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Are recent trends in poverty and deprivation in Australia consistent with trickle-down effects?

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Abstract
This article examines trends in social disadvantage in Australia over the decade to 2018 using two approaches: a monetary approach using poverty and a living standards approach using deprivation. We compare the two approaches, highlight their implications and assess whether the evidence produced by each is consistent with trickle-down effects. The estimates allow for variations in thresholds, the treatment of housing costs and relative and absolute measures. The findings indicate an overall decline in poverty that is dependent on the treatment of housing costs and a more consistent decline in deprivation but with little or no improvement for many experiencing poverty or deprivation. Poverty and deprivation among unemployed households were above those for people in other labour force states throughout the period and while these differentials have narrowed, the findings suggest that trickle-down effects did not reach many of those highly disadvantaged or are subject to long delays.

JEL Codes: I32, E65, H55

Keywords
Deprivation, Global Financial Crisis, income distribution, neo-liberalism, poverty, social disadvantage, social policy

Introduction

Recent Australian economic performance has been impressive, particularly when compared with other Organisation for Economic Cooperation and Development (OECD)

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economies. Between 2005–2006 and 2017–2018 – the period covered in this paper – Gross Domestic Product grew at an annual average rate of 2.75%, while household disposable income per capita increased by 17.0% in real terms. Median equivalised household disposable income increased by 57%, well above the 33% rise in the consumer price index (CPI). Economic growth has delivered rising incomes to many Australians (even during a period that includes the Global Financial Crisis (GFC) but pre-dates the onset of the Covid pandemic) and this has been widely attributed to the free-market, neo-liberal policies of successive Australian governments.

However, the income gains experienced over the period have not been equally shared. Income distribution trends released by the Australian Bureau of Statistics (ABS) show considerable differences in the average gains experienced by different income quintiles. Between 2005–2006 and 2017–2018, the mean incomes of quintiles ranked from lowest to highest increased in real terms by 17.0%, 19.6%, 18.8%, 19.7% and 25.2% respectively. The average proportionate gain for those in the top fifth of the income distribution was almost 50% greater than for those in the bottom fifth and inequality increased, at least when measured by the Gini coefficient, which rose from 0.314 to 0.328 over the period, or by 4.5% (ABS, 2019, Table 1.1). This combination of high growth and rising inequality has recently been described as one that; 'will be remembered historically as a lost opportunity to balance the social system' (Martinez and Perales, 2017: 494) – an assessment which suggests that economic performance has taken precedence over social performance.

The view that stimulating the economy by providing tax cuts and other concessions to those already economically advantaged may increase inequality in the short-run but will eventually benefit all is widespread among academic and business economists and policy makers. They argue that these measures directed at the top will promote greater risk taking, higher savings and more work effort. The resulting economic gains, it is argued, will 'trickle down' through the income distribution as the 'rising tide' of economic progress lifts all boats: not just the super-yachts of the rich but also middle-class sailing boats and the dinghies and row boats owned by (some of) those at the bottom.

Australians will be familiar with these 'trickle down' arguments. The 'rising tide' metaphor is more common in US studies of the relationship between economic growth and income distribution (see Danziger and Gottschalk, 1986; Kwon and Salcido, 2019). But it has been applied in Australia to examine how economic growth affects poverty, including in a study published in this journal three decades ago (Saunders and Matheson, 1991). More recently, Throsby (2017: 150) has revisited the hypothesis and concludes that: 'the rising tide hypothesis is one that, as economists, we should forget' – although this has not prevented the idea from continuing its zombie-like existence (see Quiggin, 2010).

Whichever metaphor is used, the underlying idea is that the short-run costs resulting from neo-liberal policies will be more than offset by widely-shared longer-run benefits. The rising tide should lift *all* boats, just as gravity should ensure that trickle-down effects will continue until they reach those at the *bottom.* Assessing these claims requires those 'at the bottom' to be identified before their experience can be quantified. They may be missing out on the benefits altogether, even when the lowest quintile is better-off on average. It is thus necessary to delve beyond what is happening to broad income groups

and examine how the material circumstances of those most disadvantaged have changed. If those at the bottom have not gained, there must be some doubt that trickle-down (or rising-tide) effects are functioning as widely presumed.

In addressing these issues, we draw on recent advances in poverty research to track how those facing social disadvantage 'at the bottom' have fared. The answer will assume growing significance under the UN Sustainable Development Goals (SDGs), to which Australia is a signatory. The SDG targets include raising the income share of the lowest two quintiles and cutting poverty rates by at least half by 2030, although neither goal has been achieved in Australia over the last decade (see Davidson et al., 2020a, 2020b; Saunders, 2018). Recent contributions by Azpitarte (2014) and Martinez and Perales (2017) have examined the impact of growth on different measures of poverty using data from the Household, Income and Labour Dynamics in Australia (HILDA) survey. The present article complements and extends those findings in two main directions. First, it examines recent changes in poverty using two approaches – a monetary approach using poverty lines, and a living standards approach using the concept of deprivation; secondly, the implications of each approach for trickle-down effects are examined.

The article is organised as follows. Section 2 provides an overview of the main features of the monetary and living standards approaches, while Section 3 describes our data sources and methods. Section 4 compares the results produced by each approach. The final section summarises the findings and discusses the implications for trickle-down effects.

Identifying and measuring poverty and deprivation

Poverty exists when people lack the monetary resources they need to obtain a minimally acceptable standard of living. This includes having access to the material goods (possessions) and being able to engage in the social activities (participation) that signify inclusion in society. What is deemed minimally acceptable can be determined by experts, set politically or by consulting members of the community for their views. Poverty research has mainly drawn on the first two methods, while deprivation research has employed the third.

Poverty line studies have been criticised for their narrow focus on an income metric (signified by the use of equivalised disposable income (EDY), to measure living standards), the arbitrary nature of the poverty line, the assumption of income-sharing within households and the choice of equivalence scale used to adjust for differences in household need (see Corak, 2006; Nolan and Whelan, 2007; Ravallion, 2016). Most studies of poverty in high-income countries like Australia now adopt the 'international poverty line' which is set at a fixed percentage (generally either 50% of 60%) of EDY, derived using the 'modified OECD scale'.[1] This approach does not address the more fundamental concern that estimated poverty rates lack credibility because they fail to establish that those identified as poor are living in conditions that are synonymous with poverty (Ringen, 1988). This has led international agencies like the OECD, UNICEF [United Nations Children's Fund] and the European Union Statistical Office (Eurostat) to refer to income-based estimates as capturing the 'risk of poverty' (see Atkinson et al., 2017; European Commission, 2018).

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The deprivation approach was pioneered by Townsend (1979, 1987) and has since been refined by Mack and Lansley (1985) and Gordon (2006, 2017) and most recently in the *UK Poverty and Social Exclusion* (UK-PSE) study (Dermott and Main, 2018). Townsend understood the need to root the identification and measurement of poverty within a living standards framework that contextualises and captures the living conditions associated with poverty. He saw poverty as resulting in deprivation where:

> 'Deprivation may be defined *as a state of observable and demonstrable disadvantage relative to the local community or the wider society or nation to which an individual, family or group belongs*. The idea has come to be applied to conditions (that is, physical, emotional or social states or circumstances) rather than resources and to specific and not only general circumstances' (Townsend, 1987: 125, italics added)

In practical terms, deprivation exists when people are unable to afford items regarded by a majority in the population as necessary (or essential, we use the terms interchangeably). It is identified using the consensual approach (see Gordon, 2006; Nandy and Main, 2015; Saunders and Naidoo, 2019, Figure 9.1), with further tests (described by Gordon, 2017; Guio et al., 2016) conducted to ensure that the identified items satisfy tests of reliability and validity that are relevant when constructing a multi-dimensional poverty index.

A key feature of the consensual approach is that the items used to identify deprivation are selected not by 'expert' researchers but by members of the public (whose views are solicited through social surveys). By focusing on whether people can afford these items, the approach recognises that factors other than income, including wealth, indebtedness or the existence of special needs, can affect the affordability of essential items. These factors make the consensual approach more democratic and hence gives it greater credibility than the monetary approach. Many researchers now complement poverty rates with deprivation estimates and define the overlap between them as capturing 'core' or 'consistent' poverty (see Guio et al., 2016; Nolan and Whelan, 1996; Saunders and Naidoo, 2009, 2020).[2]

The growing popularity of the deprivation approach has not led to the abandonment of poverty line studies, nor should it. Some of its features are also open to criticism. For example, the use of a threshold number of items to calculate the incidence of deprivation can be as arbitrary as setting a poverty line.[3] Estimated deprivation rates (however measured) also depend on data collected in surveys that may suffer from low response rates, be subject to sample bias and ask questions about social norms or general needs that respondents may find difficult to answer (Gutfleisch and Andreβ, 2020). Designing such surveys is a complex exercise and the responses must be analysed and findings interpreted, which requires input from experts. There are other grounds for not abandoning the monetary approach altogether. Its income metric aligns with most countries' social security systems that mainly provide support in the form of income. Money matters, and its use speaks a language that is widely understood, whereas the concept of deprivation is more difficult to comprehend and harder to disseminate.

Both approaches have merits and limitations, and each has a role to play in better understanding the nature of social disadvantage.

Data sources and methods

Poverty

In this study, poverty has been estimated using microdata from the ABS *Survey of Income and Housing* (SIH) conducted in 2005–2006, 2009–2010 and 2017–2018 (see ABS, 2020). The SIH data have been used in most Australian poverty studies, including in the reports on poverty (and inequality) produced by a Partnership between UNSW and ACOSS [the Australian Council of Social Service] (see, e.g. Davidson et al., 2020a, 2020b), whose approach we follow.[4] This approach to estimation includes removing from the sample all households containing individuals who are self-employed or who report zero or negative income, because of concerns that the income data is not appropriate for assessing their poverty status.[5] The impact of changes made by the ABS to the income measure (described in ABS, 2009; Wilkins, 2014) has been avoided by using the same income measure (that applying in 2005–2006) in all years.[6]

Poverty rates have been derived before and after deducting housing costs from weekly disposable income (before housing costs (BHC) and after housing costs (AHC)), where housing costs include recurrent outlays on mortgage repayments (both interest and principal components, including those for dwelling alterations or additions) and general and water rates for owners, and rent payments for renters.[7] The sensitivity of the estimates is assessed using poverty lines set at 50% and 60% of EDY, measured on a BHC or AHC basis. Benchmarking the poverty line to EDY is common when measuring poverty, although one limitation in the current context is that if income benefits trickle down gradually, they will affect the median before reaching the incomes of those at the bottom. This may lead to an initial rise in measured poverty that will only be reversed with a lag when any trickle-down effects arrive at the bottom and should be kept in mind.

Because our poverty measures are tied to median income, they are consistent with a relative conception of poverty. They have been supplemented by 'absolute' (more accurately, anchored) measures, derived by holding the poverty line constant at its real dollar value in the base year (2005–2006).[8] The estimates are person-weighted and thus measure the percentage of individuals living in households with EDY below the poverty line (see Atkinson, 1995: Chapters 3 and 4). We also present estimates of the mean EDY of households below the poverty line because this provides an insight into the impact of trickle-down effects on those at the bottom.

Deprivation

Deprivation has been estimated using data collected in surveys conducted in 2006, 2010 and 2017 that are similar to the *Breadline Britain* surveys described by Gordon and Pantazis (1997), Pantazis et al. (2006) and Dermott and Main (2018). The 2006 and 2010 surveys were distributed by mail to random samples of 6000 Australians drawn from the federal electoral rolls in each year, both achieving a response rate around 47%. This recruitment method was not available in 2017, so the survey was sent to all those who had returned the 2010 survey. This produced a lower response rate (around 32% after allowing for changes of address) and meant that respondents to the 2017 survey were all at least 25 years of age (7 years above the eligibility voting age of 18 that defined the

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2010 sample). Others who would have been well into their 70s and 80s were not followed up in 2017 to avoid placing undue pressure on older participants.[9] These factors restricted the age range of the 2017 sample to 25–74 years, and to maintain comparability the two earlier samples (and the SIH samples in all 3 years) were similarly truncated.[10]

Deprivation was measured in four stages. First, items that satisfied the consensual criterion, that is, received majority support for being 'essential for all Australians' were identified. Second, those who did not have and could not afford each of these items were identified. Third, reliability and validity tests were applied to ensure that the items produced an index that captures poverty.[11] Finally, deprivation measures were derived for this sub-group. Five measures of deprivation (DEP) have been used: the percentages experiencing no deprivation (DEP = 0); those deprived of at least three (DEP ⩾ 3) and at least five (DEP ⩾ 5) essential items (the rationale for choosing these thresholds is explained later); and two versions of the mean deprivation score (MDS) – the first applying to the full sample in each year and the second only to those who satisfied the (DEP ⩾ 5) criterion, reflecting the most severely deprived group (the counterpart to the mean EDY of households below the poverty line).[12]

The deprivation measures embody the community views that prevailed when each survey was conducted. These views will change over time as society evolves and behavioural norms and attitudes adjust, making the measures based on them consistent with a relative conception.[13] It is possible (following Mack, 2018) to produce a measure of 'absolute' (or anchored) derivation by using the same set of items to estimate deprivation in each year. This approach has the apparent advantage of applying a consistent measure across the years but would be inconsistent with the consensus approach, since it will include some items that do not satisfy the consensual criterion. For example, if the items identified as essential in 2006 were used in all 3 years, a landline telephone would be included as essential in 2017 when it did not satisfy the consensual criterion in that year. Similarly, if the items identified as essential in 2017 were used in all 3 years, a mobile phone would be included in 2006 when it did not satisfy the consensual criterion.

In practice, because community perceptions of which items are essential change slowly, using the same (anchored) items in each year over a period of around a decade will produce very similar estimates to those produced using the conventional (relative) approach. This is borne out by our results and those for the UK that show little change over a decade (see Mack, 2018, Tables 1.1 and 1.2). In the Australian case, the items identified as essential were identical in 2006 and 2010 and changed only slightly between 2010 and 2017 (and the number of items changed even less: see the Appendix). For this reason, results based on anchored deprivation are not presented, although they are available on request from the authors.

Results

Aggregate results

Movements in key background variables are shown in the upper panel of Table 1, followed by the poverty measures. Using the most common measure (based on a poverty line set at 50% of median BHC EDY) poverty declined over the period by one-sixth

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Table 1. Changes in relative and anchored poverty measures, 2005–2006 to 2017–2018.

	2005–2006	2009–2010	2017–2018	Change, 2005–2006 to 2017–2018
Economic trends				
Median EDY (BHC)	557.8	695.8	876.3	57.1%
Median EDY (AHC)	445.1	562.1	698.3	56.9%
Consumer price index (CPI)	84.4	94.8	112.3	33.1%
CPI excluding housing	87.0	95.6	110.0	26.4%
Relative poverty rate BHC				
Poverty line at 50% of median EDY	9.6 (8.9–10.3)	9.1 (8.6–9.6)	8.0 (7.5–8.5)	−1.6
Poverty line at 60% of median EDY	17.1 (16.2–17.9)	16.8 (16.1–17.4)	15.7 (15.0–16.4)	−1.4
Relative poverty rate AHC				
Poverty line at 50% of median (EDY-HC)	12.3 (11.6–13.1)	12.5 (11.9–13.1)	12.9 (12.2–13.5)	+0.6
Poverty line at 60% of median (EDY-HC)	19.0 (18.0–19.9)	19.1 (18.5–19.8)	19.1 (18.3–19.8)	+0.1
Anchored poverty rate BHC				
Poverty line at 50% of median EDY	9.6 (8.9–10.3)	5.5 (5.1–5.9)	5.1 (4.6–5.5)	−4.5
Poverty line at 60% of median EDY	17.1 (16.2–17.9)	12.2 (11.6–12.8)	8.5 (7.9–9.0)	−8.6
Anchored poverty rate AHC				
Poverty line at 50% of median (EDY-HC)	12.3 (11.6–13.1)	9.0 (8.5–9.5)	8.4 (7.9–9.0)	−3.9
Poverty line at 60% of median (EDY-HC)	19.0 (18.0–19.9)	13.7 (13.1–14.3)	12.0 (11.4–12.6)	−7.0
Mean EDY of households below the poverty line ($2005–2006)				
Relative (50%) poverty line, BHC	219.7	240.3	229.5	+4.5%
Relative (50%) poverty line, AHC	134.4	147.4	151.4	+12.7%
Anchored (50%) poverty line, BHC	219.7	204.1	187.7	−14.6%
Anchored (50%) poverty line, AHC	134.4	109.9	95.6	−28.9%

Source: See main text.

EDY: equivalised household disposable income; BHC: before housing costs; AHC: after housing costs.

Poverty rates reflect the percentage of individuals in households with EDY below the relevant poverty line. The sample is restricted to households where the Reference Person is aged 25–74 and excludes the self-employed and those reporting zero or negative income. Figures in brackets show the 95% confidence intervals for the estimated poverty rates.

(16.7%) from 9.6% to 8.0%.[14] Poverty rates are considerably higher when the poverty line is raised from 50% to 60% of median EDY, but the decline over the period is smaller. In both instances, the change in poverty between 2005–2006 and 2009–2010 is not significant, although that between 2009–2010 and 2017–2018 (and over the period as a whole) is significant. The fact that most of the fall in poverty occurred after 2009–2010, reflects the rapid economic recovery from the GFC, and (mainly for older people) the substantial increase in the single rate of pension in September 2009.[15]

The picture changes markedly when housing costs are taken into account. AHC poverty rates are higher than the BHC rates (particularly when measured using the 50% poverty line) and the decline in AHC poverty is close to zero (as noted previously by Bradbury and Saunders, 2021, who also discuss the impact of different contributing factors) and is not statistically significant. The picture also changes markedly when 'absolute' poverty is estimated using anchored poverty lines, as shown in the next two panels of Table 1. Poverty rates are now lower (because real incomes grew throughout the period, so the anchored poverty lines are below the relative lines except in the initial year), but the decline in poverty is greater, both BHC and AHC, with most of the fall occurring before 2009–2010. The overall picture is consistent with the modest declines in relative poverty being a consequence of the poverty lines being driven upwards by the rise in real median income.[16] However, this is to be expected when adopting a relative perspective since increased economic affluence should affect the measures used to assess social progress.

Three components of poverty measurement are changing across the different panels of Table 1: where the poverty line is set, how it is adjusted over time, and whether or not the income measure deducts housing costs. Raising the poverty line from 50% to 60% of the median has a big impact on poverty because many Australian social benefits fall in this range and the targeted nature of the social security system means that incomes are bunched together there. What is less understood is the relative size of the impact of the other two factors: whether account is taken of housing costs and whether poverty is seen as relative or absolute. Table 1 indicates that by the end of the period the choice between BHC and AHC income has a bigger effect than the switch from a relative to an anchored poverty line. In 2017–2018, for example, the BHC poverty rate at 50% of the median of 8.0% drops by around 3 percentage points to 5.1% when the anchored measure is used but increases by almost 5 percentage points to 12.9% when housing costs are allowed for. This compares with 2009–2010 when the size of these two effects was similar at around 3.5 percentage points in both cases.

By the end of the period, the impact of housing costs is such that it should not be ignored when measuring poverty. Table 1 highlights this important finding, but there are so many 'moving parts' in the poverty analysis that it is difficult to discern the overall picture, or identify which factors are driving change – except to note that poverty rates are sensitive to the specifics of how they are measured, particularly in a period of rapid income growth and volatile house prices. Despite this, the bottom line is that for many Australians, the rise in income experienced over the period was barely enough to offset rising housing costs. Another key finding is that whether the fall in poverty was concentrated in the pre- or post-2009–2010 period depends on whether the relative or absolute measure is used.

Table 2. Changes in relative deprivation measures, 2006–2017.

	2006	2010	2017	Change, 2006–2017
No deprivations (DEP = 0)	61.7 (59.6–63.7)	63.8 (61.7–65.9)	70.2 (66.8–73.6)	+8.5
DEP ⩾ 3	18.6 (17.0–20.2)	17.0 (15.3–18.7)	13.5 (10.9–16.0)	−5.1
DEP ⩾ 5	10.9 (9.6–12.2)	10.5 (9.1–11.8)	7.4 (5.5–9.3)	−3.5
MDS – full sample	1.34 (1.24–1.45)	1.28 (1.17–1.39)	1.01 (0.83–1.19)	−24.6%
MDS – for those where DEP ⩾ 5	12.29	12.19	13.65	+11.1%

Source: See main text.
MDS: mean deprivation score.
The deprivation rates in rows 1–3 for each year are percentages, the MDS is a simple sum-score (unweighted) index. Details of the construction of each measure are described in the main text. The sample is restricted to those aged 25–74 and excludes the self-employed and those reporting zero or negative income. Figures in brackets show the 95% confidence intervals for the estimated deprivation measures.

The bottom four rows of Table 1 show the mean EDY of households below the poverty line in each year, expressed in constant (2005–2006) dollars.[17] To keep the discussion manageable, we only present estimates for the 50% of the median relative and anchored poverty lines, measured BHC and AHC. The choice of poverty line now makes a big difference to estimated poverty rates in each year (except in the base year when they are equal by definition) and to how poverty has changed. Except in the base year, the downwards shift in the poverty line when moving from the relative to anchored measure removes from poverty those with highest EDYs and thus reduces the mean EDYs of those that remain poor. The mean EDY gain amongst poor households is only just positive (4.5%) on a BHC basis and is negative on both BHC and AHC anchored measures. These negative EDY changes suggest that the living standards of many households in both relative and absolute poverty fell over the period, challenging the claim that all the poor have shared in the benefits of recent economic growth.

Changes in aggregate deprivation over the period using the five measures described earlier are shown in Table 2. Details of the items that satisfied the consensual criterion in each year are provided in the Appendix.[18] Although the focus here is on summary measures, it is notable that the list of items shown in the Appendix covers a variety of specific needs – accommodation-related, security-related, service accessibility-related and some related specifically to the needs of children.[19] The estimated deprivation rate in the base year (2006) using the DEP ⩾ 5 measure (10.9%) is slightly above the 9.6% BHC poverty rate using the 50% of median BHC income poverty line, while the DEP ⩾ 3 deprivation rate of 18.6% is close but again higher than the poverty rate of 17.1% derived from the 60% of median income poverty line. These similarities explain the choice of thresholds of 3 and 5 essential items and the focus on the DEP ⩾ 5 measure when discussing changes for those most disadvantaged.

There is clear evidence that deprivation declined over the period. The first four measures show this, with the prevalence of no deprivation rising by over 8 percentage points, mean deprivation declining by one-quarter and the incidence of deprivation declining by

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between 3.5 and 5.1 percentage points, depending on the choice of threshold. There is also a clearer picture of change over time here, with all measures showing a larger (and more often statistically significant) change in the latter (post-2010) period than before 2010. This finding is consistent with deprived households using the 2009 payments introduced in October 2008 and February 2009 to offset the impact of the GFC and the one-off increase in the pension, in order to acquire (after a lag) necessary items that were previously unaffordable. The substantial decline in the MDS is indicative of a marked reduction in the overall severity of deprivation. Nevertheless, this reduction does not extend to those most severely deprived (on the DEP $\geqslant$ 5 measure), who experienced an increase in the mean level of deprivation over the period. This outcome, again, appears to contradict what would be expected if trickle-down effects had been operating.

Disaggregated results by labour force status. We now examine how poverty and deprivation have changed for groups differentiated by their labour force status (LFS).[20] The LFS variable refers to the status of the Household Reference Person (HRP) in the SIH data and to the individual who completed the deprivation survey.[21] Because of the large volume of results, we only present those based on a limited range of measures: the BHC and AHC poverty rates based on the 50% of median income poverty line, and the DEP $\geqslant$ 5 and MDS deprivation measures.[22] We present both relative and anchored poverty rates but only the relative deprivation rates (because the anchored deprivation rates are again very similar).

The LFS categories and associated poverty rates are shown in Table 3. They highlight the important role played by employment (and the income it generates) in protecting people from poverty. In 2017–2018, the BHC relative poverty rate for those in full-time employment was below 2% and although almost 7% for those working part-time, was still below the aggregate poverty rate of 8.0% shown in Table 1. The poverty rate was a staggering 58.7% for those households where the HRP was unemployed. The corresponding AHC poverty rates are all higher at 6.1%, 13.3% and 67.7%, respectively, although the poverty rate differentials are narrower. The BHC poverty rate for those unemployed is almost 31 times higher than that for those in full-time work, while the corresponding AHC poverty rate differential is close to 11.

The retired faced considerably lower poverty (BHC and AHC) than those unemployed in all 3 years, mainly because the Age Pension was indexed to average earnings throughout the period, while Newstart Allowance (now JobSeeker payment) was indexed to the CPI. The poverty rates of all groups are again higher once account is taken of housing costs, although the size of the difference varies considerably, ranging in 2017–2018 from 0.3 percentage points for the retired to 9.0 percentage points for the unemployed. Taking account of housing costs has a bigger impact on relative poverty than the move from a relative to an anchored poverty measure for those in employment, but the opposite is the case for those who are unemployed or retired. The relative measures show an increase in poverty over the period for those employed full-time and unemployed but a decrease for those employed part-time and retired. The marked reduction in poverty among retirees, compared with those who were unemployed, was driven by the different benefit indexation arrangements applying in each case, reinforced by the 2009 pension increase. For all groups, anchored poverty rates fell over the period, whether measured BHC or AHC.

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Table 3. Relative and anchored poverty rates by LFS, 2005–2006 to 2017–2018.

LFS	Poverty measure	2005–2006	2009–2010	2017–2018	Change 2005–2006 to 2017–2018
Employed full-time	REL, BHC	1.1	1.0	1.9	+0.8
	REL, AHC	4.5	4.6	6.1	+1.6
	ANC, BHC	1.1	0.7	1.0	−0.1
	ANC, AHC	4.5	3.3	3.6	−0.9
Employed part-time	REL, BHC	6.9	8.6	6.7	−0.2
	REL, AHC	14.6	15.5	13.3	−1.3
	ANC, BHC	6.9	5.7	4.4	−1.5
	ANC, AHC	14.6	12.1	8.2	−6.4
Unemployed	REL, BHC	50.3	51.2	58.7	+8.4
	REL, AHC	65.6	64.8	67.7	+2.1
	ANC, BHC	50.3	38.5	40.5	−9.8
	ANC, AHC	65.6	51.8	55.9	−9.7
Retired	REL, BHC	25.5	21.6	14.8	−10.7
	REL, AHC	16.1	14.7	15.1	−1.0
	ANC, BHC	25.5	8.9	8.2	−17.3
	ANC, AHC	16.1	9.3	10.2	−5.9

Source: See main text.
LFS: labour force status; REL: relative poverty rate; ANC: anchored poverty rate; BHC: before housing costs; AHC: after housing costs.
Poverty rates reflect the percentage of individuals in households with EDY below the relevant poverty line. The sample is restricted to households where the Reference Person is aged 25–74 and excludes the self-employed and those reporting zero or negative income.

The disaggregate deprivation measures in Table 4 reveal many similarities to the poverty rates in Table 3. The DEP $\geqslant$ 5 incidence measures for those in full-time work, unemployed and retired are 7.6%, 32.8% and 3.3% in 2017, while the corresponding MDS measures are 0.91, 2.85 and 0.49, respectively. The deprivation differential between those employed full-time and those unemployed is lower than for poverty, mainly because of the truncated scale used to measure deprivation. The DEP $\geqslant$ 5 measure captures those experiencing a severe level of deprivation and provides further evidence of the dire circumstances of the unemployed, including that they became more deprived after 2010. In contrast, retiree deprivation fell consistently over the period and was lower than pensioner poverty in each year, confirming previous studies for Australia (Saunders and Wong, 2011) and the UK (Patsios, 2018; Patsios et al., 2018).

Results for only a limited range of deprivation measure are provided in Table 4 because of small sample size, particularly in 2017. Even so, the findings indicate that greater progress was made reducing deprivation over the period than was the case for poverty, with both deprivation measures declining across all four LFS groups between 2006 and 2017. However, bearing in mind that the DEP $\geqslant$ 5 threshold deprivation measure counts as deprived those who are forced to go without at least 5 of the 22 items identified as essential 'for all Australians', the fact that almost one-third of unemployed Australians were deprived on this measure in 2017 is a clear sign of policy failure. Despite this, and in the

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Table 4. Relative deprivation by LFS, 2006–2017.

LFS	Deprivation measure	2006	2010	2017	Change 2006–2017
Employed full-time	REL, DEP5	7.7	7.4	7.6	−0.1
	REL, MDS	1.06	0.99	0.91	−0.15
Employed part-time	REL, DEP5	11.0	9.4	2.0	−9.0
	REL, MDS	1.33	1.22	0.69	−0.64
Unemployed	REL, DEP5	38.6	27.4	32.8	−5.8
	REL, MDS	3.66	3.14	2.85	−0.81
Retired	REL, DEP5	6.3	5.5	3.3	−3.0
	REL, MDS	0.88	0.70	0.49	−0.39

LFS: labour force status; REL: relative poverty rate; DEP5: deprivation 5; MDS: mean deprivation score.

face of a growing chorus of calls to increase the level of Newstart Allowance/JobSeeker Payment, resistance from successive governments (of both political persuasion) has remained firm and the prospects for unemployed Australians remain bleak.

Discussion and implications

This paper has extended Australian poverty research in two main directions. First, it systematically compares results generated by two approaches, a monetary approach using poverty lines and a living standards approach using deprivation. Both concepts have a role to play in mapping the contours of social disadvantage, poverty because its focus on income taps into a major determinant of people's ability to meet their basic needs, and deprivation because it provides more compelling evidence that living conditions are unacceptable. Secondly, the paper examines what the changes indicated by each approach imply about the existence and impact of trickle-down effects. The first part of the paper shows how recent developments in poverty measurement can enrich our understanding of poverty and expand our ability to address it. The second part considers whether trickle-down effects can provide the sustainable improvements that are needed to tackle poverty effectively over the longer-term and achieve the SDG poverty reduction targets that Australia is committed to meeting by the end of the current decade.

ABS and other survey data have been used to estimate the incidence and severity of poverty and deprivation in 3 years between 2006 and 2018, in aggregate and for groups differentiated by their LFS. The findings indicate that with few exceptions, poverty and deprivation both declined. Using the most common poverty measure (based on a poverty line set at 50% of median income), the poverty rate declined significantly from 9.6% in 2005–2006 to 8.0% in 2017–18. However, if account is taken of housing costs, the poverty rate rose slightly (but not significantly) from 12.3% to 12.9%. These figures highlight the growing impact of housing costs on poverty, the difference between the BHC and AHC measures increasing from below 3 to almost 5 percentage points over the period. Despite this overall improvement, the BHC and AHC poverty rates of those unemployed in 2017–2018 were close to 60% and approaching 70%, respectively – in both cases above their levels in 2005–2006.

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The deprivation results tell a broadly similar story, although the overall decline is more pervasive, robust to changes in measurement and (unlike poverty) clearly concentrated after 2010. If the argument that deprivation results are more credible has any validity, the picture of improvement shown by this approach is compelling evidence that social disadvantage declined over the period. However, despite this improvement, the mean level of deprivation among those deprived of at least five essential items increased over the period, leaving around one-in-fourteen (7.4%) still facing severe deprivation by the end of the period. The unemployed again fared worse than other groups, at a point in time and over time.

The results provide concrete evidence that both approaches to measurement, taken together, are an improvement over each viewed in isolation. The poverty estimates highlight the role played by income support provisions and housing policies, while the deprivation findings provide a more nuanced picture that captures the impact of gaps in housing quality and access to key services including insurance protection, schooling and health care, as well as areas specifically affecting children. Economic growth alone will not address these failings, only well designed, effectively targeted and efficiently delivered social policies.

We address the second aim of the paper by exploring what our findings imply about the nature and impact of trickle-down (and rising-tide) effects. We have not applied a formal test of these effects, and doubt whether any such test is possible in a single paper. But first, a few words of caution are in order. Chief among these is the fact that our measures are based on comparisons derived from three cross-sectional surveys, not on panel data that follow the same individuals over time. This makes it difficult to separately identify and quantify the many changes that take place when making such comparisons. The approach is also only capable of capturing those effects that are reflected in the measures employed, that is, those that generate increases in income, reductions in housing costs or in the affordability of essential items. Proponents of trickle-down theory would argue that the effects are broader and include, for example, increased employment opportunities and greater work-focused motivation among the unemployed. Identifying such effects is difficult and attributing them to specific policies even harder. Even so, to the extent that these effects exist they will be present in our data and thus captured in our findings, despite the problem of identification and attribution. We acknowledge these complexities and accept that they will affect the veracity for some of our conclusions. However, as long as trickle-down effects leave some people unemployed, there will be a role for housing and social security policies that are instrumental to redressing poverty, and these clearly have important effects on poverty.

The period studied has seen a decline in poverty on some measures, approximate stability on others and an overall and robust reduction in deprivation. Whether these improvements justify claims about the success of trickle-down policies will reflect personal assessments of the measures employed, the evidence presented and judgements about the desirability of the effects identified. The implied finding that many of the most disadvantaged Australians *have not benefited at all* from the policies in place over the period contradicts the view that trickle-down effects are universal – at least over the time period examined here. Our results imply that some households below the poverty line experienced a decline in real income over the period while the incidence of severe

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deprivation increased. This is definitive proof that not *everyone* benefited from trickle-down effects and not *all* boats rose with the tide. It seems clear that policies that direct additional support to those in greatest need are also needed to tackle poverty and deprivation within an acceptable timeframe.

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Notes

1. The modified OECD equivalence scale assigns a weight of 1.0 to the first adult in the household, 0.5 to each other adult and 0.3 to each child (defined as those aged under 15 years).
2. The poverty measurement guide recently produced by the United Nations Economic Commission for Europe (UNECE, 2017) includes a range of deprivation measures based on this approach and has been endorsed by the Conference of European Statisticians (see https://www.unece.org/stats/ces.html).
3. Townsend addressed this issue by identifying the income level at which deprivation rises rapidly as an 'objective' poverty line. Subsequent work by Gordon (2006, 2017, 2018) for the UK and Lau et al. (2017) for Hong Kong have developed a more sophisticated version of this approach.
4. The other main data source used to examine poverty and inequality in Australia (including by Azpitarte, 2014; Azpitarte and Kalb, 2019; Martinez and Perales, 2017; Wilkins, 2021) is the HILDA survey. HILDA is a panel survey and can be used to examine the dynamics of income and poverty, although it is subject to sample attrition and has a smaller sample size than the SIH. Details of the methodology we use are provided in Bradbury et al. (2018).
5. Income from self-employment is problematic when used to measure poverty because of the difficulty of distinguishing between business and private income (see Horemans and Marx, 2017), while reporting errors may be a problem for those who report zero or negative income.
6. It should be noted that our poverty (and deprivation) comparisons are based on data from three cross-section surveys and (unlike panel surveys) are not based on changes for the same individuals over time.
7. The impact of housing costs on poverty has long been a feature of Australian poverty research (Bradbury et al., 1986; Commission of Inquiry into Poverty in Australia, 1975; King, 1998) and has attracted attention recently by Bradbury and Saunders (2021), whose approach we follow.
8. The choice of anchor year will affect the estimated 'absolute' poverty rates, although similar results to those reported are produced if the anchor year is set at 2017–2018.

9. The main bias in the two earlier samples was age-related, with a considerable over-representation of people aged 60 and over, so restricting the sample in this way will reduce this bias.
10. The age restriction applies to the respondent in the deprivation surveys and to the HRP in the SIH in each year. The restriction resulted in a reduction in sample size of 14.1% in the 2017–2018 SIH and somewhat more in the earlier years.
11. Further details of these tests are provided in Saunders et al. (2022a). The Appendix provides details of which items failed to satisfy the reliability and validity tests in each year and were removed in those years.
12. All measures have been weighted by age and gender, but weights have not been applied to the items themselves (for a discussion of this issue, see Saunders et al., 2022a).
13. It is highly likely that community attitudes will change less frequently than median income so that measured deprivation will be less volatile than measured poverty in the short-run. This will avoid the short-run impact of economic growth on median income that can create problems (noted earlier) when identifying trickle-down effects on poverty.
14. If the age restriction was not applied to the SIH sample, the BHC poverty rates would be slightly higher than those shown in Table 1 (8.4% rather than 8.0% in 2017–2018, for example) but the patterns and trends are similar.
15. The 2017–2018 poverty rates in Table 1 are consistent with those reported by Bradbury and Saunders (2021, Table 1) and identical if the age restriction is not applied. The estimates for other years are similar to those reported by Azpitarte and Kalb (2019, Figure 8.6) using HILDA data.
16. This feature of relative poverty lines can produce paradoxical results when incomes are falling, as noted by Jenkins (2016, Figure 7.7), who finds that relative poverty (using a 60% threshold) declined in the UK during the recession that followed the financial crisis because median income (and hence the poverty line) fell.
17. For a given distribution, the average income of those below a poverty line will vary when the poverty line is changed because of the nature of the income distribution. This will also occur to an extent when comparing across distributions, although it is common to employ this kind of measure to capture the depth (or severity) of low income or poverty (see ABS, 2019, 2020, Table 1.1). Our approach is consistent with the methodology used to measure change over time.
18. Many more items included in the surveys in each year failed to reach the threshold level of majority support and are not discussed further.
19. The number of items used to estimate deprivation is very similar in all 3 years (23 in 2006 and 2010 and 22 in 2017), so that applying the same threshold in each year will not distort the comparisons.
20. The aggregate results presented so far can be disaggregated in many different ways to highlight the circumstances of specific groups. Our focus on the role of LFS highlights the situation of the most vulnerable group in this classification, the unemployed. In a companion paper (Saunders et al., 2022b) we compare poverty and deprivation rates of social groups differentiated by family type and housing tenure. Two of the most vulnerable groups in these classifications are sole parents and public housing tenants, respectively, although neither appears as badly off as the unemployed. For example, Table 3 indicates that the 50% and 60% poverty rates of the unemployed in 2017–2018 are 58.7% and 67.7%, respectively, while Table 4 shows their (DEP5) deprivation rate to be 32.8%. The corresponding estimates from our companion paper are 20.5%, 30.7% and 17.5% (sole parents), and 43.1%, 54.6% and 30.1% (public housing tenants) (see Saunders et al., 2022b, Tables 1 and 2). So even amongst these three groups of highly vulnerable Australians, those who are unemployed stand out as worse-off overall.

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21. Many households contain adults with differing LFS, so that presenting household poverty and deprivation rates classified by the LFS of any single household member can be misleading. In 2017–2018 for example, the SIH sample contains around 660,000 individuals whose LFS is unemployed, but less than one-quarter of them (157,000) were identified as the HRP in their household. In combination with the fact that household income may be from sources other than Newstart Allowance, it is also problematic to draw conclusions about the adequacy of Newstart from the poverty (or deprivation) rates of households classified as unemployed.
22. Small sample size also limits the scope and value of our disaggregated analysis.

References

Atkinson AB (1995) *Incomes and the Welfare State. Essays on Britain and Europe*. Cambridge: Cambridge University Press.

Atkinson AB, Guio A-C and Marlier E (2017) Monitoring the evolution of income poverty and real incomes over time. In: Atkinson AB, Guio A-C and Marlier E (eds) *Monitoring Social Inclusion in Europe. 2017 Edition*. Luxembourg: Publications Office of the European Union, pp. 65–87.

Australian Bureau of Statistics (ABS) (2009) *Household Income and Income Distribution, Australia*, 2007-08. Catalogue No. 6523.0. Canberra, ACT: ABS.

Australian Bureau of Statistics (ABS) (2019) Household Income and Wealth. Australia, data download from *65230DO001_2017-18 Household Income and Wealth, Australia: Summary of Results, 2017–18*. Canberra, ACT: ABS.

Australian Bureau of Statistics (ABS) (2020) *Household Income and Income Distribution, Australia, 2017-18*, Catalogue No. 6523.0. Canberra, ACT: ABS.

Azpitarte F (2014) Was pro-poor economic growth in Australia for the income-poor? And for the multidimensionally-poor? *Social Indicators Research* 117(3): 871–905.

Azpitarte F and Kalb G (2019) Measuring income poverty in Australia: A review of methods and recent trends. In: Saunders P (ed.) *Revisiting Henderson: Poverty, Social Security and Basic Income*. Melbourne, VIC: Melbourne University Press, pp. 163–187.

Bradbury B, Rossiter C and Vipond J (1986) *Poverty, before and after paying for housing*. Reports and Proceedings No. 56. Sydney, NSW: Social Welfare Research Centre, University of New South Wales.

Bradbury B and Saunders P (2021) Housing costs and poverty: Analysing recent Australian trends. *Journal of Housing and the Built Environment*. Epub ahead of print 15 September 2021. DOI: 10.1007/s10901-021-09899-w.

Bradbury B, Saunders P and Wong M (2018) ACOSS/UNSW SYDNEY, *Poverty in Australia 2018, Research Methodology*. Available at: https://www.acoss.org.au/wp-content/uploads/2018/10/Methodology-Paper_Poverty-in-Australia-2018.pdf (accessed 11 June 2022).

Commission of Inquiry into Poverty in Australia (1975) *First Main Report. Poverty in Australia*, Canberra, ACT: Australian Government Publishing Service.

Corak M (2006) Principles and practicalities for measuring child poverty. *International Social Security Review* 59(2): 3–35.

Danziger S and Gottschalk P (1986) Do rising tides lift all boats? The impact of secular and cyclical changes on poverty. *American Economic Review* 76(2): 405–410.

Davidson P, Bradbury B, Wong M, et al. (2020a) *Inequality in Australia, Part 1: Overview*. Sydney, NSW: Australian Council of Social Service and UNSW.

Davidson P, Saunders P, Bradbury M, et al. (2020b) *Poverty in Australia 2020, part 1, overview*, ACOSS/UNSW Poverty and Inequality Partnership report no. 3. Sydney, NSW: ACOSS.

Dermott E and Main G (eds) (2018) *Poverty and Social Exclusion in the UK. Volume 1. The Nature and Extent of the Problem*. Bristol: Policy Press.

European Commission (2018) *Living Conditions in Europe. 2018 Edition*. Luxembourg: Publications Office of the European Union.

Guio A-C, Marlier E, Gordon D, et al. (2016) Improving the measurement of material deprivation at the European level. *Journal of European Social Policy* 26(3): 219–233.

Gordon D (2006) The concept and measurement of poverty. In: Pantazis C, Gordon D and Levitas R (eds) *Poverty and Social Exclusion in Britain. The Millennium Survey*. Bristol: Policy Press, pp. 29–69.

Gordon D (2017) *PSE-UK 2012 Survey. Producing an 'Objective' Poverty Line in Eight Easy Steps, Poverty and Social Exclusion in the United Kingdom*. Bristol: Economic and Social Research Council.

Gordon D (2018) Measuring poverty in the UK. In: Dermott E and Main G (eds) *Poverty and Social Exclusion in the UK. Volume 1 – The Nature and Extent of the Problem*. Bristol: Policy Press, pp. 17–39.

Gordon D and Pantazis C (eds) (1997) *Breadline Britain in the 1990s*. Bristol: Policy Press.

Gutfleisch T and Andreβ H-J (2020) Perceptions of society's necessary standard of living: Are perceptions determined by what people have, or do they reflect a social consensus? *Social Indicators Research* 149(1): 467–502.

Horemans J and Marx I (2017) *Poverty and material deprivation among self-employed in Europe: An exploration of a relatively uncharted landscape*. Discussion paper no. 11007. Bonn: IZA Institute of Economics.

Jenkins SP (2016) The income distribution in the UK: A picture of advantage and disadvantage. In: Dean H and Platt L (eds) *Social Advantage and Disadvantage*. Oxford: Oxford University Press, pp. 135–160.

King A (1998) Income poverty since the early 1970s. In: Fincher R and Nieuwenhuysen J (eds) *Australian Poverty. Then and Now*. Melbourne, VIC: Melbourne University Press, pp. 71–102.

Kwon R and Salcido B (2019) Does a rising tide lift all boats? Liberalization and real incomes in advanced industrial societies. *Social Science Research* 79(1): 127–140.

Lau MKW, Pantazis C, Gordon D, et al. (2017) Poverty in Hong Kong. In: Lau MKW and Gordon D (eds) *Poverty in a Rich Society. The Case of Hong Kong*. Hong Kong: The Chinese University Press, pp. 21–55.

Mack J (2018) Fifty years of poverty in the UK. In: Bramley N and Bailey G (eds) *Poverty and Social Exclusion in the UK. Volume 2. The Dimensions of Disadvantage*. Bristol: Policy Press, pp. 27–56.

Mack J and Lansley S (1985) *Poor Britain*. London: George Allen and Unwin.

Martinez A and Perales F (2017) The dynamics of multidimensional poverty in contemporary Australia. *Social Indicators Research* 130(2): 479–496.

Nandy S and Main G (2015) The consensual approach to child poverty measurement. *CROP Poverty Brief*, November. Bergen: CROP, pp. 1–4.

Nolan B and Whelan CT (1996) *Resources, Deprivation and Poverty*. Oxford: Clarendon Press.

Nolan B and Whelan CT (2007) The multidimensionality of poverty and social exclusion. In: Jenkins SP and Micklewright J (eds), *Inequality and Poverty Re-examined*. Oxford: Oxford University Press, pp. 146–165.

Pantazis C, Gordon D and Levitas R (eds) (2006) *Poverty and Social Exclusion in Britain. The Millennium Survey*. Bristol: Policy Press

Patsios D (2018) Improvement for some: Poverty and social exclusion among older people and pensioners. In: Dermott E and Main G (eds) *Poverty and Social Exclusion in the UK. Volume 1 – The Nature and Extent of the Problem*. Bristol: Policy Press, pp. 61–93.

Patsios D, Pomati M and Hillyard P (2018) Living standards in the UK. In: Bramley N and Bailey G (eds) *Poverty and Social Exclusion in the UK. Volume 2. The Dimensions of Disadvantage*. Bristol: Policy Press, pp. 57–89.

Quiggin J (2010) *Zombie Economics: How Dead Ideas Still Walk Among Us. Revised Edition*. Princeton, NJ: Princeton University Press.

Ravallion M (2016) *The Economics of Poverty. History, Measurement and Policy*. New York, NY: Oxford University Press.

Ringen S (1988) Direct and indirect measures of poverty. *Journal of Social Policy* 17(2): 351–365.

Saunders P (2018) Monitoring and addressing global poverty: A new approach and implications for Australia. *The Economic and Labour Relations Review* 29(1): 9–23.

Saunders P and Matheson G (1991) An ever-rising tide? Poverty in Australia in the eighties. *Economic and Labour Relations Review* 2(2): 143–171.

Saunders P and Naidoo Y (2009) Poverty, deprivation and consistent poverty. *Economic Record* 85(271): 417–432.

Saunders P and Naidoo Y (2019) Poverty as relative deprivation: Application, analysis and implications for social security. In: Saunders P (ed.) *Revisiting Henderson: Poverty, Social Security and Basic Income*. Melbourne, VIC: Melbourne University Press, pp. 189–213.

Saunders P and Naidoo Y (2020) The overlap between income poverty and material deprivation: Sensitivity evidence for Australia. *Journal of Poverty and Social Justice* 28(2): 187–206.

Saunders P, Naidoo Y and Wong M (2022a) Comparing the monetary and living standards approaches to poverty using the Australian experience. *Social Indicators Research*. Epub ahead of print 7 February 2022. DOI: 10.1007/s11205-022-02888-8.

Saunders P, Naidoo Y and Wong M (2022b) The crumbling pillar: Assessing the impact of housing costs on recent trends in poverty and deprivation in Australia. *International Journal of Social Welfare*, forthcoming.

Saunders P and Wong M (2011) Pension adequacy and the pension review. *The Economic and Labour Relations Review* 22(3): 7–26.

Throsby D (2017) A rising tide raises all boats. In: Frey B and Iselin D (eds), *Economic Ideas You Should Forget*. Cham: Springer, pp. 149–150.

Townsend P (1979) *Poverty in the United Kingdom*. Harmondsworth: Penguin Books.

Townsend P (1987) Deprivation. *Journal of Social Policy* 16(2): 125–146.

Wilkins R (2014) Evaluating the evidence on income inequality in Australia in the 2000s. *Economic Record* 90(288): 63–89.

Wilkins R (2021) Household economic wellbeing. In: Wilkins R, Vera-Toscano E, Botha F, et al. (eds) *The Household, Income and Labour Dynamics in Australia Survey: Selected Findings From Waves 1 to 19*. Melbourne, VIC: Melbourne Institute: Applied Economic & Social Research, the University of Melbourne, pp. 22–52.

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Appendix. Items identified as essential in the deprivation analysis.

Items that satisfied the consensus test ($n = 27$)	Items that also satisfied tests of reliability and validity		
	2006 ($n = 23$)	2010 ($n = 23$)	2017 ($n = 22$)
A decent and secure home	√	√	√
A substantial meal at least once a day	√	√	X
Warm clothes and bedding, if it's cold	√	√	√
Heating in at least one room of the house	√	√	√
Furniture in reasonable condition	√	√	√
Comprehensive motor vehicle insurance	√	√	√
A telephone/landline	√	√	X
A mobile phone	X	X	√
Access to the internet at home	X	X	√
A washing machine	√	√	X
A television	X	X	√
Up to $500 in savings for an emergency	√	√	√
Up to $2000 in savings for an emergency	X	X	√
A separate bed for each child	√	√	X
Up to date schoolbooks and new school clothes for school-age children	√	√	√
Children can participate in school activities and outings	√	√	√
A hobby or leisure activity for children	√	√	√
Secure locks on doors and windows	√	√	√
A roof and gutters that do not leak	√	√	√
Home contents insurance	√	√	√
Medical treatment if needed	√	√	√
Able to buy medicines prescribed by a doctor	√	√	√
Dental treatment if needed	√	√	√
A yearly dental check-up for children	√	√	√
Regular social contact with other people	√	√	√
A week's holiday away from home each year	√	√	X
Presents for family or friends at least once a year	√	√	√

Source: See text.
A tick (√) indicates that the item satisfied both reliability and validity tests (in addition to the consensus test); a cross (X) indicates that either the reliability or validity test was not satisfied, so the item is not used to identify deprivation.

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