

Poverty and Deprivation among Young and Old: A Comparative Analysis of  
Australia and Japan

Peter Saunders\* and Aya Abe\*\*

\* Social Policy Research Centre  
University of New South Wales  
P.Saunders@unsw.edu.au

\*\* National Institute of Population  
and Social Security Research  
Tokyo  
ayaabe@ipss.go.jp

To be presented at the Special International Conference on *Asian Social Protection in Comparative Perspective* organised by the Association for Public Policy Analysis and Management (APPAM), 7-9 January, 2009, National University of Singapore

## **Introduction**

All social protection systems face the dual challenge of alleviating poverty and responding to demographic change. Around the world, countries are seeking to curtail pension systems (or reduce their expansion) to ease funding pressures in the face of a growing population of older people. Many are reforming family benefits so that they encourage, or at least do not impede, efforts to increase fertility rates. Informal, family- and community-based arrangements face similar pressures as the balance between young and old shifts. Yet these responses to demographic change can disrupt efforts to alleviate poverty, particularly in two of the most vulnerable phases of the life cycle: old age and childhood. With demographic pressures seen as requiring reduced spending on older people and increased spending on children (or on families with children), the need to maintain intergenerational equity has re-emerged onto the policy agenda.

In relation to the success of welfare systems in reducing poverty, a recent OECD report has noted that: ‘The defeat of old-age poverty is one of the triumphs of social policy in the second half of the 20<sup>th</sup> century’ (Martin and Whitehouse, 2008: 21). This is not true to the same extent in relation to child poverty, where there is much greater cross-country variability in outcomes. Recent work undertaken by both the OECD and UNICEF has revealed the extent of this variability, much of it a direct consequence of differences in spending levels and policy effectiveness (OECD, 2007a; UNICEF, 2007). Although other factors affect poverty among both groups, the role of policy will inevitably attract considerable attention as a signpost of national priorities. At the same time, however, there is a consensus emerging in the research literature that poverty in all phases of the life course involves more than just low-income.

Alternative frameworks have given emphasis to the concepts of deprivation (Townsend, 1979), capability and functioning (Sen, 1985) and social exclusion (Hills, Le Grand and Piachaud, 2002) as alternative ways of identifying poverty, or of highlighting its nature, causes and effects.

These issues are attracting attention in policy and research circles, and although the policy interest crosses national borders, much of the research remains primarily national rather than comparative. The main exception is in Europe, where the new *Survey of Income and Living Conditions* (EU-SILC) is generating data that can be applied to examine issues of poverty, deprivation and (to a limited degree) exclusion

across EU countries (Whelan and Maître, 2007; Whelan, Nolan and Maître, 2008). The OECD is also examining deprivation across a broader range of OECD countries (Boarini and d'Ercole, 2006), but here again the focus ends up on Europe – in part because of lack of comparative data for other countries. Where it has been possible to include non-European countries, the data used have generally been derived from surveys that do not always allow deprivation to be identified in ways that reflect conceptual developments in the academic literature (Boarini and d'Ercole, 2006: Annex 2).

This paper contributes to the evolving literature on poverty and deprivation by examining patterns of deprivation among children and older people in Australia and Japan. Research on deprivation is in its infancy in both countries and the comparative perspective adopted here adds an important new dimension to this evolving body of evidence. Both countries have featured prominently in OECD social policy debates because of their unique institutional structures, value systems and policy responses. Together, they represent a significant departure from the social policy norms that exist in Europe and North America, particularly in relation to social security. Australia is widely recognised as being a leading example of the targeted approach to social protection, relying heavily on means-tested programs that deliver modest benefits to those who satisfy strict eligibility criteria (Whiteford, 2006). In contrast, in Japan (the first Asian country to join the OECD) the social support system reflects a set of cultural values, expectations and practices that are more aligned with an oriental approach that places greater emphasis on familial roles and responsibilities and less reliance on state intervention (Gould 1993; Goodman and Peng, 1996).

One of the main aims of this paper is to compare the deprivation approach with traditional income poverty measures, focusing on the circumstances of children and older people in the two countries. The aim is partly methodological – what do the two frameworks imply about outcomes? – and partly practical – what does the analysis reveal about the impact and effectiveness of the different policy structures adopted in each country? The approach adopted is thus relative in two dimensions: between the two countries; and between the two different demographic groups within each country. The aim of achieving comparability while addressing this complex task has presented us with a series of challenges, as will become evident.

The remainder of the paper is organised as follows. Section 2 provides a brief overview of the relevant policy context in each country, while Section 3 outlines the main elements of the deprivation approach, drawing out those aspects that are relevant to its use in a comparative context. Section 4 describes the data used in the analysis and describes how the comparisons themselves have been designed. Section 5 presents and discusses the results, and the main conclusions are summarised in Section 6.

## **2. The Policy Context**

Australia and Japan are both situated well away from the centre of the spectrum of OECD (cash) spending on old age pensions and family benefits. Table 1 shows that although combined spending on the two programs was not markedly different from the OECD average in 2003, there were substantial offsetting divergences in spending on each program. Australia's spending on family benefits is twice the OECD average, while its spending on pensions is among the lowest. In contrast, while Japan's spending on pensions is above-average, its spending on family benefits is one of the lowest in the OECD. Spending on pensions in Japan has accelerated over the last decade, in response to the pressures associated with ageing, as has spending on family benefits in Australia (partly as a response to declining fertility), but both countries remain low social spenders in overall terms, albeit with marked differences in the structure of their social spending.

These spending differences are not reflected in differences in child and older person poverty rates in the two countries. In fact, Table 1 indicates that the poverty rates are remarkably similar – both close to average in the case of child poverty and both well above average (around twice as high) in the case of poverty in old-age. Child poverty – more accurately poverty in families with children – is affected by a number of factors other than the generosity of government family benefits. These include wage levels and inequality and the employment status of parents, and this explains the relatively weak cross-national relationship between spending levels and child poverty rates. In contrast, pension income plays a far more important role in protecting people from poverty in their retirement, and Table 1 reveals a much closer relationship between spending on pensions and poverty among older people. Overall, however, Australia and Japan perform very similarly in terms of poverty outcomes despite the differences in spending levels: the more than 2 extra percentage points of GDP that

Australia devotes to family benefits relative to Japan has not reduced its child poverty rate relative to that in Japan by very much, while a similar point can be made about the apparent ineffectiveness of the additional 4 percentage points of GDP that Japan spends on pensions.

**Table 1: Poverty Among Children and People Over Retirement Age in OECD Countries (percentages)**

Country	Spending on Family Benefits 2003 <sup>(a)</sup>	Child Poverty Rate 2005	Spending on Old Age Pensions 2003 <sup>(a)</sup>	Older Person Poverty Rate 2005
Australia	2.6	12	3.2	27
Austria	2.5	6	12.4	7
Belgium	1.7	10	7.0	13
Canada	0.9	15	4.0	4
Czech Republic	1.3	10	7.4	2
Denmark	1.6	3	5.3	10
Finland	1.6	4	4.9	13
France	1.4	8	10.2	4
Germany	1.2	16	11.1	10
Greece	0.9	13	11.5	23
Hungary	2.1	9	6.9	5
Iceland	1.5	8	2.4	5
Ireland	2.3	16	2.5	31
Italy	0.6	16	11.3	13
Japan	0.3	14	7.0	22
Korea	0.0	10	1.1	45
Luxembourg	3.5	12	4.5	3
Mexico	0.3	22	1.0	28
Netherlands	0.6	12	4.7	2
New Zealand	1.9	15	4.4	2
Norway	1.9	5	5.0	9
Poland	1.0	22	11.4	5
Portugal	0.7	17	8.6	17
Slovak republic	1.3	11	6.2	6
Spain	0.4	17	7.6	17
Sweden	1.6	4	7.4	8
Switzerland	1.1	9	6.5	18
Turkey	-	25	-	15
United Kingdom	2.2	10	5.3	10
United States	0.1	21	5.4	24
OECD average	1.3	12	6.4	13

Note: (a) Percentage of GDP.

Source: OECD, 2007b: Tables 5.2 & 5.3 plus *OECD Social Expenditure Database* (SOCX 2007)

One possible explanation of this paradox is that the poverty rate does not adequately capture the extent of disadvantage experienced by different groups. Even though pension and family benefits clearly do redistribute income between households, their impact may not be fully captured by whether or not recipients are above or below a poverty line. Pension systems seek to maintain (or replace) income rather than just serving an income support (safety net) role, and family benefits, as noted, are one of many factors that determine the poverty status of families. Problems also arise in

measuring poverty, including the conceptual problems surrounding the unit of analysis and equivalence adjustment, and the arbitrary nature of the poverty line itself. Reflecting these concerns, this paper investigates whether the picture of relative policy performance implied by Table 1 is confirmed when a different approach is used to capture disadvantage among families with children and older people. Before proceeding to that, we provide a very brief summary of the key elements of social security (cash transfers) provision in the two countries.

Australia is well-known for the targeted nature of its social security system, which combines strict eligibility rules with flat-rate, means-tested benefits financed from general resources as a way of directing resources to where the need is greatest. This has resulted in a system that is able to achieve considerable redistribution despite a low level of spending, although one consequence is that poverty rates remain high because benefits, while heavily targeted on the poorest, is inadequate in many cases to protect recipients from poverty (see Table 1). Another consequence of targeting is that many beneficiaries face high effective marginal tax rates (poverty traps) that can discourage them from seeking employment. Many of the main reforms to the age pension took place in the 1980s (when the assets test was introduced to complement the income test and when a compulsory company-based superannuation scheme was introduced, albeit at a relatively low level). More recently, the pension has been indexed to earnings (rather than prices) beginning in 1996, the tax treatment of superannuation was simplified (and made far less equitable) in 2007, and a review of the adequacy of the pension system is currently underway (Harmer, 2008). In contrast, the system of family benefits has been the subject of on-going reform over the period, beginning in the late 1980s (focused on improving the adequacy of payments), followed by significant changes in the latter half of the 1990s (focused on improving incentives to work). The current system is complex and is likely to be further reformed as part of a broader review of the tax system that is expected to report in 2009.

Japan's social security system is in many ways the opposite of that in Australia. It is characterised by its reliance on earnings-based social insurance system (the public pension and the public health insurance), supplemented by a series of small targeted (means-tested) programs. Poverty has not been a major priority issue in Japan since the 1960s and horizontal (i.e. from the rich to the poor) income redistribution has also

not been high on the political or policy agenda. Being one of the oldest societies in the OECD, Japan's social spending is heavily skewed towards benefits for older people (see Table 1), yet its main component, the pension benefit, has never effectively addressed poverty in old-age. The pension benefit is related to life-time contributions and is often inadequate to bring recipients over the poverty line. Public Assistance is given the task of providing for the poor, but recipients are required to pass extremely harsh means tests, and are unlikely to qualify for benefits unless in extreme poverty. In consequence, poverty among older people remains high and well above that of other population groups in Japan. For similar reasons, Japan has also been reluctant to spend much on family benefits, because reducing child poverty had not been a policy priority. Child Allowance has been expanded since 2000, mainly to influence the fertility rate which has been declining steadily in Japan, but it remains at a low level compared to most other OECD countries.

Another characteristic of Japan's social security system that differs from that in Australia relates to the role of family, and to some extent to the role and impact of labor relations (even though this is limited to large corporations in Japan and also plays an important income support role under Australia's wage-fixing system). Company benefits play an important role in providing income and other social support in Japan, whereas their role is less pervasive (but expanding, in the form of company-based superannuation, in Australia). In relation to the different roles of family support, multi-generation households are common in Japan but rare in Australia (except among certain migrant groups). This implies that in Japan, but not in Australia, the extended family plays a key role in supporting its members when they are both young and old. The different living arrangements that exist in Japan and many other Asian countries has important implications for the structure and impact of state-run social protection schemes that do not exist in Australia and other long-standing OECD member countries. Income redistribution *within* multi-generation households plays an important role in supplementing state schemes that redistribute incomes *between* households. This means that the combined impact of both cannot be identified by focusing only on benefits provided by the state sector.

The importance of these effects have been highlighted by Smeeding and Saunders (1999: Table 1) who show that although less than one-quarter of people aged 65 and over were living with people other than their spouse in the early 1990s in most OECD

countries, that proportion was close to two-thirds in Japan and almost three-quarters in Taiwan. In both cases, the ‘others’ were predominantly related members of the extended (multi-generational) family.<sup>1</sup> Traditionally, the larger Japanese employers have also provided income security for their (full-time) employees by guaranteeing a job for life during the working years and by paying generous lump-sum payments upon retirement. However, the roles of both the family structure and labor relations are rapidly changing in the face of global trends and there is a growing expectation that the state will be required to fill the emerging gaps in the social safety net.

### **3 Comparing Living Standards Using a Deprivation Approach**

Reflecting the limitations of the conventional (income) approach to poverty, the deprivation approach has provided a more credible basis for identifying and measuring poverty, by locating it within a living standards framework. The approach developed by Townsend (1979) involved identifying the actual experience of unacceptable hardship rather than presuming that poverty was an automatic consequence of low income. The shift in emphasis reflected the Ringen’s observation that:

‘To ascertain poverty we need to identify directly the consequences we normally expect to follow from low income. ... We need to establish not only that people live as if they were poor but that they do so because they do not have the means to avoid it’ (Ringen, 1987: 162)

Having an income below the poverty line is not sufficient to establish that poverty exists because the ‘needs gap’ may be filled by drawing on other economic (e.g. accumulated wealth, or calling in outstanding debts), social (e.g. local networks) or personal (e.g. capacities and resilience) resources. Because the deprivation approach focuses on *achieved outcomes* (at least as far as they are reported in surveys) as opposed to *available income*, it has the potential to overcome this limitation of the income approach.

In his original formulation Townsend focused on identifying whether or not people were achieving levels of consumption of basic items or participating to a specific degree in customary activities. This approach was criticised because it was left to the

---

<sup>1</sup> In Japan, a little less than one-quarter of all children (aged under 20) were living in three (or more) generation households in 2006, while nearly a half of people aged over 65 lived with their grown-up children (Ministry of Health, Labour and Welfare, 2007).



‘researcher as expert’ to identify which items to include in the lists of basic necessities and customary activities. It was also argued that differences in taste would make it difficult to distinguish between those who are going without because they are constrained by a lack of resources, and those who choose to forego particular items because they do not want them (Piachaud, 1981). Both criticisms were addressed in the study by Mack and Lansley (1985), which first asked a representative sample of the community whether or not a list of items was necessary, and then identified as poor in the sense of being deprived, those who did not have these items because they could not afford them. Although the distinction between ‘not being able to afford’ and ‘not wanting’ an item is problematic (McKay, 2004; Saunders and Adelman, 2006), the deprivation approach attempts to identify a lack of economic resources as the cause of deprivation, making it closely aligned with the concept of poverty.<sup>2</sup>

The feature of the deprivation approach that provides a valuable basis for comparing countries as diverse as Australia and Japan is its reliance on the views of the community to identify which items are necessary and the identification of deprivation in relation to an enforced absence of these items.<sup>3</sup> In countries such as Japan, where poverty research has been relatively scant, the deprivation approach has gained more support among the public than the income approach. In Australia too, the arbitrary nature of the poverty line has undermined the credibility and impact of income poverty studies. The deprivation methodology provides a way of taking account of the large differences that exist in community practices and expectations, and is thus particularly well-suited to comparative studies.

The definition of deprivation as ‘an enforced lack of socially perceived necessities (Mack and Lansley, 1985: 39) has been used to identify who is poor in the sense of being deprived in many countries (Boarini and d’Ercole, 2006). The general approach – and even the list of items used to identify which ones are necessary – has been implemented in countries as diverse as Britain, Ireland, Denmark, Germany, Russia, Tanzania, Vietnam and Yemen (Gordon, 2006: 44-5). The fact that many of the same

---

<sup>2</sup> Van den Bosch (2004) has examined what difference it makes if deprivation is defined solely on the basis of not having an essential item, as opposed to not having it *because* of a lack of affordability.

<sup>3</sup> The use of majority support to identify which items are necessary has led some to describe the approach as the ‘consensual approach’ to poverty measurement (Halleröd, Bradshaw and Holmes, 1997).

items are included in the list of potential necessities in each country (modified to suit local conditions and custom) implies that there is an incremental validation of the approach as the scope of its application is extended. This is important, because the responses to which items are *actually* identified as being necessary (or essential – the terms are used interchangeably) is obviously influenced by which items are included among those that might *potentially* be so regarded.<sup>4</sup> However, there is still scope for the items in the list in different countries to vary, reducing the ability to compare deprivation profiles, at least in some regards.<sup>5</sup>

One problem with the deprivation approach concerns the comparability of the items included as necessities when comparing countries with very different policies, institutions and cultures. In part, however, this depends upon the ‘space’ within which one is trying to establish comparability. If the aim is to examine the consequences of applying the same *methodology* in different countries, as opposed to the same list of possible (or actual) *necessities*, then the deprivation approach provides a valid basis for comparison. In any case, in practical terms, this is all that is currently available, because there is no East Asian (or Asia-Pacific) counterpart to the EU with the mandate or ability to drive comparable cross-national statistical collections in the way that this has happened in Europe.<sup>6</sup>

As noted above, the focus of many deprivation studies has been on identifying who is in poverty, or on doing so in a more robust and credible way. This is achieved by setting a threshold of deprivation that separates those who are identified as poor from those who are not. Alternatively, it is possible to adopt the approach developed by the

---

<sup>4</sup> Maître, Nolan and Whelan (2006) have shown that if deprivation questions are asked more directly (e.g. using computer assisted personal interviewing (CATI), as opposed to in a self-complete questionnaire) they tend to produce higher levels of deprivation. Their analysis also suggests that it makes a difference whether respondents are interviewed for the first time or repeatedly (i.e. as members of a panel).

<sup>5</sup> An alternative way of addressing this issue involves weighting the responses according to the degree of community support for each item being essential. Thus, an item that is regarded as necessary by 90 per cent of those asked is weighted twice as highly as an item regarded as essential by only 45 per cent when estimating the degree of deprivation. Although this approach has intuitive appeal in a cross-country comparative context (particularly where norms and custom differ), studies that have adopted a weighted approach have generally found that it makes little difference to the resulting patterns of deprivation (Halleröd, Bradshaw and Holmes, 1997).

<sup>6</sup> For a description of how the *European Community Household Panel* (ECHP) and its successor the *European Union Survey of Income and Living Conditions* (EU-SILC) have expanded the scope and availability of living standard measures in the EU (which has itself expanded considerably) see Whelan and Maître (2007).

Economic and Social Research Institute in Ireland (Nolan and Whelan, 1996; Combat Poverty Agency, 2006), and define the concept of consistent poverty, which covers those who have both low-income and are experiencing a minimum degree of deprivation. Both approaches require that deprivation is measured continuously (if bounded), for example using mean indicator scores or multiple deprivation incidence rates, and this makes it possible to compare living standards more broadly. The results reported later are based on this approach rather than the dichotomous approach focused on the poor/not poor distinction, although they are also compared with estimates of poverty, defined in terms of income.

#### **4 Data and Methods**

##### **Data sources**

The data on which the analysis is based were derived from two recent independent household surveys conducted in Japan in 2003 and in Australia in 2006. Although the two surveys differ in many regards, they were both motivated by a need to provide a better basis for estimating the nature and extent of deprivation (and social exclusion) in each country. They thus share a similar structure in terms of the kinds of questions asked and can be used to derive estimates of the profiles of monetary (income) and non-monetary (deprivation) using a suite of indicators that are broadly comparable. However, the surveys differ in ways that constrain the ability to generate exact comparisons and a series of compromises have had to be made about what to measure and how to measure it. The most significant of these are described below. The important point to note is that we have been forced to work with the data that we have, rather than working to generate the data that we need.

In Australia, the *Community Understanding of Poverty and Social Exclusion* (CUPSE) survey was conducted in 2006 by the Social Policy Research Centre at the University of New South Wales (Saunders, Naidoo and Griffiths, 2007). A questionnaire was mailed to a random sample of 6,000 members of the adult population drawn from the federal electoral roll and 2,704 people responded, representing a response rate of approximately 47 per cent.<sup>7</sup> The composition of respondents was broadly representative of key socio-economic demographics within

---

<sup>7</sup> Voting is compulsory in Australia, so the electoral roll provides a good representation of the population over voting age (18 years).

the general population as revealed in official surveys conducted by the Australian Bureau of Statistics, particularly in relation to gender, country of birth, labour force status, principal source of income, housing tenure, educational attainment and disability status. There was a slight under-representation of those who have never been married; live alone; Indigenous Australians; and those with higher incomes. The main overall difference between the sample and the general population is age-related; the CUPSE sample contains an over-representation of older people (over age 50) and an under-representation of younger people (under age 30).<sup>8</sup>

The *Japanese Survey on Living Conditions* (SLC) was undertaken by the National Institute of Population and Social Security Research as part of a broader program of research on the impact of public assistance programs (Abe, 2006). A random national sample of 2,000 individuals aged over 20 years was approached and 1,520 face-to-face interviews were conducted, representing a response rate of 76 per cent.

Interviews were conducted with the head of the household or with the person most familiar with the household budget (usually the spouse of the household head). In terms of the characteristics of the SLC sample, there is a slight over-representation of older men, and middle-age and older women compared to the national population. In terms of income class, there is an apparent bias towards those in the low- to middle-income classes, but this may be due to the fact that the SLC survey uses self-reported income, and did not seek verification from the tax authorities.

### **Selecting household types**

Although both surveys were completed by individuals, much of the information collected relates to the circumstances of the household. The following comparisons of the relative well-being of children and older people in each country are thus based on information relating to households that contain these individuals. Because of differences in living arrangements in the two countries the household was chosen as the basis for making the comparisons rather than the narrower nuclear family unit. Specifically, the analysis distinguishes between working-age and older households according to whether or not the respondent (usually the household head) is of working-age (20-64 years) or an older person (aged 65 or over), between households

---

<sup>8</sup> Adjusting the sample data for age differences by re-weighting has relatively little impact on the results presented later and does not alter the conclusions.

containing a single person living alone or two or more adults (including spouse/partner, grown-up children and parents), and between households with and without children.<sup>9</sup>

Table 2 provides a breakdown of the two samples according to household structure defined in this way. It indicates that there are some marked differences in the household composition of the two samples, but also that some of the categories contain very few cases in Japan. For example, two of the sole parent households in Japan have very high incomes that increase the mean income of this group, even though its poverty rate remains high. Small sample size (and large standard errors on the estimates) is a feature of some of the estimates for Japan that needs to be kept in mind when reviewing the results. Although around one-fifth of both samples consist of older people living alone or with their spouse, single older people are far more common in Australia than in Japan, where they are more likely to be living with relatives.<sup>10</sup> Single person households, either working-age or older, are also less common in Japan (around 7 percent of all households) than in Australia (around 14 per cent).

One of the most striking differences relates to the proportion of households consisting of at least two adults without children, which accounts for almost two-thirds (64.3 per cent) of the sample in Japan, but only just over half (52.4 per cent) of the sample in Australia. Another difference is that couple-only households are a much lower proportion of all multiple-adult households with an older head and no children in Japan (48.6 per cent) than in Australia (79.2 per cent). This difference highlights the fact, noted earlier, that older people are more likely to live with their relatives in Japan than in Australia. Sole parent households are also far more common in Australia than in Japan, where the sample contains very few sole parent households (because many sole parents are living with their parents and thus fall into one of the two previous household types listed in Table 2).

---

<sup>9</sup> Children are defined as being under-18 in Australia, or under-17 in Japan. The modified OECD equivalence scale has been used to standardise for the income-based comparisons for differences in household size and composition. This scale assigns a score of 1.0 to the first adult in the household, 0.5 to each subsequent adult (including non-dependent children) and 0.3 to each dependent child.

<sup>10</sup> Both samples contain an over-representation of older people, a trend that is common among surveys of the type being analysed here, so that the comparisons in Table 2 should not be taken as indicative of the overall household composition of the populations in each country.

**Table 2: Household Types and Sample Composition**

Household type	Australia		Japan	
	Sample size	%	Sample size	%
Single, working-age (WA) <sup>(a)</sup>	202	8.0	66	4.4
Single, older person (OP) <sup>(b)</sup>	158	6.2	43	2.8
Couple and other adults, head is WA, no children <sup>(c)</sup>	942 (502)	37.1	692 (463)	45.7
Couple and other adults, head is OP, no children <sup>(c)</sup>	390 (309)	15.3	282 (137)	18.6
Couple and other adults, head is WA, with children <sup>(c)(d)</sup>	736 (576)	29.0	414 (331)	27.3
Sole parent, WA with children	113	4.4	17	1.1
Total	2,541	100.0	1,514	100.0

*Notes:* (a) WA = working-age (20-64 years); (b) OP = older person (65 years and over); (c) Numbers in brackets refer to couples only (i.e. no other adults living in the household); (d) This group contains a small number of households (15 in Australia and 6 in Japan) where the head is an older person.

### Measuring income and poverty

As noted earlier, income is the most common metric used to measure and compare the standard of living of households within and between countries. This in part reflects the fact that international standards have been developed to ensure a common (and thus comparable) definitional framework. Even so, problems exist in collecting accurate information on income, particularly at the extremes of the distribution, and these undermine the ability to capture the circumstances of those who are at most risk of poverty.

The two surveys described above both collected information on income, although the degree of detail in both cases is rather limited. The income measure in both countries includes all components of income but information was only provided in ranges (14 in the case of Australia, 17 for Japan). The raw income data have been set at the mid-point of the relevant range for analytical purposes. In Australia, information on gross income was collected and tax liability was imputed from the tax scales in order to derive an estimate of disposable income. In Japan, information was collected on disposable income directly. The two indicators examined are mean household (equivalised) incomes, and poverty rates derived using a poverty line set equal to one-half of median (equivalised) income.

### Measuring Deprivation

Deprivation was identified on the basis of responses to a series of questions about a list of items identified as potential necessities. The first question asked whether or not

each item was necessary *for people in general* in society. Responses to this question were used to identify those items regarded as essential by a majority (at least 50 per cent) of respondents. Two further questions asked whether people had each item, and whether or not they could afford it.<sup>11</sup> Only those who do not have and cannot afford the items identified as necessities by a majority are defined as deprived in relation to that item.

The specific items included in these questions differ in the two countries, and although there is similarity in the broad living standard domains covered, differences arise in the coverage of some items (e.g. there is less emphasis on issues relating to location and transportation in Japan than in Australia) and in the ways in which specific items are described. The list is also longer in Australia (61 items) than in Japan (42 items). More importantly, there is a difference in the response options provided to the key 'Is it necessary?' question that is used to identify necessities. In Australia, people were first asked whether each item was essential, then whether or not they had the item and, if they did not, whether or not this was because they could not afford it. In all three cases, two response categories were provided: Yes or No. In contrast, In Japan the approach used two distinct surveys. First, in the preliminary survey, participants were given four response options to the 'Is it essential?' question: 'Definitely'; 'Better to have, but can do without'; 'Not necessary'; and 'Don't know'. Then, in a separate survey, a different group of participants were asked to indicate which of the following applied to them with regard to each item: 'Have the item', 'Do not want it', 'Cannot afford it', or 'Don't know'.

As indicated, items were identified as necessities if they attracted majority support (at least 50 per cent) for being necessary. However, the more graduated range of response categories provided to respondents in Japan may have affected how many say that the item was necessary. Once the list of necessities has been established, those who are deprived are identified as those who do not have *and* cannot afford each item (in Australia), or as those who say that they cannot afford the item (in Japan). Once those who are deprived of the items regarded as necessities by a majority of respondents

---

<sup>11</sup> It should be noted that some of the items in the original list may refer to specific needs (e.g. of children) that are not relevant in some instances (e.g. where there are no children present in the household). In these instances, it has been assumed that respondents will indicate that they do not have the item, but that this is not because they cannot afford it, and will thus not be identified as deprived in relation to that item.

had been identified, the level of deprivation was estimated by summing the number of items and averaging the resulting scores across household types. A second set of indicators measures the severity of deprivation by comparing the proportion deprived of none, at least one, and at least two of the identified necessities in each country.<sup>12</sup>

## **5 Results**

### **Income and poverty comparisons**

Table 3 shows the mean equivalised incomes for each of the household types shown in Table 2, in local currencies and expressed relative to the incomes of single working-age households. Also shown are the poverty rates in each country, estimated using a poverty line set at one-half of median OECD equivalised disposable income. It is clear that there are some large differences between the income profiles of the two countries and in the poverty risks faced by different household types.

In terms of income differentials, there is much greater inequality between households in Australia, a reflection of the higher incidence of multi-generational households in Japan (particularly when low-income older people are sharing accommodation with their high-income adult children). Although the overall poverty rate is virtually the same in both countries (at around 14 per cent), the disaggregated estimates indicate that the household-level differences between countries are greatest for single people (either working-age or older) and for sole parents. In all three cases, poverty rates are considerably lower in Australia than in Japan. However, these differences again reflect the variations in living arrangements discussed earlier, in particular the fact that many of these family types are more likely to be living with other adults in Japan and thus benefiting from a broader sharing of resources. Even so, single adults living alone (without children) face below-average poverty rates in Australia, but above-average poverty rates in Japan. Sole parents face high poverty rates in both countries but they are consistently higher in Japan than in Australia.

---

<sup>12</sup> One problem with the mean deprivation score relates to its treatment of missing values, which are assigned a score of zero and thus implicitly treated as not deprived cases. This can distort the comparisons between groups (or countries) if the missing values are not randomly distributed across the sample. The incidence of a minimum level of deprivation (e.g. two or more items) overcomes this problem to some extent.



**Table 3: Mean Incomes and Poverty Rates**

Household type	Australia		Japan	
	Mean income (A\$/week)	Poverty rate	Mean income (¥0,000 Yen/annum)	Poverty rate
Single, working-age (WA; 20-64)	524.0 (1.00)	10.4	255.2 (1.00)	17.7
Single, older person (OP; 65+)	320.5 (0.61)	10.8 <sup>(a)</sup>	193.6 (0.76)	25.7
Couple and other adults, head is WA, no children	482.8 (0.92)	13.4	292.5 (1.15)	11.2
Couple and other adults, head is OP, no children	309.4 (0.59)	22.6	228.1 (0.89)	20.4
Couple and other adults, head is WA, with children	438.7 (0.84)	11.4	244.3 (0.96)	12.3
Sole parent, WA with children <sup>(b)</sup>	311.2 (0.59)	22.1	258.0 (1.01)	47.1
Total	430.5 (0.82)	14.8	262.5 (1.03)	14.3

*Notes:* (a) A large number of single older people in Australia are reliant on the means-tested age pension, and have incomes that are low, but slightly above the half-median poverty line. (b) The (small) sample of sole parent households in Japan contains two observations with high income. This increases the mean income of the group but the poverty rates remains high.

The other notable feature of Table 3 concerns the relative income positions and poverty rates of older people in the two countries. On average, households containing older people have relatively low mean incomes and high poverty rates in both countries. The mean incomes of older people (relative to that of single working-age households) in single households as well as in multiple-adult households, are higher in Japan – a reflection of its higher level of pension spending (Table 1). Despite this, poverty rates are also considerably higher in Japan, particularly among people living by themselves, including single older people. This probably reflects the different structures of pensions (and other cash benefits) in the two countries. The highly targeted Australian pension system is more effective at reducing the poverty of older people than the Japanese pension system, which pays higher benefits to those with higher pre-retirement earnings but has no minimum guarantee that protects against poverty.

### **Comparing necessities and deprivation**

Table 4 shows the list of items included in the two surveys and the percentage support in each country for each item being necessary.<sup>13</sup> Despite the similarity in the two rankings, the overall level of support for items being necessary is lower in Japan. Thus, whereas in Australia almost half (29 out of 61) of the items are regarded as

<sup>13</sup> Both sets of estimates shown in Table 4 have been weighted using population weights in order to obtain a better estimate of which items ‘the community’ (as opposed to sample participants) regard as essential in each country.

necessary by more than 90 per cent of the population, not one item attracts this degree of support for being necessary in Japan.<sup>14</sup> In total, 15 of the 61 items in Australia and 22 out of 42 items in Japan failed to receive majority support for being essential, and these items have been dropped from the analysis. In addition, a number of the items that exceed the majority support threshold in Australia either apply to specific groups in the community (e.g. mental health services if needed) or cannot be purchased by individuals (e.g. supportive family relationships, or access to a public telephone). These items have also been removed from the analysis in order to maintain a focus on general needs, and so that the ‘can you afford it?’ filter used to identify deprivation can be applied.<sup>15 16</sup> When these items are removed, the number of necessities in Australia falls from 46 to the 26 shown in shading in Table 4, and from 20 to the 19 shaded items in Japan.

Despite the differences in the nature of many of the items, several broad similarities are apparent in the two sets of rankings. In both countries, access to basic medical (and dental) services when needed appears at the top of the necessities ranking. Another common theme is the importance attached to items that either represent different forms of social engagement with others, including attending important social occasions or access to those items that make such engagement feasible (appropriate clothing and access to transportation). The largest single grouping of necessities relates to accommodation needs, as captured in the quality and features of the dwelling itself, the facilities it provides and the consumer durables contained

---

<sup>14</sup> This difference in the apparent strength of community agreement about which items are essential may reflect the differences in the wording of the question described earlier and, in particular, the larger number of response options provided in the Japanese survey. If the ‘Definitely’ and ‘Better to have but can do without’ options are combined, the percentage support for items being necessary in Japan approaches that in Australia

<sup>15</sup> For Japan, the item ‘Transportation costs to see friends, family, relatives’ was removed because it overlaps with ‘Attending relative's weddings, funerals, etc. (including giving gifts)’, both of which received very similar levels of support. Many people in Japan travel once a year to their, or their parents’ or grandparents’ place of birth, mostly on New Year’s Eve or around mid-Summer, when the spirits are said to come home’. This accounts for most family trips.

<sup>16</sup> It should be noted that the item ‘Education up to High School level’ was kept in the list of necessities for Japan even though a very similar item was removed from the Australian list because education is free, and thus the ‘can you afford it’ question is not relevant. In Japan, parents are required to pay for their children to attend high school and even though the percentage of pupils entering high school is very high (around 97 per cent) some poorer families have difficulty paying the tuition fees.

**Table 4: Support for Items Being Necessary in Australia and Japan (percentages) <sup>(a)</sup>**

AUSTRALIA		JAPAN	
Item		Item	
Medical treatment if needed	99.9	To be able to see a doctor	88.6
Warm clothes and bedding, if it's cold	99.8	To be able to see a dentist	86.8
A substantial meal at least once a day	99.6	A telephone	86.6
Able to buy medicines prescribed by a doctor	99.3	Pension premiums to prepare for retirement	74.0
Access to a local doctor or hospital	99.3	Insurance for death, accidents, illness, etc.	71.9
Disability support services, when needed	99.0	Education up to High School level (*)	71.7
Dental treatment if needed	98.5	Family's own bath (inc. shower)	67.1
To be treated with respect by other people	98.5	Heaters/Coolers (air conditioner etc.)	66.9
Aged care for frail older people	98.0	Books, magazines for children (*)	66.8
To be accepted by others for who you are	97.9	Family's own toilet	65.8
Ability to speak and read English	97.8	Family's own kitchen	64.9
Streets that are safe to walk in at night	97.7	Hot water heater (for kitchen and wash basin)	64.5
Access to mental health services, if needed	97.2	Attending relative's weddings, funerals, etc. (including giving gifts)	58.5
A decent and secure home	97.3	Micro-wave oven	57.9
Safe outdoor space for children to play at or near home	96.1	Transportation cost to see friends, family, relatives	57.8
Supportive family relationships	95.0	New underwear at least once a year	57.5
Children can participate in school activities and outings	94.7	Separate bedroom from the living space	56.9
An annual dental check-up for children	94.3	Parents participating in school event (*)	55.8
Someone to look after you if you are sick and need help	93.2	To be able to save every months even a little	54.4
Good budgeting skills	92.4	Special suits for occasions (funerals, weddings, etc.)	50.3
A local park or play area for children	92.1	Suits for work and interviews	49.5
A hobby or leisure activity for children	92.5	Multiple bedrooms (for families larger than a couple)	48.1
Regular social contact with other people	92.5	Celebrating a birthday (*)	47.2
A roof and gutters that do not leak	91.5	Pocket money (*)	45.8
Good public transport in the area	92.1	Bicycle (or tricycle) (*)	44.7
Access to a bulk-billing doctor (Medicare)	91.7	Mobile phone (incl. PHS)	40.7
Secure locks on doors and windows	91.6	New Year's celebration (such as Osechi - a special meal for the new year's day)	35.7
Furniture in reasonable condition	89.3	Xmas present (*)	33.9
Access to a bank or building society	90.2	Child's own room (*)	33.7
Damp and mould free walls and floors	90.7	Education up to University or Junior university (*)	33.7
Heating in at least one room of the house	87.4	Fruits at least once a day	33.6
Up to date schoolbooks and new school clothes	88.5	Socializing with others through sports, hobbies	33.4
A public telephone	88.5	Video player	31.5

**Table 4 (Continued):**

Child care for working parents	86.5	New clothes and shoes every year (not a second-hand) (*)	28.4
Someone to give advice about an important decision	85.4	Toys such as sports equipment and games (*)	26.1
A separate bed for each child	84.0	Participating neighbourhood clubs, women's & child clubs (*)	23.5
A telephone	81.1	Eating out 2,3 times a month	22.6
Up to \$500 in savings for an emergency	81.1	Lessons (hobby, sports, etc.)	21.9
A washing machine	79.4	Family trip of more than 1 night at least once a year	20.8
Home contents insurance	75.1	Access to the internet	18.9
Presents for family or friends at least once a year	71.6	Juku (private tutoring classes)(*)	16.2
Computer skills	68.7	Walkman, CD/MD Player, etc. (*)	14.7
Attended school unit at least year 12 or equivalent	63.4		
Comprehensive motor vehicle insurance	60.2		
A week's holiday away from home each year	52.9		
A television	50.9		
A car	47.8		
A separate bedroom for each child aged over 10	49.1		
Up to \$2000 in savings for an emergency	44.4		
A special meal once a week	35.9		
A spare room for guests to stay over	31.5		
A night out once a fortnight	35.6		
A home computer	25.9		
A mobile phone	23.0		
A clothes dryer	18.9		
Access to the internet at home	19.7		
A printer	18.6		
A DVD	17.2		
An answering machine	12.3		
A dishwasher	7.6		
A fax machine	5.3		

*Note:* (a) For Japan, items marked with asterisk (\*) are selected as items being necessary for children in particular

within it. This domain accounts for 9 of the 26 necessities in Australia and 7 of the 19 in Japan. Each list includes similar numbers of items that provide protection against unforeseen or longer-term risks, relate specifically to the needs of children, and facilitate participation in special occasions such as weddings or annual holidays. Overall, these similarities more than outweigh the differences in the items included in the original two lists (which in part reflect the different research priorities of the two studies) and in the detailed necessity rankings themselves.

The greater emphasis given to educational success in Japan is evident in the high level of support for high school education being essential (71.7 per cent) compared to 63.4

per cent support for this item (and a far lower ranking) in Australia. Another notable difference is the apparently lower acceptance of consumerism in Australia, where electronic items receive lower levels of support for being necessary than is the case in Japan (where far more people are dependent on jobs located in high-tech manufacturing industries). It is also interesting to note that the degree of support for items being necessary does not always reflect the priorities encapsulated in state policies. Thus, high school education receives a high level of support in Japan where high school education is not compulsory, but lower support in Australia where it is compulsory. Similarly, access to dental treatment receives higher support in Australia where it is not covered by public health insurance, than in Japan where it is.

Table 5 compares the deprivation incidence rates for those items that satisfy the majority rule threshold used to identify necessities in each country. Where the items refer to the needs of a specific sub-group (e.g. children) we assume that those respondents for whom these items are not relevant (e.g. households that do not contain any children) will indicate that while they do not have these items, this is not because they cannot afford them and they will not therefore be identified as deprived.<sup>17</sup> However, it should also be noted that including items only applicable to children introduces a bias towards higher deprivation scores for household with children that can distort the deprivation comparisons between households with and without children.

The average deprivation rate across all items is higher in Australia than in Japan, although the difference is not pronounced. In both countries, deprivation is highest in relation to an inability to afford to save – for emergencies in Australia and on a regular (if modest) basis in Japan – and in the domain of security provision and risk protection more generally. Few people are deprived of medical treatment in either country, although the cost of dental treatment prevents many people from accessing this service when needed in Australia. Overall, accommodation deprivation is higher in Australia, particularly in relation to the quality of the dwelling itself. The child-focused items also suggest that deprivation among children is higher in Australia than

---

<sup>17</sup> This may not always be the case. Some respondents may have non-dependent (older) children living with them and may indicate that they cannot afford the child-related items. Others may indicate that they cannot afford the items even though, strictly speaking, they do not need them. There are some respondents in these situations in Australia, particularly the former. In Japan, the three questions on children's needs were asked only of households that contained a child aged less than 12 years old.

in Japan, even allowing for the larger number of items appearing in the Australian list of child-related necessities (see Table 4). The highest single rate of deprivation occurs in relation to the lack of an annual holiday away in Australia (22.4 per cent), although there is no comparable item in Japan.

**Table 5: The Overall Incidence of Deprivation (unweighted percentages) <sup>(a)</sup>**

AUSTRALIA		JAPAN	
Domain/Item	Incidence (%)	Domain/Item	Incidence (%)
<b>Health/Basic Needs</b>		<b>Health/Basic Needs</b>	
Medical treatment if needed	2.0	To be able to see a doctor	1.8
Dental treatment if needed	13.9	To be able to see a dentist	2.7
Able to buy prescribed medicines	3.9	New underwear at least once a year	7.4
Warm clothes and bedding	0.2		
A substantial daily meal	1.1		
<b>Accommodation/Facilities</b>		<b>Accommodation/Facilities</b>	
A decent and secure home	6.6	Family's own toilet	1.2
Secure locks on doors & windows	5.1	Family's own kitchen	1.1
Roof and gutters that do not leak	4.6	Hot water heater (for kitchen)	3.4
Furniture in reasonable condition	2.6	Family's own bath (inc. shower)	2.2
Heating in at least one room	1.8	Heaters/coolers	0.9
A washing machine	0.8	Micro-wave oven	1.5
Home contents insurance	9.5	Separate bedroom from living space	4.9
<b>Security/Risk Protection</b>		<b>Security/Risk Protection</b>	
Up to \$500 in emergency savings	17.6	Pension premiums for retirement	4.1
Full motor vehicle insurance	8.6	Insurance for death, illness, etc.	7.8
		To be able to save every month	25.0
<b>Children's Needs</b>		<b>Children's Needs (a)</b>	
Up to date school books & clothes	3.8	Education to High School level	0.6
Children participate in school activities and outings	3.5	Books, magazines for children	0.3
Annual dental check for children	9.1	Parents participate in school events	0.6
A hobby/leisure activity for children	5.7		
A separate bed for each child	1.6		
A separate bedroom for older children	6.1		
<b>Social Functioning</b>		<b>Social Functioning</b>	
Telephone	1.5	Telephone	2.0
Regular social contact with others	4.7	Attending relative's weddings, funerals, etc. (including giving gifts)	2.8
A television	0.2	Special suits for funerals, weddings, etc.	2.4
Presents for family or friends	6.6		
Computer skills	5.2		
Week's holiday away from home	22.4		
<b>Mean Incidence rate (unweighted)</b>	<b>5.8</b>		<b>4.1</b>

Note: (a) For Japan, the children's needs were asked only to households with children aged 12 and less.

## Household deprivation patterns

Having briefly examined the overall patterns of deprivation, we now compare the extent and severity of deprivation across household types identified earlier. To keep the analysis manageable, four aggregate indicators are employed: the mean deprivation score (MDS); and the percentages within each group that experience none, at least one and at least two forms of deprivation. The results are shown in Table 6.

**Table 6: Deprivation Indicators by Household Type**

Household type	Mean score (MDS)	AUSTRALIA			Mean score (MDS)	JAPAN		
		D = 0 (%)	D ≥ 1 (%)	D ≥ 2 (%)		D = 0 (%)	D ≥ 1 (%)	D ≥ 2 (%)
Single, working-age (WA)	2.1	48	52	39	1.80	38	62	33
Single, older person (OP)	1.3	62	38	27	1.35	44	56	26
Couple and other adults, head is WA, no children	1.1	66	34	23	0.59	71	29	11
Couple and other adults, head is OP, no children	0.6	75	25	14	0.58	64	36	11
Couple and other adults, head is WA, with children	1.4	60	40	27	1.41	65	35	16
Sole parent, WA with children	3.9	26	74	59	2.65	18	82	65
<b>Total</b>	<b>1.3</b>	<b>62</b>	<b>38</b>	<b>27</b>	<b>0.73</b>	<b>65</b>	<b>35</b>	<b>15</b>

*Notes:* See Notes to earlier Tables.

Since the number of deprivation items is different between the two surveys, the cross-country comparisons of mean deprivation scores and the proportion deprived of none or one or more necessary item are not very revealing. Instead, it is more interesting to examine the similarities and differences in the patterns of deprivation between different households within each country. In contrast to the differences in the patterns of relative poverty between Australia and Japan revealed in Table 3, the results in Table 6 reveal a more similar pattern of deprivation in each country. However, Japanese households containing older people are more deprived than their Australian counterparts, whereas households containing children are somewhat less deprived than in Australia – both results running counter to what might be expected given the relative spending levels on pensions and family benefits. In both countries, sole parents are the most deprived, followed by working-age single people and working-age households with children. Least deprived are older couples, working-age couples without children, and older single people, in that order. These patterns are similar if either the mean deprivation score or the percentage experiencing two or more forms

of deprivation is used as the basis of the comparisons, indicating that the results are robust.

When the deprivation patterns shown in Table 6 are compared with the income and poverty comparisons shown in Table 3, there are some marked changes in the rankings, particularly for single working-age people (who show up as far worse on a deprivation basis) and older couple households (who show up far better). In both countries, households with an older head seem to be consistently less deprived than working-age households of similar composition, even though the poverty rates suggest the opposite. Furthermore, in both countries, households with children have a higher rate of deprivation than households without children. These differences may be interpreted to indicate that the living standards of younger people are lower than their poverty rate suggests, while those of older people are higher. However, they may also reflect systematic differences in the relevance and applicability of the deprivation items, and in the willingness of people at different stages of the life cycle to reveal that they do not want or cannot afford specific items. Other studies have observed that such patterns exist in cross-sectional deprivation data (e.g. Van den Bosch, 2001; Berthoud, Bryan and Bardarsi, 2004) and this is an issue that warrants further examination.

### **Overlap analysis**

Having shown that the poverty and deprivation indicators produce a different ranking of households, we now examine the degree of overlap between the two indicators. This issue has attracted considerable attention in the poverty literature, where it has been used to identify whether those with low-income are actually experiencing deprivation (Bradshaw and Finch, 2003; Perry, 2002) and to identify 'consistent poverty', which exists when people have both an income below the poverty line and are experiencing a specified degree of deprivation (Nolan and Callan, 1989; Nolan and Whelan, 1996). In exploring this issue, we have defined deprivation as being deprived of at least two necessary items. This produces a deprivation rate in Australia that is close to twice as high as the poverty rate (27 per cent compared to 14.8 per cent), whereas the two rates are much closer in Japan (15 per cent for deprivation and 14.3 per cent for poverty). Although it would have been preferable to select the indicators so that they produce similar overall rates, this is not possible when comparing countries, unless it occurs by coincidence.



Table 7 shows that, in both countries, ‘consistent poverty’ – the combination of low-income and at least two forms of deprivation – is well below the income poverty rates presented earlier; 7.7 per cent in Australia (compared with 14.8 per cent) and 5.9 per cent in Japan (compared with 14.3 per cent). Without further investigation, it is not possible to be definitive about why both countries start off with very similar poverty rates, yet consistent poverty ends up almost two percentage points lower in Japan than in Australia. One possible explanation is that the greater tendency for people to live in multi-adult, multi-generation households in Japan provides the capacity basis for increased sharing of resources that protects more of those with poverty-level incomes from being deprived.

**Table 7: Overlap Analysis and Consistent Poverty (percentages)**

Household type	AUSTRALIA				JAPAN			
	Poverty rate (P)	Deprivation rate (D) (D ≥ 2)	P and D	Neither P nor D	Poverty rate (P)	Deprivation rate (D) (D ≥ 2)	P and D	Neither P nor D
Single, working-age (WA)	10.8	39.7	8.2	57.7	17.7	32.3	13.9	62.9
Single, older person (OP)	11.6	29.5	7.8	66.7	25.7	20.0	11.4	65.7
Couple and other adults, head is WA, no children	13.8	23.8	7.7	70.2	11.2	11.2	4.3	81.9
Couple and other adults, head is OP, no children	23.1	14.9	7.0	69.0	20.4	11.0	4.5	73.1
Couple and other adults, head is WA, with children	11.5	26.0	7.0	69.0	12.3	16.6	6.1	77.3
Sole parent, WA with children	22.4	57.9	14.0	33.6	47.1	64.7	41.2	29.4
<b>Total</b>	<b>14.5</b>	<b>26.4</b>	<b>7.7</b>	<b>66.8</b>	<b>14.3</b>	<b>14.6</b>	<b>5.9</b>	<b>77.0</b>

Notes: See Notes to earlier Tables.

In Australia, consistent poverty is spread evenly, at around 8 per cent across all households, with the exception of sole parents, who face a consistent poverty rate that is approaching twice that of other groups. In contrast, there is greater variability in consistent poverty rates across households in Japan, with sole parents experiencing almost seven times the overall rate, and single people living alone (in both age groups) facing more than twice the average rate. Japanese households with more than one adult, with or without children, face consistent poverty rates of 6 per cent or less, lower than any group in Australia.

It is to be expected that when this stricter definition of poverty is applied, it results in fewer people being identified as poor. In aggregate, two-thirds of Australian households and over three-quarters of Japanese households are shown to experience

neither poverty nor deprivation. There are, however, still marked differences within and between the two countries in the incidence of consistent poverty across the different household types. Sole parent households again show up as facing the highest poverty risks, as do single people living alone in Japan. We also see surprisingly similar results when we compare the percentages of those who are income poor and also deprived. Poor single working-age households are very likely to also be deprived (76 per cent in Australia and 79 per cent in Japan), whereas multiple-adult households where the head is an older person, are much less likely to be in this situation (30 per cent in Australia and 22 per cent in Japan). In both countries, living alone greatly increases the risk of poverty, of deprivation, and of both together.

## **6 Conclusions**

This paper has applied a standardised approach to identify necessities and estimate deprivation in two very different countries. The results differ markedly from those based on measuring poverty using income and provide the basis for a more informed understanding of differences in living standards, between and within the two countries. Importantly, the results demonstrate that the deprivation approach can be applied comparatively, and is capable of producing new and illuminating findings.

The paper has analysed data from two national surveys that mirror an approach that is now widely used to identify and measure deprivation. The most notable difference between this paper and previous comparative studies of deprivation is that it makes use of two distinct sets of item lists to identify necessities using the same 'consensual' (majority rule) approach. Despite the differences in the initial lists the items identified as 'necessities' in the two countries have many similarities (illustrating the universal nature of basic needs), and many of the findings derived from the analysis are robust. This evidence confirms that the deprivation approach can be applied to study variations in living standards in countries with vast cultural differences.

Although many of the findings reinforce results from previous studies, the study has also produced some new findings. First of all, the deprivation ranking of household types is strikingly similar between the two countries. In both Australia and Japan, sole parents show up as most deprived, followed by working-age single people and working-age households with children. Least deprived are older couples, working-age couples without children, and older single people, in that order. This similarity exists

despite marked differences in the social policy priorities and living arrangements that exist in the two countries. Secondly, again in both countries, the deprivation rankings differ from the poverty rankings. Working-age households are more deprived than households containing older people, and households with children are more deprived than the households without children, even though the poverty profiles and rankings are very different in the two countries.

These national and cross-national differences in poverty and deprivation may partly explain the weak relationship that exists between income poverty among young and old and spending on family benefits and pensions, respectively. One implication of the results is that Australia's higher spending on family benefits produces a relatively low return in terms of reduced child poverty rates, while Japan's higher spending on pensions is not associated with markedly less poverty among its older people. This may reflect the work disincentives associated with the highly targeted Australian benefits, and the fact that pensions in Japan primarily benefit older people who are not at risk of poverty. However, these remarks are somewhat speculative and require further examination. What is clear is that the four indicators examined here: relative income levels; poverty rates; deprivation rates; and consistent (overlap) poverty rates present a somewhat different picture of the relative performance of the two countries, and the relative standing of different households within each country. Overall, the results suggest that the deprivation approach provides a richer perspective from which to examine poverty than that provided by income-based poverty measures.

## References

- Abe, A. (2006), 'Sotai-teki Hakudatsu no Jittai to Bunseki' ('Analysis of Relative Deprivation – An Empirical Study using Japanese Micro-data'), *Shakai Seisaku Gakkaishi (Journal of Social Policy)*, Vol. 16, pp. 251-275.
- Atkinson, A. B. (2004), 'The Luxembourg Income Study (LIS): Past, Present and Future', *Socio-Economic Review*, Vol. 2, No. 4, pp. 165-90.
- Berthoud, R., Bryan, M. and Bardarsi, E. (2004), 'The Dynamics of Deprivation: The Relationship between Income and Material Deprivation Over Time', *Research Report No.219*, Department for Work and Pensions, London.
- Boarini, R. and d'Ercole, M. M. (2006), 'Measures of Material Deprivation in OECD Countries', *Working Paper No. 37*, Directorate for Employment, Labour and Social Affairs, OECD, Paris.
- Bradshaw, J. and Finch, N. (2003), 'Overlap in Dimensions of Poverty', *Journal of Social Policy*, 32:4, 513-525.
- Combat Poverty Agency 2006, *Measuring Poverty*, Combat Poverty Agency, Dublin.
- Goodman, R. and Peng, I. (1996), 'The East Asian Welfare States: Peripatetic Learning, Adaptive Change, and Nation-Building' in Esping-Andersen, G. (ed.), *Welfare States in Transition, National Adaptations in Global Economies*, Sage Publications, London, pp.192-224.
- Gordon, D. (2006), 'The Concept and Measurement of Poverty', in C. Pantazis, D. Gordon and R. Levitas (eds.), *Poverty and Social Exclusion in Britain. The Millennium Survey*, Policy Press, Bristol, pp. 29-69.
- Gould, A. (1993), *Capitalist Welfare Systems: A Comparison of Japan, Britain & Sweden*, Longman, London.
- Harmer, J. (2008), *Pension Review. Background Paper*, Department of Families, Housing, Community Services and Indigenous Affairs, Canberra.
- Halleröd, B., Bradshaw J. and Holmes, H. (1997), 'Adapting the Consensual Definition of Poverty' in D. Gordon and C. Pantazis (eds.), *Breadline Britain in the 1990s*, Ashgate, Aldershot, pp. 213-34.
- Hills, J., Le Grand, J. and Piachaud, D. (eds.) (2002), *Understanding Social Exclusion*, Oxford University Press, Oxford.
- Mack, J. and Lansley, S. (1985), *Poor Britain*, London: Allen & Unwin.
- Maître, B., Nolan, B. and Whelan, C. T. (2006), 'Reconfiguring the Measurement of Deprivation and Consistent Poverty in Ireland', *Policy Research Series Number 58*, Economic and Social Research Institute, Dublin.
- Martin, J. and Whitehouse, E. (2008), 'Reforming Retirement-Income Systems: Lessons from the Recent Experiences of OECD Countries' *OECD Social, Employment and Migration Working Paper 66*, Directorate for Employment, Labour and Social Affairs, OECD, Paris.
- McKay, S. (2004), 'Poverty or Preference: What Do 'Consensual Deprivation Indicators' Really Measure?', *Fiscal Studies*, Vol. 25, No. 2, pp. 201-23.
- Ministry of Health, Labor and Welfare (MHLW) (2007), *Kokumin Seikatsu Kiso Chosa Heisei 18 Nendo*, Ministry of Health Labor and Welfare, Tokyo.
- Nolan, B. and Callan, T. (1989), 'Measuring Trends in Poverty Over time: Some Robust Results for Ireland 1980-1987', *Economic and Social Review*, vol. 20, pp. 309-28.
- Nolan, B. and Whelan, C. T. (1996), *Resources, Deprivation and Poverty*, Clarendon Press, Oxford.
- OECD (2007a), 'Child Poverty in OECD Countries: Trends, Causes and Policy Responses', document DELSA/ELSA/WP1(2007)17, OECD, Paris.

- OECD (2007b), *Babies and Bosses: Reconciling Work and family Life (Volume 5): A Synthesis of Findings for OEC D Countries*, [www.oecd.org/els/social/family](http://www.oecd.org/els/social/family), OECD, Paris.
- Perry, B. (2002), 'The Mismatch Between Income Measures and Direct Outcome Measures of Poverty', *Social Policy journal of New Zealand*, Issue 19, pp. 101-26.
- Piachaud, D. (1981), 'Peter Townsend and the Holy Grail', *New Society*, September, pp. 419-21.
- Ringen, S. (1987), *The Possibility of Politics*, Clarendon Press, Oxford.
- Saunders, P. and Adelman, L. (2006), 'Income Poverty, Deprivation and exclusion: A Comparative Study of Australia and Britain', *Journal of Social Policy*, 35:4, 559-584.
- Saunders, P., Naidoo, Y. and Griffiths, M. (2007), *Towards New Indicators of Disadvantage: Deprivation and Social Exclusion in Australia*, Social Policy Research Centre, University of New South Wales.
- Sen, A. K. (1985), *Commodities and Capabilities*, North-Holland, Amsterdam.
- Smeeding, T. M, and Saunders, P. (1999), 'How Do the Elderly in Taiwan Fare Cross-Nationally? Evidence from the Luxembourg Income Study (LIS) Project', in S-C Hu et al. (eds.) *Emerging Social Economic Welfare Programs for Aging in Taiwan in a World Context*, Academia Sinica, pp. 205-237.
- Townsend, P. (1979), *Poverty in the United Kingdom*, Penguin Books, Harmondsworth.
- UNICEF (2007), *An Overview of Child Well-Being in Rich Countries. A Comprehensive Assessment of the Lives and Well-Being of Children and Adolescents in the Economically Advanced Nations*, Report Card No. 7, Innocenti Research Centre, Florence.
- Van den Bosch, K. (2001), *Identifying the Poor. Using Subjective and Consensual Measures*, Ashgate, Aldershot.
- Van den Bosch, K. (2004), 'Measuring Deprivation in the EU: To Use or Not To Use Subjective Information', presented to the 28<sup>th</sup> General Conference of the International Association for Research on Income and Wealth, Cork, Ireland.
- Whelan, C. T. and Maître, B. (2007), 'Measuring Material Deprivation With EU-SILC: Lessons From the Irish Survey', *European Societies*, vol. 9, pp. 147-73.
- Whelan, C. T., Nolan, B. and Maître, B. (2008) 'Measuring Material Deprivation in the Enlarged EU', *Working Paper No. 249*, Economic and Social Research Institute, Dublin.
- Whiteford, P. (2006), 'The Welfare Expenditure Debate: Economic Myths of the Left and the Right Revisited', *The Economic and Labour Relations Review*, Volume 17, No. 1, September, pp. 33-78.

