NATSEM
National Centre for Social and Economic Modelling
• University of Canberra •

# Social Inclusion and Exclusion among Australia's Children: A Review of the Literature

Anne Daly

Discussion Paper no. 62
December 2006

ISSN 1443-5101
ISBN 1740882628



National Centre for Social and Economic Modelling
University of Canberra ACT 2601
Australia

170 Haydon Drive
Bruce ACT 2617

Phone + 61 2 6201 2780
Fax + 61 2 6201 2751

Email Client services hotline@natsem.canberra.edu.au
General natsem@natsem.canberra.edu.au

Website www.natsem.canberra.edu.au

Title *Social Inclusion and Exclusion among Australia's Children: A Review of the Literature*
Author(s) Anne Daly
Series Discussion Paper no. 62
Key words Child poverty, social exclusion, neighbourhood effect

**About NATSEM**

The National Centre for Social and Economic Modelling was established on 1 January 1993, and supports its activities through research grants, commissioned research and longer term contracts for model maintenance and development with the federal departments of Family and Community Services, Employment and Workplace Relations, Treasury, and Education, Science and Training.

NATSEM aims to be a key contributor to social and economic policy debate and analysis by developing models of the highest quality, undertaking independent and impartial research, and supplying valued consultancy services.

Policy changes often have to be made without sufficient information about either the current environment or the consequences of change. NATSEM specialises in analysing data and producing models so that decision makers have the best possible quantitative information on which to base their decisions.

NATSEM has an international reputation as a centre of excellence for analysing microdata and constructing microsimulation models. Such data and models commence with the records of real (but unidentifiable) Australians. Analysis typically begins by looking at either the characteristics or the impact of a policy change on an individual household, building up to the bigger picture by looking at many individual cases through the use of large datasets.

It must be emphasised that NATSEM does not have views on policy. All opinions are the authors' own and are not necessarily shared by NATSEM.

Director: Ann Harding



National Centre for Social and Economic Modelling
University of Canberra ACT 2601 Australia
170 Haydon Drive Bruce ACT 2617

Phone + 61 2 6201 2780 Fax + 61 2 6201 2751
Email natsem@natsem.canberra.edu.au
Website www.natsem.canberra.edu.au

# Abstract

This paper reviews the literature in three key areas covered by an Australian Research Council grant, 'Social Inclusion and Exclusion among Australia's Children: A Spatial Perspective' (DP 560192). These are the evidence on the position of children in society, more particularly estimates of child poverty in Australia and how these compare with the level of child poverty in other developed countries; the methodological issues of measuring the broader concept of social exclusion and the results from applying this framework in Australia and other developed countries; and finally the Australian and international evidence on the relationship between area of residence and social exclusion. A risk of social exclusion arises when children suffer from multiple disadvantages that make it difficult for them to actively participate in society.

The international evidence shows Australia in the middle of the league table on child poverty and that child poverty increased in many OECD countries over the 1990s. While the causes are complex, research suggests that demographic factors such as the age of the parents and family structure, labour market factors including the unemployment rate, and the tax and transfer system are important determinants of the level of child poverty. Children in jobless households, sole parent families and members of minority groups faced the greatest risk of living in poverty.

The social exclusion framework examines a broader range of indicators than the more limited focus on household income as a measure of poverty. These include indicators of labour market status, educational attainment, housing status, health and social interaction. The argument for combining this into one summary measure of wellbeing must be traded off against the benefits of presenting more detailed results on individual indicators. The evidence shows that while income is correlated with many of the other indicators of risk of social exclusion, it is far from being perfectly correlated and additional insight can be gained from using a wider range of indicators.

The final research area of interest was the relationship between area of residence and social exclusion. While there is some evidence of a neighbourhood effect on outcomes, it appears to be less important than individual and family factors in determining disadvantage. The literature on the position of children in Australia in the social exclusion framework is limited and this paper provides a basis for our further exploration of this area.

# Author note

Anne Daly is an Associate Professor in Economics at the University of Canberra and a visiting fellow at NATSEM.

# Acknowledgments

This study has been funded by a Discovery Grant from the Australian Research Council (DP 560192). The author would like to thank Ann Harding, Boyd Hunter, Justine McNamara and Robert Tanton for their very helpful comments on an earlier draft and sharing their knowledge on this topic in many stimulating discussions.

# Contents

**Abstract** **iii**

**Author note** **iv**

**Acknowledgments** **iv**

**1 Introduction** **1**

**2 Income Poverty among children** **1**

2.1 International evidence 2

2.2 Australian evidence 5

2.3 Factors correlated with child poverty 8

**3 Social exclusion and inclusion** **11**

3.1 Indicators of social exclusion: methodology 13

3.2 Empirical evidence of social exclusion 16

3.3 International evidence 19

3.4 Australian evidence 20

3.5 Inter-generational effects of social exclusion 24

**4 The relationship between area of residence and social exclusion** **26**

4.1 International evidence 27

4.2 Australian evidence 29

**5 Conclusion** **30**

**References** **33**

**Appendix** **42**

# 1 Introduction

The wellbeing of children has long been a focus of social concern and social policy. Children are the future and what happens in the first years of life is recognised to be important in framing the adult the child becomes. In the literature on poverty, children have received special attention. The position of children has also been studied in the broader literature on social disadvantage and social exclusion. Many of these studies have focused on the individual but others have examined the effects of poverty and disadvantage in a geographical context. These have asked the question: are individual disadvantages compounded by living in areas where there are concentrations of other disadvantaged people? These neighbourhood effects have proved difficult to identify in aggregate data but may nevertheless be real.

This paper surveys both the international and Australian literatures on child poverty, social exclusion and neighbourhood effects on disadvantage. A full survey of these literatures would be a formidable task so we have focused on studies that illustrate the major issues of concern in this research project.[1] We will begin by looking at the literature that focuses on an income measure of poverty for children before looking at studies that have included a wider range of indicators of disadvantage. The third section examines the evidence on the effects of location of residence or neighbourhood effects on the status of individuals. A final section contains a summary and conclusion.

# 2 Income Poverty among children

We have chosen to focus our research on the social inclusion and exclusion of children for the obvious reason that the status of children and the families and households that they grow up in are important for the future of our society. UNICEF has argued that reducing child poverty is 'a measure of progress towards social cohesion, equality of opportunity, and investment in both today's children and tomorrow's world' (UNICEF 2005, p. 3). A further argument for this focus is that earlier research on income poverty shows that children are a group particularly at risk. In addition, Aber and Ellwood (2001) argue that children face a higher risk of persistent poverty than other groups and that young children are particularly at risk.

The evidence of child poverty in the developed countries is usually based on a relative concept of poverty rather than an absolute measure as applied in many

---

[1] For a recent survey and history of Australian research on poverty issues see the Commonwealth of Australia Senate Community Affairs Reference Committee (2004) and associated submissions. See also Saunders (2005) and Greenwell, Lloyd and Harding (2001).

studies of poverty in developing countries.[2] The proportion of the population in high income countries lacking in the minimum requirements for survival is quite small so researchers have applied the term 'poverty' to those living substantially below the community average.[3] The extent of poverty measured in this sense depends on the degree of inequality in the distribution of household income. Where researchers have taken a broader view of poverty than a pure income measure by including other factors such as access to employment and transport networks, they find that poverty still exists in many developed countries (see the discussion of social exclusion below).

In all of the studies discussed here children have been allocated the household disposable income adjusted to take into account the size and composition of the household (the equivalised income). This makes an assumption about intra-household income distribution, that income is distributed equally between household members. This assumption is necessary because data are not usually available on intra-household transfers but it may lead to an understatement or overstatement of the true incomes of children depending on how incomes are really allocated within households. The empirical literature examining the validity of this assumption is limited. The choice of equivalence scale to adjust household income for size and composition is another contentious issue in the literature. Results are sensitive to the choices made on how to equivalise income and where to draw the poverty line.[4]

## 2.1 International evidence

Corak (2005) presents child poverty results from a recent survey of the 26 OECD countries using a poverty line of 50 per cent of median household disposable income. Income was equivalised by using the square root of household size. Child poverty

---

[2] There has been extensive debate in the literature on how much reliance can be placed on income measures of poverty. Income may be mis-reported and may not reflect the availability of resources where households have different levels of wealth and borrowings. Non-cash benefits such as the public provision of health care and education may differ between individuals and countries. Ownership of assets such as houses and cars may also vary between households. Nevertheless data limitations often result in the use of income as a measure of the resources available to a household. For a fuller discussion of these points see Mayer (1997).

[3] For a discussion of the methodology of poverty measurement in the Australian context see Greenwell et al (2001).

[4] For an interesting discussion of the implications of the choice of equivalence scales, the level of the poverty line and the measurement of income on the extent of poverty in the Australian context see Trigger (2003).

rates were found to be higher than the average for the population (including children) in all but five countries: Greece, Denmark, Sweden, Finland and Norway. Australia fell in the group of countries, along with the United Kingdom (UK), the Netherlands, Germany and five others, where the child poverty rate was estimated to be one to three percentage points higher than the rate in the general population. Table 1 presents the child poverty rate for each of the OECD countries in the late 1990s/early 2000s (Corak 2005, p. 27). These data are also presented and discussed in UNICEF (2005). The child poverty rate for Australia fell in the middle of the distribution of countries but towards the higher end. It was estimated that in 1999/2000 14.7 per cent of Australian children lived in poverty.[5] An earlier study by Bradbury and Jantti (2001) examined child poverty in 25 countries during the early 1990s.[6] They applied three measures of child poverty: 50 per cent of the population median household equivalent disposable income; 50 per cent of the child median income; and the United States (US) official poverty line;[7] and found that Australia had a relatively high child poverty rate compared with the other countries in their sample.

Changes in the level of child poverty are also presented by Corak (2005) for OECD countries. In the 24 countries in which it was possible to compare child poverty rates in the late 1980s/early 1990s with those a decade later, 16 had higher rates and in only three, Norway, the US and the UK, were rates statistically significantly lower than they had been at the beginning of the period.[8] The Australian child poverty rate had increased by 1.7 percentage points over the period. This was a relatively small increase compared with many other OECD countries (see Table 1).

---

[5] Most of the estimates presented in this study are derived from the Luxembourg Income Study (LIS) dataset. Unfortunately Australian data were not available in LIS. The study has relied on special tabulations for Australia so it has not been possible to include Australia in all the tables reported in the study. For a recent international study of poverty rates, including rates for children, using the LIS data set see Smeeding (2006). Australia is not included in his comparison.

[6] The countries included in this study were Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Luxembourg, Netherlands, Norway, Poland, Russia, Slovakia, Spain, Sweden, Switzerland, Taiwan, the United Kingdom and the US. The equivalence scale applied in this study is $(\text{adults}+\text{children}*0.7)^{0.85}$.

[7] The US official poverty line is adjusted intermittently to account for changes in the average standard of living and it reflects changes in the costs of purchasing a minimum level of nutrition for a family.

[8] These rates are estimated using a moving poverty line that is 50 per cent of median household disposable income in each year. There is evidence that the US child poverty rate has grown over the 2000s (Annie E Casey Foundation 2005).

Table 1: **Child poverty rates in the OECD during the late 1990s and early 2000s.**

| | Child Poverty Rate<br>Per cent | Change in child poverty rates between late 1980s/early 90s and late 1990s/early 2000s |
|---|---|---|
| Denmark | 2.4 | +0.6 |
| Finland | 2.8 | +0.5 |
| Norway | 3.4 | -1.8 |
| Sweden | 4.2 | +1.2 |
| Switzerland | 6.8 | na |
| Czech Republic | 6.8 | +4.2 |
| France | 7.5 | -0.2 |
| Belgium | 7.7 | +3.9 |
| Hungary | 8.8 | +1.9 |
| Luxembourg | 9.1 | +4.1 |
| Netherlands | 9.8 | +1.7 |
| Germany | 10.2 | +2.7 |
| Austria | 10.2 | na |
| Greece | 12.4 | -0.3 |
| Poland | 12.7 | +4.3 |
| Spain | 13.3 | +2.7 |
| Japan | 14.3 | +2.3 |
| Australia | 14.7 | +1.7 |
| Canada | 14.9 | -0.4 |
| United Kingdom | 15.4 | -3.1 |
| Portugal | 15.6 | +3.2 |
| Ireland | 15.7 | +2.4 |
| New Zealand | 16.3 | +2.0 |
| Italy | 16.6 | +2.6 |
| United States | 21.9 | -2.4 |
| Mexico | 27.7 | +3.0 |

*Source:* Corak (2005).

These findings are confirmed in other country-specific studies. For example, Taylor, Berthoud and Jenkins (2004) use the British Household Panel Survey (BHPS) to examine poverty in Britain over the 1990s. They defined those in poverty as those who fell in the bottom fifth of the distribution of household income and found that children were over-represented among this group. They estimated that poverty declined over the period 1996-2001 compared with the earlier period 1991-95 but still remained higher than it was twenty years earlier.

The studies reported above have aggregated data to produce 'snapshot' evidence of changes in the levels of poverty over time. The increasing availability of longitudinal data has enabled researchers to track individuals over time and to study poverty persistence and transitions into and out of poverty. Bradbury, Jenkins and Micklewright (2001) used household panel data from Britain, Germany, Hungary, Ireland, Russia, Spain and the US to investigate the dynamics of childhood poverty using several measures of poverty. They found that there was considerable mobility in and out of poverty over a period from the mid 1980s to mid 1990s (the exact period differed between countries). Between 40 and 45 per cent of children under 18 years of age in Britain and the US experienced at least one year of low household disposable income (below 50 per cent of median income) over a five year period. In Germany and Hungary it was between 15 and 20 per cent. The authors conclude that about 60 per cent of children whose household income fell in the lowest quintile of the income distribution in one year were still there in the next. Nine per cent of US children remained in poverty each year over a five year period and 6-8 per cent of children in Britain, Germany and Hungary fell into that category. US evidence shows that low income of itself has an influence on future outcomes and that sustained low income has greater adverse effects on children than transitory poverty (Bradbury et al. 2001). We will return to this issue later in the paper.

This picture of considerable movement into and out of poverty has been confirmed in more detailed studies of a number of countries. See for example, Gottschalk and Danziger (2001) for the US; Schluter (2001) for Germany; Hill and Jenkins (2001) for Britain; Nolan, Maitre and Watson (2001) for Ireland; Galasi and Nagy (2001) for Hungary; Klugman and Kolev (2001) for Russia; Piachaud and Sutherland (2002) for Britain; and Corak, Fertig and Tamm (2005) for Germany. Australian evidence will be discussed in more detail below. These studies also confirm that children in lone parent households and children from some minority groups, for example people living in Germany who are not citizens and Black Americans, face higher risks of living in poverty. Each of these studies reports a group of children who remain consistently in poverty over the period under review.

Research on the dynamics of poverty also shows that children can contribute to household transitions into poverty as child care is a reason for parental withdrawal from the labour force. British evidence quoted in Taylor et al. (2004) shows that the birth of a child reduced living standards for a third of individuals and moved 10-15 per cent of the population into the low income category.

## 2.2 Australian evidence

Child poverty research has been limited in Australia by the absence of longitudinal data enabling researchers to track children over time. The development of the Household, Income and Labour Dynamics (HILDA) survey should help to fill this gap. Studies in other countries such as those cited above have shown that 'snapshot' evidence based on cross-sectional data can only tell part of the story. Dynamic aspects of childhood deprivation are also important. Problems in the collection of income data in surveys undertaken by the Australian Bureau of Statistics (ABS) have compounded the difficulties associated with measuring poverty in Australia for all groups (Bradbury 2003).

Saunders (2005) provides estimates that confirm the importance of child poverty in Australia using the Henderson poverty line to enable comparisons over time. While poverty among the aged remained high at 29 per cent of the group, it fell considerably between 1973 and 1996. In contrast, he reports estimates that child poverty doubled over this period from 8 per cent to 16 per cent of children.[9] Other recent studies of child poverty in Australia have concentrated on changes in the level over time. Harding and Szukalska (1999) used the ABS 1982 Income and Housing Survey and the 1994/95 and 1995/96 Survey of Income and Housing Costs (SIHC) to estimate changes in child poverty rates over this period. They report results using four poverty lines. The first three were the Henderson poverty line, half average household disposable income and half median household disposable income. For each of these measures household income was adjusted using the Henderson equivalence scale.[10] The final measure used half median equivalent household disposable income using the OECD equivalence scale.[11] Each of these measures, except that based on the Henderson poverty line, shows a decrease in child poverty over this period (see Table 2). There are technical reasons for discounting the Henderson poverty line results so it is appropriate to focus on the decline recorded in the other estimates (Harding and Szukalska 1999). A study by Harding, Lloyd and Greenwell (2000) using more recent data shows an increase in the poverty rate among children in the latter part of the 1990s from a low point of 8.5 per cent to 9.6 per cent in 2000 (setting the poverty line at half median equivalent income).

Bradbury (2003) highlights the major problems in measuring child poverty in Australia as issues surrounding the data. Setting a poverty line at half median equivalent household disposable income, he found that poverty rates were between 1-3 percentage points higher in the mid 1990s using an annual measure of household income rather than a measure based on weekly income, both derived from the

---

[9] See King (1998) for a fuller comparison of Australian poverty rates over time.

[10] The Henderson equivalence scale gives the first adult a weight of one, 0.56 for the second adult and 0.32 for each child. Dependent children aged 18 and over are given the same weight as the second adult.

[11] The original OECD equivalence scale gives the first adult a weight of one, 0.7 for the second adult and 0.5 for each child. The OECD scale therefore gives additional weight to the second adult and children.

SIHC.[12] A priori it is expected that poverty estimates based on annual income will be lower than those based on weekly income as people are able to smooth their incomes over a longer time period. The Household Expenditure Survey (HES) produced another set of estimates that were lower in the one year where results could be compared between the HES and the SIHC.

Table 2: **Estimates of child poverty rates using four poverty lines, 1982 and 1995/96.**

| | **Henderson** | | **Half Average** | | **Half Median** | | **OECD** | |
|---|---|---|---|---|---|---|---|---|
| | 1982<br>Per cent | 1995/96<br>Per cent | 1982<br>Per cent | 1995/96<br>Per cent | 1982<br>Per cent | 1995/96<br>Per cent | 1982<br>Per cent | 1995/96<br>Per cent |
| All dependent children | 19.5 | 24.2 | 18.2 | 12.5 | 13.6 | 8.0 | 15.9 | 10.0 |
| All children under 15 | 20.0 | 25.3 | 18.7 | 13.0 | 13.2 | 8.5 | 16.5 | 11.0 |

*Source*: Harding and Szukalska (1999)

Davidson, Khan and Rao (2000) use the 1990 SIHC to compare poverty among children in rural and urban areas of Australia. They find that once differences in the cost of living are taken into account, there was a higher proportion of children living in poverty in the capital cities than outside them. The poverty rate was highest among those children living in households where the head was unemployed and among those in large families.

The results of the two studies that have attempted to measure child poverty in Australia in a dynamic context are presented in Abello and Harding (2004; 2006). They used three years of panel data from the ABS Survey of Employment and Unemployment Patterns (SEUP) to estimate child poverty rates using gross family equivalent income in 1995, 96 and 97.[13] Four measures of poverty were calculated: half medium income in each wave; half medium income in wave 1; and those whose income fell in the bottom quintile and decile of the income distribution. The results

---

[12] Bradbury (2003) used the square root of household size to calculate equivalent income. As an example of the different poverty rates Bradbury calculated using current as opposed to annual income, in 1996-97 the poverty rate was estimated at 13 per cent using current income and 14.5 per cent using annual income.

[13] The original OECD equivalence scale was applied as described in the footnote above. Income was measured both by current income and annual income.

showed a higher poverty rate among children than those calculated in the earlier studies by Harding and Szukalska (1999) and Bradbury (2003) but the authors argue that this is due to the use of gross income rather than disposable income in the presence of a progressive income tax rate. The estimated poverty rate for all dependent children fell from 23.1 per cent in 1995 to 21 per cent in 1997 using an annual income measure and drawing the line at half median income.

The study was limited by the small number of years of data and the small sample size but some estimates are presented for income mobility for children. The authors divided the sample into income deciles using current income and found that 31 per cent of children remained in the same income decile over the period and most of those that did move moved to an adjacent decile. There was greater movement between deciles at the bottom of the income distribution than at the top. Taking a poverty threshold of half medium gross current income, 5 per cent of the children were in persistent poverty. This is less than the proportion estimated in international studies of persistent poverty cited above but the results are not strictly comparable as the time frame is shorter for the Australian data and there are definitional differences between the studies. Abello and Harding (2006) found that the proportion of children who were in the bottom income quintile at any stage over a two year period and those who remained there for two consecutive years was similar in Australia to Britain and the US.

Headey and Wooden (2005) use the first three waves of the HILDA survey, 2000-01, 2001-02, and 2002-03 to estimate poverty rates for all Australians and for children under 15 years of age. They define poverty as living in a household where the disposable equivalent household income was less than half the median in that financial year.[14] They estimate that the poverty rate among children under 15 years of age fell from 15.3 per cent in the first wave to 13.2 per cent in the third wave. In line with other studies, they find that there was considerable mobility between income deciles over time with the largest movements being in the middle of the income distribution. 3.7 per cent of children were defined as poor in all of the three years for which they had data. This is below the international estimates reported earlier and may reflect problems with missing household income data in the first wave of HILDA.

## 2.3 Factors correlated with child poverty

The causes of the childhood poverty reported in these international and Australian studies are complex and inter-related. While causation is difficult to prove there are

[14] They used the OECD modified scale that assigns a weight of one to the first adult in the household, 0.5 for all other adults and 0.3 for children under the age of 15 years.

some factors that appear to be correlated with child poverty across nations. UNICEF (2005) grouped them under three headings: social trends; labour market conditions; and government policies. Under the heading social trends, UNICEF (2005) identified the age of parents, size of families, incidence of sole parenthood and geographical location of families as all being important variables correlated with child poverty. Young parents, large family size and lone parenthood were all associated with child poverty. Labour market conditions such as the unemployment rate and the rate of jobless households were also significant. The third category identified was government policies such as the tax and transfer system that make a large difference to the child poverty rate. Countries with similar pre-transfer rates of child poverty can have quite different post-tax and transfer rates. UNICEF (2005) cites two examples. Finland and Portugal had very similar child poverty rates before tax and transfers in 2000, 18.1 per cent and 16.4 per cent respectively. But after government intervention the rate fell to 3 per cent in Finland but did not change much in Portugal. Government intervention reduced child poverty rates by about 10 percentage points in the UK compared with 5 percentage points in the US from a pre-tax and transfer rate of about 25 per cent in both countries. Corak, Lietz and Sutherland (2005) provide further supporting evidence using EUROMOD, a microsimulation model of taxes and transfers in the 15 European Union (EU) countries in 2001, that government taxes and transfers including those not specifically directed at children make an important contribution in reducing child poverty.

Bradbury (2003) examines some of these factors correlated with child poverty in the Australian context. Australia has a relatively high proportion of children living in households without a working adult. He found that both the increase in lone parent households and the increase in jobless households within each family type (lone parent and couple families) contributed to the high rate of jobless households. He also argued that the relatively low level of workforce-age social expenditure as a percentage of GDP contributed to Australia's position in the middle of the table of child poverty levels in developed countries. Saunders (2005) also argues the significance of social policy in alleviating poverty. He suggests that societies can basically choose the level of poverty they are willing to live with by their choice of social policy settings.

Harding and Szukalska (1999; 2000) examined the effect of changes in the Australian benefit system on the incidence of child poverty between 1982 and the mid 1990s. They attributed most of the decline found in their study, discussed above, to changes in the benefit system that greatly improved the economic status of families with children. Especially large changes in the levels of child poverty were experienced in large families with more than four children. Other countries, for example the UK and Ireland, have experienced substantial declines in the child poverty rate in the wake of specific programs directed towards its reduction. However the child poverty rate has also declined in countries such as the US that experienced a strong economy over the 1990s but had limited child-focused social policies. The similar short run achievement of a reduction in child poverty by these different means, government transfer payments or economic growth, may have different implications for the long term welfare of children. The arguments for a reduction in income support and the promotion of work rather than welfare have been discussed in the extensive literature on welfare reform (see Blank 2002 and Moffitt 2002 for surveys).

Another government policy that has contributed to a reduction in child poverty has been the strengthening of enforcement of child support arrangements. Harding and Szukalska (2000) estimate that the proportion of lone parent families receiving child support in Australia rose from 12 per cent in 1982 to 31 per cent in 1997/98 and that without this scheme the child poverty rate could have been 1.2 per cent higher.

The role of policy in terms of non-cash benefits in influencing the availability of resources for low income groups in Australia and the United Kingdom is highlighted in the study by Harding, Warren and Lloyd (2006). They use expenditure data to include the incidence of consumption taxes and the non-cash benefits of education, health and public housing in a calculation of final income for households. Their results for Australia show that direct taxes account for 19 per cent of gross average income and indirect taxes, 11 per cent. Usage of public health, education and housing services accounts for 19 per cent of gross average income. While the inclusion of indirect taxes widens the income distribution, the inclusion of non-cash benefits redistributes income to the poor. The effects of including these additional benefits on child poverty estimates in Australia remain an important area for future research.

# 3 Social exclusion and inclusion

The results discussed in the preceding section have focused on income poverty but following the seminal works of Sen (1987) [15] and Townsend (1979) [16] many recent studies have taken a wider view of poverty and included a range of indicators reflecting the view that poverty is not measured solely by current income levels. Different terminology has been used to describe this broader concept. The debate in the US has referred to the underclass, defined by Wilson (1987, p. 8) as

> 'individuals who lack training and skills and either experience long-term unemployment or are not members of the labour force, individuals who are engaged in street crime and other forms of aberrant behavior, and families that experience long-term spells of poverty and/or welfare dependency'.

The European debate has adopted the terminology of social exclusion to encompass this broader view of the components of poverty. According to the British Social Exclusion Unit (SEU) established by the Blair government in 1997

> 'social exclusion happens when people or places suffer from a series of problems such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime, ill health and family breakdown. When such problems combine they can create a vicious cycle.
>
> Social exclusion can happen as a result of problems that face one person in their life. But it can also start from birth. Being born into poverty or to parents with low skills still has a major influence on future life chances'.
> (SEU, Office of the Deputy Prime Minister, undated)

The EU has also subscribed to a definition of social exclusion that emphasises its dynamic aspects and the inter-relationship between individuals and their surroundings. The Eurostat Taskforce on Social Exclusion and Poverty Statistics defined social exclusion as

> 'a dynamic process, best described as descending levels: some disadvantages lead to some exclusion, which in turn leads to more disadvantages and more

---

[15] Sen (1987) argued that 'functionings and capabilities' were important in determining a standard of living and these will differ between societies with different average standards. See Headey (2005) for a discussion of this framework in an Australian context.

[16] Townsend (1979) defined poverty as a 'lack of resources necessary to permit participation in the activities, customs and diets commonly approved by society' (1979, p. 88). He included, cash income, capital assets, employment fringe benefits, public social services and private income in kind.

> social exclusion and ends up with persistent multiple (deprivation) disadvantages. Individuals, households and spatial units can be excluded from access to resources like employment, health, education, social or political life'. (Eurostat 1998 quoted in Micklewright 2002, p. 7)

There has been an ongoing debate in the academic literature about how to define the concept of social exclusion but less discussion of the concept of social inclusion. Atkinson (1998) argues that there are three important elements in a full definition of social exclusion. The first element is relativity, the importance of the context in which people are living. Social exclusion of an individual or a group of individuals takes place in relation to current social norms. The second element defined by Atkinson (1998) is agency. Exclusion implies that someone or some organisation is acting to prevent participation. For example, people living in poor neighbourhoods may be ineligible to take out insurance or may not have access to banking services. The final element focuses on the dynamic aspect of the problem. People who are socially excluded experience long term problems beyond their current status. While current unemployment is a problem, the fact that a person has little chance of sustained employment in the long term is the major issue when discussing social exclusion.

Many other aspects of social exclusion have been debated in the literature. One question is whether social exclusion is a voluntary or involuntary state. Should equal weight be given to the rich moving into gated communities as to disadvantaged individuals concentrating in particular neighbourhoods (Barry 2002)? Further related to the question of agency is the issue of individual responsibility for outcomes: to what extent do individuals choose their lives; or how important are social and political institutions in determining outcomes (Burchardt, Le Grand and Piachaud 2002a; Saunders and Tsumori 2002)? Saunders (2003) emphasises the importance of understanding the process of social exclusion for the adoption of appropriate social policies. Much of the empirical estimation has focused on the characteristics of the socially excluded but, Saunders argues, it is necessary to understand the 'individuals, institutions, structures or conventions' that enable social exclusion to persist before social policy can be used to improve the lot of the socially excluded (2003, p. 7).

Burchardt et al (2002b) identify four dimensions of social exclusion. They stress that there are degrees of social exclusion, it is not just an 'in or out' concept. The first dimension is in consumption where individuals do not have the capacity to purchase goods and services. The second occurs in production where individuals are unable to find employment. Atkinson (1998) notes here the important role of employers in providing opportunities for people from disadvantaged backgrounds. The third dimension of social exclusion is in involvement in local and national politics and organisations. The final dimension identified by Burchardt et al (2002b) is in social interaction and support at a family and community level. These four dimensions have been used extensively in the British and EU empirical literature on social exclusion.

The emphasis in definitions of social exclusion on relativity and agency has been supported in work undertaken with focus groups in low income social housing areas in Britain. Richardson and Le Grand (2002) from the Centre for Analysis of Social Exclusion (CASE) at the London School of Economics report that in addition to the four dimensions discussed above, an extra dimension of consumption of publicly-provided services such as public transport, education and health and public goods such as a safe neighbourhood, should be included. The focus groups also emphasised the importance of neighbourhoods as well as individuals suffering from social exclusion. Whole areas can be affected by a lack of shops, transport, facilities and jobs and the negative perceptions of outsiders of the area.[17]

## 3.1 Indicators of social exclusion: methodology

Atkinson, Cantillon, Marlier and Nolan (2002) have identified a number of characteristics that good indicators of social exclusion should possess. They argue that indicators should have a clear and well accepted interpretation and be robust and statistically valid. They should be responsive to policy intervention but not to manipulation for political ends. Indicators should be readily available or easy to add to existing statistical collections. Their book is directed towards the establishment of a set of social indicators for the EU and they propose three levels of indicators. The first level is the main or lead indicators which should be available for all the EU countries and should include material deprivation, lack of education, lack of a productive role, poor health and poor housing. The second level, they argued, should include more detailed indicators across all member countries and the third level should include indicators of specific interest to particular countries and therefore need not be comprehensive for the EU.[18] See Table 3 for a list of their proposed first and second level indicators to be discussed below.

Moore (1997) listed a similar set of criteria for indicators of child wellbeing in the US. She emphasised the importance of comprehensive indicators that would be available over time and were easy to interpret and disseminate. A full list of her criteria is presented in Table 4.

---

[17] For a discussion of the concept of social exclusion in the Australian context see Saunders (2005). Saunders and Tsumori (2002) criticise the concept on the grounds that it is too inclusive and that a large proportion of the population can be defined as socially excluded depending on the range of indicators adopted.

[18] See for example, Eurostat (2002) and Guio (2005) for examples of the types of indicators being used to measure social exclusion in the EU.

## Table 3: **Indicators of social exclusion proposed for the EU.**

**Level 1 Main Indicators**

Risk of financial poverty – equivalent incomes below 50 and 60 per cent of the national median using the OECD modified equivalence scale.

Income inequality measured by the quintile share ratio

Proportion of those aged 18-24 who have lower secondary education only and are not in further education or training leading to a qualification

Overall and long-term unemployment rates

Proportion of population living in jobless households

Proportion failing to reach 65 or the ratio of those in the bottom and top income quintiles who report themselves as having bad or very bad health.

Proportion of people living in households lacking specific amenities

***Level 2 Secondary Indicators***

Proportion of people in households below 40 per cent and 70 per cent of median income and the proportion below 60 per cent of a real median fixed at a particular date

Proportion of population living in households that are persistently at risk of financial poverty

Mean and median equivalised poverty gap setting the poverty line at 60 per cent of median income.

Income inequality measured by the decile ratio and the Gini coefficient

Proportion of population aged 18-59 with only lower secondary education or less

Proportion of discouraged workers, proportion of working aged population not in employment and proportion in involuntary part-time employment (excluding those in full-time education).

Proportion of population living in jobless households with current income below 60 per cent of median.

Proportion of employees living in households at risk of poverty (60 per cent of median)

Proportion of employees who are low paid

Proportion of population unable to obtain medical treatment for financial reasons or because of waiting lists

Proportion of population living in overcrowded housing

Proportion of population living in households that have been in arrears on rent or mortgage payments

Proportion of population living in households unable in an emergency to raise a specified sum

*Source:* Atkinson et al (2002, pp. 196-7).

Table 4: **Moore's criteria for indicators of child wellbeing**

1. Comprehensive coverage across a range of outcomes, behaviours and processes
2. Age-appropriate indicators covering all children
3. Clear and comprehensible to the general public
4. Positive outcomes as well as negative aspects of wellbeing.
5. Measures of dispersion across an indicator and duration of status
6. Common interpretation for all groups covered by indicators
7. Consistency over time
8. Collected in anticipation of future use and provide a relevant baseline
9. Data collection methods should be rigorous
10. Geographically detailed at state and local level
11. Data collection should be cost effective
12. Reflect social goals for children
13. Adjusted for demographic trends reflecting changes in the composition of the population

*Source*: Moore (1997).

In many countries specific indicators have been developed by government agencies and social welfare advocacy groups to monitor changes in social exclusion and the position of children. For example, the British SEU and the Department for Work and Pensions, the Annie E. Casey Foundation in the US, the New Zealand Department of Social Development, Campaign 2000 in Canada and the US Federal Interagency Forum on Child and Family Statistics all regularly produce indicators on a range of issues relating to the status of children.[19] While the detail presented in the reports is important for establishing policy objectives, the question arises whether interpretation would be facilitated by the use of a composite index. The use of a

[19] The most recent report of the US Forum on Child and Family Statistics (2005) lists over thirty indicators of child welfare under the headings population and family characteristics, economic security, health, behaviour and social environment and education. The Annie E Casey Foundation (2005) in its annual publication *Kids Count* includes 80 measures for each of the 50 American states. The New Zealand Ministry of Social Development (2005) presents 35 indicators of child welfare under the headings health, care and support, economic security, safety, education, civil rights, justice, culture, social connections and the environment. The British SEU (2004) and the Department of Work and Pensions (2004) present a report on the current status of a range of indicators including poverty and unemployment, educational attainment, and homelessness that have been established under the Blair government's policy to eradicate child poverty by 2020. Campaign 2000 (2005) provides an annual assessment of children in poverty in Canada and data on lone parenthood, education, housing and child care issues.

composite measure has the advantage of summarising a range of specific indicators and being easier to communicate to the wider public through a 'headline measure' (Micklewright 2001; Barnes 2001). Micklewright (2001) uses the example of the Human Development Index (HDI) calculated by the United Nations Development Programme (UNDP) to argue that a single composite measure can provide important input to public debates on development issues. The index is a simple average for each country of three indices: GDP per capita, life expectancy, and educational attainment.[20] A composite index facilitates comparisons between countries or regions that might perform quite differently on each component of the index. It can also be used to highlight individuals at risk of facing particular disadvantages based on earlier evidence. For example, Barnes (2001) cites the use of a 'birth risk index' that includes three elements: mother under 20 years of age, mother unmarried, and mother has fewer than 12 years of education. Children scoring highly on this index can be considered at risk on the basis of earlier evidence of a correlation between these indicators and disadvantage.

A disadvantage of a composite index is that by summarising a number of components, it might obscure significant results, especially if there are substantial differences in the level of performance on each of the components. For example, two areas might look the same on an index but one might have high levels of child poverty but low levels of infant mortality while the other has the opposite. For the development of appropriate social policy a breakdown in this instance is important. A further disadvantage of a composite index is that the final result will reflect the choice of inputs and the method of construction which are by necessity arbitrary (Micklewright 2001). On balance there are arguments for making both the components and a final composite index available.

## 3.2 Empirical evidence of social exclusion

The availability of household survey data has enabled researchers to do much more work on the identity of individuals at risk of social exclusion than on the individuals and social institutions that may be responsible for the outcome. There is now a broad agreement among researchers in Europe on the topics that should be covered in any analysis of social exclusion (see for example the British SEU and EU indicators, Atkinson et al (2002)). These include the following –

- Income and poverty;
- Employment;
- Education and skills;
- Health;
- Housing;

[20] For the most recent report see UNDP (2005).

- Transport;
- Crime and perceptions of the level of criminal activity;
- Social support and social capital; and
- Neighbourhood effects.

The final list of indicators used in each study of social exclusion has depended in part on the availability of data. All studies use a measure of income deprivation but the other factors considered vary. Table 3 presents the indicators proposed in the study by Atkinson et al (2002) for the EU as an illustration of the specific indicators that have been applied. They fall under five broad headings: financial poverty and income inequality; educational indicators; unemployment and joblessness; health status and availability of health care; and housing quality. Many similar indicators are available for Australia from current ABS publications or will become available if the proposed index of social capital is developed (ABS 2002; 2004; 2005). Most studies prefer to present their results for each chosen indicator rather than aggregating them all into one measure. Indicators such as those presented in Table 3 can be used to make comparisons between countries and over time. Apart from the income poverty indicators, they have typically not involved setting a line demarcating acceptable from unacceptable levels.

An important question is whether the use of a wide range of indicators does in fact add additional information for understanding social disadvantage as there are substantial costs involved in collecting and processing information. If, for example, all indicators were closely correlated with income poverty then there would be little to be gained by going beyond the measure of income poverty.

Bradshaw and Finch (2003) investigated this issue using British data from the Poverty and Social Exclusion (PSE) Survey. They had three different measures of poverty: lacking socially perceived necessities; being subjectively poor; and having relatively low income.[21] They estimated poverty rates of between 17 and 20 per cent for each of these measures but found that those defined as poor differed according to the measure used. While 32.9 per cent of the sample were poor on at least one measure, only 5.7 per cent were poor on all the measures.

A paper by Cappellari and Jenkins (2004) further illustrates the different results that arise from using different measures of disadvantage. They used data from the 1996 wave of the British Household Panel Survey (BHPS) to estimate multivariate probit

---

[21] Items or services were defined as necessities if over 50 per cent of a survey conducted among the general population considered them as necessities. Material deprivation was defined as those lacking at least four of these necessities. Those in subjective poverty were the respondents who stated that their income was below that required to keep a household of their type out of poverty. Income poverty was set at 60 per cent of net equivalent household income. The modified OECD scale was used to calculate equivalent income.

equations that predict the probability of a household suffering from material deprivation as measured by their responses to a series of yes/no questions.[22] They found that there were differences between the probability of a household experiencing material deprivation (measured here by a positive response to one or more of the selected questions) and those described as income poor.[23] The group that accounted for the largest share of those in the low income group were pensioner women but the largest group suffering from material deprivation as measured here were couples with children and at least one full-time worker.

Taylor, Berthoud and Jenkins (2004) in their exhaustive study of social exclusion based on individual level data from 11 waves of BHPS, 1991-2001, studied the correlations between a wide range of indicators of disadvantage. The study covers both people of working age and pensioners but we will focus attention on the results for working aged people as this group are likely to be more representative of households in which children are living. They used three tests to look at the relationship between indicators. The first was the Pearson chi-squared test which tests the null hypothesis that the measure of disadvantage and an individual's income group are independently distributed. The second measure was a non-parametric test for trend to see if income measured as a continuous variable was related to each other measure of disadvantage. The final statistic used was Spearman's rank correlation coefficient.

Results based on all these tests are included in their paper but we have limited discussion here to their results based on Spearman's rank correlation coefficient for 1991, 1996 and 2001. They found that 'living in a workless household, living in social housing, in more overcrowded conditions, the number of consumer durables, and lifestyle hardship'[24] were the disadvantage indicators most closely correlated with being in the lowest quintile of the income distribution in each cross section of the panel (Taylor et al. 2004, p. 9). Each of these had a correlation coefficient above 0.3. Mental health, subjective social isolation and living alone were least correlated with

---

[22] The respondents in BHPS were asked whether they could not afford to keep their house adequately warm; pay for an annual holiday away from home; replace worn furniture; buy new rather than second hand clothes; eat meat, chicken or fish every second day; have friends or family for a drink or meal at least once a month if they wished.

[23] They used household disposable equivalent income below 60 per cent of median income adjusted by the modified OECD equivalent scale as the line for defining poverty.

[24] Lifestyle hardship is the term used to describe an inability to afford two or more of the items listed in footnote 17.

low income; each having a correlation coefficient below 0.1.[25] Income was the indicator most highly correlated with each of the other indicators of social disadvantage but as the results reported here show, it was far from a perfect correlation.

## 3.3 International evidence

There is a substantial literature reporting results of studies of social exclusion, especially in Europe. A full review of all these studies is beyond the scope of this paper. Bradshaw, Kemp, Baldwin and Rowe (2004) provide a thorough review of the UK literature on the drivers of social exclusion prepared for the SEU. They argue that at a macro level the demographic structure, conditions in the labour market and social policy are all important determinants of the level of social exclusion in the UK. This list of key factors is very close to the factors reported in the earlier part of this paper as determinants of child poverty. At the level of the individual, the authors highlight the importance of low income, especially persistent low income as a determinant of social exclusion. Other key indicators of social exclusion were unemployment, low levels of education, ill-health (including substance abuse, mental health, teenage conceptions, child accidental deaths and premature deaths of men), poor housing and homelessness, and lack of affordable and reliable transport.[26] They concluded that at the level of the local area, neighbourhood effects, to be discussed in more detail below, appear to have a small but measurable impact on social exclusion.

Most studies of social exclusion focus on the adult population. Adelman and Middleton (2003) offer results derived from the British PSE survey of estimates for social exclusion for children. They adopt three measures of social exclusion: exclusion from social activities; exclusion from children's local services; and

---

[25] Test statistics were presented for the relationship between low income and the full list of indicators: unemployment, workless household, education, social housing, persons per room, house quality, health index, smoker, mental health, social isolation, lives alone, organisations, durables, lifestyle hardship, financial stress. See Appendix 1 for a fuller description of indicators.

[26] For an Australian-based survey of the predominantly European literature on the relationship between housing and social exclusion see Arthurson and Jacobs (2003).

exclusion from school resources.[27] They present results for social exclusion according to poverty status measured by three criteria: household income below 40 per cent of the median, parent lacking at least two of the items considered as necessities for adults, and children lacking at least one item considered necessary for children. Children were defined as not in poverty if they were not poor on any of these measures, non-severely poor if they were poor on one or two of these measures and severely poor if they were poor on all three measures.

Their results show that children in severe poverty were more likely to be excluded from social activities than either of the other groups. There was no correlation between poverty and access to local services or for most of the school resource indicators. The exception was in the category 'other problems due to lack of resources at school' which by its general nature is difficult to address.

## 3.4 Australian evidence

Travers and Richardson (1993) present a theoretical and empirical discussion of what they describe as 'material deprivation', a broader concept than income poverty. Their measure, based on data from the Australian Standard of Living Survey conducted by the ABS, uses income poverty and direct measures of material disadvantage. These include the inability to raise $1500 in an emergency; lack of a washing machine, refrigerator, telephone, indoor toilet or a colour television; not owning or buying a home; and not owning a car. They do not aggregate these measures into one indicator but argue that they should each be taken into account in assessing whether people are living decently in Australia.

[27] Seven social activities were chosen, some of which were age-specific. Parents were asked whether their children did not participate in the following activities because they could not be afforded: a hobby or leisure activity, celebrations on special occasions, swimming at least once a month, playgroup at least once a week, holiday away from home for at least a week per year, school trip at least once a term, and friends round for tea or a snack fortnightly. To measure exclusion from local services, parents were asked if their children had access to local and safe play facilities, school meals, youth clubs, after school clubs, public transport to school and nurseries, playgroups and mothers and toddler groups. Exclusion was defined by either lack of access or the service being unaffordable. Exclusion from school resources was measured by missed classes because of teacher shortages, shared school books in key subjects, difficulty obtaining school books, school not having enough computers, classes with more than 30 pupils, school buildings in bad state of repair and other resource problems.

There has been limited empirical work using the concept of social exclusion in Australia.[28] Saunders (2003) used data from the 1998/99 Household Expenditure Survey (HES) to make some preliminary calculations of the level of social exclusion in Australia. He found that the major form of social exclusion, defined as reporting two or more problems in each area examined in the study, social interaction, domestic deprivation, and extreme consumption hardship, was a lack of social interaction measured at twice the level of domestic deprivation and four times the level of extreme consumption hardship.[29] Sole parents were the most excluded group. Saunders (2003) found a limited overlap between those measured as income poor and those experiencing material deprivation.

This work has been extended to compare outcomes in Australia with those in Britain (Saunders and Adelman 2005). The authors compared household equivalent income between the two countries and set the poverty line at 40, 50 and 60 per cent of median income, using the OECD modified scale to create equivalent income. They found that poverty was higher in Britain than in Australia. However, when they compared the two countries on material deprivation and social exclusion, they found that the levels were higher in Australia.[30] Lone parents were the group with the largest percentage suffering from material deprivation and social exclusion in both

---

[28] For an Australian perspective on the general issues see Fincher and Saunders (2001) and Whiteford (2001).

[29] Lack of social interaction was measured by responses to the statements: cannot afford a week's holiday away from home once a year, cannot afford a night out once a fortnight, and cannot afford to have friends/family over for a meal once a month. Domestic deprivation was measured by responses to the following statements: cannot afford a special meal once a week; in the last year due to shortage of money, could not pay gas, electricity or telephone on time; in the last year due to shortage of money went without meals; in the last year due to shortage of money unable to heat home. Extreme consumption hardship was measured by responses to the following statements: in the last year due to shortage of money could not pay car registration or insurance on time; in the last year due to shortage of money pawned or sold something; in the last year due to shortage of money sought assistance from a welfare or community agency.

[30] Material deprivation was measured by respondents giving a positive answer to at least one of the following statements: that they were unable to pay gas, electricity or telephone bills; had to pawn something; had to borrow money; missed meals; and unable to heat home. Social exclusion was measured by a positive answer that they could not afford at least one of the following: one weeks holiday away from home each year; a night out once a fortnight; family or friends for dinner once a month; special meal once a week; new clothes, buys second hand most of the time; spend time in leisure or hobby activities.

countries. [31] The authors caution against making too much of the international comparisons of results given differences in social expectations and the phrasing of survey questions between the two countries.

Bray (2001) also used data from the HES 1998/99 to look at the incidence of financial hardship in Australia. He concluded that some financial deprivation was common among Australian households but a relatively small proportion of households, 3.1 per cent, faced multiple hardships (defined as having two or more hardship responses: being unable to afford heating or meals, or pawning and selling possessions, or asking for assistance from community organisations). He argued that multiple hardships were particularly important for children under 15 years. The factors associated with hardship were low income, absence of employment, income support, youth, rental housing and a disability restriction.

Hunter (2001) examines the relationship between low income and a range of other indicators of disadvantage for Indigenous Australians using data from the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) conducted by the ABS. He found that low income was not closely correlated with other indicators of disadvantage such as poor housing, health problems, being a victim of crime and having been arrested in the past five years. His results show that Indigenous disadvantage is not solely related to income poverty.

Headey (2005) also presents data from HILDA on a range of indicators of disadvantage with respect to the financial, employment, health, and family and social aspects of life. He argues for a policy focus on different indicators at different stages of the life cycle. For example, education and health are important for children and the opportunity for work experience particularly significant for young adults.

There have been a range of studies of disadvantaged children in Australia and the impact of poverty on indicators including their education and health, and the social and economic implications of poverty. See the Commonwealth of Australia Senate Community Affairs Reference Committee (2004) for a survey. These studies are often specific to particular fields and have not been conducted within the broad framework of social exclusion established in the literature. One example of an annual series of indicators on health issues has been prepared by the Australian Institute of Health and Welfare (AIHW) since 1996. Their reports include indicators on health (e.g. mortality and morbidity), child development (e.g. immunisation, healthy weight, tobacco and alcohol use), child security and safety (e.g. injuries, abuse and

---

[31] They found in Australia that 12.7 per cent of lone parents had three or more indicators of material deprivation and 26.7 per cent had three or more indicators of social deprivation. In Britain the percentages for lone parents were 4.7 per cent for three or more indicators of material deprivation and 28.9 per cent had three or more indicators of social deprivation. Material deprivation and social exclusion are defined in the footnote above.

neglect), learning and development (e.g. early learning and school readiness, educational benchmarks) and the relationship between children and families (e.g. rate of children in out-of-home care).[32]

A study within the social exclusion framework focused on children is that of Daly and Smith (2005) which presents indicators of risk of social exclusion for Indigenous children. Based on data from the Population Census 2001, they found that Australian Indigenous children were more likely to live in lone parent families or with relatives rather than their biological parents and in households with low incomes in which the adults were less likely to be employed than their non-Indigenous counterparts. The households were more reliant on welfare and their parents had lower levels of educational attainment than among other Australians.

The Brotherhood of St Laurence in its Life Chances Study (2005) of 167 children born in inner Melbourne in 1990 examines the impact of family income on outcomes from children as they develop. Following a series of earlier reports, Taylor and Fraser (2003) present the results of their study of the children aged 11-12 years. They found that 74 per cent of the children who were living in low income families (defined as family income more than 120 per cent below the Henderson poverty line) at the age of 6 months were still in this group at age 11-12 years. They found some evidence of poorer educational outcomes and fewer opportunities to participate in social activities for these children compared with children from more affluent backgrounds.

In December 2005 the Brotherhood of St Laurence published the first of their social barometers on Australian children.[33] This included data on a wide range of indicators such as physical health, mental health, housing and homelessness, education, physical safety and income (Scutella and Smyth 2005). The data are not combined to present a composite index. On some indicators where time series data are presented, for example infant mortality, there is some evidence of improvements but on other indicators such as child protection substantiations, there has been a rising trend in recent years. Australia is compared with other countries on another group of indicators and performs poorly on suicide rates of males aged 15-24 years and the percentage of 4 year old children in primary or pre-school. The Brotherhood concluded that their social barometer of children's life opportunities is at

---

32 For a more detailed discussion of the indicators see AIHW 2004. Hetzel and Glover (2003) also examine indicators of child health and their relationship to family income and link this to the development of policy.

33 For an earlier study of the issues surrounding child poverty in Australia from the Brotherhood see McClelland (2000). Anglicare has also begun an annual series on the state of the family in Australia in 2000. The reports include a general discussion of relevant issues (see for example Leppert 2005).

'dangerously high' risk for disadvantaged children although the method used to arrive at this conclusion is not clearly explained. Some of the issues discussed by the Brotherhood receive more detailed consideration in Stanley, Richardson and Prior (2005).

## 3.5 Inter-generational effects of social exclusion

Some longitudinal studies have linked child indicators of income poverty and social exclusion to outcomes for the children as adults. A significant issue in interpreting the results of longitudinal studies relates to the problem of attrition from the sample and the introduction of potential bias into the results because of differences between the individuals who remain in the sample and those who do not.

A number of models have been proposed to explain why childhood poverty may have negative effects on the outcomes for children later in life. The first is based in the human capital tradition. Parents lacking financial resources may be unable to invest time and money in their children. A second model focuses on the effects of the stress of poverty on the ability of parents to provide good care for their children. A third model proposes that disadvantaged parents may have undesirable values and behavioural patterns that they pass on to their children (Mayer 1997). The studies presented here do not attempt to distinguish between these hypotheses but rather focus on statistical relationships between child poverty and a range of outcome measures.

Hobcraft (2002) uses data from the British National Child Development Survey (NCDS) for the cohort born in 1958 to look at adult outcomes on a range of measures and their relationship with childhood factors. These adult indicators included young parenthood, extramarital births, three or more co-residential partnerships, a high malaise score, living in social housing, receipt of non-universal benefits, adult homelessness, lack of qualifications, low income and unemployment. He found that four childhood factors were most important for negative adult outcomes: educational test scores, childhood poverty, contact with the police, and experience of family disruption (born out of wedlock, being in care, widowhood, divorce and remarriage). Some specific childhood indicators were important for particular adult outcomes but were not significantly related in general. For example, parental interest in schooling as measured by teachers was correlated with adult educational outcomes.

Sigle-Rushton (2004) examines data from the 1970 British Cohort Study to explore links between social exclusion at age 30 and earlier childhood experiences. Sixteen outcome measures are presented separately for males and females: young father/teenage mother, extra-marital birth, non-union birth, social housing, any benefits, ever homeless since age 16, no qualifications, lowest earnings quartile own earnings for men or own and partner's for women, social class IV or V (semi/unskilled manual), currently unemployed, ever used drugs (not cannabis), smokes every day, long term illness limits work, malaise,[34] general health, ever arrested, and taken to a police station. An additional indicator, ever lone parent, is presented for women. The study finds that childhood poverty was correlated with 26 out of 33 adult outcomes but the effects were not very large. Sigle-Rushton (2004, p. 84) concludes

> 'some variables - academic test scores, housing tenure, and experience of childhood poverty - are strongly and consistently related to a wide range of outcomes. We also find, [similar to Hobcraft], some evidence of the intergenerational transmission of disadvantage and of continuing disadvantage over time. Cohort members who lived in local authority housing as children are more likely to live in social housing as adults, those who lived with a single parent are more likely to have had an extra-marital first birth and to have become lone parents themselves. Those with low household incomes are more likely to grow up to have low (own or family) earned incomes themselves'.

Other British studies reported in Bradshaw et al (2004) also find a correlation between childhood poverty and adverse outcomes for adults on a wide range of indicators.

The American literature confirms many of the findings reported above for Britain. Corcoran (2001), for example, reports the results of a study of the correlation of child poverty with outcomes for young adults aged 25-27 years. She finds that childhood poverty defined as living in a family where family income was below the census poverty line in each year the individual was recorded as a child, was correlated with a range of negative outcomes

> 'Poor children average 1.4 fewer years of schooling than do nonpoor children, and they are more than three times as likely to have dropped out of high-school. Poor girls are more than twice as likely to have had a teen birth, and they are 2.6 times more likely to have had an out-of-wedlock birth than nonpoor girls. Poor boys work fewer hours per year, have lower hourly wages, have lower annual earnings, and spend more weeks idle in their midtwenties than do nonpoor boys. Poor children have higher poverty rates (24 percent versus 4 percent) and lower incomes ($21,514 versus $36,003) in their midtwenties than do nonpoor children'.
> (Coracan 2001, p. 143)

---

[34] This is measured by the Malaise Inventory which includes 24 test items designed to identify people at risk of depression (Sigle-Rushton 2004, p. 4).

After controlling for other factors likely to affect outcomes, such as family type, Coracan (2001) argues that there remains a sizable negative effect of childhood poverty on earnings and income in the mid-twenties and a smaller effect on education and fertility. Duncan and Moscow (1997) and Smith, Brooks-Gunn and Jackson (1997) provide additional US evidence of a link between child poverty and parental employment and negative outcomes for these children as they age.

The lack of longitudinal data in Australia has limited research on the inter-generational transmission of social exclusion. Pech and McCoull (1998) report some preliminary results from the small Negotiating the Life Course Survey covering young adults aged 18-24 years and conducted by the Australia National University. Respondents were asked questions about their parents as well as themselves. There was evidence of some statistically significant correlations between parent's educational attainment and that of the young adults, and young motherhood among the respondents and lone parenthood of their mothers. Brown (2005) builds on this research using administrative data and finds that there is some evidence of young people whose parents had experienced disadvantage being more likely to also be in receipt of income support. This was particularly true for the most disadvantaged children.

# 4 The relationship between area of residence and social exclusion

The results discussed in the preceding section have focused on social exclusion at the level of the individual but the SEU and EU definitions indicate that social exclusion is also a term that can be applied to an area or neighbourhood.[35] This implies that there are some externalities involved in having people with particular economic or social characteristics concentrated in an area that go beyond any effects measured at the individual level. Bradshaw et al. (2004, p. 86) define a neighbourhood effect as 'the net change in the contribution to life-chances made by living in one area rather than another.'

Buck (2001) presents six hypotheses that might explain these externalities. Firstly there is the 'epidemic model' that hypothesises that behaviour is contagious and peer

[35] As is common in economic and social research, it has proved difficult to reach agreement on the definition of a neighbourhood. Researchers recognise that the term may have different meanings in different contexts so one individual's neighbourhood in terms of the area in which they would be willing to look for work may differ from their social neighbourhood, that is the area in which they undertake social activities.

pressure produces negative outcomes for a cohort. For example, school dropouts encourage others among their peers to also drop out. A 'collective socialisation' model proposes that role models within a neighbourhood have an important influence on a child's socialisation. If a child lives in a community where few adults are employed, it is difficult for the child to see employment as a possibility in his/her future. The third model Buck identifies is the 'institutional model' that hypothesises that neighbourhood effects operate through the quality and quantity of services available in an area. According to the 'competition model', areas compete between each other for scarce resources and some areas do this less successfully than others. A fifth model emphasises the role of social networks particularly in facilitating employment. The importance of the inter-relationships between individuals in a community highlighted in these hypotheses has also been discussed in the literature on social capital. Finally Buck (2001) notes that neighbourhood effects may arise because of physical barriers such as those experienced by isolated communities or imposed by the availability of transport that generates externalities for people living in those communities.[36]

It has proved difficult to isolate these neighbourhood effects from the characteristics of the individuals and families living in the neighbourhoods as people with particular economic characteristics tend to concentrate in particular areas. The housing market, acting to sort individuals and families into areas according to housing affordability, appears to be a driving force behind this result.

## 4.1 International evidence

Bradshaw et al (2004) conclude their survey of neighbourhood effects on social exclusion in Britain by stating that the evidence suggests these effects are significant but not as large as individual and family determinants of social exclusion. The indicators where neighbourhood made a difference were in health, child development, educational attainment, poverty and unemployment. Buck (2001) also shows for Britain that people's expectations about starting a job are lower in poor neighbourhoods and that the probability of leaving poverty was lower and re-entering poverty higher in poor neighbourhoods compared with other areas. However, he also found that these effects were not large. Gibbons, Green, Gregg and Machin (2005) used Census data from 1981, 1991 and 2001 to examine the effect of neighbourhood on employment, educational outcomes for children and crime victimisation in the UK. They found that the housing market is an important determinant of neighbourhood effects and that these effects were limited for

---

[36] See Furstenberg and Hughes (1997) for a discussion of these models in an American context.

employment, modest for educational outcomes but substantial for crime victimisation.

The physical barrier of availability of transport has been the focus of research and policy interest in Britain and the US.[37] In Britain, lack of affordable, reliable and safe transport has been important in restricting access to work, education and training, hospitals, cheap food where large supermarkets are located on the outskirts of towns, and social, cultural and sporting activities (Bradshaw et al. 2004).

There is an extensive American literature examining the neighbourhood effects highlighted in Wilson's (1987) work on the underclass. He emphasised the importance of the 'concentration effect' in bringing more disadvantaged people into one location where they become socially isolated from opportunities for mainstream employment and from successful role models.

> 'Thus, in a neighbourhood with a paucity of regularly employed families and with the overwhelming majority of families having spells of long-term joblessness, people experience a social isolation that excludes them from the job network system that permeates other neighborhoods and that is so important in learning about or being recommended for jobs that come available in various parts of the city. And as the prospects for employment diminish, other alternatives such as welfare and the underground economy are not only increasingly relied on, they come to be seen as a way of life. Moreover, unlike the situation in earlier years, girls who become pregnant out of wedlock invariably give birth out of wedlock because of the shrinking pool of marriageable, that is, employed, black males. Thus, in such neighborhoods the chances are overwhelming that children will seldom interact on a sustained basis with people who are employed or with families that have a steady breadwinner'.
> (Wilson 1987, p. 57).

Durlauf (2001) summarises US evidence on neighbourhood effects using a range of methodologies including ethnographic studies, regression analysis and experimental evidence. He concludes that there is some evidence to support the role of group effects in contributing to poverty but the mechanisms by which these operate remain unclear. Vartanian and Buck (2005) using a sample of siblings from the Panel Study of Income Dynamics (PSID) also find evidence of a childhood neighbourhood effect on adult earnings in the US.

---

[37] See for example SEU (2003) for Britain and Ferguson (2001) for a discussion of US policies aimed at addressing transport problems.

## 4.2 Australian evidence

Hunter and Gregory (Gregory and Hunter 1996; Gregory and Hunter 2001; Hunter 1995; Hunter 2003) in a series of papers have questioned whether Australian cities have also developed concentrations of disadvantaged people separated from the job networks and social interactions of mainstream society. Using data from the 1976 and 1991 Population Censuses, they have tracked the employment and income status of Census Collectors Districts (CD) over time. Their results show that income and employment in the poorest CDs declined over this period. In a development from earlier papers, Hunter (1995) argues that changes in the structure of the Australian economy had a major impact on employment in the low income CDs. Hunter (2003) compares incomes across Australian postcodes, containing a larger number of households than a CD, with comparable spatial units in the US and Canada and found that there was less difference between neighbourhoods in Australia than in the other two countries. There was however, evidence of increasing differentiation between neighbourhoods over time from 1980/81 to 1990/91 in each of the three countries in his study.

Other Australian research on the spatial dimension of disadvantage has tended to focus on income measures.[38] A series of studies (Biddle, Kennedy and Williams 2001), Bray (2003) and Lloyd, Harding and Hellwig (2000)) have used census data to calculate equivalent household disposable incomes for statistical local areas (SLAs) and CDs. The studies cover different groups of census years between 1981 and 2001 but the general results show a widening of the income distribution between areas, particularly over the period 1991-96. Bray (2003) however argues that households throughout the income distribution were better off in 2001 than they had been in 1986. As these studies and those undertaken by Gregory and Hunter focus on the spatial unit as the unit of analysis, they were unable to show whether the same individuals resided in the low income areas over time. It is possible that a particular area became poorer over time but the individuals who lived in it were completely different at the end of the period of analysis than at the beginning. These results can therefore best be thought of as indicators of segregation between areas rather than estimates of outcomes for particular groups of individuals.[39]

The results of one Australian study that uses a wider range of indicators of area disadvantage for Victoria and New South Wales are presented in Vinson (2001). He uses postcode areas as the unit of analysis and presents evidence from a range of sources on indicators covering education, health, income, unemployment and

[38] See Fincher and Wulff (1998) for another spatial analysis of disadvantage in Australia.

[39] Smyth, Reddel and Jones (2004) argue that the adoption of the social inclusion approach is offering Queensland a useful framework for the development of regional policy directed toward social disadvantage.

crime.[40] The results show that there are a small number of postcodes that ranked highly on a wide range of the indicators used. Vinson used principle components analysis to argue that there is evidence of a 'disadvantage factor' linking social problems as a small number of postcode areas contained significant concentrations of negative indicators.[41]

One final Australian study to be discussed here focused on neighbourhood effects on educational outcomes. Jensen and Seltzer (2000) used the results of a small survey of 171 year 12 students in Melbourne to study the influence of individual, family and neighbourhood characteristics in the decision to continue on to post-secondary education. They found some evidence that the neighbourhood unemployment rate, income and education and occupational mix influenced decisions about continuing in post-secondary education. Individuals in neighbourhoods with high unemployment, few degree holders and low incomes were less likely to be planning to continue with post-secondary schooling. These effects were identified separately from individual and family effects.

# 5 Conclusion

This survey has examined the literature on child poverty in developed countries with specific reference to Australian studies. It has also considered the evidence on disadvantage using a wider concept of poverty termed 'social exclusion' in the European literature. Social exclusion considers a broader range of factors affecting disadvantage in addition to income including employment, transport, housing, education, health and social networks. The final section of the literature review

---

[40] The specific indicators used were: unemployed as a proportion of the labour force, the proportion of households with income below $26,000 pa, the proportion of low birth weights in all births, the number of confirmed instances of child abuse as a proportion of all children, the proportion of the population who left school before the age of 15 years, the proportion of the population receiving emergency assistance, the proportion of the population aged 18 and over admitted to psychiatric hospitals, the proportion of court convictions in the population aged 18-50 years, the proportion of child injuries in the population under 18 years, the number of deaths standardised for population rates, the proportion of the population aged 18 who were long-term unemployed, the proportion of the population aged 18-65 years who were unskilled, and the proportion of the population aged 18-50 years dealt with by the courts for criminal matters.

[41] In another study Vinson and Baldry (1999) present evidence of clustering of child maltreatment within a suburb in Western Sydney. They argue that any neighbourhood effects are related to a small geographical area such as a number of street blocks rather than a larger area such as a suburb.

examines the evidence on neighbourhood effects on poverty and disadvantage. Each of these elements: children, social exclusion, and the spatial dimension of disadvantage, are key components in our ARC-funded research project.

The international evidence shows that child poverty increased in many of the OECD countries over the 1990s with Australia falling in the middle of the league table. Child poverty rates were found in general to be higher than those in the population as a whole. Studies of the dynamics of poverty found that while there was considerable movement in and out of poverty among children, there was a small group who remained in poverty throughout the period of these studies. The evidence shows that children in lone parent households and from minority groups faced the highest risk of living in poverty.

The causes of childhood poverty are complex. Research suggests they can be grouped under three main headings: social and demographic factors (for example, the age of parents, the incidence of lone parenthood), labour market conditions (for example the level of unemployment), and government policies (for example the tax and transfer system). In the Australian context, the fact that a relatively high proportion of children live in households where there is no adult in paid employment appears to be an important determinant of child poverty.

The European literature on poverty has taken a broader view than an analysis of income alone. The social exclusion framework considers a wide range of factors as contributing to the inability of individuals to actively participate in society. Although low income is correlated with social exclusion, the use of a broader range of indicators shows that there are individuals facing disadvantage who would not be captured by a poverty measure based on income alone. The debate on the choice of appropriate indicators of social exclusion and whether or not to combine these indicators into a single measure is summarised in this paper. The most frequently used indicators include financial poverty, education, unemployment, health and housing quality. There are advantages in providing one summary measure of these components of social exclusion for ease of comparisons of disadvantage between individuals and over time. However, aggregating results into one figure can disguise significant differences in outcomes for individual components of the index. In most of the studies surveyed, results were presented both in aggregate and for individual components of social exclusion. Australian research on social exclusion is more limited but also indicates the desirability of taking a broader view of disadvantage than one focused solely on income.

It has proved difficult to identify a strong neighbourhood effect on poverty. Individual and family characteristics appear to be more important although some studies identify a small but significant effect of neighbourhood on outcomes for individuals. Australian and other international evidence shows that neighbourhoods are becoming more segregated economically, suggesting that neighbourhood effects may become more important in the future.

The evidence presented here highlights the critical role of social policy in alleviating the worst excesses of childhood disadvantage. Tax and transfer systems play a major role in redistributing income to the poor. The highly targeted Australian benefit system with its associated high marginal tax rates for those moving from income support to employment remains a contentious issue for policy makers. In the Australian context, policies including education and retraining policies that promote the employment opportunities of low income families are likely to help reduce the incidence of child poverty and social exclusion. There is also a role for spatially targeted intervention directed at areas of particular disadvantage.

This literature survey provides considerable evidence to support the importance of further research on a spatial analysis of disadvantage among Australian children. While there are obvious problems in measurement, judgement is involved in the choice of indicators and the results are sensitive to the underlying assumptions of any analysis, as long as the methodology is clearly set out, the results will contribute to our knowledge of childhood disadvantage in Australia.

# References

Abello, A. and Harding, A. 2004, *The Dynamics of Child Poverty in Australia*, Discussion Paper no. 60, NATSEM, University of Canberra, Canberra, (available from www.natsem.canberra.edu.au).

Abello, A. and Harding, A. 2006, 'Income mobility and financial disadvantage: Australian children', *Agenda*, vol. 13, no. 1, pp. 31-48.

Aber, L. and Elwood, D. 2001, 'Thinking about children in time' in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Adelman, L. and Middleton, S. 2003, Social exclusion in childhood: why and how it should be measured. Some thoughts from Britain, Paper presented at 'Social Inclusion' Australian Social Policy Conference, University of New South Wales, Sydney, (available from www.sprc.unsw.edu.au).

Annie E Casey Foundation 2005, *Kids Count*, (available from www.aecf.org).

Arthurson, K. and Jacobs, K. 2003, *Housing and Social Exclusion*, Australian Housing and Urban Research Institute, Melbourne, (available from www.ahuri.edu.au).

Atkinson, A. 1998, 'Social exclusion, poverty and unemployment' in Atkinson, A. and Hills, J. (eds), *Exclusion, Employment and Opportunity,* CASE paper 4, Centre for Analysis of Social Exclusion (CASE), London School of Economics, London, (available from www.sticerd.lse.ac.uk/publications/casepapers.asp).

Atkinson, A., Cantillon, B., Marlier, E. and Nolan, B. 2002, *Social Indicators: The EU and Social Exclusion*, Oxford University Press, Oxford.

Australian Bureau of Statistics (ABS) 2002, *Measuring Australia's Progress*, Cat. no. 1370.0, ABS, Canberra, (available from www.abs.gov.au).

Australian Bureau of Statistics (ABS) 2004, *Measuring Social Capital. An Australian Framework and Indicators*, Cat. no. 1378.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) 2005, *Australian Social Trends*, Cat. no. 4102.0, ABS, Canberra.

Australian Institute of Health and Welfare (AIHW) 2004, *Key National Indicators of Children's Health, Development and Wellbeing*, Bulletin, Issue 20, AIHW, Canberra.

Barnes, H. 2001, 'Summary measures of child well-being', in *Indicators of Progress: A Discussion of Approaches to Monitor the Government's Strategy to Tackle Poverty and Social*

*Exclusion*, CASE report 13, Centre for Analysis of Social Exclusion (CASE), London School of Economics, London, (available from www.sticerd.lse.ac.uk/publications/casepapers.asp).

Barry, B. 2002, 'Social exclusion, social isolation, and the distribution of income' in Hills, J., Le Grand, J. and Piachaud, D. (eds), *Understanding Social Exclusion*, Oxford University Press, Oxford.

Biddle, N., Kennedy, S. and Williams, C. 2001, Neighbourhood income inequality in Australian capital cities, ABS Conference paper.

Blank, R. 2002, 'Evaluating welfare reform in the United States', *Journal of Economic Literature*, vol. 20, pp. 1105-66.

Bradbury, B. and Jantti, M. 2001, 'Child poverty across twenty-five countries' in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Bradbury, B., Jenkins S. and Micklewright, J. 2001, 'The dynamics of child poverty in seven industrialised nations' in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Bradbury, B. 2003, *Child Poverty: a Review*, Policy Research Paper, no. 20, Commonwealth Department of Family and Community Services, Canberra.

Bradshaw, J. and Finch, N. 2003, 'Overlaps in dimensions of poverty', *Journal of Social Policy*, vol. 32, no. 4, pp. 513-525.

Bradshaw, J., Kemp, P., Baldwin, S. and Rowe, A. 2004, *The Drivers of Social Exclusion. A Review of the Literature for the Social Exclusion Unit in the Breaking the Cycle Series*, the Social Exclusion Unit, Office of the Deputy Prime Minister, UK, (available from www.socialexclusion.gov.uk).

Bray, J. 2001, *Hardship in Australia*, Occasional Paper no. 4, Department of Family and Community Services, Canberra, (available from www.facs.gov.au).

Bray, J. 2003, The tide has risen and ... trends in the spatial distribution of incomes 1986-2001, Paper presented at 'Social Inclusion' Australian Social Policy Conference, University of New South Wales, Sydney, (available from www.sprc.unsw.edu.au).

Brotherhood of St Laurence 2005, *The Brotherhood's Social Barometer: Children's Chances*, Brotherhood of St Laurence, Fitzroy, Victoria, (available from www.bsl.org.au).

Brown, K. 2005, *Factors contributing to Young People's Experiences of Economic Disadvantage*, Department of Family and Community Services, Canberra.

Buck, N. 2001, 'Identifying neighbourhood effects on social exclusion', *Urban Studies*, vol. 38, no. 12, pp. 2251-2275.

Burchardt, Le Grand, J. and Piachaud, D. 2002a, 'Introduction' in Hills, J., Le Grand, J. and Piachaud, D. (eds), *Understanding Social Exclusion*, Oxford University Press, Oxford.

Burchardt, Le Grand, J. and Piachaud, D. 2002b, 'Degrees of exclusion: developing a dynamic, multidimensional measure' in Hills, J., Le Grand, J. and Piachaud, D. (eds), *Understanding Social Exclusion*, Oxford University Press, Oxford.

Campaign 2000. 2005, *2005 Report Card on Child Poverty in Canada*, Ontario, (available from www.campaign2000.ca).

Cappellair, L. and Jenkins, S. 2004, Summarising multiple deprivation, Paper presented at the 28th General Conference International Association for Research on Income and Wealth, Cork, Ireland, (available from www.iariw.org/papers/2004/jenkins.pdf).

Commonwealth of Australia Senate Community Affairs Reference Committee 2004, *A Hand Up not a Hand Out: Renewing the Fight against Poverty,* Commonwealth of Australia, Canberra, (available from www.aph.gov.au/senate/committee/).

Corak, M. 2005, *Principles and Practicalities in Measuring Child Poverty for Rich Countries*, Innocenti Working Paper 2005-01, UNICEF, Innocenti Research Centre, Florence, Italy.

Corak, M., Fertig, M. and Tamm, M. 2005, *A Portrait of Child Poverty in Germany*, Innocenti Working Paper 2005-03, UNICEF, Innocenti Research Centre, Florence, Italy.

Corak, M., Lietz, C. and Sutherland, H. 2005, *The Impact of Tax and Transfer Systems on Children in the European Union*, Innocenti Working Paper 2005-04, UNICEF, Innocenti Research Centre, Florence, Italy.

Corcoran, M. 2001, 'Mobility, persistence and the consequences of poverty for children: child and adult outcomes', in Danziger, S. and Haveman, R. (eds), *Understanding Poverty*, Russell Sage Foundation, New York.

Daly, A. and Smith, D. 'Indicators of risk to wellbeing of Australian indigenous children', *Australian Review of Public Affairs*, vol. 6, no. 1, pp. 39-57.

Davidson, B., Khan, SA. and Rao, PDS. 2000, 'Child poverty in rural regions of Australia in 1990', *Australasian Journal of Regional Studies*, vol. 6, no. 1, pp. 47-65.

Department of Work and Pensions UK 2004, *Opportunity for All: Fifth Annual Report 2004*, Department of Work and Pensions, UK, (available from www.dwp.gov.uk).

Duncan, G. and Moscow, L. 1997, 'Longitudinal indicators of children's poverty and dependence', in Hauser, R., Brown, B. and Prosser, W. (eds), *Indicators of Children's Well-Being*, Russell Sage Foundation, New York.

Durlauf, S. 2001, 'The membership theory of poverty: the role of group affiliations in determining socioeconomic outcomes' in Danziger, S. and Haveman, R. (eds), *Understanding Poverty*, Russell Sage Foundation, New York.

Eurostat 2002, *European Social Statistics. Income, Poverty and Social Exclusion: 2nd Report*, Eurostat, European Commission, Luxembourg, (available from epp.eurostat.cec.eu.int/cache).

Ferguson, R. 2001, 'Community revitalization, jobs and the well-being of the inner city poor' in Danziger, S. and Haveman, R. (eds), *Understanding Poverty*, Russell Sage Foundation, New York.

Fincher, R. and Saunders, P. 2001, 'The complex context of Australian inequality' in Fincher, R. and Saunders, P. (eds), *Creating Unequal Futures?* Allen and Unwin, Sydney.

Fincher, R. and Wulff, M. 1998, 'The locations of poverty and disadvantage', in Fincher, R. and Nieuwenhuysen, J. (eds), *Australian Poverty Then and Now*, Melbourne University Press, Melbourne.

Forum on Child and Family Statistics (US) 2005, *America's Children: Key National Indicators of Child Well-being 2005,* (available from childstats.gov).

Furstenberg, F. and Hughes, M. 1997, 'The influence of neighbourhoods on children's development: a theoretical perspective and a research agenda', in Hauser, R., Brown, B. and Prosser W. (eds), *Indicators of Children's Well-Being*, Russell Sage Foundation, New York.

Galasi, P. and Nagy, G. 2001 'Are children being left behind in the transition in Hungary?' in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Gibbons, S., Green, A., Gregg, P. and Machin, S. 2005, *Is Britain pulling apart? Area Disparities in Employment, Education and Crime,* University of Bristol Working Paper no. 05/120, The Centre for Market and Public Organisation, University of Bristol, UK.

Gottschalk, P. and Danziger, S. 'Income mobility and exits from poverty of American children', in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Greenwell, H., Lloyd, R. and Harding, A. 2001, *An Introduction to Poverty Measurement Issues*, Discussion Paper no. 55, NATSEM, University of Canberra, Canberra, (available from www.natsem.canberra.edu.au).

Gregory, RG. and Hunter, BH. 1996, *Spatial Trends in Income and Employment in Australian Cities,* Department of Transport and Regional Development, Canberra.

Gregory, RG. and Hunter, BH. 2001, 'The growth of income and employment inequality in Australian cities', in Wong, G. and Picot, G. (eds), *Working Time in Comparative Perspective, Volume 1: Patterns, Trends and the Policy Implications of Earnings Inequality and Unemployment*, W.E. Upjohn Institute for Employment Research, Kalamazoo.

Guio, A-C. 2005, *Income Poverty and Social Exclusion in the EU25*, Eurostat, European Communities, (available from epp.eurostat.cec.eu).

Harding, A. and Szukalska, A. 1999, *Trends in Child Poverty in Australia: 1982 to 1995-96.* Discussion Paper no. 42, NATSEM, University of Canberra, Canberra, (available from www.natsem.canberra.edu.au).

Harding, A. and Szukalska, A. 2000, Making a difference: the impact of government policy in Australia, 1982 to 1997-98, Paper presented at the 26th General Conference of the International Association for Research on Income and Wealth, Cracow, Poland, (available from www.natsem.canberra.edu.au).

Harding, A., Lloyd, R. and Greenwell, H. 2000, *Financial Disadvantage in Australia 1990-2000: The Persistence of Poverty in a Decade of Growth*, Smith Family.

Harding, A., Warren, N. and Lloyd, R. 2006, *Moving Beyond Traditional Cash Measures of Economic Well-being: Including Indirect Benefits and Indirect Taxes*, Discussion Paper no. 61, NATSEM, University of Canberra, Canberra, (available from www.natsem.canberra.edu.au).

Headey, B. and Wooden, M. 2005, Income, wealth and joblessness: insights from the HILDA survey, Paper presented at the Sustaining Prosperity – the 2005 Melbourne Institute Economic and Social Outlook Conference, Melbourne, 31 March-1 April 2005.

Headey, B. 2005, A framework for assessing poverty, disadvantage and low capabilities in Australia, Paper presented at the HILDA Conference, Melbourne, 29-30 September, (available from www.melbourneinstitute.com).

Hetzel, D. and Glover, J. 2003, *Is it Working…Together? Linking Research, Policy and Practice in Relation to Children and Health Inequalities in Australia*, Occasional Paper Series no. 3, Public Health Information Development Unit, Adelaide, (available from www.publichealth.gov.au).

Hill, M. and Jenkins, S. 2001, 'Poverty among British children: chronic or transitory?' in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Hobcraft, J. 2002, 'Social exclusions and generations', in Hills, J., Le Grand, J. and Piachaud, D. (eds), *Understanding Social Exclusion*, Oxford University Press, Oxford.

Hunter, BH. 1995, 'The social structure of the Australian urban labour market: 1976-1991', *Australian Economic Review*, vol. 2, no. 95, pp. 65-79.

Hunter, BH. 2001, 'Tackling poverty among Indigenous Australians', in Fincher, R. and Saunders, P. (eds), *Creating Unequal Futures?* Allen and Unwin, Sydney.

Hunter, BH. 2003, 'Trends in neighbourhood inequality of Australian, Canadian and US cities since the 1970s', *The Australian Economic History Review*, vol. 43, no. 1, pp. 22-44.

Jensen, B. and Seltzer 2000, 'Neighbourhood and family effects in educational progress', *The Australian Economic Review*, vol. 33, no. 1, pp. 17-31.

King, A. 1998, 'Income poverty since the early 1970s', in Fincher, R. and Nieuwenhuysen, J. (eds), *Australian Poverty Then and Now*, Melbourne University Press, Melbourne.

Klugman, J. and Kolev, A. 2001, 'Mobility and poverty dynamics among Russian children', in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Leppert, S. 2005, *State of the Family 2005,* Anglicare, Canberra.

Lloyd, R., Harding, A. and Hellwig, O. 2000, *Regional Divide? A Study of Incomes in Regional Australia*, Discussion Paper, no. 51, NATSEM, University of Canberra, Canberra, (available from www.natsem.canberra.edu.au).

Mayer, S. 1997, 'Indicators of children's economic well-being and parental employment', in Hauser, R., Brown, B. and Prosser W. (eds), *Indicators of Children's Well-Being*, Russell Sage Foundation, New York.

McClelland, A. 2000, *No child…, Child Poverty in Australia*, Brotherhood of St Laurence, Melbourne.

Micklewright, J. 2001, 'Should the UK government measure poverty and social exclusion with a composite index? in *Indicators of Progress: A Discussion of Approaches to Monitor the Government's Strategy to Tackle Poverty and Social Exclusion*, CASE report 13, Centre for Analysis of Social Exclusion (CASE), London School of Economics, London, UK, (available from www.sticerd.lse.ac.uk/publications/casepapers.asp).

Micklewright, J. 2002, *Social Exclusion and Children: a European View for a US Debate*, CASE Discussion Paper no. 5, Centre for Analysis of Social Exclusion (CASE), London School of Economics, London, UK, (available from www.sticerd.lse.ac.uk/publications/casepapers.asp).

Moffitt, R. 2002, *From Welfare to Work and: What the Evidence Shows*, Welfare Reform and Beyond, Brief no. 13, Brookings Institute, Washington, DC.

Moore, K. 1997, 'Criteria for indicators of child well-being', in Hauser, R., Brown, B. and Prosser W. (eds), *Indicators of Children's Well-Being*, Russell Sage Foundation, New York.

New Zealand Ministry of Social Development 2005, *Children and Young People: Indicators of Wellbeing in New Zealand*, Ministry of Social Development, Wellington, (available from www.dsw.govt.nz).

Nolan, B., Maitre, B. and Watson, D. 2001, 'Child income poverty and deprivation dynamics in Ireland', in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Pech, J. and McCoull, F. 1998, Intergenerational poverty and welfare dependence: Is there an Australian problem? Paper presented on behalf of the Department of Family and Community Services at the 6th Australian Institute of Family Studies Conference, Melbourne, 25–27 November.

Piachaud, D. and Sutherland, H. 2002, 'Child poverty', in Hills, J., Le Grand, J. and Piachaud, D. (eds), *Understanding Social Exclusion*, Oxford University Press, Oxford.

Richardson, L. and Le Grand, J. 2002, 'Outsider and insider expertise: the response of residents of deprived neighbourhoods to an academic definition of social exclusion', *Social Policy and Administration*, vol. 36.

Saunders, P. 2003, *Can Social Exclusion Provide a New Framework for Measuring Poverty?*, SPRC Discussion Paper no. 127, Social Policy Research Centre, University of New South Wales, (available from www.sprc.unsw.edu.au).

Saunders, P. 2005, *The Poverty Wars*, UNSW Press, Sydney.

Saunders, P. and Adelman, L. 2005, *Income Poverty, Deprivation and Exclusion: A Comparative Study of Australia and Britain*, SPRC Discussion Paper no. 141, Social Policy Research Centre, University of New South Wales, (available from www.sprc.unsw.edu.au).

Saunders, P. and Tsumori, K. 2002, *Poverty in Australia: Beyond the Rhetoric*, Policy Monograph no. 57, Centre for Independent Studies, Sydney.

Schluter, C. 2001, 'Child poverty in Germany: trends and persistence', in Bradbury, B., Jenkins, S. and Micklewright, J. (eds), *The Dynamics of Child Poverty in Industrialised Countries,* Cambridge University Press, Cambridge.

Scutella, R. and Smyth, P. 2005, *The Brotherhood's Social Barometer*, Brotherhood of St Laurence, Fitzroy, Victoria.

Sen, A. 1987, *The Standard of Living*, Cambridge University Press, Cambridge, UK.

Sigle-Rushton, W. 2004, *Intergenerational and Lifecourse Transmission of Social Exclusion in the 1970 British Cohort Survey*, CASE paper 78, Centre for Analysis of Social Exclusion (CASE), London School of Economics, London, UK, (available from www.sticerd.lse.ac.uk/publications/casepapers.asp).

Smeeding, T. 2006, 'Poor people in rich nations: the United States in comparative perspective', *Journal of Economic Perspectives*, vol. 20, no. 1, pp. 69-90.

Smith, R., Brooks-Gunn, and Jackson, A. 1997, 'Parental employment and children', in Hauser, R., Brown, B. and Prosser, W. (eds), *Indicators of Children's Well-Being*, Russell Sage Foundation, New York.

Smyth, P., Reddel, T. and Jones, A. 2004, 'Social inclusion, new regionalism and associational governance: the Queensland experience', *International Journal of Urban and Regional Research*, vol. 28, no. 3, pp. 601-615.

Social Exclusions Unit (SEU) Office of the Deputy Prime Minister undated, *What is Social Exclusion?* SEU, London, (available from www.socialexclusion.gov.uk).

Social Exclusions Unit (SEU) Office of the Deputy Prime Minister 2003, *Making the Connections. Final report on Transport and Social Exclusion*, SEU, London, (available from www.socialexclusion.gov.uk).

Social Exclusions Unit (SEU) Office of the Deputy Prime Minister 2004, Breaking the Cycle, Summary, SEU, London, (available from www.socialexclusion.gov.uk).

Stanley, F., Richardson, S. and Prior, M. 2005, *Children of the Lucky Country?* MacMillan, Sydney.

Taylor, J. and Fraser, A. 2003, *Eleven Plus: Life Chances and Family Income*, Brotherhood of St Laurence, Melbourne, (available from www.bsl.org.au).

Taylor, M., Berthoud, R. and Jenkins, S. 2004, *Low Income and Multiple Disadvantage: Analysis of the British Household Panel Survey*, SEU, London.

Townsend, P. 1979, *Poverty in the United Kingdom*, Penguin Books, Harmondsworth, England.

Travers, P. and Richardson, S. 1993, *Living Decently*, Oxford University Press, Melbourne.

Trigger, D. 2003, *Does the Way We Measure Poverty Matter?* Discussion Paper, no. 59, NATSEM, University of Canberra, Canberra, (available from www.natsem.canberra.edu.au).

UNICEF 2005, *Child Poverty in Rich Countries 2005*, Report Card no. 6, UNICEF, Innocenti Research Centre, Florence, Italy.

United Nations Development Programme (UNDP) 2005, *Human Development Report*, UNDP, New York, (available from hdr.undp.org/reports/global/2005).

Vartanian, T. and Buck, P. 2005, 'Childhood and adolescent neighbourhood effects on adult income: using siblings to examine differences in OLS and fixed effects models', *Social Service Review*, vol. 79, no. 1.

Vinson, T. and Baldry, E. 1999, The spatial clustering of child maltreatment: are micro-social environments involved? Paper presented at the Children and Crime: Victims and Offenders Conference convened by the Australian Institute of Criminology, (available from www.aic.gov.au/conferences/children/baldry.html).

Vinson, T. 2001, *Unequal in Life, the Distribution of Social Disadvantage in Victoria and NSW*, Jesuit Social Services, Ignatius Centre for Social Policy and Research, Melbourne.

Wilson, WJ. 1987, *The Truly Disadvantaged*, The University of Chicago Press, Chicago.

Whiteford, P. 2001, 'Understanding poverty and social exclusion: situating Australia internationally', in Fincher, R. and Saunders, P. (eds), *Creating Unequal Futures?* Allen and Unwin, Sydney.

# Appendix A

## Definitions of indicators of disadvantage used by Taylor, Berthoud and Jenkins (2004)

| Indicator | Definition |
|---|---|
| Unemployment | Not currently working or having looked for a job in the previous four weeks |
| Lives in a workless household | Lives in a household in which no members are currently employed |
| Has no educational qualification | Has no academic or vocational qualification |
| Lives in social housing | Lives in either local authority or housing association accommodation. |
| Lives in poor quality housing | Lives in accommodation that suffers from at least two of the following problems: lack of space, lack of light, inadequate heating, condensation, leaky roof, damp or rot. |
| Lives in overcrowded conditions | Lives in accommodation in which there are more people than rooms (excluding kitchen and bathroom) |
| Has poor health | Health limits at least one of the following: climbing stairs, walking for 10 minutes, doing the housework, dressing themselves, or the type/amount of work |
| Has poor mental health | Has a GHQ score of 14 or more on the 36-point Likert scale. |
| Smokes | Smokes on a daily basis |
| Subjective isolation disadvantage | Has either no one to listen or no one to help in a crisis |
| Lives alone | Lives in a single person household |
| Social participation disadvantage | Is not active in any organisations/societies |

| | |
|---|---|
| Consumer durable disadvantage | Has access to fewer than five of the following: car, colour TV, VCR, washing machine, dishwasher, microwave oven, home PC, CD player |
| Lifestyle deprivation | Unable to afford two or more of the following: keeping the home adequately warm, an annual holiday away from home, replacing worn furniture, new clothes, eating meat on alternate days, feeding visitors at least once a month |
| Financial Stress | Has either problems meeting housing costs or has been more than two months in arrears with their mortgage or rent in the last year |
| Subjective local area disadvantage | Lives in an area which the respondents consider to suffer from at least two of the following: noisy neighbours, noisy street, pollution or vandalism/crime. |

*Source:* Taylor, Berthoud and Jenkins (2004, Table 8.7)