Social exclusion monitor bulletin

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Francisco Azpitarte

In this fourth bulletin we summarise the results of the social exclusion monitor, recently updated using 2011 data, and investigate the capacity of annual measures of social exclusion and income poverty to identify the people who are chronically poor.

Background

In 2008, the Brotherhood of St Laurence (BSL) in collaboration with the Melbourne Institute (MIAESR) commenced a research project to develop a method to measure the extent and evolution of social exclusion in Australia. In contrast to one-dimensional poverty measures such as those based on income or consumption, the social exclusion approach to disadvantage explicitly recognises the importance of multiple and interrelated factors in determining the capacity of individuals to fully participate in society.

The BSL–MIAESR measure of social exclusion draws on the capability framework proposed by Amartya Sen. Consistent with the capability approach, our measure identifies disadvantage with the accumulation of deprivation across different life domains. It uses information from seven life domains: material resources, employment, education and skills, health and disability, social connection, community and personal safety. For each domain, the individual's level of exclusion is captured using a set of relevant indicators (see Table 1).

Data on these indicators come from the national Household, Income and Labour Dynamics in Australia (HILDA) survey. Since 2001, the HILDA survey has annually collected detailed socioeconomic data for a nationally representative sample of the Australian population.

The data are transformed into a summary measure of exclusion using a summation method where every domain is assigned the same weight and all indicators within each domain are equally weighted. Thus, our measure of social exclusion is a weighted sum of the level of exclusion in each domain. An individual's possible social exclusion score lies between 0 and 7, where 7 indicates the highest level of social exclusion.

Table 1 BSL–MIAESR measure of social exclusion*

Domain	Indicators
Material resources	Low income Low net worth Low consumption Financial hardship Financial status
Employment	Jobless household Long-term unemployment Unemployment Underemployment Marginal attachment to workforce
Education and skills	Low education Low literacy Low numeracy Poor English Little work experience
Health and disability	Poor general health Poor physical health Poor mental health Long-term health condition or disability Household has disabled child
Social connection	Little social support Infrequent social activity
Community	Low neighbourhood quality Disconnection from community Low satisfaction with the neighbourhood Low membership of clubs and associations Low volunteer activity
Personal safety	Victim of violence Victim of property crime Feeling of being unsafe

*Note: From 2010 the material resources domain has included an indicator on household financial status. This ensures that there are at least two of the common indicators available every year in all the domains.

For further information about how we measure social exclusion, see Scutella, Wilkins and Horn (2009) and Scutella, Wilkins & Kostenko (2009).

Social exclusion in Australia: 2002–11

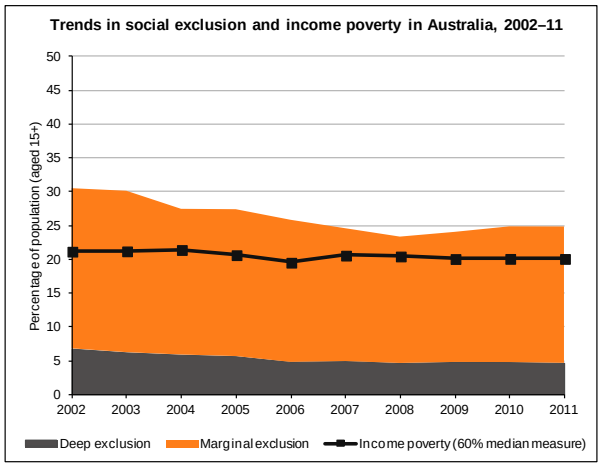
Prevalence

Our measure assumes that only individuals scoring above 1 experience some level of exclusion. Furthermore, people's overall experiences of social exclusion are classified into three categories: *marginal* (scores between 1 and 2), *deep* (scores above 2), and *very deep* (scores above 3).

According to the latest data, around one-quarter of Australians aged above 15 years experienced some level of exclusion in 2011. These comprised 20 per cent who were classified as marginally excluded and 5 per cent who were deeply excluded. Almost 1 per cent were very deeply excluded in 2011. In absolute terms, this means that more than 820,000 Australians experienced deep exclusion and around 130,000 people were very deeply excluded that year.

Figure 1 presents the trend in social exclusion over the period 2002–11. In particular, the graph shows the prevalence of marginal and deep exclusion, as well as the incidence of income poverty over that period.[1] There has not been a significant change in the incidence of income poverty, with the poverty rate remaining around 20 per cent for the whole period. By contrast, a steady decline in social exclusion occurred between 2002 and 2008 when marginal exclusion recorded its lowest level of the period. The prevalence of marginal exclusion started to grow from 2008 and it has remained above the 2008 level since then. In the period 2002–06, the rate of deep exclusion dropped from 7 to 5 per cent and it has remained fairly constant to 2011.

Figure 1 Social exclusion and income poverty in Australia, 2002 to 2011

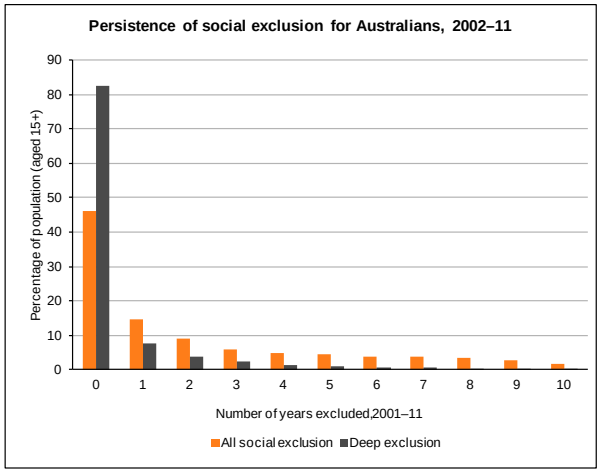


How persistent is social exclusion?

The HILDA survey interviews the same people each year. This enables examination of the extent to which social exclusion persists over time.

Figure 2 shows the distribution of people aged 15 years plus according to the number of years in which they experienced social exclusion between 2002 and 2011. About 54 per cent of the population were excluded and almost 18 per cent were deeply excluded in at least one year over the period 2002–11. Our analysis suggests that a significant proportion of the population experienced social exclusion over multiple years. Indeed, more than 24 per cent of individuals were excluded in four years or more between 2002 and 2011. In the case of deep exclusion, the figures indicate that 10 per cent of the population were deeply excluded in at least two years during the 2002–11 period.

Figure 2 Persistence of social exclusion for Australians, 2002 to 2011

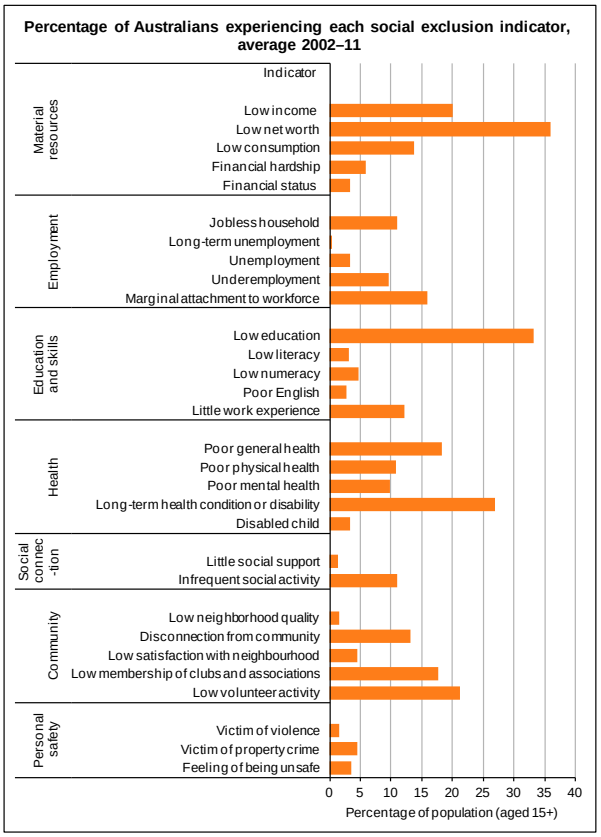


[1] Income poverty is here defined as having less than 60 per cent of the median income. For social exclusion, all trend graphs are derived from the common indicators that are measured in all the waves of HILDA data. Not all the indicators are collected each year.

Indicators of exclusion

In order to better understand exclusion in Australia it is important to identify the incidence of the different indicators of social exclusion. Figure 3 shows the percentage of the population (aged 15 years or over) who experienced each of the 30 indicators of social exclusion, averaged over the period from 2002 to 2011.

Figure 3 Percentage of people aged 15 years and over experiencing each social exclusion indicator, average 2002 to 2011



Note: Not all the indicators are collected by HILDA every year, so we have reported literacy and numeracy from 2007 data; low wealth (net worth) is the average of 2002, 2006 and 2010 data; low consumption is the average of 2006–11 data; financial hardship is based on data for 2002–09 and 2011; low neighbourhood quality is based on data for 2002–04, 2006, 2008 and 2010; data for victims of violence and property crime are the average of 2002–11 data.

The most prevalent indicators, experienced by at least 20 per cent of people, are:

- low wealth (net worth)
- low education
- long-term ill health or disability
- low volunteering activity
- low income.

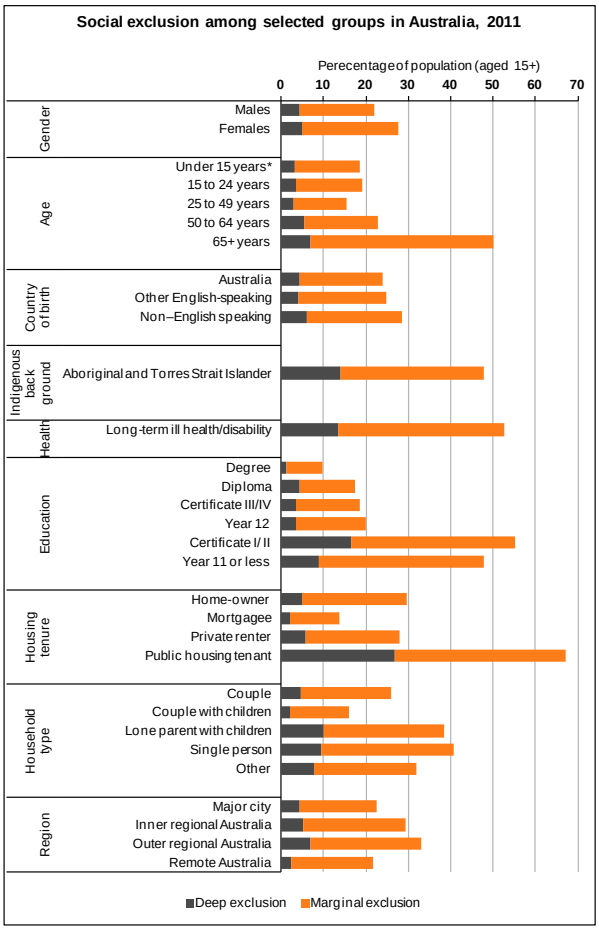
Least common of the individual indicators are long-term unemployment, lacking social support, living in a low-quality neighbourhood and being a victim of violence, each of which is experienced by less than 2 per cent of people.

Who experiences social exclusion?

There are substantial differences in the incidence of social exclusion between demographic groups. Based on the latest data (2011), Figure 4 shows that:

- The incidence of social exclusion among women was more than 5 percentage points higher than among men.
- People over 65 are the age group with the highest rate of social exclusion. About half of this group experienced social exclusion in 2011.
- Immigrants, especially those from non–English speaking countries, are more likely to experience social exclusion than native-born Australians.
- Among Indigenous Australians, 48 per cent experience social exclusion.
- Almost 53 per cent of Australians who have a long-term health condition or disability experience social exclusion, and about 14 per cent are deeply excluded.
- People with limited education are more likely to experience social exclusion. The prevalence of exclusion among those with less than Year 12 is nearly 2.5 times as high as that of those with Year 12.
- Public housing tenants experience marginal and deep social exclusion at more than twice the rate of people living elsewhere.
- About 40 per cent of single people and lone parents experience social exclusion.

Figure 4 Social exclusion among selected groups in Australia, 2011



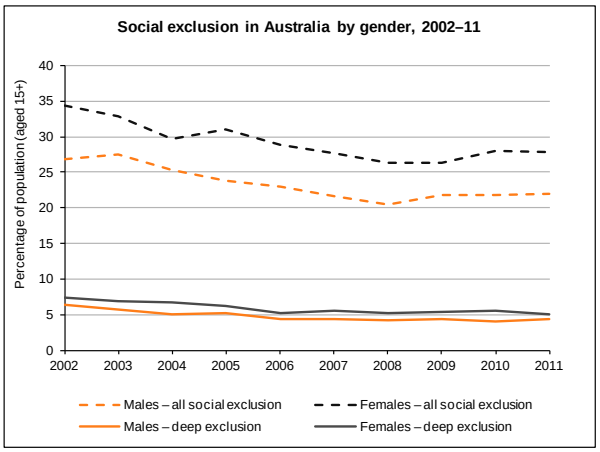
Some demographic characteristics are more associated with social exclusion than others. The following graphs show the level and trend of social exclusion for different groups of Australians for the period 2002 to 2011. Each graph shows the incidence of deep exclusion and/or of 'all social exclusion', which refers to the total of marginal and deep exclusion.

Gender and age

Women are at significantly more risk of social exclusion than men. About half of Australians aged over 65 years experience social exclusion.

As Figure 5 shows, the prevalence of social exclusion among women and men declined from 2002 to 2008. After that, it started grow and it has remained above the 2008 levels since then. The gap in social exclusion between men and women in this period ranged between 5 and 8 percentage points. In 2011, the prevalence of exclusion among women (28 per cent) was almost six percentage points higher than for men (22 per cent). The gender gap is smaller for deep exclusion. Nonetheless, more than 5 per cent of women were deeply excluded in 2011, compared with 4.4 per cent of men.

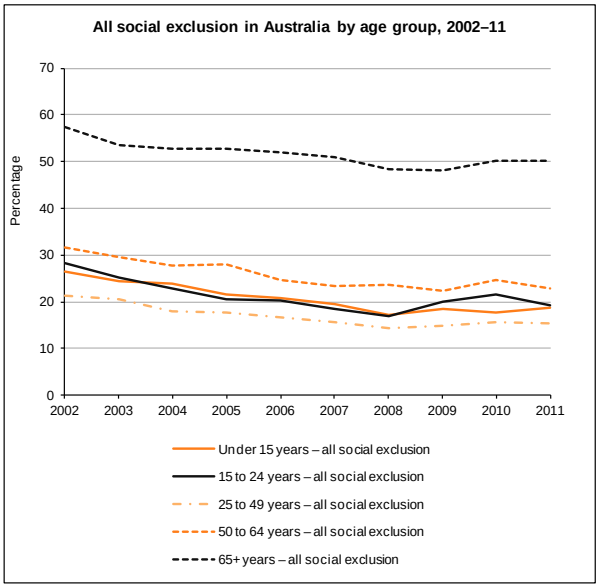
Figure 5 Social exclusion in Australia by gender, 2002 to 2011



As Figure 6 shows, people aged over 65 years experience higher levels of social exclusion than other age groups. The level of exclusion for this age group was above 50 per cent for most of the years from 2002 to 2011, compared with 15–30 per cent for other age groups.

The period 2002–08 witnessed a general decline in the prevalence of social exclusion. From 2008, however, there was an upsurge in the rate of exclusion for almost every age group. This increase was especially large for those over 65 and for those between 15 and 24 years of age: the prevalence of social exclusion among these groups by 2011 was still above the levels observed in 2008.

Figure 6 Social exclusion in Australia by age, 2002 to 2011

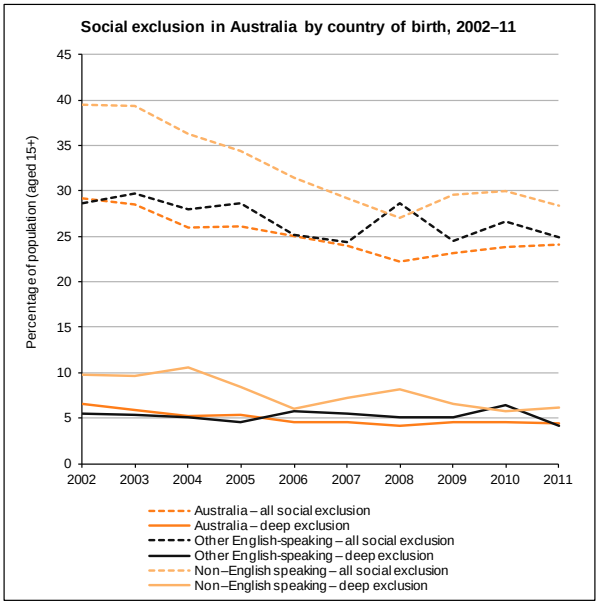


Country of birth and Indigenous background

Immigrants and people of Aboriginal and Torres Strait Islander descent are particularly likely to experience social exclusion in Australia.

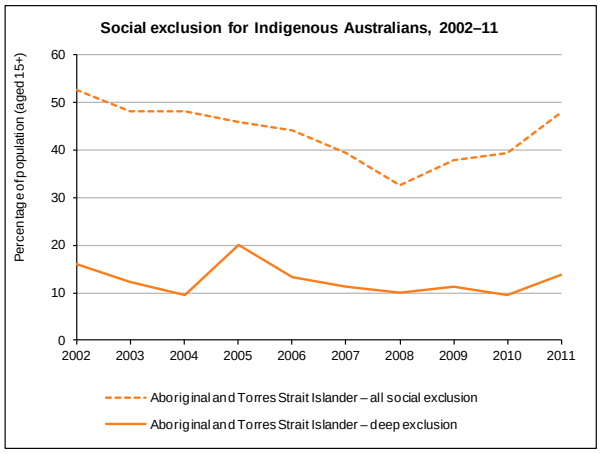
Immigrants experience higher levels of social exclusion than native-born Australians (Figure 7). The different is particularly large for immigrants from non–English speaking countries. Although this gap narrowed from 2002, by 2011 the rate of exclusion among immigrants from non-English countries (28 per cent) was still more than 4 percentage points larger than that of Australian-born people (24 per cent). As regards deep exclusion, immigrants from non–English speaking countries had a larger risk than other groups for most years in the period 2002–11. By 2011, the rate of deep exclusion for this group was 6 per cent, compared with 4.2 and 4.5 for non–English speaking and Australian-born people, respectively.

Figure 7 Social exclusion in Australia by country of birth, 2002 to 2011



The prevalence of exclusion among Aboriginal and Torres Strait Islander people was above 40 per cent for most of the period between 2002 and 2011 (Figure 8). After years of continuous decline, the rate of exclusion for this group started to increase after 2008, so that in 2011 nearly 50 per cent of Indigenous Australians were socially excluded. Furthermore, the proportion of Indigenous Australians who experience deep social exclusion increased from 9.5 in 2010 to 14 per cent in 2011. Thus, more than 75,000 Indigenous Australians were deeply excluded in 2011.

Figure 8 Social exclusion of Indigenous Australians, 2002 to 2011

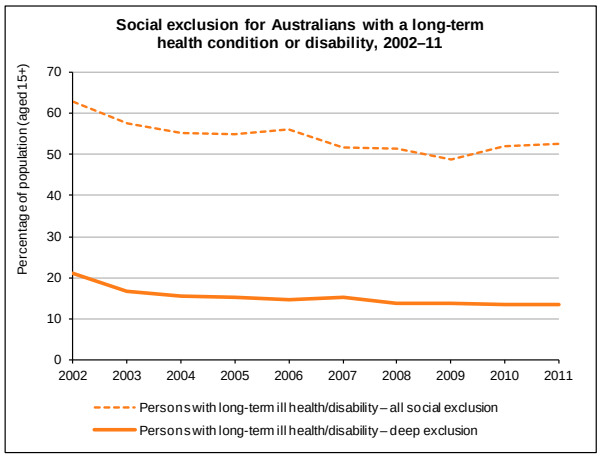


Health and education

More than one in two Australians who have a long-term health condition or disability experience social exclusion each year. Early school leavers experience social exclusion nearly 2.5 times the rate of those who have completed Year 12.

Having chronic ill health or a disability increases the risk of being socially excluded in Australia. Despite the downward trend between 2002 and 2009 (see Figure 9), the incidence of social exclusion among those who have a long-term health condition or disability was still above 52 per cent in 2011, including about 14 per cent deeply excluded.

Figure 9 Social exclusion for Australians with a long-term health condition or disability, 2002 to 2011



Individuals with low levels of education and skills are at higher risk of experiencing social exclusion in Australia. As Figure 10 shows, in the period 2002–11 the prevalence of social exclusion among those who had not attained Year 12 ranged between 42 and 55 per cent. The rate of exclusion of those with Year 12 in the same period was between 15 and 25 per cent.

Similarly, those with less than Year 12 are more likely to experience deep exclusion (see Figure 11). For these two groups the rate of deep exclusion in the period 2002–11 ranged between 9 and 17 per cent. This is quite high compared with the rate below 5 per cent for the rest of the groups.

Figure 10 All social exclusion in Australia by education, 2002 to 2011

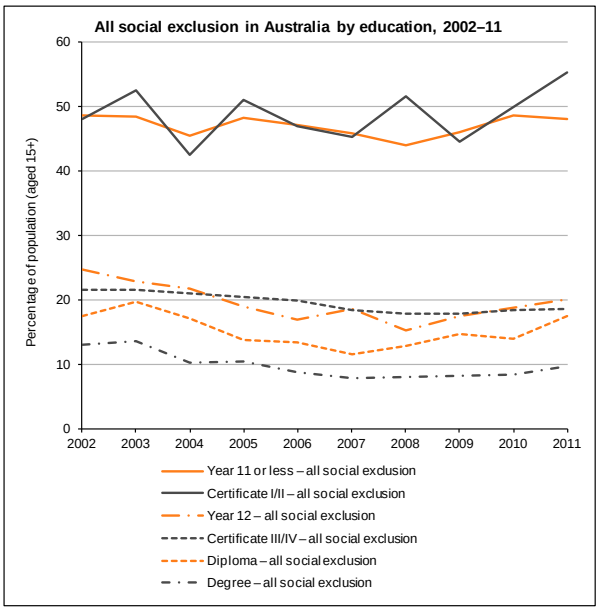
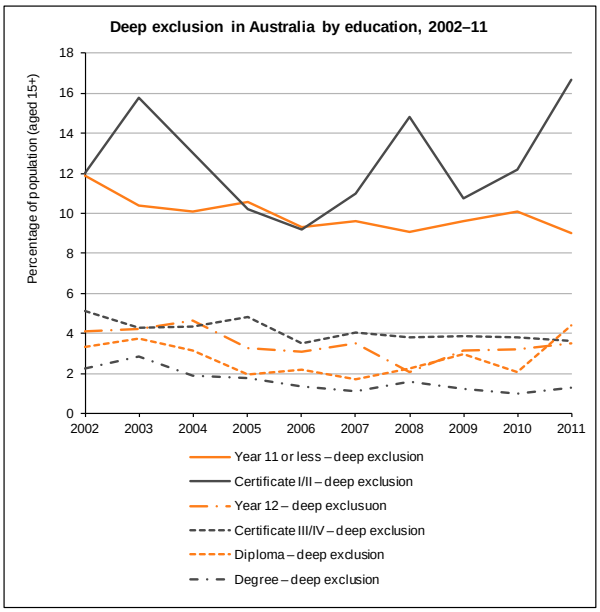


Figure 11 Deep exclusion in Australia by education, 2002 to 2011

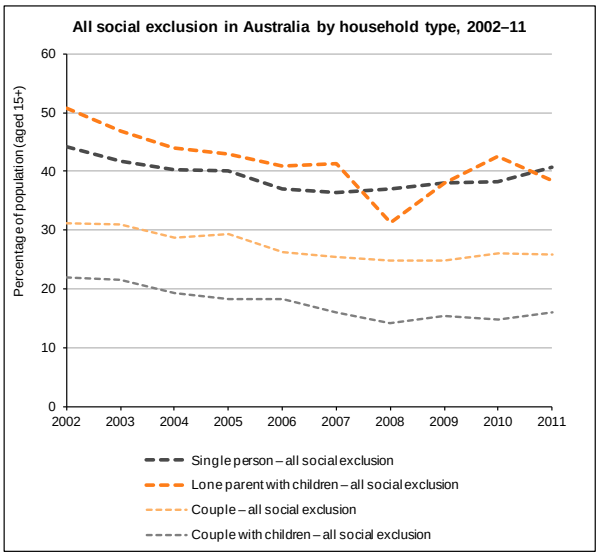


Household type and housing

Lone parents and people living in public housing are highly vulnerable to social exclusion in Australia.

Lone-parent households and single persons are the household types most likely to experience social exclusion. As Figure 12 shows, the prevalence of exclusion among these two groups was well above that of other households for the whole period 2002–11. After six years of decline, from 2008 the rate of social exclusion for lone parents started to increase. By 2011 the prevalence of exclusion among this group was 38.5 per cent, more than 7 percentage points above the level in 2008.

Figure 12 All social exclusion in Australia by household type, 2002 to 2011



In relation to housing type, people living in public housing have the highest rate of social exclusion (see Figures 13 and 14). The prevalence of social exclusion for this group ranged between 60 and 75 per cent over the period 2002–11, whereas for other groups the rate was below 35 per cent. Public housing tenants also have a higher risk of being deeply excluded. The rate of deep exclusion among those in public housing was above 20 per cent for most of the years from 2002 to 2011, compared with between 5 and 10 per cent among people in other housing situations. It should be noted that these findings do not imply that public housing causes social exclusion. Rather, with limited public housing available, the priority for accommodation is the people in the greatest need.

The risk of social exclusion and of deep exclusion for people in public housing significantly increased after 2008, which suggests that the effects of the global financial crisis were particularly severe for this group.

Thus, the proportion of public housing tenants experiencing deep exclusion almost doubled between 2008 and 2011: from 14 per cent in 2008 to 27 per cent in 2011.

Figure 13 All social exclusion in Australia by housing type, 2002 to 2011

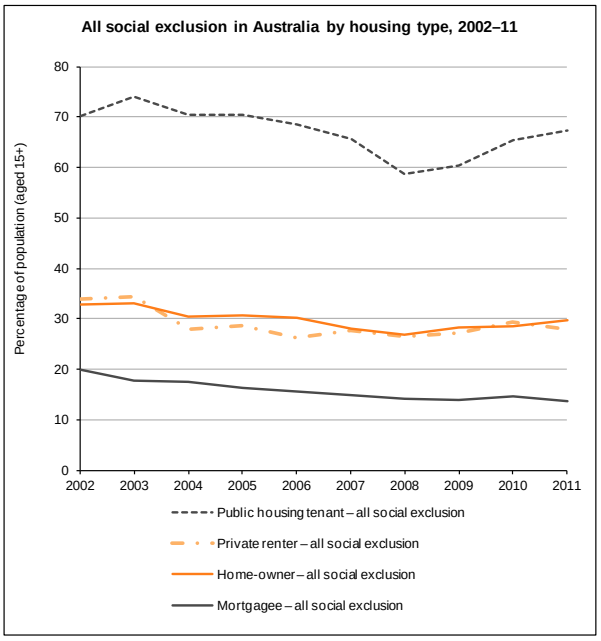
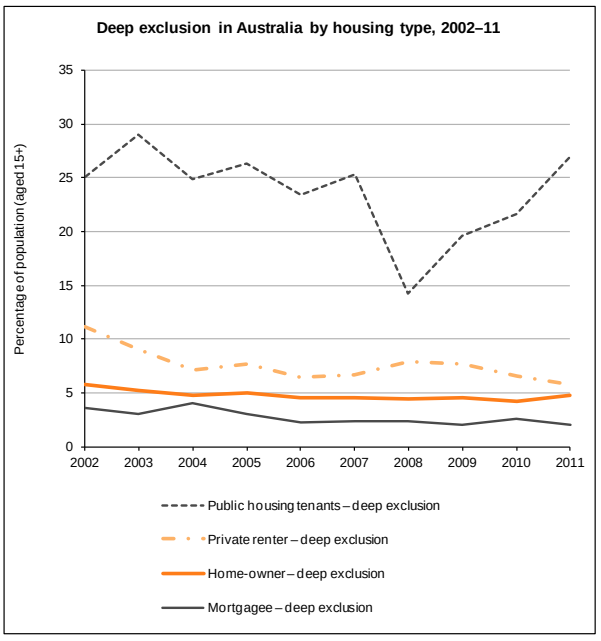


Figure 14 Deep exclusion in Australia by housing type, 2002 to 2011



Focus: Identifying the chronically poor: how well do multidimensional measures perform compared to income poverty indicators?

Targeting assistance to those who are most in need is often cited as one of the main objectives of policies designed to address poverty. Empirical evidence on the dynamics of welfare, however, suggests that among those observed in poverty at any point in time there are many different circumstances. Thus, of those who are currently poor, only a fraction are expected to be permanently poor, as many will manage to leave poverty. At the same time, some of those who are not currently poor are individuals who are chronically poor but are out of poverty just temporarily.

To perfectly identify the 'chronically poor'— those with the lowest permanent standard of living—one would need information about individuals' present and future levels of wellbeing. The problem is that policy-makers do not have information about the future, which means that targeting must be based exclusively on present information. The ability of welfare policies to benefit those who need it most therefore depends on the capacity of available indicators to identify chronic poverty.

Among the possible indicators, income measures are commonly used in both developed and developing countries to identify the poor. These measures, however, have been strongly criticised because of their inability to capture the complexity of poverty. The critics argue for the use of multidimensional measures that combine information on all the domains that determine people's standard of living. To date, no comparative analysis on the capacity of income and multidimensional poverty measures to identify the chronically poor has been reported. This is precisely the main purpose of an ongoing project at the Brotherhood of St Laurence.

We empirically investigate the ability of cross-sectional indicators to identify the chronically poor, using panel information from 10,876 individuals interviewed in the first ten waves of HILDA. To identify those with the lowest permanent standard of the living we use the framework proposed by Jalan and Ravallion (1998) to measure chronic poverty. These authors assume that information on income is available for T periods. Let $y_i = (y_{i1},...,y_{iT})$ be the vector with the incomes on any individual i in each year and $\bar{y}_i$ the average income over the T periods. Let $Z = (z_1,...,z_T)$ denote the vector with the poverty lines for each period. Jalan and Ravallion assume that

individuals can enjoy their permanent income, as measured by the average $\bar{y}_i$, in every period. They identify as chronically poor all those whose permanent income is not above the poverty threshold every year.

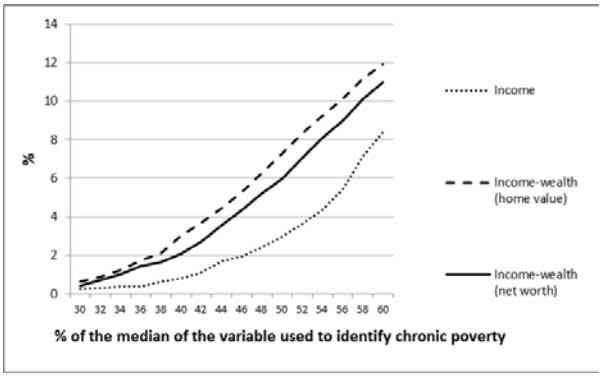
For the present analysis, we use information on the equivalent income available to individuals in each period between 2001and 2010. This is defined as the total income of the household divided by the square root of the household size. In addition we also identify the permanent poor using broader definitions that take account of the contributions of both income and wealth to household welfare. Specifically, we consider the income-wealth type measure proposed by Weisbrod and Hansen (1968). This is defined as the sum of current income plus the lifetime annuity value of current wealth given by

$$A = W * \left[\frac{r}{(1-(1+r)^{-n})} \right],$$

where *r* is the interest rate set equal to 5 per cent, and *n* is the annuity period which, following Weisbrod and Hansen (1968), we assume is equal to the life expectancy of the household head. For the wealth measure, we consider 'home value' (the self-assessed value of their residence) as reported by families in HILDA and also a broad measure of household 'net worth' calculated as the difference between total assets and debts. These income-wealth measures are also equivalised by dividing by the square root of the household size. Lastly, regarding the poverty lines, we set the year-specific threshold, z_t, equal to a proportion of the median value of the welfare variable used to identify the chronically poor (income or income-wealth). Specifically, we consider the sequence of poverty lines {30, 32, 34, 36,…, 60} ranging between the 30 and 60 per cent thresholds.

Figure 15 shows the prevalence of chronic poverty for the three variables and the different poverty thresholds. The incidence of chronically poor increases with the value of the poverty threshold used. For the income measure, the poverty rate ranges between 0.25 and 8.4 per cent. These rates increase when broader definitions of income-wealth are considered. When the annuity from the value of home is added to current income, the proportion of chronically poor ranges between 0.63 and 11.9, while using the net worth measure the highest chronic poverty rate is below 11 per cent.

Figure 15 Incidence of chronic poverty in Australia, 2001–10



Data source: HILDA waves 1 to 10

Having identified the chronically poor, we assess the capacity of two static indicators to identify these individuals, treating each year of the HILDA panel as an independent cross-section. Thus, for each year we identify the most disadvantaged in terms of current equivalent income and in terms of social exclusion and evaluate the overlapping of these groups with the chronically poor. Following the methods outlined in Chaudhuri and Ravallion (1994), for each static indicator we identify the *N* most disadvantaged individuals, where *N* is the number of chronically poor, and compute the following two types of misidentifications:

Type I: Probability of classifying as non-poor someone who is chronically poor.

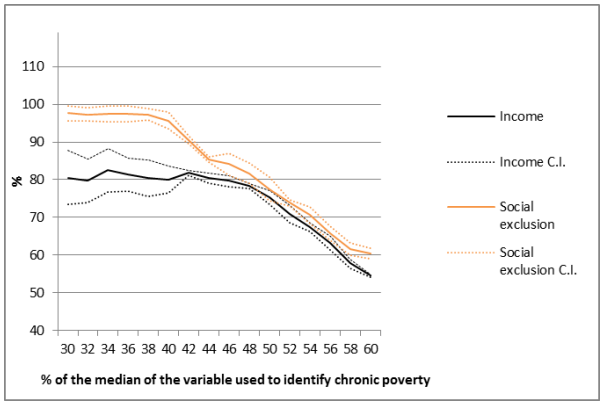
Type II: Probability of classifying as poor someone who is not chronically poor.

These errors provide an intuitive way of evaluating the targeting performance of cross-sectional indicators: the larger the errors, the lower is that indicator's predictive power.

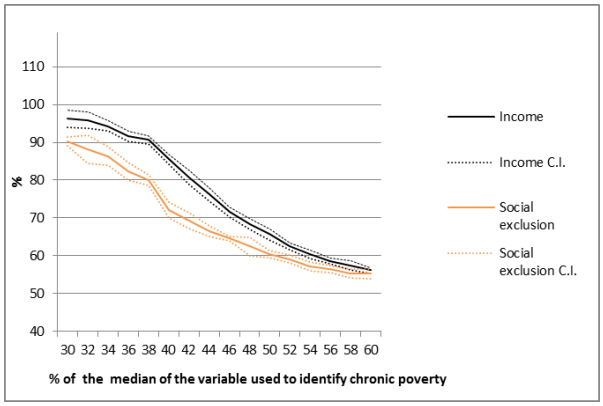
Figures 16 and 17 show the Type I and Type II errors for the income and the social exclusion measures when the chronically poor are identified using longitudinal information on income (panel A), income plus an annuity from the home's value (panel B), and income plus the annuity from net worth (panel C). The graphs show, for each poverty line used to measure chronic poverty, the average errors of the static indicators computed over the ten cross-sections of the panel, as well as the associated standard errors (indicated by confidence intervals CI).

Figure 16 Type I errors

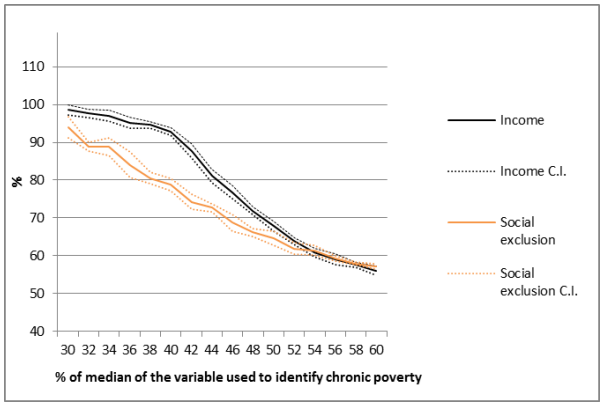
A) Chronically poor measured by income



B) Chronically poor measured by income-wealth (home value)



C) Chronically poor measured by income-wealth (net worth)



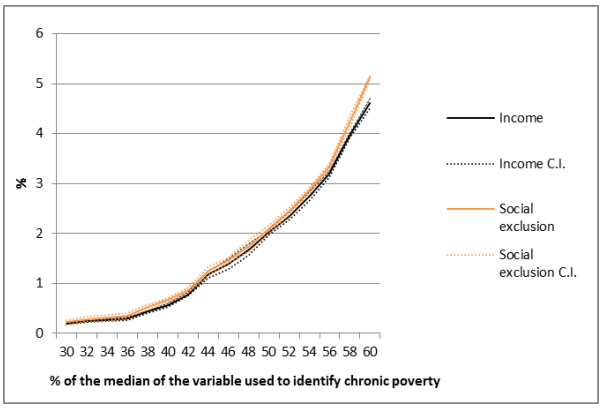
Data source: HILDA waves 1 to 10

As the panels in Figure 16 show, regardless of the income variable used to identify the chronically poor, the Type I errors of both cross-sectional indicators decline as we increase the poverty threshold. This suggests that the risk of misclassifying a chronically poor individual as non-poor using data on current income or social exclusion falls as the number of chronically poor rises.[2] Type I errors are remarkably high: they are always above 50 per cent and they can be as high as 90 per cent when the lowest poverty thresholds are used. The comparative performance of current income and social exclusion depends on how chronic poverty is estimated. When it is measured using longitudinal information on income, we find that for low values of the poverty line the Type I errors of cross-sectional income are smaller than those of the social exclusion measure. However, this difference becomes insignificant when poverty line thresholds above 45 per cent are considered. The social exclusion measure consistently performs better than standard income poverty measures when permanent wellbeing is measured using the other broader definitions of income. In fact, for the two income-wealth measures, the risk of misclassifying a chronically poor individual in a cross-section using the social exclusion measure is significantly lower than with the standard income poverty indicator for most of the poverty lines used in the analysis.

In relation to Type II errors, the panels in Figure 17 indicate that the risk of this type of error increases with the poverty line threshold and therefore the number of chronically poor individuals that one needs to identify. The proportion of non–chronically poor who are identified as poor by the cross-sectional indicators is always below 10 per cent, regardless of the variable used to identify permanent living standards. In contrast to the case of Type I errors, we find no difference in performance between the social exclusion index and the income measure.

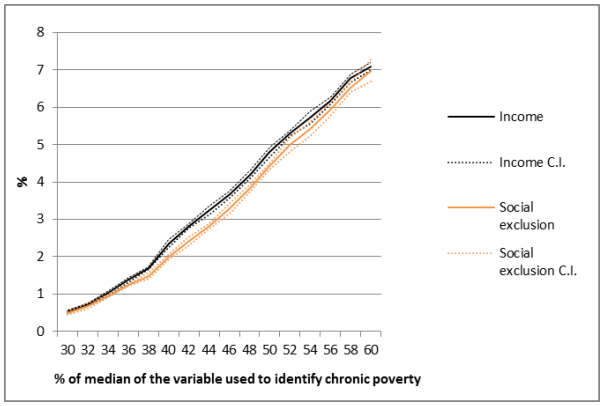
Figure 17 Type II errors

A) Chronically poor measured by income

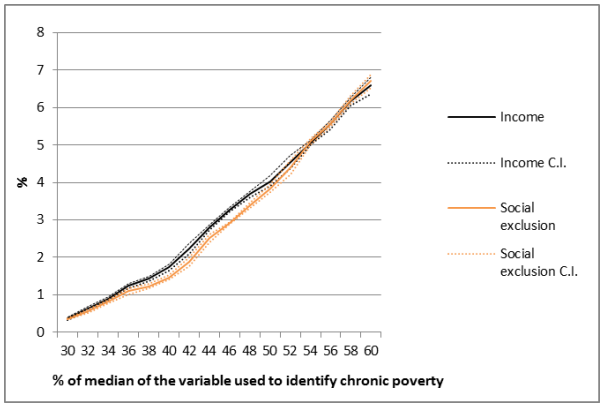


[2] Note that to ensure comparability across indicators the number of poor identified by the static indices is always chosen to match the number of chronically poor, determined by the poverty threshold used.

Figure 17 Type II errors (cont.)
B) Chronically poor measured by income-wealth (home value)



C) Chronically poor measured by income-wealth (net worth)



Data source: HILDA waves 1 to 10

Conclusions

In this fourth bulletin we summarise the results of the social exclusion monitor, recently updated using the latest data from the HILDA survey. We show and discuss the trend in social exclusion over the period 2002–11. After the decline in social exclusion observed for most groups from 2002 to 2008, the prevalence of social exclusion started to grow from 2008 and it has remained above the 2008 level since then. The increase has been especially high for people living in public housing, which suggest that this group has been particularly affected by the negative consequences of the global financial crisis.

In this bulletin we also discuss some preliminary findings from an ongoing project at the BSL where we compare the performance of different poverty indicators to identify the chronically poor. Assisting those who are at a higher risk of becoming chronically poor should be the priority of welfare policies aimed at fighting poverty. Unfortunately, targeting this group is not an easy task as it requires information about the present and future wellbeing of individuals. In practice, policy makers lack information about the future, which means that the capacity of welfare policies to target those most in need will depend on how well the available indicators identify the chronically poor.

Some preliminary results from this project are:

- The risk of misclassifying chronically poor individuals as non-poor is always above 50 per cent for both static indicators, regardless of the welfare proxy used to identify those who are chronically poor.
- Estimates of Type I errors indicate that income poverty indicators perform better than the multi-dimensional measure when permanent wellbeing is measured narrowly based on incom, but only when low values of the poverty threshold are considered. The difference between the two indicators becomes insignificant when poverty lines above 45 per cent are considered.
- However, when broader concepts of wellbeing that take account of both income and wealth are considered, we find that the social exclusion measure clearly outperforms the income poverty measure as a way of identifying those individuals who are chronically poor.

Sources and links

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About the project

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For further information

Visit the social exclusion monitor web pages to keep track of the levels of social exclusion experienced by Australians based on the latest annual data.

We are happy to answer questions about the social exclusion monitor or about social exclusion generally. Please contact us at: <research@bsl.org.au>.

For information about the Brotherhood's research on social exclusion and other topics, see our publications at <www.bsl.org.au/Publications>.

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Brotherhood of St Laurence
67 Brunswick Street
Fitzroy, Victoria 3065
Australia
ABN 24 603 467 024
Phone: (03) 9483 1183
www.bsl.org.au

and

Melbourne Institute of Applied Economic and Social Research
The University of Melbourne
Victoria 3010
Australia
Phone: (03) 8344 2100
www.melbourneinstitute.com