2.0	0.7	1.8	2.2	13.9	22.7	70.4	3.0	1.0
2022	6.3	4.2	2.1	0.7	1.9	2.3	15.8	24.8	71.7	2.8	1.0

Notes: All estimates person weighted.

Source: HILDA, Wave 22, Restricted release.

Table A.18. Persons, distribution of those in poverty (relative income, 50 per cent median), by aggregated household net wealth decile, 2002-22

Wealth decile (a)	2002	2006	2010	2014	2018	2022
	Poverty distribution (%)					
1 (Low)	25.6	32.2	27.8	29.7	33.3	29.9
2	13.3	10.8	8.7	10.4	8.4	9.8
3	11.1	7.4	10.0	8.6	8.6	9.9
4	12.6	13.4	11.0	8.1	7.2	9.4
5	8.4	11.6	11.8	10.9	12.7	10.4
6	10.3	6.7	11.5	12.2	10.8	8.4
7	7.5	7.5	7.4	7.5	7.4	6.7
8	4.7	4.0	6.2	4.8	5.8	5.9
9	3.1	3.0	3.1	4.6	3.3	5.3
10 (High)	3.4	3.6	2.5	3.2	2.6	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Grouped						
Bottom Decile	25.6	32.2	27.8	29.7	33.3	29.9
Lower (2-3)	24.3	18.2	18.7	19.0	17.0	19.7
Middle (4-7)	38.9	39.1	41.6	38.8	38.0	34.8
High (8-10)	11.2	10.5	11.8	12.6	11.7	15.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes (a) Person weighted.

Source: HILDA, Wave 22, Restricted release.

Table A.19. Persons in poverty (relative income, 50 per cent median), transitions from previous year, 2002 to 2022

Year ending 30 June:	Transition status (a): Remain	Exit	Entry
	Proportion of population (%)		
2002	7.0	5.8	5.8
2003	6.7	5.2	5.7
2004	6.7	4.9	5.5
2005	6.6	5.7	5.0
2006	6.1	5.1	5.7
2007	6.8	4.1	6.1
2008	7.6	4.7	5.4
2009	7.4	5.4	5.1
2010	7.0	5.5	5.6
2011	6.2	5.7	4.9
2012	6.1	5.7	5.0
2013	5.3	5.2	5.1
2014	5.2	5.2	4.8
2015	5.5	4.3	4.7
2016	5.7	4.1	4.8
2017	5.5	4.6	5.4
2018	6.0	4.5	5.3
2019	6.4	4.8	6.1
2020	6.0	5.6	4.2
2021	5.9	4.2	6.1
2022	6.9	4.4	6.3

Notes (a) Remain – in poverty in current and previous year.
Exit – in poverty in previous year, not in poverty in current year.
Entry – not in poverty in previous year, in poverty in current year.

Source: HILDA, Wave 22, Restricted release.

Table A.20. Persons, poverty rates using EU 'at risk of poverty' and 'persistent at risk' (60% median) measures, 2003 to 2022

Year ending 30 June:	At risk of poverty (a)	Persistent at risk (b)
	Proportion of population (%)	
2004	20.8	12.8
2005	19.8	12.5
2006	18.8	12.2
2007	19.9	11.9
2008	19.8	12.1
2009	18.1	11.6
2010	20.9	12.6
2011	18.0	11.6
2012	19.0	12.2
2013	18.0	11.2
2014	18.9	11.6
2015	19.0	11.7
2016	18.5	11.3
2017	19.7	11.9
2018	18.6	12.1
2019	19.7	12.1
2020	18.1	11.5
2021	19.9	11.2
2022	20.4	12.0

Notes: (a) Persons with incomes below 60 per cent median income poverty line.
(b) Persons ‘at risk of poverty’ in current year and two out of the previous three years.

Source: HILDA, Wave 22, Restricted release.

Table A.21. Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2001 real value, 2001 to 2022

Year ending 30 June:	Persons	All aged 15 years and over	Children 14 years and under	Persons aged 65 years and over
		Poverty rate (%)		
2001	12.4	13.2	9.4	31.6
2002	11.3	12.1	8.2	27.9
2003	10.7	11.2	8.9	25.3
2004	9.4	9.8	7.7	20.1
2005	7.9	8.3	6.6	17.2
2006	6.3	6.9	3.8	16.7
2007	6.3	6.6	5.1	13.4
2008	6.5	7.2	3.6	16.5
2009	6.5	7.3	3.5	15.2
2010	5.3	5.5	4.3	11.4
2011	5.4	5.8	3.6	11.2
2012	4.2	4.7	2.2	8.7
2013	3.8	4.2	2.2	7.8
2014	3.9	4.0	3.4	6.8
2015	3.8	4.1	2.6	6.5
2016	3.8	4.2	2.5	7.3
2017	3.8	4.2	1.9	8.5
2018	4.4	4.6	3.2	8.4
2019	4.2	4.5	3.3	7.0
2020	3.0	3.3	1.8	6.8
2021	3.7	4.1	1.9	8.2
2022	4.2	4.6	2.6	10.5

Notes: All values adjusted based on financial year average ABS CPI.
Source: HILDA, Wave 22, Restricted release.

Table A.22. Persons, poverty rate (relative income, 50 per cent median) using Income Poverty Line anchored at 2022 real value, 2001 to 2022

Year ending 30 June:	Persons	All aged 15 years and over	Children 14 years and under	Persons aged 65 years and over
		Poverty rate (%)		
2001	28.0	27.6	29.4	59.2
2002	26.9	26.5	28.4	56.3
2003	27.1	26.6	28.7	56.6
2004	24.4	24.3	24.8	53.7
2005	22.5	22.5	22.3	49.9
2006	19.6	19.7	19.2	46.1
2007	18.8	18.8	19.1	43.8
2008	17.8	18.1	16.6	43.5
2009	15.1	16.0	11.3	41.7
2010	16.4	16.8	14.9	42.2
2011	16.2	16.8	14.0	40.8
2012	15.3	16.2	11.6	38.2
2013	14.4	14.9	12.4	34.8
2014	14.4	14.6	13.6	32.5
2015	14.1	14.6	12.3	31.8
2016	13.2	13.7	11.2	31.3
2017	14.8	15.5	12.3	35.2
2018	14.7	15.1	13.1	33.1
2019	14.0	14.4	12.3	30.6
2020	11.0	11.5	8.6	26.3
2021	11.6	12.6	7.4	29.8
2022	13.3	14.0	10.2	33.5

Notes: All values adjusted based on financial year average ABS CPI.
Source: HILDA, Wave 22, Restricted release.

Table A.23. Persons aged 15 years and over, self-rated prosperity, 2001 to 2022

Year ending 30 June:	Self-perceived financial wellbeing:						
	Prosperous	Very comfortable	Reasonably comfortable	Just getting along	Poor	Very poor	Total
			– % –				
2001	1.7	12.5	51.1	30.4	3.6	0.7	100.0
2002	1.2	12.7	51.0	31.4	3.1	0.7	100.0
2003	1.5	14.9	50.9	28.9	3.0	0.7	100.0
2004	1.4	13.5	52.6	28.9	3.0	0.6	100.0
2005	1.6	15.1	52.7	27.7	2.3	0.6	100.0
2006	1.9	13.8	52.0	29.2	2.3	0.7	100.0
2007	2.3	15.6	52.9	26.0	2.3	0.9	100.0
2008	1.6	14.3	52.5	27.9	3.0	0.7	100.0
2009	2.3	16.8	52.6	25.1	2.5	0.7	100.0
2010	2.1	14.5	51.8	28.4	2.5	0.7	100.0
2011	1.8	14.9	52.3	27.7	2.7	0.7	100.0
2012	2.0	15.8	51.9	26.6	2.9	0.7	100.0
2013	2.0	16.9	50.5	27.1	2.6	0.9	100.0
2014	1.6	15.6	52.2	26.5	3.2	0.8	100.0
2015	1.9	15.1	52.4	26.8	3.0	0.9	100.0
2016	1.8	16.0	50.6	28.2	2.5	0.8	100.0
2017	2.3	17.3	50.9	25.9	2.9	0.8	100.0
2018	1.9	15.9	51.3	27.5	2.5	0.8	100.0
2019	2.0	15.7	51.9	26.5	2.9	0.9	100.0
2020	2.8	19.4	53.3	21.8	2.0	0.6	100.0
2021	2.9	20.6	52.1	21.4	2.2	0.7	100.0
2022	2.7	17.2	53.1	23.7	2.5	0.9	100.0

Source: HILDA, Wave 22, Restricted release, Respondents to Self Completed Questionnaire.

Table A.24. Persons aged 15 years and over, distribution of populations in, and not in, 50 per cent median relative income poverty, by self-reported prosperity, 2022

Self-perceived financial wellbeing:	If in relative income poverty:	
	Not in poverty	In poverty
	– % –	
Very poor	0.6	2.4
Poor	1.9	6.6
Just getting along	22.0	34.5
Reasonably comfortable	54.2	45.7
Very comfortable	18.3	10.4
Prosperous	3.0	0.5
Total	100.0	100.0

Source: HILDA, Wave 22, Restricted release, Respondents to Self Completed Questionnaire.

Table A.25. Persons aged 15 years and over in 50 per cent median relative income poverty, distribution by age grouping, by self-reported prosperity, 2022

Self-perceived financial wellbeing:	Age group:	
	<65 yrs	65 yrs & over
	– % –	
Very poor	4.3	0.4
Poor	10.1	2.9
Just getting along	39.3	29.4
Reasonably comfortable	37.3	54.5
Very comfortable	8.5	12.3
Prosperous	0.5	0.4
Total	100.0	100.0

Source: HILDA, Wave 22, Restricted release, Respondents to Self Completed Questionnaire.

Table A.26. Persons aged 15 years and over, distribution of level of psychological distress by whether in 50 per cent median relative income poverty, 2021

Distress (a)	If in relative income poverty:	
	Not in poverty	In poverty
	– % –	
Low	50.1	46.7
Moderate	25.0	20.3
High	15.0	18.9
Very high	9.9	14.1
Total	100.0	100.0

Notes: (a) Based on ABS K10 score groupings and categorisation: 10–15 Low, 16–21 Moderate; 22–29 High; 30–50 Very high. (ABS 2012, Table E).

Source: HILDA, Wave 22, Restricted release, Respondents to Self Completed Questionnaire.

Table A.27. Persons aged 15 years and over, incidence of financial stress, by whether in 50 per cent median relative income poverty, 2022

Financial stress items:	If in relative income poverty:		Total
	Not in poverty	In poverty	
	Proportion of population (%)		
Utility bill on time	7.9	1.9	9.8
Mortgage or rent on time	4.8	1.1	5.9
Pawned or sold	4.0	1.2	5.2
Missed meals	2.8	1.1	4.0
Unable to heat home	2.2	1.1	3.3
Financial help family or friends	7.4	2.1	9.5
Welfare agency	2.4	1.1	3.5
Any (a)	14.6	3.6	18.2

Notes:

Actual questions: because of a shortage of money?

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

(a) Any of the above seven items.

Source: HILDA, Wave 22, Restricted release, Respondents to Self Completed Questionnaire.

Table A.28. Persons aged 15 years and over, incidence of multiple financial stress items, 2001 to 2022

Year ending	Number of financial stress items recorded:				
30 June:	0	2+	3+	4+	5+
	Proportion of population (%)				
2001	70.7	16.8	8.8	4.2	2.0
2002	75.0	13.9	7.0	3.4	1.6
2003	75.3	13.9	7.2	3.5	1.6
2004	77.4	12.2	6.2	3.1	1.5
2005	77.7	12.4	6.5	2.8	1.2
2006	79.5	10.7	5.3	2.4	1.2
2007	78.9	11.6	6.2	3.0	1.5
2008	81.6	9.4	5.3	2.6	1.4
2009	79.6	11.2	6.5	3.4	1.7
2010 (a)	#N/A	#N/A	#N/A	#N/A	#N/A
2011	76.2	13.0	6.7	3.6	1.8
2012	78.5	11.8	5.8	3.0	1.4
2013	79.0	11.1	5.9	3.2	1.6
2014	78.7	11.4	6.3	3.3	1.7
2015	79.3	11.5	6.0	3.4	1.8
2016	80.1	11.1	5.9	3.0	1.4
2017	82.1	9.9	5.6	2.8	1.2
2018	80.3	11.1	5.9	3.3	1.5
2019	80.5	11.1	6.6	3.5	1.7
2020	80.7	10.6	5.4	2.8	1.6
2021	82.0	10.5	5.1	2.7	1.4
2022	81.8	10.6	5.7	3.1	1.6

Notes: (a) Data for 2010 is not usable due to an error in the specification of the reference period for the question in the survey instrument.

Source: HILDA, Wave 22, Restricted release, Respondents to Self Completed Questionnaire.

Table A.29. Persons aged 15 years and over, incidence of multiple financial stress items, by equivalised disposable income vigintile, 2022

Equivalised disposable income vigintile	Number of financial stress items recorded:			
	None	2+	3+	4+
	Proportion of population (%)			
1 (Low)	74.1	17.6	11.9	7.5
2	72.7	18.3	12.7	7.1
3	75.5	16.2	8.6	5.6
4	68.9	19.6	12.1	6.9
5	76.9	14.5	9.9	6.9
6	76.9	11.3	7.5	3.6
7	75.2	14.6	7.9	4.9
8	75.0	14.6	8.5	5.7
9	81.2	9.7	3.1	1.5
10	74.7	13.5	6.6	2.6
11	82.0	9.8	4.2	2.4
12	82.2	11.0	6.8	1.3
13	84.6	7.1	2.8	1.1
14	89.3	5.1	2.3	0.8
15	86.5	8.2	2.2	1.1
16	86.8	6.2	2.5	1.4
17	93.5	2.7	0.9	0.6
18	91.4	4.6	1.2	0.5
19	92.4	4.0	1.1	0.6
20 (High)	95.0	2.9	1.4	0.1

Source: HILDA, Wave 22, Restricted release, respondents to Self Completed Questionnaire.

Table A.30. Person weighted households, incidence of multiple material deprivation, by equivalised disposable income vigintile, 2022

Equivalised disposable income vigintile	Persons with multiple material deprivation:	
	3 or more	5 or more
	Proportion of population (%)	
1 (Low)	13.2	3.4
2	12.6	2.6
3	13.1	2.6
4	11.4	3.3
5	10.6	2.8
6	8.3	2.5
7	9.1	1.8
8	3.7	0.7
9	4.8	0.6
10	2.7	1.5
11	4.4	0.9
12	1.3	0.6
13	1.7	0.2
14	0.4	0.2
15	0.3	0.0
16	0.9	0.2
17	0.2	0.0
18	1.9	0.3
19	0.3	0.0
20 (High)	0.1	0.0
Total	5.0	1.2

Notes: Persons living in households with this level of incidence.
Source: HILDA, Wave 22, Restricted release, Household Questionnaire.