



Australian Government
Productivity Commission

Deep and Persistent Disadvantage in Australia

Productivity Commission
Staff Working Paper

July 2013

*Rosalie McLachlan
Geoff Gilfillan
Jenny Gordon*

The views expressed in
this paper are those of the
staff involved and do not
necessarily reflect the views of the
Productivity Commission.

© Commonwealth of Australia 2013

ISBN 978-1-74037-445-3

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, the work may be reproduced in whole or in part for study or training purposes, subject to the inclusion of an acknowledgment of the source. Reproduction for commercial use or sale requires prior written permission from the Productivity Commission. Requests and inquiries concerning reproduction and rights should be addressed to Media and Publications (see below).

This publication is available from the Productivity Commission website at www.pc.gov.au. If you require part or all of this publication in a different format, please contact Media and Publications.

Publications enquiries:

Media and Publications
Productivity Commission
Locked Bag 2 Collins Street East
Melbourne VIC 8003

Tel: (03) 9653 2244
Fax: (03) 9653 2303
Email: maps@pc.gov.au

General enquiries:

Tel: (03) 9653 2100 or (02) 6240 3200

An appropriate citation for this paper is:

McLachlan, R., Gilfillan, G. and Gordon, J. 2013, *Deep and Persistent Disadvantage in Australia*, rev., Productivity Commission Staff Working Paper, Canberra.

The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au) or by contacting Media and Publications on (03) 9653 2244 or email: maps@pc.gov.au

Contents

Acknowledgments	viii
Abbreviations	ix
Key points	2
Overview	3
1 What is this paper about?	27
1.1 Why the policy interest in disadvantage?	28
1.2 The paper structure	29
2 What does it mean to be disadvantaged?	31
2.1 Poverty — the traditional concept of disadvantage	32
2.2 Deprivation	38
2.3 Capability approach	42
2.4 Social exclusion and inclusion	46
2.5 Bringing together measures of income, deprivation, capabilities and social exclusion	51
2.6 The importance of dynamics in understanding disadvantage	54
3 The extent of disadvantage in Australia	57
3.1 Income based measures of disadvantage	58
3.2 Indicators of deprivation	69
3.3 Indicators of social exclusion	72
3.4 Characteristics of Australians most likely to experience disadvantage	82
3.5 Where do people experiencing disadvantage live?	86
3.6 The relative merits of the different measures of disadvantage	90
4 Factors influencing life chances of experiencing disadvantage	93
4.1 Early experiences and how they can influence life chances	98
4.2 Success at school — education and life chances	109

4.3	Beyond school	118
4.4	The importance of employment	126
4.5	Poor health, disability and disadvantage	136
4.6	Relationships and families	141
5	The costs of disadvantage	147
5.1	A broad framework for measuring avoidable costs	149
5.2	Forgone employment income	162
5.3	Expenditure on ‘regrettables’	172
5.4	Quality of life costs	175
5.5	The distribution of costs	183
6	Where to from here? – measurement and data issues	187
6.1	Issues underlying the different measures of disadvantage	188
6.2	Longitudinal data — critical for understanding disadvantage	190
6.3	Administrative data	196
A	Characteristics of Australians most likely to experience disadvantage	203
B	Strengths and weaknesses of measures of disadvantage used in Australia	213
	References	217
Boxes		
1	Measuring relative income poverty	5
2	Social exclusion/inclusion — some definitions	7
3	What is meant by marginal, deep, and very deep exclusion?	9
2.1	Equivalised household income	34
2.2	Henderson Poverty Line — an early Australian measure of relative poverty	35
2.3	Townsend’s summary deprivation index	39
2.4	Treasury’s wellbeing framework	46
2.5	Selected definitions of social exclusion	48
2.6	Some evidence on the relationship between income poverty and material deprivation	53

2.7	Short spells for most, but a small group experience persistent disadvantage	55
3.1	The main publicly available data sets used to measure persistent disadvantage	64
3.2	Components of the Social Exclusion Monitor (SEM)	75
3.3	Ability of SEM indicators to capture persistence of deep social exclusion	81
4.1	Establishing causality is not easy	94
4.2	Child abuse — evidence of long-term consequences	101
4.3	Preschool, school readiness and students' performance	104
4.4	Examples of early intervention programs	105
4.5	Poorer outcomes for children from low socioeconomic backgrounds continue through the school years	110
4.6	Some evidence on the effects of joblessness on children	114
4.7	Intergenerational transmission of income	125
4.8	Economic growth, living standards and job opportunities	127
4.9	Demand for unskilled workers has been falling	131
4.10	Some background facts about homelessness	133
4.11	Declining marriage and divorce rates	143
5.1	Is the total cost of disadvantage the right thing to measure?	148
5.2	Are expenditures that reduce disadvantage 'regrettables'?	155
5.3	The costs of childhood poverty: some examples	160
5.4	Some estimates of the effect of education on participation and wages	165
5.5	Some estimates of the effect of health on participation and wages	166
5.6	Hedonic adaptation and estimates of personal costs	176
5.7	Estimating the intrinsic impacts of disadvantage	179
6.1	Data integration projects	200

Figures

1	Trends in income poverty and social exclusion, 2001 to 2010	11
2	Factors influencing life chances of experiencing disadvantage	14
3	The cycle of disadvantage can start early in life	16

4	Outcomes for Australian children aged 2-3 to 10-11 year olds by socioeconomic position	17
5	Highest educational attainment of Australians aged 30-44 years, by highest educational attainment of father	19
6	Steps in estimating the avoidable costs of disadvantage	22
7	One way of categorising the costs of disadvantage	22
2.1	Social inclusion conceptual framework — participation and resources	49
3.1	Trends in the proportion of Australians experiencing relative and absolute income poverty	62
3.2	Years in relative income poverty, 2001 to 2010	65
3.3	Trends in social exclusion: Social Exclusion Monitor, 2001 to 2010	76
3.4	Overlap between poverty, deprivation and exclusion, 2010	79
3.5	Persistence of social exclusion, 2001 to 2010	80
4.1	Factors influencing life chances of experiencing disadvantage	96
4.2	Distribution of risks among financially disadvantaged and non-financially disadvantaged families	107
4.3	The cycle of disadvantage can start early in life	108
4.4	Outcomes for Australian children aged 2-3 to 10-11 years by socioeconomic position	111
4.5	Labour force status by qualification, 2012	119
4.6	Deep social exclusion by education attainment	120
4.7	Average annual employee income of Australians of working age, 25-59 years, 2011-12	121
4.8	Highest educational attainment of Australians aged 30-44 years, by highest educational attainment of father	123
4.9	Proportion of homelessness by type, 2011	133
4.10	Lifecourse framework linking childhood disadvantage to poor adult health	137
4.11	Disability employment for people aged 15-64 years, 2009	140
5.1	Steps in estimating the avoidable costs of disadvantage	151
5.2	OECD's <i>How's Life?</i> Wellbeing Framework	152

5.3	One way of categorising the costs of disadvantage	157
5.4	Estimating the costs of disadvantage: employment income	163
5.5	Estimating the costs of disadvantage: quality of life	177

Tables

1	Prevalence of forms of disadvantage for vulnerable groups, 2010	12
2.1	Equivalence scales and corresponding elasticities	34
3.1	Estimates of relative income poverty in Australia	59
3.2	Two-year income poverty status	67
3.3	Different estimates for financial poverty, 2007	68
3.4	Items regarded as essential, who has them, and who does not have them because they cannot afford them, 2006	70
3.5	Prevalence of multiple deprivation, 2006 and 2010	72
3.6	Degree of overlap between income poverty, deprivation and social exclusion	78
3.7	Rates of transition between states of exclusion	82
3.8	Prevalence of forms of disadvantage for vulnerable groups	83
3.9	Distribution of residents in bottom quintile of distribution of relative socioeconomic disadvantage, 2006	89
4.1	Average development scores by child characteristics, age 4-5	106
4.2	Son's earnings compared with father's earnings	125
4.3	Intergenerational mobility across the earnings distribution	125
4.4	Years in jobless/job-poor household, 2001 to 2009	129
4.5	Journeys home respondents – labour force status and incidence of mental health	134
A.1	Prevalence and composition of relative income poverty, 2009-10	204
A.2	Profile of deprivation and poverty	205
A.3	Prevalence of depth of social exclusion	207
A.4	Years in relative income poverty by household type, 2001 to 2010	209
A.5	Characteristics of those deeply and persistently excluded	211
B.1	Characteristics of different measures of disadvantage	215

Acknowledgments

The authors wish to thank the following people for their help and advice in the production of the paper: Peter Whiteford (ANU), Sue Richardson (Flinders University), Francisco Azpitarte (Brotherhood of St Laurence and Melbourne Institute), Roger Wilkins and Rosanna Scutella (Melbourne Institute), Peter Saunders and Melissa Wong (SPRC), John Landt (Prime Minister and Cabinet), Mike Woods, Alison McClelland, Les Andrews, Frank Nugent, Dominique Lowe, Jared Greenville, Lisa Gropp and Alan Johnston (Productivity Commission).

The views in this paper remain those of the authors and do not necessarily reflect the views of the Productivity Commission or of the external organisations and people who provided assistance.

Abbreviations

ABS	Australian Bureau of Statistics
AEDI	Australian Early Development Index
AIHW	Australian Institute of Health and Welfare
ANU	Australian National University
CUPSE	Community Understanding of Parenting and Social Exclusion
DEEWR	Department of Education, Employment and Workplace Relations
DHS	Department of Human Services
DIAC	Department of Immigration and Citizenship
EU	European Union
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
GDP	Gross Domestic Product
HILDA	Household Income and Labour Dynamics in Australia
IAC	Industries Assistance Commission
IC	Industry Commission
LSAC	Longitudinal Study of Australian Children
LSAY	Longitudinal Surveys of Australian Youth
NATSEM	National Centre for Social and Economic Modelling
NESB	Non-English Speaking Background
OECD	Organization for Economic Cooperation and Development
PC	Productivity Commission
PEMA	Poverty and Exclusion in Modern Australia
PISA	Programme of International Student Assessment
RED	Research Evaluation Database
SEIFA	Socio-Economic Index for Areas
SEM	Social Exclusion Monitor
SLA	Statistical Local Areas
SLCD	Statistical Longitudinal Census Dataset
SPRC	Social Policy Research Centre

OVERVIEW

Key points

- Australia has experienced two decades of economic growth and rising average incomes, but some in the community continue to be 'left behind'.
- Disadvantage is a multi-dimensional concept. It is about 'impoverished lives' (including a lack of opportunities), not just low income. Poverty, deprivation, capabilities and social exclusion are different lenses to view and measure disadvantage.
- A number of researchers produce estimates of the extent of disadvantage in Australia. Each relies on contestable assumptions and thresholds.
- Around 5 per cent of Australians aged 15 plus are estimated to have experienced deep social exclusion in 2010, fewer than in 2001 (7 per cent). The rate of very deep exclusion was stable at around 1 per cent (Social Exclusion Monitor).
- Fewer people experience ongoing disadvantage — 3 per cent of Australians experienced deep social exclusion for five or more years (between 2001 and 2010) and just under 1 per cent for seven or more years.
- People who are more likely to experience deep and persistent disadvantage include: lone parents; Indigenous Australians; people with a long-term health condition or disability; and people with low educational attainment. Many are public housing tenants and are weakly attached to the labour market.
- Disadvantage has its roots in a complex interplay of factors. Many of these factors, when combined, can have a compounding effect. The probability that any one person will experience disadvantage is influenced by: their personal capabilities and family circumstances; the support they receive; the community where they live (and the opportunities it offers); life events; and the broader economic and social environment.
- A child's earliest years fundamentally shape their life chances. Gaps in capabilities between children from socioeconomically disadvantaged families and their more advantaged peers appear early in life. Starting school 'behind the eight ball' can begin a cycle of disadvantage that sets a trajectory for poorer outcomes later in life.
- Education is a foundation capability. It improves a person's employment prospects and earning capacity, and the evidence points to a relationship between education and better health and raised civic and social engagement.
- Employment is the route out of disadvantage for most people of working age.
- Disadvantage imposes costs on people and families who experience it and on the broader community. Only avoidable costs (reductions in disadvantage that are realistically possible) should be included when estimating the costs of disadvantage.
- Longitudinal data is critical to understanding the dynamics of disadvantage. But people who are most disadvantaged are often not well represented in such studies. Administrative data has the potential to provide new knowledge to inform researchers and policy makers about deep and persistent disadvantage.

Overview

This paper is about disadvantage in Australia, and in particular, about Australians who experience deep and persistent disadvantage.

Strong economic growth is a way of increasing living standards and opportunities. Yet despite growing levels of prosperity over the last two decades, and the unemployment rate more than halving, there are concerns within the community that some Australians are being ‘left behind’.

Headline statistics on Australia’s most disadvantaged people frequently appear in the media, with the number of Australians living below the poverty line being often quoted. But little attention is given to explaining what lies behind these statistics, how much of the story they tell, and the judgments that sit behind them. Poverty, for example, focuses on just one facet of disadvantage and the basis for drawing a line between those living in poverty and those who are not is not always clear.

Nor is it often explained that many of the headline statistics provide a static picture of disadvantage. But what happens over time matters. For example, people can move in and out of disadvantage relatively quickly — such as when they first enter the workforce — while others can remain disadvantaged for extended periods of time. Following the same people over a number of years is critical to understanding deep and persistent disadvantage.

Understanding why people become (and remain) disadvantaged, and the consequences of disadvantage, is challenging. Many of the factors are interlinked, and when combined, can have a compounding effect. Measuring the costs of disadvantage, and who bears them, is also far from straightforward.

A lack of understanding about disadvantage can contribute to misplaced community concerns. It can also be an impediment to good public policy. Sound policy development should be built on an evidence-based understanding of the nature, depth and persistence of disadvantage and the costs it imposes on individuals and the broader Australian community. Support for people who are disadvantaged and the funding of programs to overcome disadvantage can also involve large amounts of taxpayers’ money.

Against this backdrop, this research paper has sought to find answers to a number of questions, including:

- what does it mean to be disadvantaged?
- how many Australians are disadvantaged and who are they?
- what is the depth and persistence of disadvantage in Australia?
- where do Australians experiencing disadvantage live?
- what factors influence a person's risk of experiencing disadvantage?
- what are the costs of disadvantage and who bears them?

What does it mean to be disadvantaged?

What it means to be disadvantaged and how to measure it are challenging and contentious issues. There is no one agreed way to define and measure disadvantage. This is in part because disadvantage involves many aspects of people's lives and it is influenced by the values and priorities of different societies.

Researchers and policy analysts adopt a variety of lenses through which to view and understand this complex phenomenon. The approaches complement each other to reflect the multi-dimensional nature of disadvantage and the experiences of people.

Income measures and their limitations

Disadvantage was traditionally understood as poverty, and poverty as inadequate resources or low income. But low income, while relatively easy to measure (and used widely), does not necessarily establish disadvantage. The limitations of income as a measure of disadvantage are well-known. It:

- is a partial measure taken at a point in time
- does not capture a household's access to other resources (such as their home, any savings or other wealth or support from family and friends) or subsidised goods and services (such as public housing)
- does not account for varying needs. A threshold level of income that is minimally adequate for most people could leave some with insufficient resources because of special needs (such as the result of sickness or disability), high work-related expenses (such as childcare or transport costs), or where they live
- fails to capture a range of other circumstances that can contribute to disadvantage, such as poor health or a lack of connections with people.

The measurement of relative income poverty (box 1), as a proxy for disadvantage, requires the choice of a specific threshold or distance from median income. The specific threshold chosen is somewhat arbitrary.

Box 1 Measuring relative income poverty

Identifying ‘who’ is living in poverty requires a measure that uses a threshold that separates the disadvantaged from the rest of the population.

The relative income poverty approach considers that people are living in poverty if their income is below a certain percentage of middle-level (or median) household income.

The main threshold used by the Organisation for Economic Cooperation and Development (OECD) is 50 per cent of median equivalised household income (that is, household income adjusted for the size and composition of the household). The European Union countries most commonly use a poverty line set at 60 per cent of median income. For this report, a person is said to be in relative income poverty if their household equivalised income is less than 50 per cent of the median household equivalised income.

Taking household wealth and consumption, as well as income, into account gives a more accurate picture of a household’s command over financial resources. Examining changes over time provides an understanding of how long people experience income poverty.

But the test for disadvantage is really about insufficient outcomes. As Sen (2000) argued, while income has an ‘enormous influence’ on lives, it is ‘impoverished lives, and not just depleted wallets’ that matter.

Some broader concepts with a focus on ‘impoverished lives’

In recognition of the need for a richer conceptualisation of disadvantage, a number of broader concepts have been used — deprivation, capabilities and social exclusion (and inclusion).

Deprivation

Deprivation can be understood as exclusion from the minimum acceptable standard of living in one’s own society because of inadequate access to necessary items. Deprivation measures look at which essential items, activities and services people do not have, or are not able to access, because they cannot afford them. Social

norms, rather than an arbitrary proportion of median income, are used to define an unacceptable standard of living.

There are a number of concerns about the deprivation approach and the interpretation of results. Some researchers question whether it adds much value over and above income measures. Concerns relate to value judgments required about the choice of deprivation items developed to calculate the degree of deprivation and the weightings placed on different forms of deprivation — the list of items can range from not being able to afford dental treatment and prescribed drugs to not having access to a television.

Another limitation is that material deprivation measures do not lend themselves well to longitudinal analysis, given that the list of items is a function of society's expectations and these change over time. Comparisons across countries are also complicated by cultural and other differences that result in different lists of essential items, activities and services.

Notwithstanding these methodological concerns, deprivation measures have been adopted by a number of researchers and policy makers. In Australia, the most substantial surveys of deprivation have been undertaken by the Social Policy Research Centre (SPRC) at the University of New South Wales.

Capability approach

Amartya Sen has been prominent in identifying a broader approach to understanding disadvantage. He defines poverty in terms of *low capabilities and functionings*. Sen argues that poverty ensues when individuals lack certain minimum capabilities. Low capabilities can translate into outcomes such as inadequate income or education, poor health, low self-confidence, or a sense of powerlessness. In analysing wellbeing, Sen argues that the focus should be shifted from 'the means of living' to the 'opportunities a person has'.

An advantage of this approach is that it shifts the focus from a comparison of outcomes to the right or opportunity to achieve such outcomes. However, as it is an opportunity-based theory, the concept is not easy to operationalise.

Sen's work has shaped the European Union's Social Inclusion Agenda. It has also been influential in shaping the way in which economic progress is measured internationally, including the Stiglitz-Sen-Fitoussi Commission's report on the measurement of economic performance and social progress and the OECD's 'How's Life?' framework for measuring wellbeing and progress. The OECD framework has three pillars — material living conditions, quality of life and sustainability — and includes both objective and subjective measures.

The Australian Treasury has also developed a wellbeing framework, built on elements of Sen's capabilities framework, as a descriptive tool to provide context for its public policy advice.

Social exclusion and inclusion

While there is no generally accepted definition of what constitutes 'social exclusion', a common theme is the need to recognise the multi-dimensional nature of disadvantage (box 2). Social exclusion includes more traditional concepts such as income and financial poverty and material deprivation, but it extends to a wider range of life domains with a particular focus on participation and social connections.

Box 2 Social exclusion/inclusion — some definitions

The United Kingdom Social Exclusion Unit (2004):

Social exclusion is about more than income poverty. It is a shorthand term for what can happen when people or areas face a combination of linked problems such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime, bad health and family breakdown. These problems are linked and mutually reinforcing so that they can create a vicious cycle in people's lives. (p. 3)

The Australian Social Inclusion Board (2012) defines social inclusion as follows:

Being socially included means that people have the resources, opportunities and capabilities they need to:

Learn (participate in education and training);

Work (participate in employment, unpaid or voluntary work including family and carer responsibilities);

Engage (connect with people, use local services and participate in local, cultural, civic and recreational activities); and

Have a voice (influence decisions that affect them). (p. 12)

The multi-dimensional nature of social inclusion (or exclusion) as a concept is one of its strengths but it also poses significant challenges for measurement and evaluation. One approach is to develop a composite index that can be used for comparative headline analysis, but indicators making up the index can move in different directions and a composite index can mask such changes. While this can be overcome by providing a ‘dashboard’ of indicators, this can be confusing and does not make weightings between the various dimensions explicit.

The weighting of particular questions or domains to calculate a multi-dimensional indicator is a matter of judgment. Different approaches can lead to divergent conclusions about the extent of disadvantage.

The Australian Social Inclusion Board has produced a compendium of social inclusion indicators and a Social Exclusion Monitor (SEM) has been developed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute) and the Brotherhood of St Laurence. The SEM draws on data available from the Household Income and Labour Dynamics in Australia (HILDA) survey and covers various life domains such as personal capabilities (education and health), social connections, attachment to the labour market and material resources.

How many Australians are disadvantaged?

There is no one over-arching uncontested estimate of disadvantage. Each measure sheds light on different aspects of disadvantage. The estimates are based on contestable assumptions and thresholds.

Estimates based on broad proxies of disadvantage, including income poverty, deprivation and social exclusion, show a number of Australians experience disadvantage at some point in their lives:

- between 10 and 13 per cent of Australians (or between 2.3 and 2.8 million) were estimated to be income poor (living in households earning below 50 per cent of median household income) in 2010 (PC, SPRC, Melbourne Institute)
- 17 per cent of adult Australians (2.9 million) were estimated to be experiencing multiple deprivation in 2010 — the main indicator of deprivation being going without dental services due to a lack of affordability (SPRC)
- a quarter of Australians aged 15 years plus (4.5 million) experienced some degree of social exclusion in 2010 (SEM). This group included people who were marginally excluded, as well as people who experienced deeper forms of exclusion (box 3).

Box 3 What is meant by marginal, deep, and very deep exclusion?

The Social Exclusion Monitor (SEM) captures information on the level of exclusion of Australians aged 15 years and over. Responses to a set of HILDA survey questions are used to construct 29 indicators across seven key life domains (including material resources, employment, education and skills, health and disability, social connection, community and personal safety). A sum-score approach is used, with responses for each domain assumed to be of equal importance.

For example, the material resources domain has four indicators each worth 0.25. If an individual reported experiencing all four (low income, low net worth, low consumption and financial hardship) they would receive a score of 1. If they only experienced low income they would score 0.25 for that domain.

With 7 life domains all accorded a value of 1, the highest score an individual can receive is 7 and the lowest 0. A score of 1 or more signifies some level of exclusion. If respondents receive a cumulative score of between 1 and 2 they are regarded as *marginally excluded*, a score of 2 or more signifies *deep exclusion* and a score of 3 or more equates to *very deep exclusion*.

Sources: Azpitarte (2012b); Scutella, Wilkins and Kostenko (2009).

What is the depth and persistence of disadvantage in Australia?

A much smaller proportion of Australians are estimated to be experiencing deeper or multiple forms of disadvantage:

- just over 3 per cent of Australians (670 000) experienced a combination of low income, low consumption and low net wealth in 2007 (Headey, Krause and Wagner 2007)
- just under 5 per cent of those aged 15 years plus (860 000) experienced deep social exclusion and nearly 1 per cent (145 000) very deep social exclusion in 2010 (SEM).

It is also important to look at the dynamics of disadvantage

Many people move in and out of disadvantage. The highly dynamic nature of disadvantage is illustrated by the finding that between 5 and 6 per cent of Australians enter income poverty in any given year, and a similar proportion exit (Melbourne Institute 2013).

But the risk of a person remaining in disadvantage increases with its duration. For example, the likelihood of an Australian exiting income poverty who had experienced poverty for six or more years (in the previous nine years) is around two

thirds less than someone who had experienced income poverty for one or two years (Melbourne Institute 2013).

A relatively large share of Australians (just under 40 per cent) experienced relative income poverty for at least one year between 2001 and 2010 (Melbourne Institute 2013). But a closer look at the length of time Australians spend in poverty reveals much smaller numbers experience persistent poverty. Similarly a smaller share experience persistent deep social exclusion. Between 2001 and 2010:

- almost 10 per cent of Australians experienced relative income poverty for at least five years, 5 per cent for seven or more years and just over 1 per cent for all nine years (Melbourne Institute 2013)
- just under 3 per cent of Australians aged 15 years plus experienced deep social exclusion for five or more years and under 1 per cent for seven years or more (SEM).

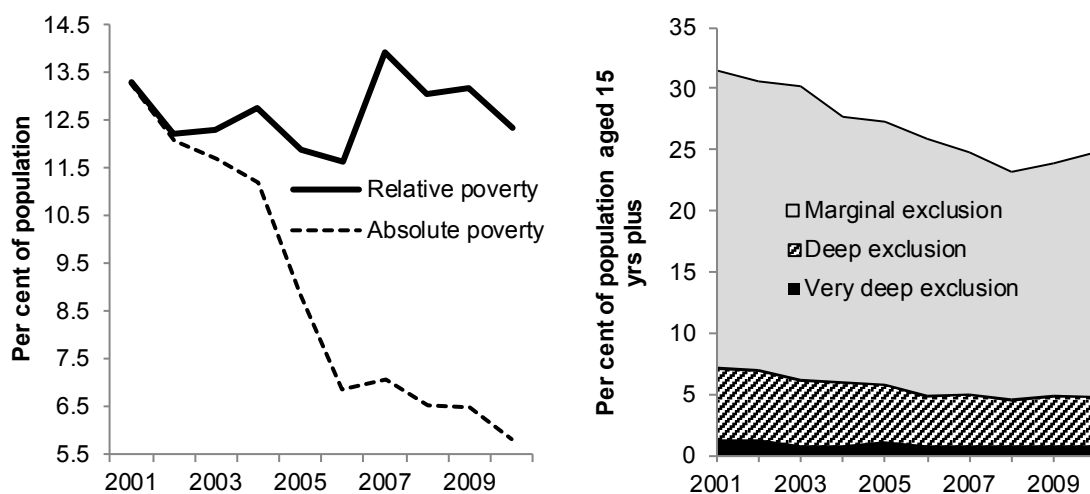
Trends in disadvantage

Sustained economic growth between 2001 and 2010 had little impact on the estimated proportion of Australians who were experiencing *relative* income poverty — which ranged between 12 and 14 per cent over the period (figure 1). The relative income poverty rate for Australia did not fall because households with median incomes experienced slightly higher annual income growth than households at the bottom of the income distribution.

This outcome masks the extent of growth in real incomes for those at the bottom of the income distribution in Australia. OECD data show real household income for the bottom decile (or bottom 10 per cent) of Australian households grew by an annual average of 3 per cent between the mid-1980s and the late 2000s. This is more than twice the growth rate for the bottom decile of the OECD average and six times the growth rate for the bottom decile in the United States.

Changes in absolute poverty gives a sense of the change in the proportion of Australians who would fall below a poverty line that has its real value held constant over time rather than having it adjusted for changes in average incomes (as is the case for relative income poverty estimates). Taking 2001 as the base year, the absolute poverty rate more than halved over the period 2001 to 2010 — from just over 13 per cent to just under 6 per cent (figure 1).

Figure 1 Trends in income poverty and social exclusion, 2001 to 2010



Data source: Melbourne Institute of Applied Economic and Social Research (2013); Azpitarte (2012b).

The rate of social exclusion, which is more of an absolute than a relative measure, declined over the period 2001 to 2010 (figure 1). The proportion of adult Australians experiencing *deep* exclusion fell from a little over 7 per cent in 2001 to just under 5 per cent in 2010.

The proportion of adult Australians experiencing *very deep* exclusion remained relatively stable over the period at around 1 per cent (figure 1). This relative stability suggests that economic and employment growth is not sufficient to improve the position of those Australians who have the most complex needs.

Who is at greatest risk of experiencing deep and persistent disadvantage?

People at highest risk of experiencing deeper or multiple forms of disadvantage include those who are dependent on income support, unemployed people, Indigenous Australians, people with a long-term health condition or disability, lone parents and people with low educational attainment (table 1).

Public housing tenants have high rates of deep and persistent social exclusion. A high proportion of public housing tenants are dependent on income support, many are lone parents, and a large proportion have low educational attainment or a long-term illness or disability.

Table 1 Prevalence of forms of disadvantage for vulnerable groups,

Group or characteristic	2010			2001 to 2010
	Relative income poverty	Multiple deprivation	Deep social exclusion	Deep and persistent social exclusion
	% rate	% rate	% rate	% rate
Single (18 to 64 years)	26.4	8.2	7.1	7.1
Lone parents	25.0	10.0	10.1	11.3
Single adults over 65 years	23.6	3.3	11.9	6.3
65 years plus (total)	13.2	7.9	7.6	6.3
Indigenous Australians	n.a.	n.a.	9.1	10.8
Migrants (NESB)	15.8	n.a.	5.7	5.6
Unemployed	63.3	n.a.	31.4	11.5
Dependent on income support	36.5	33.6	18.7	15.3
People with a long-term health condition or disability	27.4	28.9	13.3	11.2
Low educational attainment	n.a.	32.1	9.9	9.3
Public housing tenants	n.a.	n.a.	21.1	23.6
Total	12.8	13.2	4.8	4.4

n.a. – not available or sample size was too small to provide reliable results. NESB – Non English Speaking Background.

Sources: ACOSS (2012); Unpublished PEMA data provided by the SPRC; Brotherhood of St Laurence and Melbourne Institute *Social Exclusion Monitor* (SEM) (unpublished data).

Single older Australians have higher than average rates of relative income poverty (particularly when it is not adjusted for housing costs) but have lower than average rates of multiple deprivation. Many older Australians have low incomes but have wealth that they can draw on in retirement.

Migrants from a non-English speaking background have similar prevalence rates of deep and persistent social exclusion as the average for all Australians, but have a slightly higher income poverty rate. While Indigenous Australians have high rates of deep and persistent social exclusion (more than twice the average prevalence rate), they account for just 5 per cent of all those who are deeply and persistently disadvantaged.

Just over 60 per cent of Australians experiencing relative income poverty are dependent on income support as their main form of income, a quarter are lone parents, just over a quarter are migrants from countries where the main language spoken is not English, and 15 per cent are aged over 65 years. Many people have a combination of these characteristics.

Over 80 per cent of those who are deeply and persistently socially excluded have a long-term health condition or disability, just over 60 per cent have low educational attainment (Year 11 or less) and around a fifth are public housing tenants. Almost 45 per cent are aged 60 years or over.

Where do Australians experiencing disadvantage live?

Studies on regional dimensions of disadvantage are made more difficult because of heterogeneity — where disadvantaged people are co-located with people who are more affluent. The latest available evidence shows that:

- deprivation is highest in large towns and rural areas and lowest in the inner city. Residents of rural areas report the highest rates of service exclusion — particularly in relation to medical and dental services, access to child care services and financial services. Residents of the inner city report higher rates of exclusion from aged care and disability support services compared with residents in other locations
- the highest prevalence of persistent and deep exclusion is recorded by Australians living in outer regional areas, followed by those in inner regional areas and major cities
- Australians residing in more disadvantaged areas experience much higher rates of chronic disease and mental health problems and the most disadvantaged regions are characterised by higher rates of unemployment, people dependent on income support and children living in jobless families.

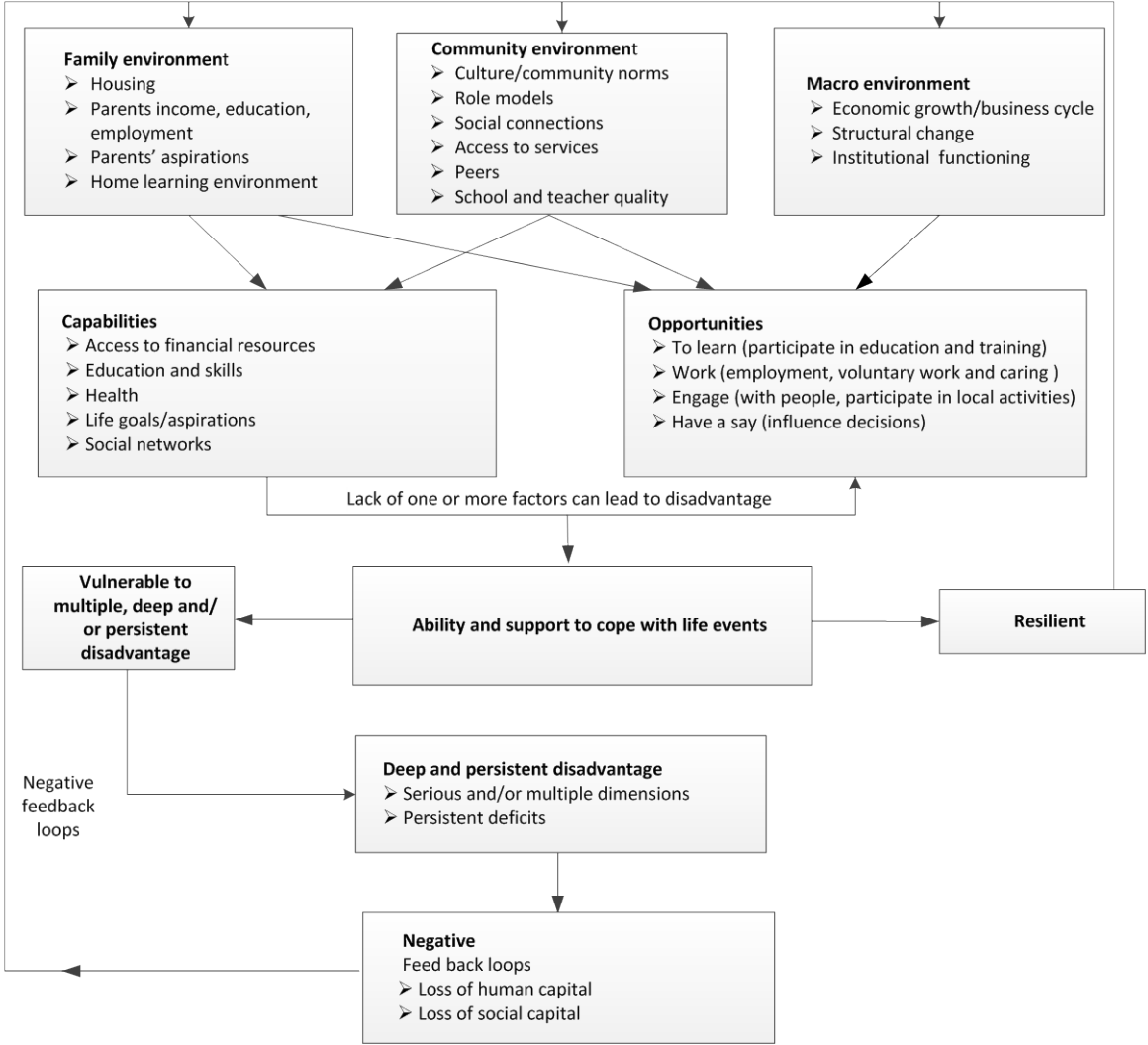
What factors influence a person’s risk of experiencing disadvantage?

Understanding how and why people become disadvantaged is complex. And, while there is a large body of research describing the causes and consequences of particular forms of disadvantage, the majority of the evidence relies on cross-sectional data rather than longitudinal studies of individual life-courses.

There are many factors that influence a person’s life chances of experiencing disadvantage including: their personal capabilities; their family circumstances; the community where they live (and the opportunities it offers); life experiences; and the broader economic and social environment. It is difficult to disentangle how the various factors interact and to establish causality.

Figure 2 provides a framework for linking these various factors to a person’s capabilities and opportunities and their ability to be resilient in the face of adverse life events.

Figure 2 Factors influencing life chances of experiencing disadvantage



The evidence points to there being critical times for building capabilities for life:

- the early years — these lay the foundation for children’s future learning and lifetime outcomes, including the ability to form trusting and caring relationships
- the school years — success at school is a key determinant of whether children go on to further education and training and employment
- beyond compulsory schooling and the transition between education and work.

The lottery of life

A child starts life with a set of personal resources or endowments — at conception they are dealt a hand of cards (by genetic heritage and maternal health). The evidence points to the importance of the antenatal period for shaping future development pathways for children.

While inherited genes influence their development, the quality of family environments, and the availability of appropriate experiences at various stages of development, are crucial for building capabilities. While most families provide the support children require to build the capabilities they need for life, families dealing with problems such as poverty, mental health, substance abuse and domestic violence are under greater stress and may be less able to provide an environment conducive to nurturing children and promoting learning.

Children who experience abuse or neglect and persistent stress in their early years are more likely to experience ongoing behavioural and learning problems, engage in violent behaviour and substance abuse and suffer poor mental and physical health.

Gaps in children’s development are evident early in life

Gaps in capabilities between children from socioeconomically disadvantaged families and their more advantaged peers appear early in life. For example:

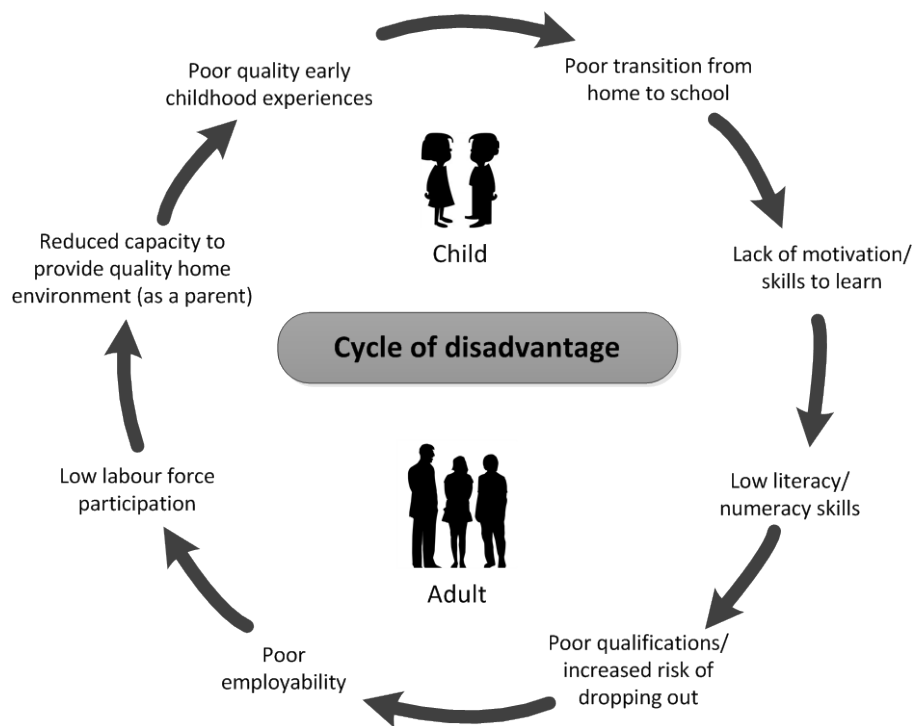
- development scores for 4-5 year old Australian children show that the more income a family has, the better the average overall development score. Also, children in this age group living in families experiencing multiple hardships are more likely to have lower development scores than those children living in families free from financial hardship
- the employment status of a child’s parents is strongly correlated with a child’s development at ages 4-5 years — the average overall development scores for children with no parent working are lower than those with at least one parent working
- children who speak another language at home, have a long-term medical condition or disability, or are Indigenous, generally perform more poorly on average development scores than 4-5 year old children who do not have these characteristics (Gong, McNamara and Cassells 2011, using data from the *Longitudinal Study of Australian Children*).

Childcare settings and the health and community care system can be influential in shaping children’s development and helping them realise their potential for future learning. This is particularly so when the family environment is not providing an

engaging supportive environment. Early childhood settings can also provide models of positive adult-child interactions and social networks for families.

Starting school ‘behind the eight ball’ can be the beginning of a cycle of disadvantage for children that sets a trajectory for poorer outcomes later in life (figure 3). Because learning is a dynamic process, early learning sets the conditions for the next stage of learning. If a child is not ‘school ready’ this can lead to disengagement in learning, which can lead to behavioural problems and poor educational achievement.

Figure 3 The cycle of disadvantage can start early in life



Source: Based on Smith Family (2010).

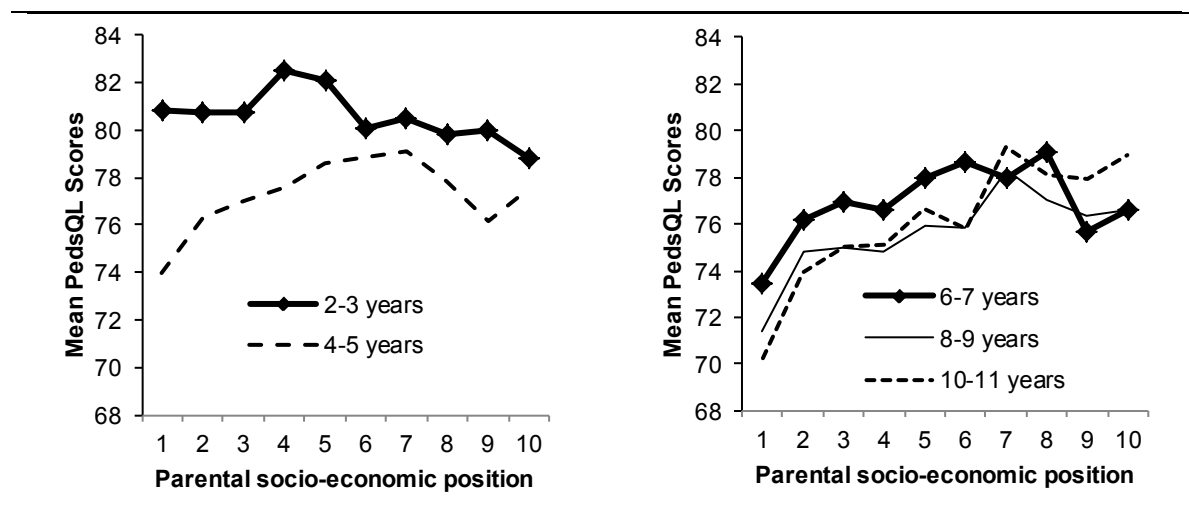
Results from trials and programs show that good quality early childhood education, particularly for children from socioeconomically disadvantaged backgrounds, can contribute significantly to giving them a strong start to a good education and success in school. For example, early intervention programs for children from disadvantaged backgrounds conducted in the United States, including the High-Scope Perry Preschool Program and the Abecedarian Project, show a positive and long-term effect of early environmental enrichment on school achievement, employment outcomes and social behaviours.

Education and life chances

There is strong evidence to show that education is the key to improving life chances. Education not only provides skills and the capacity to learn, it improves a person's employment prospects and earning capacity. The evidence also points to a relationship between education and better health and social cohesion and reduced crime. In contrast, poor educational achievement increases the probability of poorer employment prospects, lower lifetime earnings and reduced ability to participate in society (figure 3).

The weaker average performance of children from low socioeconomic backgrounds, evident when they start school, continues throughout the school years. There is also evidence that the gap widens as children get older (figure 4).

Figure 4 **Outcomes for Australian children aged 2-3 to 10-11 year olds by socioeconomic position^{ab}**



^a MeanPedsQL scores — Pediatric Quality of Life inventory or model which measures the extent of physical, emotional, social and school functioning of children. ^b Socioeconomic position (SEP) — ranging from 1 (the lowest decile) to 10 (the highest decile).

Data source: data provided by Australian Institute of Family Studies, based on LSAC, Waves 1, 2, 3 and 4.

Children from low socioeconomic backgrounds (as well as Indigenous children, those not proficient in English and those living in remote communities) perform more poorly at school, on average, than those from higher socioeconomic groups. Also, the probability of leaving school early is higher for these groups and the probability of attending university is lower.

Some of the explanations for differences in educational attainment between children of low and high socioeconomic backgrounds include:

- parents' cognitive abilities and inherited genes

-
- differences in the home learning environment — access to books, computers, space to study
 - differences in the quantity and quality of parental time investments
 - parental aspirations and attitudes to education — the evidence suggests that these characteristics vary strongly with socioeconomic position
 - the operation of schools and neighbourhood effects — schools with a higher proportion of disadvantaged students are more likely to be dealing with economic and social problems that inhibit learning.

Evidence on why some disadvantaged children ‘buck the trend’ to succeed in later life suggests that the level of parental interest and parent’s behaviour are important. Children with a higher probability of succeeding in later life are also more likely to have higher test scores earlier in school life and attend schools with higher achieving or more advantaged peers.

There is also some evidence which suggests that what distinguishes high risk children from other children is not exposure to a specific risk factor, but rather a life history characterised by multiple familial disadvantages that span social and economic disadvantage. But, importantly, the relationship is not deterministic.

Beyond school

The capabilities that students leave school with affects their transition to higher education and work. These differences can widen over time as better educated students take up further study and/or enter the workforce (and continue to develop skills). Spells of unemployment or joblessness when people are young (particularly if for extended periods), carry the risk of lasting effects on earnings and employment — particularly if the person also has other characteristics that place them at risk of disadvantage.

Australians without post-school qualifications, or with Certificates I and II, are more likely to be unemployed or not in the labour force compared to those with higher qualifications. Early school leavers experience social exclusion at three times the rate of those who complete Year 12 (Azpitarte 2012b).

Early school leavers are also likely to have lower paid jobs than those with Year 12 and higher education.

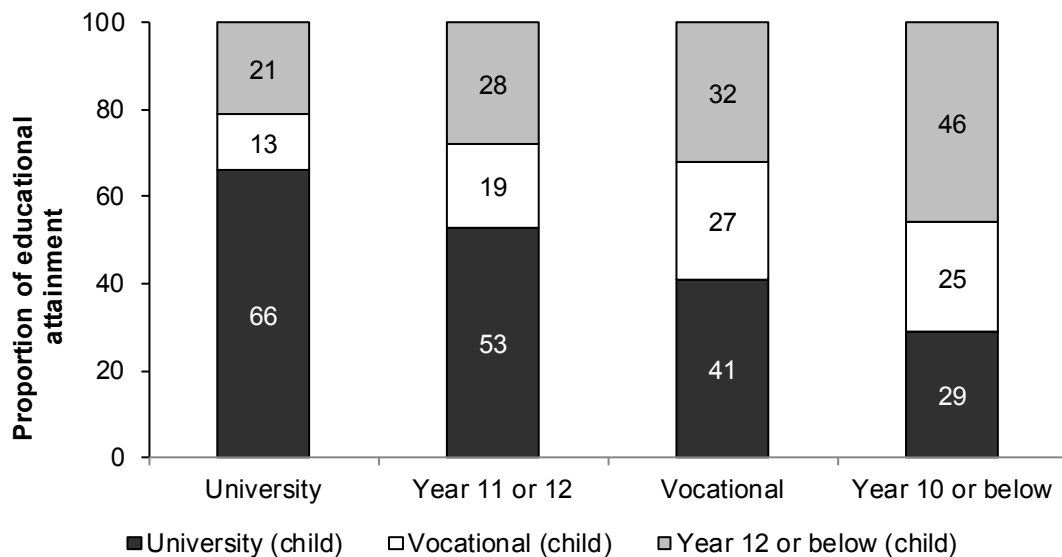
Education and intergenerational mobility

Access to and participation in higher education can increase life opportunities, particularly for children from low socioeconomic backgrounds, but the evidence shows that educational differences tend to persist across generations.

- Students whose both parents/guardians have Year 12 qualifications are more likely to complete year 12 than those with one or neither parent/guardian having attained Year 12.
- University access rates for students from low socioeconomic backgrounds are less than half those for students from high socioeconomic backgrounds.
- A person whose father has achieved a university degree is more than twice as likely to go on to university than a person whose father only obtained Year 10 or below (figure 5).

There is also evidence to show that there is some intergenerational transmission of income (whereby a son's earnings reflect his father's earnings).

Figure 5 **Highest educational attainment of Australians aged 30-44 years, by highest educational attainment of father**



Data source: Cassells et al. (2011), based on HILDA.

The importance of employment

People's material standard of living is largely determined by their access to economic resources (income and wealth). Unemployment and joblessness more

generally denies people access to an important income stream, reduces social status, and constrains engagement in meaningful activities. The evidence suggests that job loss is a key trigger of disadvantage.

People who are out of work for long periods of time are at greater risk of experiencing economic hardship, including reduced capacity to cover housing costs, and, at the extreme, are at risk of homelessness. In the absence of affordable housing it can be difficult for a person to find and hold down a job or engage in education or become part of the local community. Housing instability and homelessness can also mean that children frequently move between schools or miss out on some schooling.

Employment is a key trigger for moving out of disadvantage. Less than 4 per cent of Australians employed full-time and 5 per cent of Australians who were reliant on wages as their primary income source experienced relative income poverty in 2010. In contrast, almost two thirds of unemployed Australians experienced relative income poverty (table 1).

International evidence shows that the majority of poverty spells end when the household head's earnings increase. Importantly, economic growth and a strong macro environment translates into increased employment opportunities and incomes.

But while finding paid employment can provide a route out of a state of disadvantage for many Australians, it does not guarantee an absence of recurrent disadvantage. Many less educated and low skilled people are engaged in temporary or casual work. Casual workers are less likely to have regular hours of work and as a consequence are more likely to experience variable earnings.

HILDA Survey data show that living in a job-poor household (where aggregate hours worked in a household are less than 35 hours per week) is experienced by more Australians, and is more likely to be long term, than joblessness (Melbourne Institute 2012b).

It is also important to recognise the limitations that some people face in relation to participating in paid work. People with poor health and disabilities can have more limited opportunities to engage in education, paid work and life in their local community. Others can face personal barriers (such as caring responsibilities or addictions).

Life events

As discussed earlier, people with long-term health conditions are more likely to experience deep and persistent disadvantage. Equally, disadvantage can lead to poor health. The evidence shows a positive relationship between socioeconomic status and one's health. Household income, level of education, household employment, housing tenure, and social connectedness all have a bearing on health (Brown and Nepal 2010).

The onset of poor health, or an accident or illness which results in disability, can happen to anyone, regardless of education, employment or wealth. Such events can be a trigger for disadvantage. The relative risk of disadvantage for this group is largely the result of the fact that people with poor health or disability (and their carers) are less likely to participate in the labour market (so have reduced income) and often have higher needs associated with their health conditions (medication, equipment or aids, specialised housing).

Events such as relationship and family breakdowns or the death of a partner can also trigger disadvantage (conversely, the formation of a relationship can be a pathway out of disadvantage). This is particularly the case when a key source of income is lost. Relationship and family breakdowns are the leading trigger for the first instance of homelessness. Young people seeking assistance from specialist homelessness services commonly cite family breakdown and family violence as reasons for seeking help.

Lone parents have high rates of joblessness. Based on HILDA data, almost a half of all children in lone-parent households were in jobless households for three or more years and around a third for more five or more years over the period 2001 to 2009 (Melbourne Institute 2012b).

But beyond the obvious issue of financial resources, further research is needed to examine why some individuals and families are resilient, while others are vulnerable.

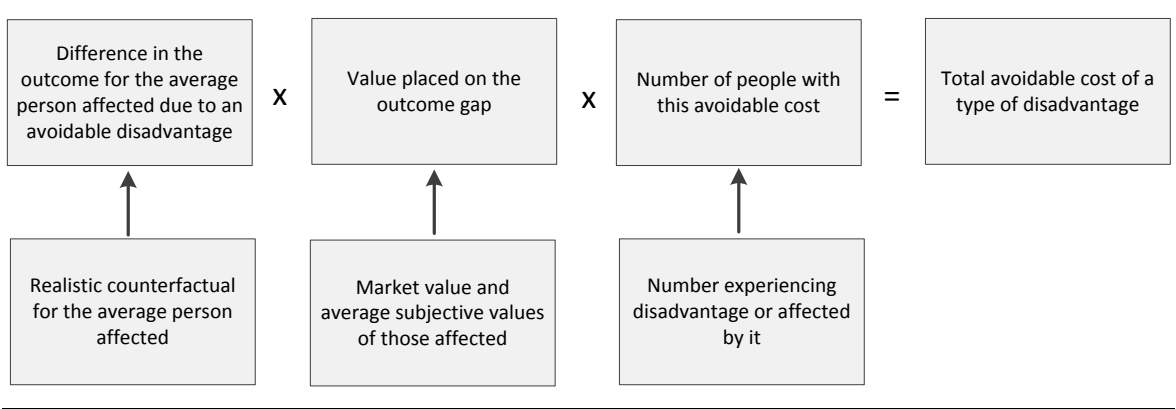
What are the costs of disadvantage and who bears them?

Disadvantage imposes costs on the people who experience it, those close to them, and the broader community. The cost of disadvantage, however, is a difficult concept to define. It is also hard to estimate. While most people have a view of what is an 'acceptable' level of disadvantage (or 'minimally tolerable life'), there is no consensus on what this is. Also, it is not realistic to assume that the costs of disadvantage can be reduced to zero. Many of the factors contributing to

disadvantage, such as poor health, remain to some extent even with effective policies in place.

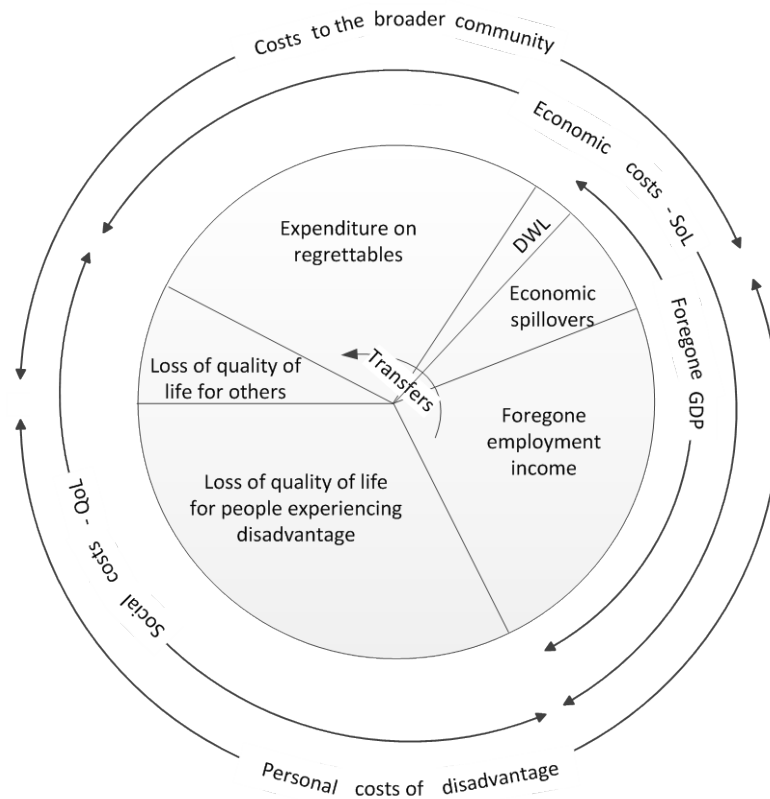
The cost of disadvantage should be defined in terms of avoidable costs — that is, the difference between actual and potential outcomes — a realistic counterfactual. Other steps in estimating costs include assigning values to the gap between actual outcomes and potential outcomes over time (figure 6).

Figure 6 Steps in estimating the avoidable costs of disadvantage



Categorising the outcomes of current or past disadvantage into those that impact on material living standards (economic costs) and those that impact on quality of life (social costs) is a useful approach to avoid double counting (figure 7).

Figure 7 One way of categorising the costs of disadvantage^{ab}



^a QoL – quality of life. ^b SoL – material standard of living.

Costs of lower material living standards

The economic costs of lower material living standards can be measured in terms of the opportunity costs of foregone employment income and expenditure on ‘regrettables’ (expenses that in the absence of avoidable disadvantage would not be preferred).

Foregone employment income can be due to lower labour force participation, higher un/underemployment and lower productivity (through lower human capital). There may also be dynamic effects to the extent that lower income and/or employment feed through to lower investment in (and generally a degradation of) human capital and physical capital over time.

The economic cost of foregone employment income falls predominantly on those people experiencing the disadvantage, although it is partly offset by transfers (a regrettable cost for those in the broader community).

But there are also economic ‘spillovers’ — lower economic production (Gross Domestic Product (GDP)) to the extent to which disadvantage impacts on *other* workers’ productivity and investment over time. In terms of measuring the overall effect of disadvantage on GDP, foregone employment income can be estimated, but economic spillovers are more difficult to measure.

Regrettables affect the allocation of expenditure more than the overall level of economic activity. For example, transfer payments, which are a significant component of regrettable expenditure, substitute the forgone consumption (and savings) of those paying taxes with that of those who receive the transfers. There is, however, a deadweight loss associated with raising tax revenue. This deadweight loss aside, the cost of regrettable expenditure is the lost opportunity for taxpayers to purchase a more preferred set of goods and services.

Not all public expenditure, notably that which prevents disadvantage (such as early intervention programs in education and health), should be regarded as a regrettable. In general, estimates of regrettables should be limited to those expenditures that could have been avoided if disadvantage had been prevented or reduced.

In making the case for investments to prevent disadvantage, however, the cost of achieving such a reduction needs to be compared to the benefits (measured as a reduction in the costs of disadvantage).

The fiscal cost of disadvantage largely depends on the level of public expenditure that addresses the consequences of the avoidable disadvantage, such as some public health, justice and welfare services. (It also depends on taxes that would have been levied on foregone employment income and economic spillovers). The fiscal cost of disadvantage is a subset of the economic costs, and care is needed not to double count such costs.

Costs from lower quality of life

Measuring the social costs from a lower quality of life is more challenging than measuring the economic costs. Many of these costs reflect personal values and expectations (and values can change as people adjust to their situation).

Measures of subjective wellbeing are increasingly being used to estimate these costs. Lower life satisfaction can be the result of outcomes such as lower engagement in work and other meaningful activities, poorer health, poorer relationships and less control over personal circumstances. These outcomes are more likely for people who are currently experiencing disadvantage (indeed they may be the source of the disadvantage), and for people who have experienced

severe disadvantage in the past. A number of studies find that people experiencing these types of outcomes have significantly lower levels of life satisfaction or happiness.

For the broader community the social costs are likely to be lower, but there can still be ‘spillover’ social effects. These result, for example, if disadvantage erodes social capital, if it affects the qualities of the neighbourhood in which people live, or other outcomes such as people’s perceptions of safety. To the extent to which the majority of the community prefer lower levels of disadvantage this can impose a social cost.

Estimates of the overall costs of disadvantage have very limited use (even if costs could be estimated with any confidence). What matters for policy is the extent to which policies can reduce these costs, relative to the cost of the policy.

Missing pieces of the puzzle

Knowledge about disadvantage in Australia is thin in a number of areas.

Longitudinal data is critical to understanding the dynamics and causality of disadvantage. But good data which follows people through the course of their lifetime and across generations takes a considerable time to amass. Longitudinal surveys are expensive to conduct. There are limited longitudinal data bases in Australia and those that do exist have only been operating for a relatively short period of time.

Also, the most disadvantaged people are often not well represented in longitudinal studies. Some of the most vulnerable groups are excluded from such studies (such as the homeless). Others are less likely to participate in longitudinal studies (for example, people with disabilities) and, if participating, are among the most likely to drop out of such a sample over time (such as the unemployed).

The small sample sizes in most longitudinal collections, together with the small share of the population who experience deep and persistent disadvantage, means relatively few observations are available for analysis. This has important implications for the level of robustness of the inferences that can be drawn. Oversampling such groups is one option. Another is to conduct specialised surveys of ‘at risk’ groups.

Also, while it is known that resilience is important for breaking cycles of disadvantage, not much is known about the personal characteristics that make some people more driven to succeed and less likely to be knocked over by particular

experiences. This necessitates not just datasets with details of people who are identified as disadvantaged, but those who, despite their risk factors, do not become disadvantaged. Insights into resilience (and its relative importance) could also come from longitudinal qualitative research as it is ‘not bounded by predetermined questions’.

Administrative data are significant potential data sources. And while such datasets typically do not provide information on experiences of people once they no longer access particular government services, some benefits are accessed by families over a long period. Linking of administrative datasets also offers the potential to track people over longer periods of time.

In addition, while the data collected are largely limited to administrative needs, the addition of a small number of new data items, or linking to Census and survey data, offers considerable potential for expanding the usefulness of administrative data.

Privacy policies by necessity limit data accessibility, but the ability to confidentialise data, and apply confidentiality at the output rather than the input stage of analysis, has been expanding. This greatly enhances the scope to utilise administrative data to evaluate the effectiveness of policies and programs in preventing disadvantage or reducing the costs it imposes.

The integration of administrative data with other data sources has the potential to provide new insights to inform researchers and policy makers about deep and persistent disadvantage.

1 What is this paper about?

This paper is about disadvantage in Australia and, in particular, Australians who experience deep and persistent disadvantage.

Notwithstanding growing levels of prosperity over the last two decades, and the unemployment rate more than halving (from around 11 per cent to 5 per cent), some Australians continue to be ‘left behind’. The Social Inclusion Board estimates that around 5 per cent of Australia’s working age population experience multiple disadvantage which affects their ability to participate in society (Australian Social Inclusion Board 2012). As stated in *A Stronger, Fairer Australia*:

... too many Australians are still excluded from the opportunities they need to create the life they want. They can be trapped in a spiral of disadvantage caused by family circumstances, low expectations, community poverty, lack of suitable and affordable housing, illness or discrimination — often leading to early school leaving, long-term unemployment and chronic ill health. (Australian Government 2009, p. 1)

While strong economic growth is a means of increasing living standards and opportunities for Australians, it does not necessarily mean that the benefits of growth are equally shared. A recent OECD report noted that:

... strong growth is not necessarily inclusive in that the benefits of increased material prosperity are not always shared evenly among the various social groups. (de Mello and Dutz 2012, p. 9)

Key policy questions facing governments, and society more generally, are how might disadvantage be avoided or overcome (or its effects minimised) and what can help individuals participate more fully in society? To address these questions, it is important to know:

- what it means to be disadvantaged
- how many Australians are disadvantaged and who they are
- the depth and persistence of disadvantage in Australia
- where Australians experiencing disadvantage live
- the factors that can influence a person’s risk of experiencing disadvantage (particularly disadvantage that is deep and persistent)
- the costs of disadvantage to families, communities, the economy and taxpayers.

This paper seeks to shed light on these issues. It is a staff research paper and therefore does not make policy recommendations, but it does draw on findings from existing data, theoretical and research literature, and discussions with experts in the field.

1.1 Why the policy interest in disadvantage?

There are a number of reasons why policy makers need a better understanding about the nature, depth and persistence of disadvantage.

1. There is a high personal cost from disadvantage. People can suffer financially, socially and emotionally, have poor health and low educational achievement. Family, particularly children, and friends can also be affected. Given that key objectives of public policy are to improve the lives and opportunities of Australians (both today and in the future), it is important to find ways to reduce, prevent and ameliorate the consequences of disadvantage.
2. Disadvantage reduces opportunities for individuals and society. By addressing disadvantage, more Australians can be actively engaged in, and contribute to, the workforce and to society more generally. Higher levels of engagement typically lead to higher personal wellbeing — improved living standards and quality of life.
3. Disadvantage has wider consequences for Australian society. For example, persistently disadvantaged communities can erode social cohesion and have negative social and economic consequences for others. Overcoming disadvantage can lead to safer and more liveable communities.
4. Support for people who are disadvantaged and the funding of programs to overcome disadvantage involves large amounts of taxpayers' money and private funding. Policy relevant questions include: what are the most effective investments for reducing and preventing disadvantage; and what are the costs and benefits?

Summarising the economic and social costs to Australia of social disadvantage, the Australian Social Inclusion Unit (Australian Government 2009) said:

Social disadvantage results in costs to:

- the budget — through costs in health care, welfare and justice
- the economy — from lower participation and productivity
- the community — through higher crime rates and lower levels of social capital and

-
- individuals and families — through financial hardship, social and physical isolation, chronic or persistent health problems, family breakdown, and missed opportunities. (p. 9)

1.2 The paper structure

The depth and persistence of disadvantage are the focus of this study.

Chapter 2 looks at what it means to be disadvantaged by presenting the various perspectives on disadvantage — income poverty, deprivation, social exclusion and a lack of capability.

Chapter 3 presents indicators on the extent of disadvantage in Australia. It also provides a picture of ‘who’ disadvantaged Australians are and the depth and persistence of disadvantage in Australia.

There are many factors that can influence a person’s chances of experiencing disadvantage. Chapter 4 sheds light on what is known about the factors that contribute to disadvantage. It presents evidence on the various pathways in and out of disadvantage and the interactions of a range of risk factors (such as parental characteristics and family environments) on the life trajectories of children.

Chapter 5 sets out the costs of disadvantage for individuals and families, society and taxpayers.

Drawing on the findings of the paper, chapter 6 explores the question ‘where to from here?’ in the context of measurement and data issues.

2 What does it mean to be disadvantaged?

Key points

- Disadvantage was traditionally understood as poverty, and poverty as inadequate resources or low income. But low income does not necessarily establish disadvantage.
 - Income is a partial measure taken at a point in time. Some individuals might experience a temporary loss of income, but have access to assets or borrowings.
- It is ‘impoverished lives’ (including a lack of opportunities), rather than a lack of income alone, that really matters.
- Recognising the need for a richer conceptualisation of disadvantage that is linked more closely to living standards and quality of life, a number of broader concepts have emerged:
 - deprivation — what people do not have because they cannot afford it (by looking at whether households miss out on items that society considers nobody should do without)
 - capability — Sen’s more expansive notion which focuses on what people are effectively able to do and to be (their capabilities and functionings)
 - ‘social exclusion’ — the extent to which people are unable to participate adequately in economic, social and cultural life.
- While the various approaches differ conceptually they overlap and in many ways are complementary. They provide different lenses through which to view and measure the multi-dimensional and complex nature of disadvantage and the experiences that people cope with (including less tangible matters, such as perceptions of personal security and subjective wellbeing).
- Longitudinal information (following the same people over a number of years) is critical to understanding deep and persistent disadvantage.

Over the last few decades there has been much debate about what being ‘disadvantaged’ means. It has been examined from a number of perspectives — poverty, deprivation, capabilities, social exclusion and inclusion. There are various definitions for the different terms in the literature. This chapter examines each of these concepts, how they are measured, and the similarities and differences between them. The importance of dynamics in understanding disadvantage, particularly deep and persistent disadvantage, is also discussed.

2.1 Poverty — the traditional concept of disadvantage

Traditionally, disadvantage was considered in the context of poverty, and poverty in terms of inadequate resources or low income. In the early 1900s, Rowntree (1901, p. 86), in a study of poverty in York, England, defined poverty in terms of having insufficient income ‘to obtain the minimum necessities for the maintenance of merely physical efficiency’. His definition of necessities included the simplest possible diet for nutritional efficiency and minimum requirements for clothing and housing.

A century later the European Commission (2004, p. 8) said ‘people are said to be living in poverty if their income and resources are so inadequate as to preclude them from having a standard of living considered acceptable in the society in which they live’.

A widely shared view among researchers now is that poverty is a relative *concept* as it is defined as a minimum accepted standard of living in the society in which people live (Gordon 2000; Saunders and Whiteford 1989; Townsend 1979). This point was made by Adam Smith (1910) in the *Wealth of Nations*:

A linen shirt, ... is, strictly speaking, not a necessity of life. The Greeks and Romans lived, I suppose, very comfortably, though they had no linen. But in the present times, through the greater part of Europe, a creditable day-labourer would be ashamed to appear in public without a linen shirt, the want of which would be supposed to denote that disgraceful degree of poverty, which it is presumed, nobody can well fall into without extreme bad conduct. ... Under necessities, therefore, I comprehend, not only those things which nature, but those things which the established rules of decency have rendered necessary to the lowest rank of people. (pp. 715-716)

Measuring poverty

Identifying ‘who’ is disadvantaged or living in poverty requires a measure or line that separates the poor from the rest of the population. The traditional approach to measuring poverty is low income.

Income poverty can be measured in *absolute* and *relative* terms.

Under an absolute income poverty measure, people are considered to be living in poverty if their income is not sufficient to cover the costs of a given basket of goods in a particular year. Absolute poverty thresholds are used in several OECD countries, including the United States (Burkhauser 2012; OECD 2008). The World Bank also uses absolute poverty thresholds, for example, the ‘one dollar a day’ poverty line was established for the 1990 World Development Report and became a

Millennium Development Goal: to halve the proportion of people whose income is less than one dollar a day by 2015 (World Bank 2000).

The benefit of an absolute measure, whether it be in relation to income poverty or other disadvantage, is that policy can focus on the minimum capabilities that people need to be able to live minimally decent lives. But as Boarini and d'Ercole (2006), commenting on absolute thresholds, said:

... most of these measures are not purely 'absolute' — they define poverty through a standard that is both time- and space-specific. (p. 12)

The relative income poverty approach considers that people are living in poverty if their income is below a certain percentage of middle-level (or median) household income. The relative poverty threshold moves as median incomes change, with poverty assessed against a changing community standard.

An OECD paper on measuring income distribution and poverty supported the relative poverty measure:

This approach ... takes into account the different levels of well-being within a society and how it changes over time. Relative measures also allow one to compare income situations across countries, because they are independent of a specific country's definition of basic needs.

An additional reason for focusing on relative poverty is that both psychological and economic analyses have suggested that income differences within a society have real significance for the well-being of each person: people assess their own conditions through comparisons with others. This implies that information on relative income matters for the assessment of the living conditions of people, independently of judgements on what is 'fair' in society. (Förster and d'Ercole 2009, p. 9)

The measurement of relative poverty, as a proxy for disadvantage, requires the choice of a specific threshold or distance from median income. The main threshold used by the OECD is 50 per cent of median equivalised household income — that is, income adjusted for the composition of the household (box 2.1). The European Union countries most commonly use a poverty line set at 60 per cent of median income (Besharov and Couch 2012). The specific threshold chosen is somewhat arbitrary.

The Henderson Poverty Line, developed in the early 1970s, was the first widely used income poverty line in Australia (box 2.2). Poverty lines based on a proportion of median household incomes are now more common.

Chapter 3 reports on the different estimates of income poverty in Australia.

Box 2.1 Equivalised household income

Equivalised income is a measure of material living standards, obtained by adjusting household disposable income by the size and composition of the household in order to determine a household's 'needs'. The needs of a household increase with each additional member but, due to economies of scale in consumption, not in a way that is directly proportional. For example, needs for housing space, electricity, and other factors, will not be three times as high for a household with three members than for a single person. With the help of equivalence scales, each household type is assigned a value in proportion to its needs. The factors commonly taken into account are the size of the household and the age of its members (adults or children). There are a range of scales used.

- 'OECD equivalence scale'. This assigns a value of 1 to the first household member, 0.7 to each additional adult and 0.5 for each child.
- 'OECD-modified scale'. This scale assigns a value of 1 to the household head, 0.5 to each additional adult member and 0.3 to each child.
- Square root scale. Recent OECD publications use a scale that divides household income by the square root of household size. This implies that a household of four people has needs that are twice as large as a single person household.

Table 2.1 Equivalence scales and corresponding elasticities

Household size	Equivalence scale				
	<i>Per-capita income</i>	<i>OECD equiv scale</i>	<i>OECD modified scale</i>	<i>Square root scale</i>	<i>Household income</i>
1 adult	1	1	1	1	1
2 adults	2	1.7	1.5	1.4	1
2 adults, 1 child	3	2.2	1.8	1.7	1
2 adults, 2 children	4	2.7	2.1	2.0	1
2 adults, 3 children	5	3.2	2.4	2.2	1
<i>Elasticity^a</i>	1	0.73	0.53	0.50	0

^a Using household size as the determinant, equivalence scales can be expressed through an 'equivalence elasticity'; that is, the power by which economic needs change with household size. The equivalence elasticity can range from 0 (when adjusted household disposable income is taken as the income measure) to 1 (when per capita household income is used). The smaller the value of this elasticity, the higher the economies of scale in consumption.

The choice of a particular equivalence scale depends on assumptions about economies of scale in consumption and value judgements about the priority assigned to the needs of different individuals such as children or the elderly. Different equivalence scales will produce different estimates of income poverty rates.

Source: Förster and d'Ercole (2009).

Box 2.2 Henderson Poverty Line — an early Australian measure of relative poverty

The Henderson poverty line was developed by the Commission of Inquiry into Poverty (1975). In the Commission's first main report, Henderson sought to identify the extent of poverty in Australia in terms of inadequate income relative to need. Any family with income below what was considered as representative of an 'austere' standard of living, was considered to be living in poverty. The Commission, however, also acknowledged the limitations of such a measure:

The drawing of a poverty line or lines is essential if a working estimate is to be made of how many people in the community are poor and how much it will cost to bring them up to a poverty line. It is equally essential, however, that a poverty line drawn in economic terms should not be the sole indicator of the extent of poverty ... poverty in Australia is inseparable from inequalities firmly entrenched in our social structure. (p. viii)

The Henderson poverty line was set at a benchmark income of \$62.70 per week for the September quarter 1973, which was around the value of the basic wage plus child endowment (an earlier version of family allowance), for a reference family of two adults with two children. Adjustments were then made for other household types.

The Melbourne Institute has since published quarterly updates of the Henderson Poverty Line. For the September quarter 2012, inclusive of housing costs, the poverty line was \$908.17 per week for a family comprising two adults, one of whom was working, and two dependent children.

There has been much debate about the strengths and weaknesses of the Henderson Poverty Line. Criticisms relate to the arbitrary elements of the standard, the adjustments made for families of different sizes and composition and the method of updating over time (Harding, Lloyd and Greenwell 2001; Stanton 1980; Travers and Richardson 1993; Tsumori, Saunders and Hughes 2002). No Australian government has officially endorsed the use of the Henderson Poverty Line and it is no longer used by most poverty researchers in Australia. Poverty lines based on a proportion of median household incomes are now more common. While these lines are not subject to the concerns expressed about how the Henderson Poverty Line is updated, there are still debates about how the poverty threshold is set (50 or 60 per cent of median household income) and how adjustments are made for family size and composition.

Sources: Australian Government (1975); Harding, Lloyd and Greenwell (2001); Melbourne Institute, Poverty Lines Australia, <http://melbourneinstitute.com/miaesr/poverty-line-australia.html>; Stanton (1980); Tsumori, Saunders and Hughes (2002); Travers and Richardson (1993).

Income is not always an accurate measure of a person's disadvantage

While income poverty measures are widely used (largely because they are relatively easy to construct and have a clear interpretation), their use as an indicator has some important limitations.

Low income does not necessarily establish disadvantage or poverty. It is a partial measure taken at a point in time. In any given year, the income of a household could be atypical because of events such as illness, temporary unemployment or receipt of a bonus.

Income based measures may not fully capture a household's access to other resources (such as savings, wealth or support from family and friends) or subsidised goods and services (such as public housing and public transport) (OECD 2008). For example, a low income household could borrow or draw on accumulated wealth to support their consumption. Alternatively, a household could be above an income poverty threshold but not have access to sufficient financial resources in the case of an adverse event. As noted in an OECD report:

Income measures of poverty are generally based on cross-section data that offer a snap-shot of the individual's situation combining transitory and persistent features. Further, income measures do not provide a full picture of 'command over resources': they neglect individuals' ability to borrow, to draw from accumulated savings, and to benefit from help provided by family or friends, as well as consumption of public services such as education, health and housing. For these reasons, income provides only a partial description of the individual's ability to enjoy an 'acceptable' life. (Boarini and d'Ercole 2006, p. 10)

Taking account of household wealth, as well as income, provides a more accurate picture of a household's command over financial resources. In line with this approach, indicators of deep and persistent disadvantage should identify those people who have low income and wealth and cannot afford life's necessities. Such indicators need to adopt a broad perspective of the constraints that can limit people's lives for an extended period of time.

Indicators of low economic resources (including, for example, people in the lowest two quintiles of both equivalised adjusted disposable household income and equivalised household net worth) are now commonly used. Headey, Krause and Wagner (2009) adopted an even broader approach — adding net worth and consumption filters to the income poverty measures (chapter 3).

A further consideration is that needs can also vary across individuals and households. A threshold level of income that is minimally adequate for most people could still leave some with insufficient resources because:

- they have special needs (such as the result of sickness or disability)
- they have high work-related expenses (such as childcare or transport costs) or
- the purchasing power of their income is affected by geographical variations in prices of goods and services and travel expenses (as is commonly the case in rural and remote areas) (OECD 2008).

Disadvantage, therefore, is associated with more than insufficient income (or consumption); the test is primarily about insufficient outcomes (wellbeing or living standards).

Income measures also fail to capture a range of other circumstances that can contribute to a poor quality of life, such as poor health, low self-esteem or a lack of political freedoms. Drawing on Wolff and de-Shalit (2007), Saunders (2011) presented the case of Leah (or Lucky), a single parent born in North Africa who is living in the south of Israel. Leah lacks education and employable skills. She also struggles with deep depression in her attempt to give meaning to a harsh and miserable life. Commenting on Leah's circumstances, Saunders quotes Wolff and de-Shalit:

... the immediate problems she faces are not confined to lack of money ... her disadvantage is multi-faceted, [and] ... plural in nature. Clearly, providing Leah with more money, and boosting her purchasing power, would have a number of positive effects. ... money is an extremely valuable means to other things that make life go well. Yet it is limited too. ... In short, *redistribution of money cannot in itself end oppressive social structures*. (p. 2)

Sen (2000) similarly argued that while income has an 'enormous influence' on lives, it is 'impoverished lives, and not just depleted wallets' that matter:

... income — properly defined — has an enormous influence on the kind of lives we can lead. The impoverishment of our lives results frequently from the inadequacy of income, and in this sense low income must be an important cause of poor living. And yet ... ultimately poverty must be seen in terms of poor living, rather than just as lowness of incomes (and 'nothing else'). Income may be the most prominent means for a good life without deprivation, but it is not the only influence on the lives we can lead. If our paramount interest is in the lives that people can lead — the freedom they have to lead minimally decent lives — then it cannot but be a mistake to concentrate exclusively only on one or other of the *means* to such freedom. We must look at impoverished lives, and not just at depleted wallets. (p. 3)

Some broader concepts of disadvantage

In recognition of the need for a richer conceptualisation of disadvantage that is linked more closely to a person's living standards and quality of life, a number of broader concepts of disadvantage have emerged in the literature. Three key approaches include:

- the deprivation approach, associated with the pioneering work of Peter Townsend (section 2.2)
- the capability approach, developed by Nobel Prize winning economist Amartya Sen (section 2.3)

-
- the concept of ‘social exclusion’, which originated in France in the 1970s (section 2.4).

2.2 Deprivation

Townsend (1979), a British sociologist, argued that the concept of deprivation was central to the definition and understanding of poverty:

Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged or approved, in the societies to which they belong. Their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns and activities. (p. 31)

Measures of deprivation look at outcomes or the reported experiences of households by looking at whether households miss out on items that society considers nobody should have to do without. Social norms, rather than an arbitrary proportion of median income, are used to define an unacceptable standard of living.

Townsend identified, for British households at that time, 12 indicators of deprivation (from a wider group of 60 indicators) relating to diet, clothing, fuel and light, household facilities, housing conditions, work conditions, health, education, environment, family activities, recreation and social relations (box 2.3). Based on binary deprivation scores (that is, having, or not having, a specific good) for these items, Townsend built a scale for each item (individuals with a score equal to or greater than five were said to be living in poverty) and derived an income threshold corresponding to the level below which ‘deprivation scores escalated disproportionately’.

Some of the criticisms of the deprivation approach relate to:

- how to distinguish between preferences and constraints; that is, whether someone is doing or going without something because of financial constraints or by choice
- the cultural and temporal context (or even arbitrariness) of the list of items or activities considered as ‘necessities’ which, even if well founded on social norms, will change over time
- the failure to take into account the seriousness of different forms of deprivation — an approach that assigns each type of deprivation an equal weight may not be reasonable — for example, is going one or more days (in a fortnight) without a cooked meal as important as not having access to a television? (Boarini and d’Ercole 2006; Gordon 2006).

Box 2.3 Townsend's summary deprivation index

1. Has not had a week's holiday away from home in last 12 months.
2. *Adults only*. Has not had a relative or friend to the home for a meal or snack in the last 4 weeks.
3. *Adults only*. Has not been out in the last 4 weeks to a relative or friends for a meal or snack.
4. *Children only* (under 15). Has not had a friend to play or to tea in last 4 weeks.
5. *Children only*. Did not have party on last birthday.
6. Has not had an afternoon or evening out for entertainment in the last two weeks.
7. Does not have fresh meat (including meals out) as many as four days a week.
8. Has gone through one or more days in the past fortnight without a cooked meal.
9. Has not had a cooked breakfast most days of the week.
10. Household does not have a refrigerator.
11. Household does not usually have a Sunday joint (3 in 4 times).
12. Household does not have sole use of four amenities indoors (flush WC; sink or washbasin and cold-water tap; fixed bath or shower; and gas or electric cooker).

Source: Townsend (1979, p. 250).

In response to some of the criticism, and building on Townsend's work, Mack and Lansley (1985) argued that deprivation existed where constraint, not choice, prevented people from ownership or participation. They attempted to reduce the arbitrariness implicit in the choice of deprivation items by asking questions to distinguish between enforced lack (not having something because you cannot afford it) and free choice. Most survey questions on deprivation now attempt to distinguish between preferences and affordability, but as noted by the OECD (2008), other aspects about the nature of deprivation, such as the quality of items, are not addressed.

On the issue of what to include in the list of deprivation items, Mack and Lansley (1985) suggested asking a representative sample of people to evaluate which items they considered as socially perceived necessities.

In terms of weighting different items, an alternative to the simple binary approach is to place greater weight on deprivation of those items that were considered as being a necessity by larger proportions of the population. This approach is becoming increasingly popular (Bray 2001; OECD 2008; Saunders 2011).

Today deprivation is defined by most researchers as ‘exclusion from the minimum acceptable way of life in one’s own society because of inadequate resources’ or as ‘a lack of socially perceived necessities’ (OECD 2008, p. 179).

The OECD (2008) has developed a material deprivation approach. The framework that it has adopted recognises that the minimum acceptable way of life changes over time and therefore it applies a relative threshold.

The forms deprivation takes will vary even among countries at a comparable level of economic development — depending on cultural norms, the diffusion within society of various types of consumption goods, the characteristics of the social protection system — as well as over time — as the luxuries of one generation become the conveniences of the next and the necessities of the one that follows. (pp. 180-181)

The OECD’s typology of material deprivations distinguishes between:

- *satisfaction of basic needs* — items essential for physical survival, such as food, clothes and ability to keep the home warm in winter
- *capacity to afford basic leisure and social activities* — items that, while not essential for physical survival, are critical for enjoying a decent quality of life, including a holiday at least once a year or occasionally inviting friends and relatives home for drinks or meals
- *availability of consumer goods* — items that are essential to perform everyday life activities (such as a telephone) or that significantly ease housework (for example, a microwave)
- *housing conditions* — the physical characteristics of the dwelling (whether the dwelling is deteriorated or damaged) and the area where the dwelling is located (exposure to noise, indoor pollution, etc.)
- *appreciation of own personal conditions* — financial stress and ability to make ends meet, as well as subjective perceptions of whether individuals consider themselves poor
- *characteristics of the social environment* where individuals live — for example, fear of crime, availability of public services and the social networks of individuals.

Deprivation measures have gained some acceptance among policy makers. For example:

- Adelman, Middleton and Ashworth (2003) used the deprivation approach to measure child poverty in the United Kingdom
- the deprivation approach forms the basis for the Economic Living Standards Index developed by the Ministry for Social Development in New Zealand (Jensen et al. 2002)

-
- the Irish Government has adopted a deprivation index (11 basic items) and a combined income-deprivation measure (if a person's income falls below the relative income poverty line and they also experience relative deprivation they are regarded as living in 'consistent poverty').

In Australia, questions about financial stress have been asked in the Household Expenditure Survey (HES) since 1988-89 (Bray 2001) and financial hardship questions have been part of the Household Income and Labour Dynamics in Australia (HILDA) survey since 2001. However, the most substantial deprivation surveys are by Saunders (2007, 2011) and the Social Policy Research Centre (SPRC).

Saunders' approach involves identifying those items regarded as essential by a majority of the population, and for these items looking at take-up rates and whether Australians do not have them because they cannot afford them. In the first survey (2006), two groups were included — a random sample of the community (of around 2 700 people) and a smaller group of disadvantaged people (around 700 clients of welfare organisations). The community sample was used to shed light on the extent of financial deprivation more generally, while the client group responses were used to gauge the depth of financial deprivation experienced by those dependent on services provided by welfare organisations. The results of the study, and other studies of deprivation in Australia, are discussed in detail in chapter 3.

Saunders (2011) notes that the increased use of indicators of material deprivation has been described as having 'swept the social policy world as a complement, or even as an alternative, to household income as the primary measure of living standards' (Berthoud and Bryan 2008, p. 14).

Concerns about the deprivation approach and the interpretation of results, however, remain. Bray (2001), for example, said:

While such approaches can appear to be objective, they do in fact require a range of value judgements, even when they seek reference to 'community norms' as a basis for establishing the standards against which outcomes should be judged. They also involve interpretation by respondents and researchers of the specific questions asked and answers given. (p. 2)

Others (for example, Gilbert 2009) question the extent to which an index of material deprivation adds to our understanding of poverty beyond the knowledge gained from an income-based measure. Berthoud and Bryan (2008) questioned whether deprivation indicators were a more reliable measure than income in developed economies:

On the empirical front, it has been suggested that deprivation scores are needed because income surveys provide an imperfect measure of resources. This is a paramount

concern in many developing economies, where cash income is so irregular, and contributes to so small a proportion of total consumption, that deprivation indicators are the only reliable guide. But in developed economies, it is a tall claim that deprivation indicators provide a more reliable measure than income — however ‘scientific’ the approach to their construction. (p. 14)

Others argue that to set a ‘scientific’ threshold level of income and resources in a point in time survey, resources/income and deprivation (or standard of living) measures are required (Gordon 2006).

Deprivation measures do not lend themselves well to longitudinal analysis. As the list of needs is a function of society’s expectations and these change over time, holding the list constant and tracking it over time is problematic. And, as noted by Gilbert (2009), a number of the items are likely to become more affordable as costs are driven down by innovations and new methods of production. However, allowing the list to change raises questions about whether comparisons over time are meaningful.

Similarly, comparisons across countries are complicated by cultural and other differences that result in different lists of essential items. As the OECD (2011a) said:

Deprivation measures, for instance, include measures such as meals with particular food stuffs (e.g. proteins or fruits), housing conditions or holidays abroad. These items can have cultural connotations that render them incomparable, and so excluded from international reports. For instance, overcrowding may be more common in countries with traditionally multigenerational households – but this may reflect improved living standards in those homes (e.g. Japan). Moreover, for example, people living in countries with certain climate or geographical conditions may be more or less likely to view lack of holidays abroad as an important aspect of deprivation. (p. 9)

Differences in how individuals assess the importance of particular items and services in maintaining a satisfactory lifestyle restricts comparability over time and across countries and even between communities within a country.

2.3 Capability approach

Amartya Sen has been prominent in identifying richer approaches to understanding poverty, inequality and disadvantage. He defines poverty in terms of *low capabilities* and *functionings*.

Sen (1985) argues that poverty results when individuals lack key capabilities, and so have inadequate incomes or education, or poor health, or low self-confidence, or a sense of powerlessness.

A person's advantage is judged by his capabilities, viz., what he can or cannot *do*, can or cannot *be* ... Poverty, in this view, is not ultimately a matter of incomes at all; it is one of a failure to achieve certain minimum capabilities. (p. 670; original emphasis)

Functionings include working, resting, being literate, being healthy and being part of the community.

Commenting on the differences in these two concepts, Headey (2006) said:

It is sometimes said that Sen's work is unclear as to the distinction between capabilities and functionings. This may be a fair criticism when it comes to measurement, but at the conceptual level the distinction seems clear enough. One's capabilities are one's *potentials*, and one's functions are *actualities*, realizations. (p. 9; original emphasis)

Sen (2009, p. 253) argues that when analysing wellbeing the focus should be shifted from 'the means of living' to the 'opportunities a person has'. This approach is a more expansive notion than lacking 'necessities' and is more about the deprivation of people's capabilities (Hick 2012).

Sen points to a lack of capabilities and achieved functionings as a key component of social exclusion. An additional dimension is the protection of people's rights to make choices and have control over their own lives and to have a say in their community. As Sen (2009) said:

... we have reason to be interested not only in the various things we succeed in doing, but also in the freedoms that we actually have to choose between different kinds of lives. The freedom to choose our lives can make a significant contribution to our well-being, but going beyond the perspective of well-being, the freedom itself may be seen as important. (p. 18)

Some of the stated advantages of the capability approach are that it:

- does not demand uniformity of outcomes but rather equal freedoms for all
- recognises the diversity among people in the ability to make use of opportunities. For example, an individual's participation in society may be constrained by physical or mental disabilities and an equal starting point may not be enough to ensure equal capabilities
- emphasises that the inability to participate in a mainstream society is a violation of a basic right that should be open to all citizens (Klasen 1998).

The concept of capabilities, however, is not easy to operationalise as it is an opportunity based theory. Robeyns (2003), commenting on the difficulty of measuring capabilities, said:

... achieved functionings are (at least indirectly) observable, whereas the person's capability would include all the opportunities this person had but did choose not to take — counterfactuals and therefore unobservable. (p. 23)

Sen's capability approach does not prescribe a definitive list of key capabilities or functionings or provide advice on how to weight them. He recommends that it be left to democratic processes and social choice (Sen 2009). Sen also stresses the role of agency, the process of choice and the freedom to reason in the selection of relevant capabilities. Commenting on why Sen did not endorse a definite list, Headey (2006) said:

... partly because he recognises that the list is bound to differ for different times and places, and partly because he wants the list to be determined via a democratic, participatory process. (p. 10)

Henry (2007) also said:

... including all of these elements in an all-encompassing measure of poverty (or disadvantage) — built on a person's endowment of capabilities, rather than their command over commodities — would be a challenge. It's not surprising that, despite an increasing interest in such a broad measure of disadvantage, no universally accepted measure has been developed. There are, however, many examples of broad conceptualisations of wellbeing and disadvantage being used for various analytical purposes. (p. 4)

Sen's work has shaped the EU's Social Inclusion Agenda and the United Nation's Human Development Index. Burchardt and Vizard (2011) have adopted a capability-based framework for monitoring equality and human rights in England, Scotland and Wales. The list of dimensions cover life; physical security; health; education and learning; individual, family and social life; identity, expression, self-respect; and legal security. Others, such as Brandolini and d'Alessio (1998) and Nussbaum (2000) have come up with similar domains (Hick 2012).

Sen's approach has also been influential in shaping the way in which economic progress is measured internationally, including the Stiglitz-Sen-Fitoussi Commission's report on the measurement of economic performance and social progress (Stiglitz, Sen and Fitoussi 2009) and the OECD's '*How's Life?*' framework for measuring wellbeing (OECD 2011b).

The OECD's framework identifies three pillars for understanding and measuring wellbeing — material living conditions; quality of life; and sustainability. It distinguishes between wellbeing today and tomorrow and includes both objective and subjective wellbeing measures (the latter being people's evaluations and feeling about their own lives, for example, sense of insecurity). The OECD (2011b) said:

This thematic structure for current well-being covers many components, reflecting both *individual* capabilities (conditions in which some choices are made, and peoples' abilities to transform resources into given ends, for instance health; Sen 1998) and material outcomes (e.g. income or consumption). (p. 20)

The OECD distinguishes between headline indicators for wellbeing; that is, indicators deemed to be of sufficiently good quality such that they can be used to monitor wellbeing over time (and across countries) and secondary indicators that provide complementary evidence (that is, indicators covering more specific aspects of the dimension at hand).

The OECD Better Life Index allows countries to assign weights to the key factors according to the importance they place on each of the areas. Such an approach could be criticised as being arbitrary or dependent on a priori value judgment, but as the OECD put it:

... when weights are directly assigned by citizens, the composite index does no longer represent an ad hoc view of the world but corresponds to people's judgments, which are legitimate in their own right. (Boarini et al. 2011, p. 9)

In Australia, Headey (2006) developed a conceptual framework which distinguished different types of capabilities and functions and their relationship to psychological outcomes connected to wellbeing (satisfaction and stress). The framework considered four domains of life — financial, employment, health and family/social. Headey also proposed a life cycle approach to the designation of priorities among desirable capabilities and functionings, noting that:

It seems obvious that different capabilities and functionings assume — or should assume — prime importance at different stages of the life cycle. One might suggest that capabilities — the development of capabilities — matter most for young people. Then both capabilities and functionings matter a great deal in the prime working and family formation years. During retirement, functionings perhaps assume relatively more importance, although some capabilities need to be maintained. (p. 58)

The Australian Treasury has developed a wellbeing framework as a descriptive tool to provide context for public policy advice. The framework is built on elements of Sen's capabilities framework. Under Treasury's approach it is the individual, and the things that matter to them, that are the ultimate concern:

... families, friends, a sense of community and the like, and other aspects of life such as the natural environment, matter as they are of value to individuals, and assist individuals in achieving other things they value but are not themselves ascribed independent value in assessing wellbeing. (Gorecki and Kelly 2012, p. 32)

Treasury identifies five dimensions that directly or indirectly have important implications for wellbeing (box 2.4).

Box 2.4 Treasury's wellbeing framework

The Australian Treasury takes a broad view of wellbeing as primarily reflecting a person's substantive freedom to lead a life they have reason to value.

This view encompasses more than is directly captured by commonly used measures of economic activity. It gives prominence to respecting the informed preferences of individuals, while allowing scope for broader social actions and choices. It is open to both subjective and objective notions of wellbeing, and to concerns for outcomes and consequences as well as for rights and liberties.

Treasury identifies five dimensions that directly or indirectly have important implications for wellbeing and are particularly relevant to the Treasury.

- The *set of opportunities* available to people. This includes not only the level of goods and services that can be consumed, but good health and environmental amenity, leisure and intangibles, such as personal and social activities, community participation and political rights and freedoms.
- The *distribution* of those opportunities across the Australian people. In particular, that all Australians have the opportunity to lead a fulfilling life and participate meaningfully in society.
- The *sustainability* of those opportunities available over time. In particular, consideration of whether the productive base needed to generate opportunities (the total stock of capital, including human, physical, social and natural assets) is maintained or enhanced for current and future generations.
- The overall level and allocation of *risk* borne by individuals and the community. This includes a concern for the ability, and inability, of individuals to manage the level and nature of the risks they face.
- The *complexity* of the choices facing individuals and the community. Our concerns include the cost of dealing with unwanted complexity, the transparency of government and the ability of individuals and the community to make choices and trade-offs that better match their preferences.

Source: Gorecki and Kelly (2012).

2.4 Social exclusion and inclusion

The term social exclusion was originally used to describe the condition of certain groups on the margins of society in France ('les exclus' — the disabled, lone parents and the uninsured unemployed) who were excluded from the social insurance system (Hayes, Gray and Edwards 2008). Later French thinking on social exclusion emphasized the importance of unemployment, especially long-term unemployment (Burchardt, Le Grand and Piachaud 2002).

During the 1980s, the concept of social exclusion was adopted more widely throughout Europe and then in the 1990s in the United Kingdom. When the Blair Labour Government came to power in 1997 it established a Social Exclusion Unit. In the United States, terms such as ‘ghettoization’, ‘marginalization’ and the ‘underclass’ rather than social exclusion are used, but according to Burchhardt, Le Grand and Piachaud (2002) the concepts are not unrelated.

There is no generally accepted definition of what constitutes social exclusion. One common theme, however, is the need to recognise the multi-dimensional nature of disadvantage. It includes more traditional concepts such as income and financial poverty and material deprivation, but extends to a wider range of life domains and has a particular focus on participation and social connections. The United Kingdom Social Exclusion Unit (2004) said:

Social exclusion is about more than income poverty. It is a shorthand term for what can happen when people or areas face a combination of linked problems such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime, bad health and family breakdown. These problems are linked and mutually reinforcing so that they can create a vicious cycle in people’s lives. (p. 3)

Eurostat, in a Statistical Portrait of the European Union (2010), said social exclusion relates to:

... being unable to enjoy levels of participation that most of society takes for granted. It is a complex, multi-dimensional, multi-layered and dynamic concept that the EU’s social inclusion process defined as ‘... a process whereby certain individuals are pushed to the edge of society and prevented from participating fully by virtue of their poverty, or lack of basic competencies and lifelong learning opportunities, or as a result of discrimination. This distances them from job, income and education opportunities as well as social and community networks and activities. They have little access to power and decision-making bodies and thus often feeling powerless and unable to take control over the decision that affect their day to day lives’. (p. 7)

Other researchers have developed their own definitions (box 2.5).

In Australia, the 2000 McClure report into welfare reform concluded that minimising social exclusion should be an explicit policy objective. In 2002, the Premier of South Australia established the Social Inclusion Initiative. According to Hayes, Gray and Edwards (2008, p. 2), this initiative has been at the ‘vanguard of Australian social inclusion policy and practice’.

Box 2.5 Selected definitions of social exclusion

Pierson (2001) defines social exclusion as:

... a process that deprives individuals and families, groups and neighbourhoods of the resources required for participation in the social, economic and political activity of society as a whole. This process is primarily a consequence of poverty and low income, but other factors such as discrimination, low educational attainment and depleted living environments also underpin it. Through this process people are cut off for a significant period in their lives from institutions and services, social networks and developmental opportunities that the great majority of a society enjoys. (p. 7)

Irish Combat Poverty Agency:

The process whereby certain groups are pushed to the margins of society and prevented from participating fully by virtue of their poverty, low education or inadequate lifeskills. This distances them from job, income and education opportunities as well as social and community networks. They have little access to power and decision-making bodies and little chance of influencing decisions or policies that affect them, and little chance of bettering their standard of living. (www.combatpoverty.ie/povertyinireland/glossary)

Levitas et al. (2007), after examining a range of definitions of social exclusion, suggested the following working definition:

Social exclusion is a complex and multi-dimensional process. It involves the lack or denial of resources, rights, goods and services, and the inability to participate in the normal relationships and activities, available to the majority of people in a society, whether in economic, social, cultural or political arenas. It affects both the quality of life of individuals and the equity and cohesion of society as a whole.

... Deep exclusion refers to exclusion across more than one domain or dimension of disadvantage, resulting in severe negative consequences for quality of life, well-being and future life chances. (p. 9)

The Australian Government identified ‘social inclusion’ (rather than social exclusion) as a central part of its policy platform in 2007. A Social Inclusion Unit was established in the Department of Prime Minister and Cabinet in 2007 and a Social Inclusion Board was appointed in 2008. The Australian Social Inclusion Board (2012) defines social inclusion as follows:

Being socially included means that people have the resources, opportunities and capabilities they need to:

Learn (participate in education and training);

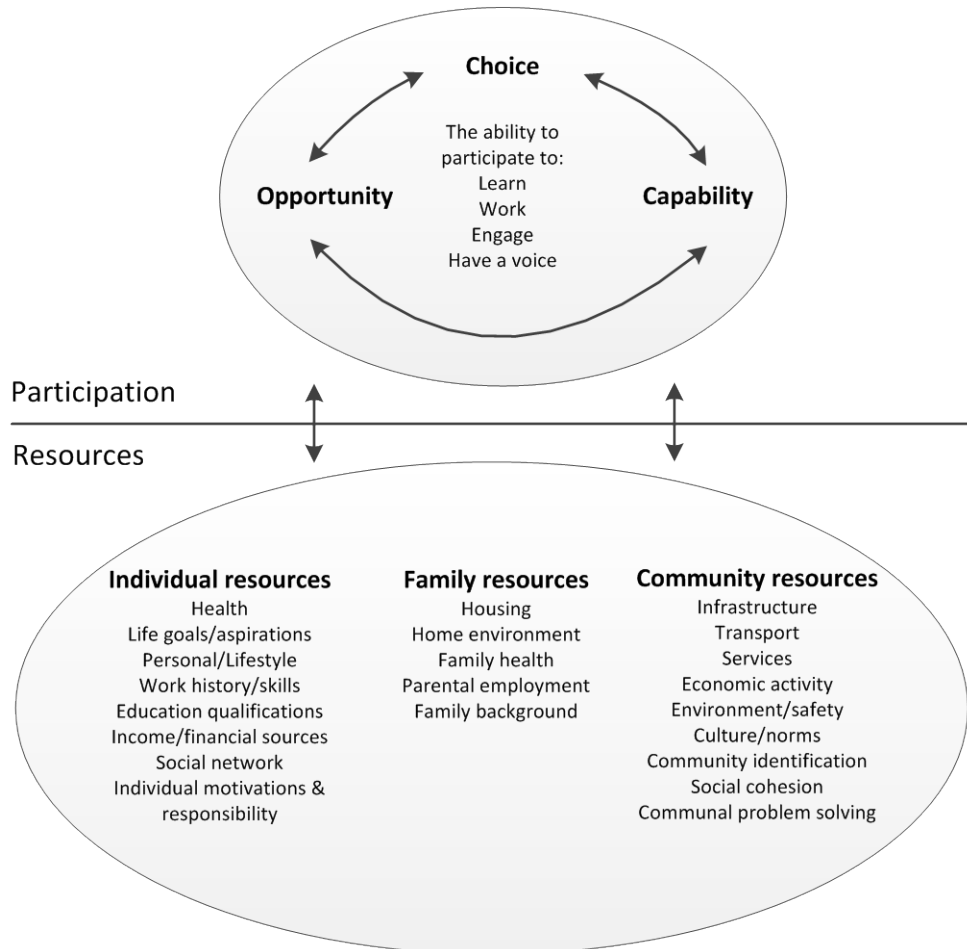
Work (participate in employment, unpaid or voluntary work including family and carer responsibilities);

Engage (connect with people, use local services and participate in local, cultural, civic and recreational activities); and

Have a voice (influence decisions that affect them). (p. 12)

The interaction between resources, opportunities and capabilities is shown in figure 2.1.

Figure 2.1 **Social inclusion conceptual framework — participation and resources^a**



^a Resources refer to the skills and assets people have (or various types of capital, including human, social and economic capital). Capabilities refer to an individual's ability (or agency) to use resources and opportunities to achieve the outcomes they wish. Opportunities refer to the environment (or structure) that enables individuals to use their capabilities and resources to achieve the outcomes they wish.

Source: Australian Social Inclusion Board (2012, p. 13).

Atkinson (1998) is one of many who observed that there is no consensus on a definition for social exclusion:

Social exclusion is a term that has come to be widely used, but whose exact meaning is not always clear. Indeed it seems to have gained currency in part *because* it has no precise definition and means all things to all people. (p. 13, original emphasis)

Notwithstanding this view, Atkinson did, however, identify three recurring themes:

- *relativity* — social exclusion is relative to the norms and expectations of society at a given point in time
- *agency* — a person may exclude themselves through choices of their own, but they may be excluded by the choices of other people, organisations or institutions
- *dynamic* — social exclusion is not just a result of a person's current situation but also requires that their future prospects are limited. Assessment of the extent of social exclusion needs to go beyond current status to include 'ex ante expectations'.

Further themes are that social exclusion is 'multi-dimensional', it encompasses a range of interrelated factors and is a 'process' rather than an outcome (Hayes, Gray and Edwards 2008; Room 1995).

The multi-dimensional nature of the concept is one of its strengths but it also poses significant challenges for measurement and evaluation. As Hick (2012) said:

One of the functions of the concept of social exclusion was to cover important additional terrain beyond the concept of poverty. ... However, the lack of progress in identifying what is meant by social exclusion not only raises questions about its suitability as a concept, but also places this additional terrain in jeopardy. (p. 2)

Jones and Smyth (1999) were concerned that:

The breadth of the concept of social exclusion, while capturing the multi-dimensional nature of deprivation, poses significant analytical difficulties. (p. 16)

In particular, this breadth contributes to difficulties in weighting the various indicators within and across domains to produce aggregate measures of social exclusion. For example, should low education, poor health and other indicators such as perceptions of personal safety be weighted equally?

Burchardt, Le Grand and Piachaud (2002) argue that further methodological development is required:

The attempt to define and measure social exclusion also brings to light areas where methodological development is needed. Perhaps the most significant gap between the concept and the measurement tools available is the question of agency. Social exclusion is almost invariably framed in terms of the *opportunity* to participate, yet existing indicators measure actual participation or non-participation. We neither know whether the (non-) participation is regarded as problematic by the individual, or whether he or she has other options. (p. 41)

The European Union (EU) has played a leading role in developing measures of social exclusion. While the member states of the EU differ in what they focus on, there is common ground about what issues need to be covered by the indicators — poverty, deprivation, low educational qualifications, labour market disadvantage, joblessness, poor health, poor housing or homelessness, illiteracy and innumeracy, economic precariousness and incapacity to participate in society (Atkinson et al. 2002).

In Australia, the Social Inclusion Board has produced a compendium of social inclusion indicators based on the EU indicators (Australian Social Inclusion Board 2009; 2012). Saunders and the SPRC have also developed indicators of social exclusion and collaborative work by the Melbourne Institute and Brotherhood of St Laurence has resulted in a Social Exclusion Monitor (SEM). The SEM draws on data available from the HILDA survey and covers various life domains:

- personal capabilities (current level of education and skills, and presence of long-term health or disability)
- freedoms (perceptions of personal safety)
- social and community connections (social support, social contact and neighbourhood interaction)
- attachment to the labour market (unemployment, under-employment and marginal attachment)
- level of material resources (income, net worth, consumption and financial hardship).

Chapter 3 presents trends in social exclusion in Australia and analysis of the characteristics of those experiencing deep and persistent exclusion.

2.5 Bringing together measures of income, deprivation, capabilities and social exclusion

Defining and measuring disadvantage is challenging because it involves many aspects of people's lives and is influenced by the values and priorities of different societies. The various approaches for understanding and assessing disadvantage presented above represent different lenses through which to view and measure this complex phenomenon.

Income-based measures continue to be widely used as a proxy for poverty, despite their well-known limitations. Deprivation indices are broader in that they attempt to measure material aspects of living standards (including social engagement) and

gauge the degree to which individuals have access to items regarded as essential. But concerns about the interpretation of the results of such indices remain. Social inclusion has an even broader and more encompassing focus, and while it complements measures of material disadvantage, its breadth presents both conceptual and measurement challenges.

Wellbeing frameworks based on Sen's capabilities also cover both material (standard of living) and quality of life indicators. The OECD (2011b) has put considerable effort into choosing indicators that are conceptually sound as well as relevant to measuring wellbeing (or deprivation of wellbeing) across populations from the perspective of informing policy.

While the various approaches are different, they also overlap, and in many ways are complementary. As Headey (2006) said:

... although they differ conceptually, when it comes to measurement, they overlap to a large degree. What Sen calls 'low capabilities' and 'low functionings' — at least when measured — are in part what proponents of the social exclusion approach call 'barriers to participation' (Saunders 2005). And both Sen and social exclusion proponents include in their list of preferred measures, indicators of 'material deprivation' of the kind favoured in this third approach. (p. 17)

Similarly, Saunders, Naidoo and Griffiths (2007) said:

Poverty, deprivation and social exclusion are distinct but overlapping concepts. They cover what most people understand by the term 'social disadvantage', which involves restricted access to resources, lack of participation and blocked opportunities. (p. viii)

The various conceptual approaches to analysing disadvantage are not only useful in enhancing our understanding of the theoretical paradigms, but also for helping policy makers identify 'who' is experiencing deep and persistent disadvantage and who is least likely to move away from a situation of disadvantage.

In this way, the concepts and measures of disadvantage complement each other reflecting the multi-dimensional nature of disadvantage and the experiences of people in terms of material deficits and deficits in less tangible aspects of their lives (such as personal security, social connections and subjective wellbeing). As Saunders (2011) said:

One of the problems facing any single poverty measure is that too much is demanded of it. ... More than one measure may be needed to reflect different judgements about what poverty means, and to provide a sensitivity check on how poverty varies when different assumptions are made when measuring it. (pp. 22-23)

Not everyone identified as having inadequate income will also be experiencing poor living standards, be excluded from society or have poor prospects. Reviews of the literature find areas of overlap between income poverty and deprivation, however, the relationship is not strong (box 2.6). This remains the case when income poverty and deprivation are observed over an extended period of time. Nolan and Whelan (2011) found that:

... even when we are in a position to observe both income poverty and life-style deprivation over a reasonable period of time, the available evidence points to the conclusion that, while there is a substantial correlation between these dimensions, they are to a significant extent tapping different phenomena. (p. 179)

Box 2.6 Some evidence on the relationship between income poverty and material deprivation

An OECD review of empirical research on material deprivation highlights areas of overlap between income poverty and material deprivation.

- People with low incomes are more likely to experience material deprivation, and deprived individuals are most likely to be counted among the income poor. However, the relationship between people's income and deprivation is not very strong — only between one-third and one-half of people who are income poor are found to be deprived, and vice versa. Most studies report correlation coefficients of between 0.33 and 0.54 (Perry 2002).
- The overlap between income poverty and material deprivation increases when a higher income threshold is used (although the evidence is mixed for the United States) and when assessing deprivation over the long term. Also, the overlap between income poverty and material deprivation generally increases when relying on measures that track individuals over time.
- Tracking people over time shows that most of those reporting material deprivation experience that condition over prolonged periods of time; this implies that material deprivation provides a useful complement to poverty measures where longitudinal income data are not available.

Sources: OECD (2008); Perry (2002).

As noted in chapter 3, and discussed further in chapter 6, different approaches and thresholds lead to different conclusions about the extent, depth and persistence of disadvantage. To capture the multi-dimensional nature of disadvantage a combination of measures and indicators may be necessary.

2.6 The importance of dynamics in understanding disadvantage

Dynamics are critical to understanding disadvantage. Losing a job does not necessarily mean that someone will be in a state of disadvantage for long, but if they remain unemployed over an extended period of time, and they subsequently lose skills and self-esteem (and they deplete their financial resources), they would be at increased risk of deep and persistent disadvantage. As the Poverty Analysis Discussion Group¹ (2012) said:

Mobility underlies any static picture of deprivation. The transient poor move in and out of poverty; the chronic poor remain trapped in situations and relationships which produce deprivation and capability losses over long periods. (p. 6)

From a policy perspective, it is persistent and recurring disadvantage that is of most concern. As Calvo and Dercon (2007) put it:

... we should be concerned with poverty that does not easily resolve itself, that has a persistence attached to it. Obviously, this is a statement about a future state, but not just about one future period, but related to a permanent escape or the lack of escape from poverty, persisting in different periods. (p. 5)

The literature on poverty dynamics categorises people into four groups:

- those who never experience poverty or disadvantage
- people who have a one-off transient experience
- those who experience recurrent disadvantage
- those in a state of persistent disadvantage (OECD 2008; Smith and Middleton 2007).

In explaining the various states of disadvantage, Bane and Ellwood (1986) used an analogy of patients in a typical hospital — while most people admitted to a hospital in any year stay only a short time, a few chronically ill patients stay for an extended period of time and, as such, occupy most of the hospital beds:

If we ask what proportion of all admissions are people who are chronically ill, the answer is relatively few. On the other hand, if we ask what fraction of the number of the hospital's beds are at any one time occupied by the chronically ill, the answer is much larger. The reason is simple. Although the chronically ill account for only a small

¹ The United Kingdom Department for International Development (DFID) invited a small group of academics to discuss and take stock of what was known about poverty (roundtable discussions were undertaken in November 2010 and March 2011). The paper, from which the quote is taken, is the product of the roundtable discussions. It sets out the views of the group on key innovations in the meaning and measurement of poverty.

fraction of all admissions, because they stay so long they end up being a sizable part of the hospital population and they consume a sizable proportion of the hospital's resources. (p. 11)

Likewise, Bane and Ellwood found that while many people had short spells of poverty, the few with very long spells accounted for the bulk of all poverty.

There are a number of studies that show the longer someone experiences disadvantage, the lower the probability of exit and the higher the probability of re-entry (box 2.7, chapter 3). This result is not surprising, as people who are temporarily disadvantaged leave early, leaving behind those who are least likely to exit.

Box 2.7 Short spells for most, but a small group experience persistent disadvantage

A number of studies show that the probability of leaving income poverty is lower the longer individuals are in poverty.

- Bane and Ellwood (1986) and Stevens (1999) found that the probability of exiting poverty falls rapidly after having been poor for two or more years.
- Oxley, Dang and Antolin (2000), examining poverty across Canada, Germany, the Netherlands, Sweden, the United Kingdom and the United States, found that while the majority of people have short spells in poverty, as spells lengthen, the probability of exiting the state of disadvantage falls such that a small group of the population remains in that state for long periods of time with little chance of exit. In addition, in most cases, low probability of exit is combined with high probability of re-entry if they do manage to exit.
- Smith and Middleton's (2007) review of poverty dynamics research in the United Kingdom found that people who have experienced income poverty in the past are most at risk of re-entering the state of disadvantage. Also, that the longer someone remains disadvantaged the less likely they are to leave the state of disadvantage.
- Buddelmeyer and Verick (2007), using HILDA data, found that while the majority of Australian households only temporarily experience poverty, the longer they remain poor, the lower their probability of exiting. Tertiary education and employment were found to be key factors keeping households out of poverty; having a disability was associated with a higher probability of becoming poor and remaining poor, as was living in an outer-regional or remote areas. It was also found that life-changing events, especially becoming separated, could lead to households experiencing persistent poverty.

Sources: Bane and Ellwood (1986); Buddelmeyer and Verick (2007); Oxley, Dang and Antolin (2000); Smith and Middleton (2007); Stevens (1999).

Klopprogge (1998) argued that poverty can have both a duration and a composition effect:

Poverty ... has a self-propagating effect: the longer a person is poor, the more difficult it is to improve their income. This is caused by both a 'duration effect' and a 'composition effect'. The duration effect indicates that the chances of escaping from poverty reduces for all poor persons over time. The composition effect refers to the fact that as the duration of the poverty increases, the group of poor people becomes increasingly populated by households with the least favourable household and labour market characteristics: more elderly people, more single persons, etc. (p. 4)

The importance of dynamics in understanding disadvantage points to the need to follow individuals longitudinally. By following the same people over an extended period of time, it is possible to discern between those people who experience disadvantage for short periods of time and those who remain disadvantaged.

Longitudinal data can also provide insights into recurring disadvantage (or spells of disadvantage), the types of events that trigger spells of disadvantage, and the factors that assist people to move out of disadvantage.

... longitudinal ethnographic studies provide a rich source of understanding of the factors which reduce or exacerbate poverty over time. Longitudinal studies enable 'natural experiments' to emerge from data — where comparisons can be made both between groups and over time which indicate the importance of particular poverty reduction interventions. (Poverty Analysis Discussion Group 2012, p. 10)

The next chapter presents estimates of the indicators of disadvantage for Australia as viewed through the lenses of the various concepts of disadvantage.

3 The extent of disadvantage in Australia

Key points

- A number of researchers produce estimates of the extent of disadvantage in Australia. Each relies on contestable assumptions and thresholds.
- Estimates based on broad proxies of disadvantage, including income poverty, deprivation and social exclusion, show many Australians experience disadvantage at some point in their lives. In 2010:
 - between 10 and 13 per cent of Australians (or between 2.3 and 2.8 million) were estimated to be income poor in relative terms
 - 17 per cent of adults (2.9 million) experienced multiple deprivation. The main source of deprivation was going without dental services due to lack of affordability
 - a quarter of Australians aged 15 years plus (4.5 million) experienced some degree of social exclusion.
- Estimates which take into account consumption and wealth, show a much smaller proportion of the Australian population experience deeper financial disadvantage:
 - just over 3 per cent of Australians (670 000) experienced a combination of low income, low consumption and low net wealth in 2007.
- Around 5 per cent of Australians aged 15 years plus (860 000) experienced deep social exclusion in 2010 — slightly fewer than in 2001 (7 per cent or 1.1 million). The rate of very deep exclusion was relatively stable at around 1 per cent in the decade to 2010.
- Experience of persistent disadvantage is less common. Between 2001 and 2010:
 - 10 per cent of Australians (2 million) experienced relative income poverty for at least five years and 5 per cent (1 million) for seven or more years
 - just under 3 per cent of Australians aged 15 years plus (465 000) experienced deep social exclusion for five or more years and just under 1 per cent (165 000) for seven years or more.
- Groups who are most likely to experience deep and persistent disadvantage include lone parents, Indigenous Australians, people with a long-term health condition or disability and people with low educational attainment.
 - Many are public housing tenants and are weakly attached to the labour market.
 - Most people within these groups do not experience deep and persistent disadvantage — indicating that a smaller proportion are less resilient.

The previous chapter detailed the various ways of understanding disadvantage. The role of this chapter is to apply that understanding to the Australian context by presenting estimates of the degree of disadvantage experienced by Australians.

The chapter begins with estimates of relative income poverty in Australia, followed by estimates of a more comprehensive measure of financial poverty which includes income, consumption and asset thresholds (section 3.1). The evidence on the extent of deprivation (the number of Australians who go without items, activities and services considered essential because they cannot afford them) is presented in section 3.2.

Multi-dimensional measures of disadvantage such as social exclusion, multiple disadvantage and the overlap between income poverty, deprivation and social exclusion are presented in section 3.3. Section 3.4 identifies groups who are most likely to experience deeper and more persistent disadvantage. Section 3.5 provides a brief analysis of locational disadvantage. The chapter concludes by summarising the merits and shortcomings of the different measures of disadvantage.

3.1 Income based measures of disadvantage

Estimates of relative income poverty in Australia

As noted in chapter 2, measures of relative income poverty are relatively well understood and internationally recognised as proxies for disadvantage. Measures of relative income poverty require the choice of a specific threshold or distance from median household income. If an individual lives in a household below this threshold they are assessed as living in relative income poverty. A threshold of 50 per cent of median household equivalised¹ income has generally been adopted by the Organisation for Economic Co-operation and Development (OECD) and many other research organisations. This threshold has also been used in this report.

The most recent estimates show between 10 and 13 per cent of Australians experienced relative income poverty in 2010 (table 3.1).

Estimates for relative income poverty vary slightly, reflecting different data sources and methodologies employed by researchers.

¹ Household income that has been adjusted to account for differences in household size (box 2.1).

Table 3.1 **Estimates of relative income poverty in Australia^a**

Various years

<i>Estimate Source</i>	<i>Data Source^d</i>	<i>Rate (%)</i>	<i>Year</i>
Productivity Commission (PC) ^b	ABS HES	10.3	2009-10
Social Policy Research Centre (SPRC) ^c	ABS SIH	12.8	2009-10
Melbourne Institute of Applied Economic and Social Research (Melbourne Institute)	HILDA	12.4	2010
Australian Institute of Health and Welfare (AIHW)	ABS SIH	11.3	2005-06
SPRC	ABS SIH	11.1	2005-06
Australian Social Inclusion Board	ABS SIH	10.9	2005-06
Australian Institute of Family Studies (AIFS)	ABS SIH	10.8	2005-06

^a Estimates are for all Australians based on 50 per cent of median household equivalised disposable income. It is not always clear which equivalised scale is used in deriving income poverty estimates. ^b The Productivity Commission (PC) and the Melbourne Institute used the modified OECD equivalence scale in developing their income poverty estimates. The PC estimate has added net imputed rent to household income where applicable. ^c The SPRC estimate adjusts household income where applicable by deducting average housing costs. ^d ABS HES — ABS Household Expenditure Survey; HILDA — Household Income and Labour Dynamics in Australia; ABS SIH — ABS Survey of Income and Housing.

Sources: PC estimate based on ABS HES, Cat no. 6503.0, Confidentialised Unit Record File (CURF); SPRC estimate published in ACOSS (2012); Melbourne Institute (2013); AIHW (2007); Saunders (2007); Australian Social Inclusion Board (2012); AIFS, Payne (2009).

Methodological differences include:

- whether allowance is made for housing costs and imputed rents²
- the approach used to estimate the non-wage sources of income (including government transfers and income from self-employment)
- the treatment of negative incomes³
- the use of different equivalence scales to account for household resident composition. For example, the Commission's estimate of relative income poverty was slightly higher when a square root equivalence scale was used rather than the modified OECD equivalence scale.

² Housing costs include rent, mortgage payments and rates. Imputed rent includes the rental incomes that can be imputed to flow to people living in homes owned by occupants and to those people paying subsidised rent.

³ Negative incomes may occur where the business of a self-employed member of the household made a loss during the period under consideration or where transfers made by households exceeds their household income (Sandoval and Urzua 2009).

OECD estimates for relative income poverty in Australia

The OECD also reports relative income poverty estimates for Australia which can be compared with estimates for other OECD countries. The OECD estimates show Australia's relative income poverty rate trended up from 11.4 per cent in 1994-95 to 14.6 per cent in 2007-08 (OECD 2012a), which reflects a widening of income inequality in Australia over the period.⁴ Based on these estimates, Australia had the 8th highest relative income poverty rate among 34 OECD countries in 2007-08.

The OECD estimates are prepared by the Australian Bureau of Statistics (ABS) using the OECD's methodology which is different to that used by Australian researchers.⁵ Differences in methodological approaches complicate comparisons between estimates published by the OECD and those derived and published by Australian researchers (as reported in table 3.1).

Limitations of relative income measures

While relative income poverty is a well-established measure of disadvantage, it is not without its limitations. As discussed in chapter 2, one of the limitations of a relative income poverty line is that it does not take into account a person's access to resources other than income (such as savings or wealth). Many older Australians, for example, are income poor because they are not in regular paid work, but they may be drawing on superannuation and savings to finance their retirement.

Similarly, estimates that have not been adjusted to take account of housing costs will overstate income poverty for groups with relatively high rates of home ownership (such as the elderly). Conversely, unadjusted estimates may understate the poverty rate of groups with high housing costs (for example, families with young children).

Estimates of relative income poverty can also be sensitive to changes in income support payments (including the Age Pension, Newstart Allowance, Parenting Payment and the Disability Support Pension). This is because people in receipt of

⁴ The widening of income inequality in Australia (which is reflected in the relative poverty rates) is in part due to higher growth in median incomes compared with growth in incomes for those at the bottom of the income distribution. The growth of income inequality in Australia has also been due to higher growth in the incomes of those at the top of the income distribution (Greenville, Pobke and Rogers 2013).

⁵ The OECD adjusts negative household incomes to zero and uses the square root equivalence scale to account for household composition. Many Australian researchers continue to use the older OECD modified scale (box 2.1, chapter 2). The OECD also excludes social transfers in-kind and imputed rent for owner occupied housing from household income estimates.

the pension and other forms of income support are often clustered close to where the poverty threshold is set.⁶

Concerns about the reporting of income suggest the need for caution when interpreting income poverty estimates. For example, the composition of the bottom decile (or bottom ten per cent) of the income distribution includes households with self-employed people earning negative incomes. Saunders, Hill and Bradbury (2007) noted the problem with the reporting of negative incomes by self-employed people in their poverty analysis and adjusted their estimates to allow for this group.

A further limitation of relative income poverty estimates is that they do not reveal whether there have been real improvements in the living standards of those classified as income poor, or in the severity of poverty (also known as the poverty gap).

Taking account of improvements in living standards — trends in relative and absolute poverty rates

With broad-based economic or income growth, absolute poverty falls, but the same is not necessarily true for relative measures of poverty.

Absolute poverty measures provide an indication of the change in the proportion of Australians that would fall below a poverty line that has its real value held constant over time — rather than having it adjusted for changes in average living standards — as is the case for relative income poverty estimates.

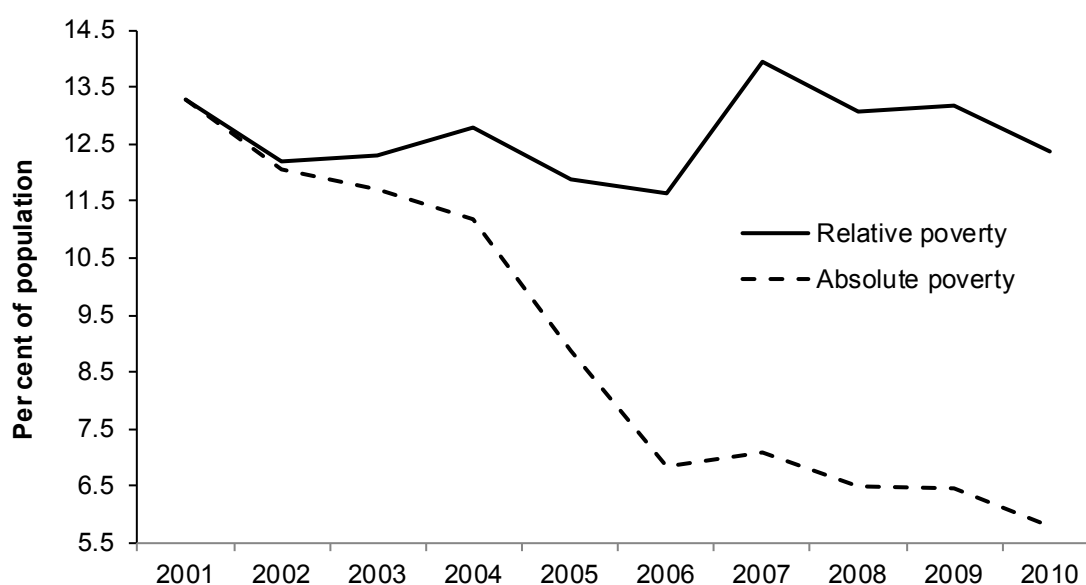
The Melbourne Institute of Applied Economic and Social Research (Melbourne Institute) estimated that the share of Australians whose household income fell below an absolute real income poverty threshold (held constant at the 2001 level of \$15 559) more than halved between 2001 and 2010 — from just over 13 per cent to just under 6 per cent (figure 3.1).⁷ The data also show a slowing in the rate of decrease in the absolute poverty rate after 2006.

⁶ The poverty rate of people receiving the Aged Pension was 14 per cent in 2010, which compares with 52 per cent for those receiving Newstart Allowance, 45 per cent for those receiving Parenting Payment and 42 per cent for those in receipt of the Disability Support Pension (ACOSS 2012).

⁷ The absolute poverty measure used in this section is different to the concept of absolute poverty discussed in chapter 2. With this measure an absolute poverty line is held at a particular point in time (in this case at the value of the 2001 relative poverty line adjusted for inflation to maintain its purchasing power over the period between 2001 and 2010). To the extent that the consumption bundle of income poor varies from the average, the threshold could understate (or overstate) the level of absolute poverty if the prices of goods and services that make up a higher share rise more or less than CPI.

In contrast, sustained economic growth between 2001 and 2010 did not have much impact on the estimated proportion of Australians in relative income poverty — despite growth in real incomes for those at the bottom of the income distribution (Greenville, Pobke and Rogers 2013). The relative income poverty rate in Australia remained within a range of 12 to 14 per cent (figure 3.1).

Figure 3.1 Trends in the proportion of Australians experiencing relative and absolute income poverty^a



^a Relative poverty refers to the proportion of all Australians having household income below 50 per cent of median household equivalised income. Absolute poverty is calculated by keeping the real value of median household income at the 2001 poverty threshold of \$15 559, using December 2010 prices. The threshold can be interpreted as the annual income after taxes and government benefits that a single person household would require to avoid relative income poverty. The poverty rates refer to the proportion of persons (not households) living in poverty.

Source: Melbourne Institute (2013).

This can be explained by the finding that median real incomes grew at a slightly faster rate than the real incomes of those in the bottom decile (or bottom 10 per cent of the income distribution) over the period from 2001 to 2010.

The OECD’s estimate of relative income poverty in Australia similarly masks relatively strong growth in real incomes of poorer households in Australia — in this case relative to poorer households in other OECD countries. Real household income for the bottom decile of Australian households grew by an annual average of 3 per cent between the mid-1980s and the late 2000s. This is more than twice the growth rate for the bottom decile of the OECD average (1.3 per cent per annum),

and six times the growth rate for the bottom decile in the United States (0.5 per cent per annum) (OECD 2011c).⁸

Taking account of the severity of poverty — poverty gaps

One way to assess the severity of poverty is to estimate the extent of the ‘poverty gap’.⁹ Poverty gaps estimate the depth of poverty by considering how far, on average, the poor are from the poverty line.

The poverty gap in Australia is relatively low by international standards. Australia’s poverty gap of around 24 per cent in the mid-2000s was less than the OECD average of just under 29 per cent and much less than the gap recorded by the United States of over 38 per cent (OECD 2008). The inference is that while Australia records a slightly higher share of the population living in relative income poverty (compared to many other OECD countries), the depth of poverty is (on average) lower.

The poverty gap in Australia also appears to be narrowing, albeit slightly. Commission estimates (using the 50 per cent of median household income threshold) show the Australian poverty gap at 26 per cent in 2009-10 compared to a gap of 27 per cent in 2003-04 and 30 per cent in 1988-89. Allowing for imputed rent in 2009-10 lowers the poverty gap further to 22 per cent.¹⁰

Evidence of persistent and recurring relative income poverty

Experience of relative income poverty is a far more dynamic phenomenon than point-in-time estimates reveal. This is illustrated by the finding that between 5 and 6 per cent of Australians enter income poverty in any given year, and a similar proportion exit (table 3.2).

For many Australians, the period spent in relative income poverty remains relatively short. Others experience recurring poverty — falling in and out of poverty over successive years. And, for a much smaller group of highly disadvantaged

⁸ While the OECD uses the bottom decile to equate to the poorest households, this presents problems in the Australian context as this decile includes households with self-employed people earning negative incomes. To overcome this the ABS define poorest households as the combination of the second and third deciles of the income distribution.

⁹ The poverty gap is defined as the difference between the income poverty threshold and the mean income of those experiencing income poverty, expressed as a percentage of the poverty threshold.

¹⁰ Commission estimates based on ABS *Household Expenditure Survey*, cat. no. 6503.0, CURF.

Australians, the experience of poverty is ongoing. As discussed in chapter 2, the availability of longitudinal data is crucial in helping shed light on the extent of persistent disadvantage in Australia. Box 3.1 provides a summary of the main Australian longitudinal data sets used to inform the extent of disadvantage.

While this chapter mainly draws on HILDA data, the following chapter draws on the results of many of the other longitudinal studies to help in explaining factors which contribute to disadvantage.

Box 3.1 The main publicly available data sets used to measure persistent disadvantage

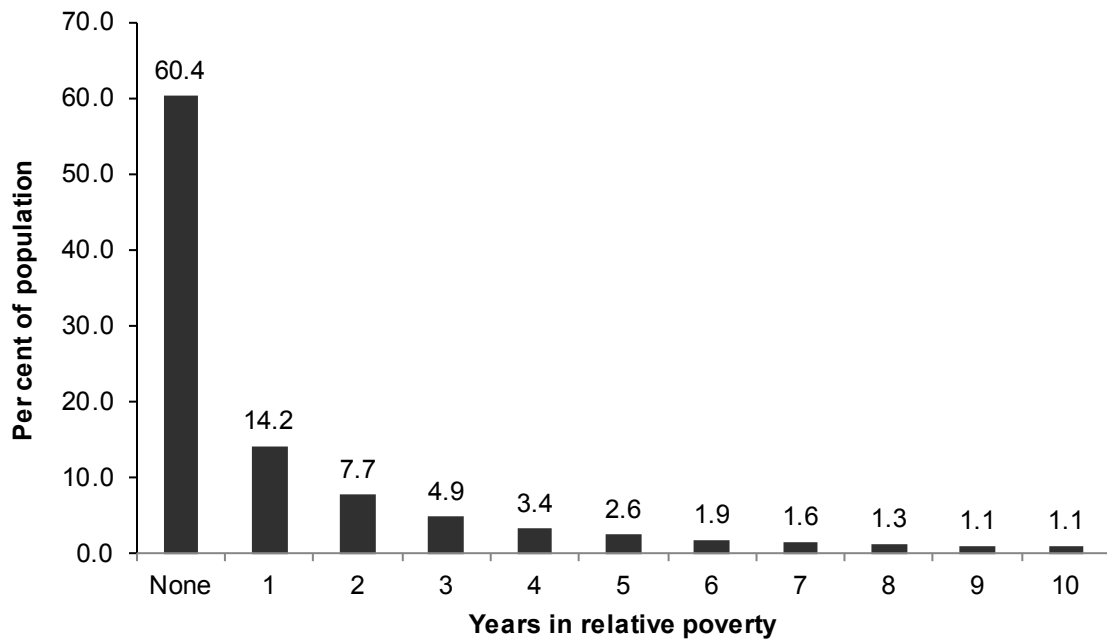
A number of longitudinal data sets are available that provide insights on the persistence of disadvantage in Australia.

- *Household Income and Labour Dynamics in Australia (HILDA)* — conducted annually (since 2001) by the Melbourne Institute. The number of individuals interviewed has varied between 12 400 and 14 000 with an annual average of 13 000. The survey is funded by the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA).
- *Longitudinal Study of Australian Children (LSAC)* — 5 000 children from each of two cohorts (aged zero to 12 months old and four to five years old in 2003-04), conducted every two years since 2004. This study is managed in partnership between FaHCSIA, Australian Institute of Family Studies (AIFS) and the ABS.
- *Footprints in Time: Longitudinal Study of Indigenous Children (LSIC)* — two cohorts of Indigenous children aged from six months to two years old, and from three years and six months old to five years old. Study sample of around 1 500 Indigenous children in 11 sites in different parts of Australia. Conducted and funded by FaHCSIA under the guidance of the Footprints in Time Steering Committee.
- *Longitudinal Surveys of Australian Youth (LSAY)* — 10 000 young people aged 15 to 24 years. Conducted annually since 1995, managed by the National Centre for Vocational Education Research (NCVER) and funded by the Department of Education, Employment and Workplace Relations (DEEWR).
- *Journeys Home* — sample of around 3 000 Centrelink clients flagged as either 'homeless' or 'at risk of homelessness'. Managed by the Melbourne Institute and funded by FaHCSIA.
- *Building a new life in Australia: The Longitudinal Survey of Humanitarian Migrants*. It is expected that around 1 500 humanitarian migrant families will join the survey. The survey will be managed by the AIFS and is funded by the Department of Immigration and Citizenship. The survey will be conducted annually between 2013 and 2017-18.

A relatively large share of Australians (just under 40 per cent) experienced relative income poverty for *at least* one year between 2001 and 2010 (Melbourne Institute 2013). But a closer look at the length of time Australians spend in poverty reveals a smaller proportion experience persistent poverty:

- just under 10 per cent (2 million) experienced relative income poverty for five years or more and just over 5 per cent (1 million) for seven years or more
- just over 1 per cent of Australians (230 000) experienced relative income poverty for all ten years (figure 3.2).

Figure 3.2 Years in relative income poverty^a, 2001 to 2010



^a Data relates to all Australians using a poverty threshold of 50 per cent of median household equivalised income.

Source: Melbourne Institute, unpublished estimates using HILDA data.

People aged 65 years and over (especially singles) are far more likely to experience persistent poverty than other households — particularly where estimates have not been adjusted to account for housing costs. Around 17 per cent of elderly couples, 30 per cent of elderly single males and 36 per cent of elderly single females experienced relative income poverty for between six and ten years between 2001 and 2010 (Melbourne Institute 2013).

As discussed earlier, this is predominantly because the majority of people aged 65 years and above have left the workforce, and their incomes tend not to change significantly over time. But they may experience shallower poverty and, as

previously noted, many have access to accumulated wealth in the form of housing, savings and other assets.

Children of lone parents also experience higher rates of persistent poverty. Just under 9 per cent of children aged under 10 years who had lived with a lone parent for all ten years between 2001 and 2010 experienced poverty for between six and ten years. This compares with only 2 per cent of children who had lived with both parents for all ten years (Melbourne Institute 2013).¹¹

For those Australians who experience persistent poverty, the likelihood of moving out of poverty in the future is much lower than for those experiencing episodic poverty. Azpitarte (2012a) found the likelihood of exiting poverty in the following year, for a person who had experienced poverty for six or more years in the previous nine years, was around a third of the likelihood of someone who had experienced poverty for only one or two years in the same interval (23 per cent versus 62 per cent).

It is important to note that the Australian estimates of persistent relative income poverty are likely to be conservative. Measures of time spent in poverty are necessarily drawn from longitudinal surveys such as HILDA. But these surveys do not include many of the most disadvantaged — people who are homeless, in nursing homes, boarding homes or in prison. Further, disadvantaged individuals who are included in longitudinal surveys are more likely to drop out of the survey over time than those who are not disadvantaged.¹²

And not all individuals who exit poverty do so permanently. Income poverty can be a recurring situation. Successive movements into and out of poverty are more likely where movements out of poverty have only been marginal, that is, just above the poverty threshold. This suggests that a number of Australians who have experienced poverty in the past may be at risk of falling into income poverty at some time in the future. The HILDA data show that between 2001 and 2010 around 20 per cent of the population could be considered as being at risk of income poverty over any 24 month period (table 3.2).

¹¹ Children aged 18 years and under recorded relative income poverty rates that were slightly lower than the rate for all Australians in each year between 2001 and 2010. The most recent estimate of relative income poverty for children of 10.5 per cent in 2010 compares with 12.4 per cent for the general population. Children of lone parents fared much worse. In 2010 the income poverty rate of children living with one parent stood at 24.1 per cent — almost twice the rate of the general population.

¹² According to the Melbourne Institute, the groups who have participated in the HILDA survey with lower re-interview rates include: younger people (aged 15 to 24 years); those born in a non-English speaking country; Indigenous Australians; single people; unemployed people and people working in low skilled occupations (Melbourne Institute 2012c).

Table 3.2 Two-year income poverty status
Per cent of all Australians

	2001 and 2002	2003 and 2004	2005 and 2006	2007 and 2008	2008 and 2009	2009 and 2010
Not in income poverty in either year	80.3	82.0	83.0	80.9	81.6	81.2
Not in income poverty in 1 st year but entered poverty in 2 nd year	6.1	6.3	5.5	5.6	5.5	5.8
In income poverty in 1 st year and exited poverty in 2 nd year	7.4	5.4	5.1	5.6	5.6	5.7
In poverty in both years	6.3	6.3	6.5	7.9	7.4	7.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Melbourne Institute (2013).

Financial poverty

Relative income poverty rates may overstate the proportion of the population experiencing financial disadvantage. For example, recent analysis highlights the importance of adjusting for wealth when calculating relative income poverty rates. Approximately 30 per cent of individuals classified as experiencing relative income poverty in 2010 were found to be in the top half of the wealth distribution — indicating that they probably should not be considered as having inadequate economic resources. Of these, around 36 per cent were elderly couples (Melbourne Institute 2013).

As noted in chapter 2, the adoption of a more comprehensive measure of financial poverty, which takes account of factors such as consumption and net worth, provides a more accurate assessment of a person's (and household's) access to economic resources.¹³

With this in mind, Headey, Krause and Wagner (2009) defined an individual to be financially poor if they have the combination of:

- household income below 50 per cent of median equivalised household income
- household consumption below 50 per cent of median equivalised household consumption
- household net worth less than \$200 000
- little in the way of liquid assets (lacking enough wealth to survive for three months in an emergency, excluding assets like housing, businesses, farms).

¹³ Net worth is the value of a household's assets less the value of its liabilities (ABS 2011a).

The use of additional filters more fully takes into account an individual's financial circumstances, and significantly reduces the estimated number of Australians experiencing financial disadvantage:

- the addition of a consumption filter reduces the proportion of Australians considered poor by more than 10 percentage points to 3.6 per cent (760 000 people)
- adding the net worth filter makes a smaller difference — reducing the percentage considered poor by around half a percentage point to just over 3 per cent (670 000)
- the estimate of those experiencing income and consumption poverty and low levels of liquid assets is lower again at 2.5 per cent (530 000) (table 3.3).

Table 3.3 Different estimates for financial poverty, 2007

Per cent of all Australians

	<i><50 per cent of median income</i>	<i><60 per cent of median income</i>
Income poor	13.7	19.9
Consumption poor	9.9	15.9
Income poor + consumption poor	3.6	7.2
Income poor + consumption poor + net worth poor ^a	3.2	6.3
Income poor + consumption poor + liquid asset poor ^a	2.5	4.9

^a Net worth and liquid asset poor are alternative measures of low wealth.

Source: Headey, Krause and Wagner (2009, p. 19).

In explaining why the inclusion of consumption has such a large effect on the proportion designated as poor, Headey, Krause and Wagner (2009) noted:

Fundamentally, the reason why inclusion of consumption has such a large effect is that consumption is about 20 per cent more equally distributed than income. It is also only moderately highly correlated with income.

... Many households appear to engage in consumption smoothing, maintaining their standard of living during putatively temporary periods of low income. (pp. 19-20)

Many households that engage in 'consumption smoothing' are able to do so by drawing down their stock of wealth. This pattern is particularly evident among those older Australians who are asset rich but income poor.

3.2 Indicators of deprivation

Deprivation indicators are another approach to measuring disadvantage. While Bray (2001), Travers and Richardson (1993) and others initiated early work on deprivation in Australia, Saunders and the SPRC have undertaken the most substantial and recent application of this approach.

The deprivation approach seeks to measure the extent to which people are:

- missing out on purchasable items, activities or services regarded as essential by a majority of the population, and
- whether any lack of take up was because the items were *not affordable* (chapter 2).

Evidence of deprivation in Australia

In order to better understand the nature of poverty and other forms of disadvantage in Australia, Saunders and others from the SPRC developed and conducted two tailored surveys — the *Community Understanding of Poverty and Social Exclusion* (CUPSE) survey in 2006, and the *Poverty and Exclusion in Modern Australia* (PEMA) survey in 2010. Part of the surveys involved capturing the extent to which adult Australians are deprived of essential items, activities and services.¹⁴

Previous surveys of disadvantage had been restricted in their usefulness by the lack of sampling of people who experience more severe levels of disadvantage — particularly the homeless. In order to overcome this problem, the researchers, in their 2006 survey, targeted disadvantaged people dependent upon the services of key welfare organisations (such as Mission Australia and the Brotherhood of St Laurence). The researchers then compared the extent of the deprivation experienced by this targeted group of welfare clients with that of the general community.

Survey participants were asked to indicate which items, activities and services they considered essential. The same ten items shown in table 3.4 were attributed the highest rankings by the community sample in both the 2006 and 2010 surveys. In general, the magnitude of deprivation was much higher for welfare clients compared with the community sample across the essential items considered.

¹⁴ Information on the methodologies used in the surveys is available in Saunders, Naidoo and Griffiths (2007), Saunders (2011) and Saunders and Wong (2012).

Table 3.4 Items regarded as essential, who has them, and who does not have them because they cannot afford them^a, 2006

Item	Is it essential?		Do you have it?		Prevalence of deprivation – does not have and cannot afford	
	Community sample ^b	Welfare client sample ^c	Community sample	Welfare client sample ^c	Community sample ^b	Welfare client sample ^c
	%	%	%	%	%	%
Medical treatment if needed	99.9	99.8	97.0	88.9	2.1	9.3
Warm clothes and bedding	99.8	99.4	99.6	90.0	0.3	8.1
A substantial meal at least once a day	99.6	98.3	98.5	84.7	1.2	12.6
Able to buy prescribed medicines	99.4	98.9	95.7	69.0	4.5	25.3
Dental treatment if needed	98.6	96.6	81.3	43.0	14.5	46.0
Decent and secure home	97.3	97.9	92.1	66.5	7.1	28.2
Children can participate in school activities or outings	94.8	94.7	68.9	53.4	3.6	16.2
Yearly dental check-up for children	94.7	95.0	71.4	41.7	9.8	34.7
A hobby or leisure activity for children	92.5	93.7	74.1	54.8	5.7	23.8
A roof and gutters that do not leak	92.3	92.1	90.0	77.8	4.8	12.5

^a Percentage of respondents who regarded items as essential and the proportion who have access to the item. Weighted data using ABS population weights is presented where available. Response rates for items that are regarded as essential shown in the table, along with deprivation rates, apply to responses of the whole community and welfare client samples — not just those who are affected by each item. For example, while respondents who do not have children will indicate that they do not have access to items that relate to children, they do not report that this is because they cannot afford these items. As a consequence they will not be recorded as being deprived of these items. ^b Randomly collected responses of 2 700 people (response rate of 46 per cent) (weighted data). ^c Responses of 670 disadvantaged clients of Mission Australia, Brotherhood of St Laurence and Anglicare Sydney (unweighted data).

Sources: SPRC (2007); Saunders (2011).

As noted by the SPRC (2007), the items rated most highly by the community as essential relate to basic needs and services and social and economic participation rather than consumer items:

... the findings indicate that Australian views on which items are essential focus on items that satisfy basic material needs, access to key community services, protection against unforeseen risks, and those items that support people's sense of identity, status and social and economic functioning.

... possessing material goods is a less important determinant of people's standard of living than is often assumed (mainly by economists). People appear to place more weight on their ability to function in society, to access key services when they need

them, to have a sense of status and identity, and to connect socially with others. (p. 36)¹⁵

The two highest ranked sources of deprivation identified by both the community and welfare client samples were not being able to afford dental treatment when needed (for household heads) and yearly dental check-ups for children. Almost a half of the welfare client sample and just over one quarter of the community sample were deprived of dental treatment in 2006. While a sample of disadvantaged clients was not included in the 2010 survey, dental services also appeared as the greatest source of deprivation for the community group in 2010.¹⁶

Having a decent and secure home was the third highest ranked item of deprivation for both the community and welfare client samples in 2006. The ability to buy prescribed medicines was the fourth highest form of deprivation for the welfare client sample with around a quarter being deprived of this essential item.

Saunders and the SPRC also measured the degree to which Australians experienced multiple disadvantage — that is, were deprived of a *number* of essential items, activities and services because they could not afford them. Not surprisingly, the lower the number of items at which the threshold of multiple deprivation was set, the larger was the proportion of the adult population assessed as experiencing multiple deprivation. It is implicit in this approach that all items are weighted equally.

The results of the SPRC's analysis show:

- in 2010, just over 13 per cent of the community aged 18 years plus did not have and could not afford four or more of the 24 items regarded as essential (table 3.5)
 - when the threshold was lowered to three or more essential items, the share increased to just over 17 per cent (2.9 million adults)
- between 2006 and 2010, multiple deprivation rates fell marginally for the community sample.

As expected, despite some small differences in the number of essential items tested, the rate of multiple deprivation was much higher for the welfare client sample with

¹⁵ Examples of essential items that relate to social connection include the ability of children to participate in school activities or outings (ranked 7th) and regular social contact with people (ranked 13th).

¹⁶ The deprivation rate for 'dental treatment if needed' for the community sample fell from 14.5 per cent in 2006 to 13.1 per cent in 2010. The deprivation rate for 'a yearly dental check-up for children' fell from 9.8 per cent to 8 per cent over the same period.

just under 60 per cent of the group being deprived of three or more items regarded as essential in 2006.

Table 3.5 Prevalence of multiple deprivation, 2006 and 2010

<i>Number of items lacking because they could not be afforded</i>	<i>Community sample^a (weighted data)</i>	<i>Community sample^a (weighted data)</i>	<i>Client sample^b (weighted data)</i>
	2006	2010	2006
	%	%	%
None	60.4	63.2	25.2
1 or more	39.6	36.8	74.8
2 or more	27.2	24.5	64.7
3 or more	19.8	17.3	59.0
4 or more	14.8	13.1	52.7
5 or more	11.6	10.3	45.5
6 or more	8.4	7.6	40.0
7 or more	6.2	5.8	31.5
8 or more	4.7	4.2	26.6
9 or more	3.5	2.7	21.8
10 or more	2.2	2.1	16.5

^a Community data is based on responses for 24 items considered essential that were common to both the 2006 and 2010 surveys ^b Client data are based on responses for 26 items considered essential in 2006. The two additional items for the 2006 survey were having a television and having a separate bedroom for children aged over 10. A client sample was not included in the 2010 PEMA survey.

Sources: Saunders and Wong (2012); Saunders, Naidoo and Griffiths (2007).

The construction of measures of multiple deprivation rely on a number of subjective value judgments. These include:

- whether all items, services and activities are treated as being equally important (and therefore should be weighted equally)
- whether preferences for items, activities and services are assumed to be stable over the life cycle (such as changing needs for child and aged care services)
- where the threshold for multiple deprivation is set.

The last judgment is particularly important. Decisions about whether the threshold should be set at say three, four, or five items, activities or services, directly influences the number of Australians defined as experiencing multiple deprivation.

3.3 Indicators of social exclusion

Measures of social exclusion have also been used to better understand the extent of broader and more complex disadvantage experienced by Australians. As explained in chapter 2, social exclusion is a multi-dimensional concept that relates to the

inability of individuals to participate or engage in key economic, social and political activities. As with deprivation, it is largely an outcomes-focused measure of disadvantage — although a number of indicators of social exclusion also seek to reflect an individual’s capability to effectively participate in society.

Reflecting the very different definitions of social exclusion, there is no standard measure. Three different measures of social exclusion have been developed in Australia.

- The SPRC developed a set of social exclusion indicators based on three core components (or domains) encompassing economic exclusion, social disengagement and service exclusion. Twenty seven indicators, drawn from the CUPSE and PEMA surveys, are spread across the three domains. An Australian adult is assessed as being socially excluded if they experience seven or more of the 27 indicators of exclusion (Saunders 2011; Saunders, Naidoo and Griffiths 2007).
- The Australian Social Inclusion Board’s measure of multiple disadvantage or social exclusion is based on three core domains. Each domain includes two indicators from the ABS *General Social Survey* (GSS). The economic domain includes indicators for low income and household joblessness; the personal domain includes indicators for poor health and low education; and the social domain includes indicators for lack of social connection and fears for personal safety. An individual of working age (those aged 15-64 years) is assessed as experiencing multiple disadvantage if they experience 3 or more of the 6 indicators used (Australian Social Inclusion Board 2009).
- The Melbourne Institute in consultation with the Brotherhood of St Laurence (BSL), developed the Social Exclusion Monitor (SEM) based on seven life domains, with 29 indicators spread across the domains. The SEM is based on HILDA survey data and is updated annually. The SEM uses a cumulative scoring system, where in general, the greater the number of indicators or higher the score, the greater is the depth of an individual’s social exclusion (Azpitarte 2012b).

Of the three measures of social exclusion, the SEM is perhaps the most highly developed. Building on experience in the United Kingdom and other parts of Europe, the SEM is based on a well-constructed framework for measuring social exclusion (Scutella, Wilkins and Horn 2009) (box 3.2).

Estimates of social exclusion and its depth in Australia

Not surprisingly, the three different approaches provide different estimates for the extent of social exclusion among Australian adults.

- The Australian Social Inclusion Board (2012) estimated that around 5 per cent of the working age population (or 645 000 people) experienced social exclusion or multiple and complex disadvantage (at least three of the six indicators of exclusion) in 2010.
- The SPRC's estimates are higher. Based on the results of the 2010 PEMA survey, 16 per cent of the adult population (or 2.7 million people) were estimated to have experienced social exclusion (experiencing 7 or more indicators of social exclusion) (Saunders and Wong 2012).
- Estimates provided by the BSL and Melbourne Institute based on the SEM methodology are higher again. Just under a quarter of Australians aged 15 years plus (4.5 million) experienced *some* degree of social exclusion in 2010 with smaller proportions experiencing deep or very deep exclusion (defined in box 3.2):
 - 20 per cent of those aged 15 years plus (3.5 million people) experienced marginal exclusion
 - just under 5 per cent (860 000) experienced 'deep exclusion'
 - just under 1 per cent (145 000) were classified as being 'very deeply' excluded (Azpitarte 2012b).¹⁷

Trends in social exclusion

Trends in the SEM show a decline in the rate of deeper social exclusion between 2001 and 2010 (figure 3.3).

Over this period, the proportion of the Australian population aged 15 years plus experiencing deep exclusion declined from a little over 7 per cent (1.1 million) to just under 5 per cent (860 000). The proportion experiencing very deep exclusion declined slightly from just over 1 per cent in 2001 to just under 1 per cent in 2010 (falling from 190 000 to 145 000).

¹⁷ The very deeply excluded (scored ≥ 3 from the indicators shown in box 3.2) are a subset of the deeply excluded (scored ≥ 2). For example, the 4.8 per cent of people aged 15 years plus in 2010 who were classified as deeply excluded is composed of 4 per cent that scored ≥ 2 and < 3 and 0.8 per cent that scored ≥ 3 .

Box 3.2 Components of the Social Exclusion Monitor (SEM)

The SEM aims to capture the capacity of individuals to participate in society. Seven life domains are measured with varying numbers of indicators for each domain (ranging from two to five). Some data are available in all waves of the survey while others are available less frequently (as indicated). The domains include:

1. *Material resources*: low income (less than 60 per cent of median household income); low net worth (less than 60 per cent of median household net worth)*; low consumption (less than 60 per cent of median household consumption expenditure)*; and financial hardship (three or more indicators of financial stress).
2. *Employment*: in a jobless household; long-term unemployed; unemployed; underemployed; and marginally attached to the workforce.
3. *Education and skills*: low formal education; low literacy*; low numeracy*; poor English; and little work experience.
4. *Health and disability*: poor general health; poor physical health; poor mental health; long-term health condition or disability; and household has a child with a disability.
5. *Social connection*: little social support; and infrequent social activity.
6. *Community*: low neighbourhood quality*; disconnection from community; low satisfaction with the neighbourhood; low membership of clubs and associations; and low volunteer activity.
7. *Personal safety*: victim of violence and/or victim of property crime; and feeling of being unsafe.

A sum-score approach is used to measure the depth of exclusion of individuals. This gives equal weight to all of the seven life domains on the implicit assumption that each is an equally important contributor to overall social exclusion. The scores achieved for each domain depend upon responses from individuals to each indicator. For example, for the material resources domain there are four indicators which are worth 0.25 each. If an individual experiences all four they get a score of 1 but if they only experienced say low income, they would record a score of 0.25.

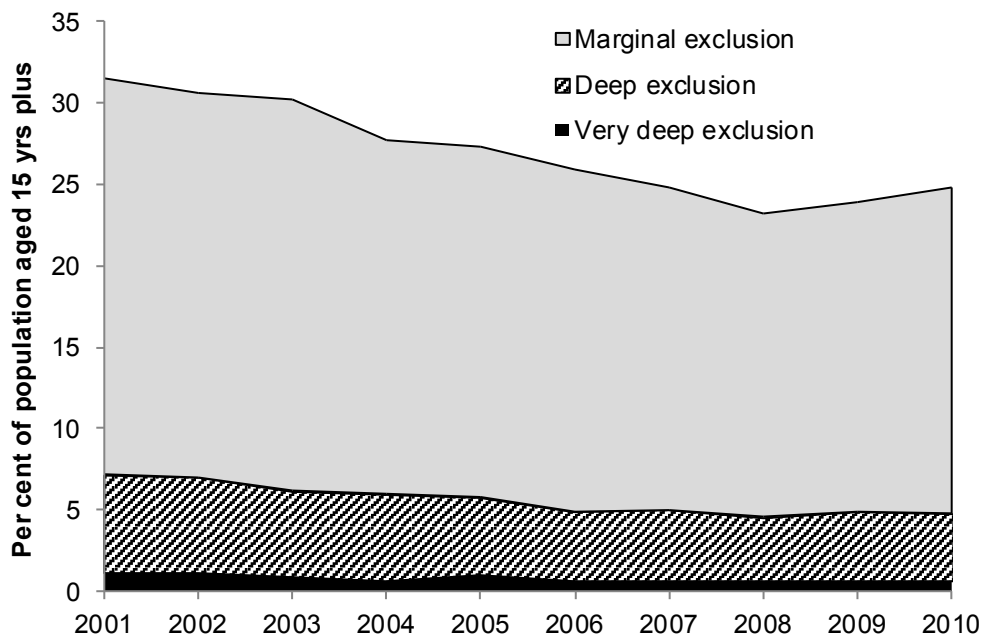
Other indicators are 'nested' — such as those used for employment — to give extra weighting to the perceived depth of disadvantage. For example, a person who is long-term unemployed would be deemed to have a score of 1 for the employment domain even though they do not satisfy the other indicators in this domain.

Given that there are seven life domains which are all accorded a value of 1, the highest score an individual could receive is 7 and the lowest 0. A score of 1 or more signifies some level of exclusion. If respondents receive a cumulative score between 1 and 2 they are regarded as *marginally excluded*, a score of 2 or more signifies *deep exclusion* and a score of 3 or more equates to *very deep exclusion*. Scores are determined from indicators that are common to every wave.

Note: * Indicates data not available in all waves of the survey.

Sources: Azpitarte (2012b); Scutella, Wilkins and Kostenko (2009).

Figure 3.3 Trends in social exclusion: Social Exclusion Monitor ^a, 2001 to 2010



^a Trend information presented is derived from common indicators that are measured in all of the waves of HILDA data for the population aged 15 years plus. The very deeply excluded are a subset of those that are deeply excluded. The rate of deep exclusion is the combination of the black and hatched areas shown in the chart.

Source: Azpitarte (2012b).

Supporting these findings, the SPRC (Saunders and Wong 2012), using the two separate surveys on poverty and social exclusion, also reported a decline in the average prevalence of social exclusion among the adult population — from just over 19 per cent (or 3 million) in 2006 to just under 16 per cent in 2010 (2.7 million) (table 3.6).¹⁸

Similarly, the Australian Social Inclusion Board (2012) reported a slight reduction in the proportion of the Australian working age population experiencing multiple disadvantage — from 5.2 per cent (or 680 000 people) in 2006 to 4.6 per cent (or 645 000) in 2010. The Australian Social Inclusion Board (2012) reported:

... there were small improvements in those disadvantaged by employment and education, there was also a slight worsening in the number of people experiencing poor health and little change in the income, safety and support indicators. (p. 6)

¹⁸ The overall decline reflected a small decline in the average prevalence of social disengagement, a decline in economic exclusion and a larger decline in the average prevalence of service exclusion.

Notwithstanding these improvements, the proportion of the population aged 15 years plus that are very deeply excluded remained relatively stable at around 1 per cent between 2001 and 2009. This suggests that economic and employment growth alone may not improve the situation significantly for those with more complex needs.

The importance of employment for overcoming deep and persistent disadvantage is explored further in chapter 4.

Indicators common to people experiencing deep social exclusion

There are a number of indicators that are common to people experiencing deeper social exclusion. The deeply excluded are more likely to have relatively low levels of community interaction, are very likely to have a long-term medical condition or disability and have characteristics that reduce their levels of workforce participation which in turn contributes to lower economic resources.

Of the individuals aged 15 years plus who experienced deep social exclusion between 2001 and 2010:

- just under a half had low levels of formal education
- close to 60 per cent were part of a jobless household
- just under 40 per cent were unemployed, underemployed or marginally attached to the labour market
- just under 70 per cent were part of a household whose annual income was less than 60 per cent of median household equivalised income (Melbourne Institute 2013).

The overlap of income poverty, deprivation and social exclusion

Saunders and Wong (2012) sought to estimate the share of adult Australians who experience a combination or overlap of income poverty, financial deprivation and social exclusion — also known as ‘core disadvantaged’. The researchers found the share of adults who experienced core disadvantage remained relatively stable at around 4 per cent between 2006 and 2010 (with the level of core disadvantaged rising slightly from 600 000 in 2006 to 660 000 in 2010) (table 3.6).

Table 3.6 Degree of overlap between income poverty, deprivation and social exclusion^a

	2006	2010
	%	%
Individual indicator		
Poverty rate	11.8	13.1
Deprivation rate	19.8	17.3
Social exclusion rate (overall)	19.4	15.7
Extent of overlap		
In poverty and also deprived	43.7	40.9
In poverty and socially excluded	40.6	38.7
<i>In poverty and disengaged</i>	33.9	32.3
<i>In poverty and service excluded</i>	27.5	28.9
<i>In poverty and economically excluded</i>	39.2	35.4
In poverty and deprived and economically excluded	31.9	30.0
Core disadvantaged - proportion of population experiencing poverty, deprivation and exclusion	3.8	3.9

^a Weighted data for people aged 18 years plus from the CUPSE survey conducted in 2006 and PEMA survey conducted in 2010. Individuals were classified as experiencing income poverty if their income was below half median household income. Individuals were deprived if they experienced three or more deprivation conditions and excluded if they experienced seven or more separate exclusion indicators. People were disengaged if they experienced three or more disengagement indicators. People experienced service exclusion if they experienced three or more service exclusion indicators and economic exclusion if they experienced three or more indicators of economic exclusion. Data for 2006 is unpublished weighted data that was provided to the Commission to allow comparisons with published weighted estimates for 2010.

Sources: Saunders and Wong (2012) for 2010 data; unpublished CUPSE data for 2006.

Saunders and Wong (2012) found that those Australians who are experiencing relative income poverty do not necessarily experience deprivation and/or social exclusion, though the probability appears likely to be higher for these individuals than for those not experiencing relative income poverty.

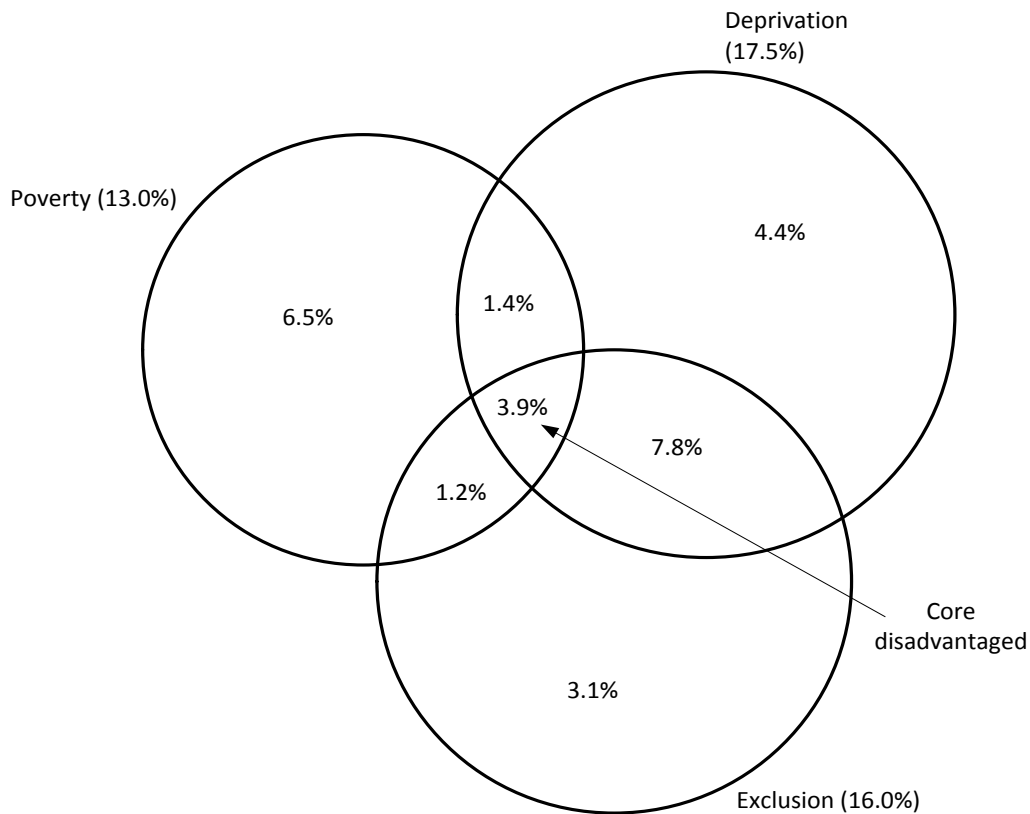
The survey responses show a much higher rate of overlap between poverty and deprivation in 2010 than poverty and service exclusion. Saunders (2011) concluded that:

These low overlaps confirm that how social disadvantage is measured makes a great deal of difference to who is identified as experiencing it. They also suggest that it would not be wise to rely on any single measure to estimate the extent of the problem, or as the basis for evaluating the impact of policy. (p. 171)

Given these methodological differences, the composition of the group of ‘core disadvantaged’ may differ slightly to the group determined by the SEM analysis to be deeply excluded and the group determined by the Australian Social Inclusion Board to be experiencing multiple disadvantage.

The intersection approach taken by Saunders and the SPRC to measuring the overlap of all three forms of disadvantage for the adult population in Australia is illustrated in figure 3.4.

Figure 3.4 **Overlap between poverty, deprivation and exclusion^a, 2010**



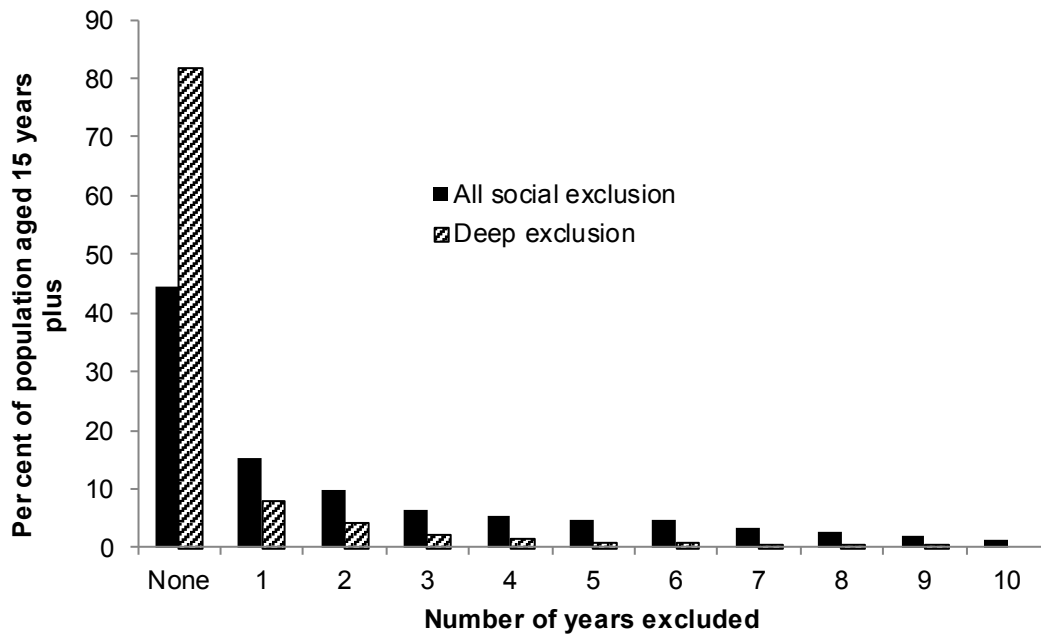
^a Australian population aged 18 years plus. Weighted data. Individual estimates for poverty, deprivation and exclusion shown in brackets do not quite line up with estimates provided in table 3.6 because the sample is restricted to individuals who provided responses for all three indicators. The diagram shows the percentage of the adult population experiencing only one form of disadvantage and the percentage experiencing multiple forms of disadvantage indicated in the intersection of the three circles.

Source: Saunders and Wong (2012).

Evidence of persistent and recurring social exclusion

While some Australians experience episodes of deeper exclusion, the extent of persistent deep social exclusion is more limited. Measures of social exclusion based on the SEM approach show that just under 3 per cent (or 465 000) of Australians aged 15 years plus were *deeply* socially excluded for five years or more between 2001 and 2010 and around 1 per cent (165 000) were deeply excluded for seven years or more (figure 3.5). Persistence of *very deep* social exclusion is even less significant.

Figure 3.5 Persistence of social exclusion, 2001 to 2010



Source: Azpitarte (2012b).

The average duration rate for *deep* exclusion between 2001 and 2009 was 1.7 years while the average duration of *very deep* exclusion was 1.4 years.¹⁹

The results for these measures need to be interpreted with some caution. Some of the indicators used in constructing the SEM capture persistence of disadvantage for individuals better than others. For instance, some of the indicators capture data for a whole year, or part of a year, whereas others may only capture the status of individuals at a point-in-time when the HILDA survey is undertaken. The degree to which different indicators within life domains capture persistence of social exclusion is discussed in box 3.3.

¹⁹ Unpublished data from the Brotherhood of St Laurence and Melbourne Institute *Social Exclusion Monitor*.

Box 3.3 Ability of SEM indicators to capture persistence of deep social exclusion

Some SEM indicators better capture the degree of persistence of some aspects of disadvantage — particularly those that are annualised estimates compared with estimates that relate to the month in which the survey is undertaken.

Levels of individual and household income, along with consumption (or expenditure), are aggregate estimates calculated over a 12 month period. The manner in which this data is collected provides a more reliable basis for understanding the persistence of economic disadvantage.

Household net worth — another measure of economic disadvantage — is a bit more problematic. This measure is calculated at a point-in-time and its extent could change significantly following an event such as a divorce settlement. Likewise, indicators of financial hardship — such as the inability to pay bills or difficulties experienced in raising larger amounts of money — need only occur ‘at some time during the year’ and so only reflect disadvantage at a point-in-time.

Employment indicators are also mixed in terms of revealing information about the persistence of disadvantage. For example, a person is recorded as long-term unemployed or being in a jobless household after examining their (or their households) employment calendar over the previous 12 months. These measures better capture the extent to which disadvantage persists, relative to indicators such as under-employment — which is based on ‘usual hours worked per week’ and whether individuals express a preference for more hours at the time of interview.

Indicators relating to educational attainment tend to be relatively stable, apart from those who are about to graduate from secondary or tertiary education. Hence the timing of when the survey is conducted may impact on current education status.

Health and disability information is gained from respondents in response to a number of questions, some of which refer to physical disabilities and the presence of a child with a disability (both of which tend to be ongoing). Other indicators rely on a subjective assessment of ‘current’ health status, such as poor, average, fair or good. Depending on the nature of the condition, this could be subject to change over time.

Other domains, such as social connection, may be a function of the strength of family relationships which could deteriorate quickly or slowly become re-established. Views about the local community and personal safety may be a function of current living conditions which could change significantly following physical relocation or may persist if it is not possible to relocate.

Transitions between states of social exclusion and out of exclusion

As is the case with other measures of disadvantage, people move in to and out of states of social exclusion. Those who are only marginally excluded tend to be more mobile. Data from the SEM show:

- many of those who are *very deeply* socially excluded remain in that state — just over three quarters of those who are *very deeply* socially excluded are either deeply or very deeply excluded the following year while a fifth are marginally excluded
- there is greater movement of those who are *deeply* excluded — just over a half move to either marginal or non-exclusion the following year — but less than 10 per cent slide into very deep exclusion
- only a small proportion (9 per cent) of the *marginally* excluded (those at risk of deep exclusion) move into deep or very deep exclusion in the following year, while almost 40 per cent are not excluded in the following year (table 3.7).

Table 3.7 **Rates of transition between states of exclusion**

Average for all waves between 2001 and 2009

<i>Condition in time t</i>	<i>Condition in time t+1</i>					<i>All</i>
	<i>Not excluded</i>	<i>Marginal</i>	<i>Deep</i>	<i>Very deep</i>		
Not excluded	90	9	1	0	100	
Marginal	37	54	8	1	100	
Deep	12	42	37	8	100	
Very deep	4	21	45	31	100	

Source: *Social Exclusion Monitor*, unpublished data provided by Azpitarte from the Brotherhood of St Laurence.

3.4 Characteristics of Australians most likely to experience disadvantage

The surveys and measures covered in this chapter also provide useful information on the characteristics of Australians who are most likely to experience higher rates of disadvantage (table 3.8).

Based on the various indicators, the groups identified as more likely to experience multiple forms or deeper disadvantage are:

- unemployed people
- people who are dependent upon income support

- people with poor health or a disability
- lone parents (and their children)²⁰
- people with low levels of educational attainment
- Indigenous Australians
- single adults (both elderly and working age).

Table 3.8 Prevalence of forms of disadvantage for vulnerable groups

Group or characteristic	2010			2001 to 2010
	Relative income poverty (% rate) ^a	Multiple deprivation (% rate) ^b	Deep social exclusion (% rate) ^c	Deep and persistent social exclusion (% rate) ^c
Single (18 to 64 years)	26.4	8.2	7.1	7.1
Lone parents	25.0	10.0	10.1	11.3
Single adults over 65 years	23.6	3.3	11.9	6.3
65 years plus (total)	13.2	7.9	7.6	6.3
Indigenous persons	n.a.*	n.a.**	9.1	10.8
Migrants (NESB)	15.8	n.a.**	5.7	5.6
Unemployed	63.3	n.a.**	31.4	11.5
Dependent on income support	36.5	33.6	18.7	15.3
People with a long-term health condition or disability	27.4	28.9	13.3	11.2
Low educational attainment ^d	n.a.*	32.1	9.9	9.3
Public housing tenants	n.a.*	n.a.**	21.1	23.6
Total	12.8	13.2	4.8	4.4

^a Survey responses from the 2010 ABS *Survey of Income and Housing*. Refers to characteristics of household reference person in households where equivalised disposable income is below 50 per cent of median household income. ^b Refers to adult Australians with at least four forms of financial deprivation. ^c To be *deeply socially excluded* an individual aged 15 years plus needs to have a score of 2 or more from indicators used for seven life domains. To be *deeply and persistently socially excluded* an individual aged 15 years plus needs to have a score of 2 or more for four or more years between 2001 and 2010 (box 3.2). ^d Educational attainment of Year 11 or below. n.a.* — data for these groups are not available from the ABS SIH. n.a.** — sample sizes for these groups in the PEMA survey were too small to provide reliable results. NESB — Non-English Speaking Background.

Sources: ACOSS (2012); Unpublished PEMA data provided by the SPRC; Brotherhood of St Laurence and Melbourne Institute *Social Exclusion Monitor* (SEM) (unpublished data).

²⁰ While many of the measures of disadvantage refer to adult Australians or people aged 15 years plus estimates show children of lone parents have much higher rates of persistent poverty and lone parents are much more likely than other household types to be income and asset poor.

Many of the groups highlighted in table 3.8 are public housing tenants and have relatively weak attachment to the labour market. The table shows unemployed Australians and people dependent on income support have the highest rates of relative income poverty and deep social exclusion.

Indigenous Australians have higher than average rates of deep social exclusion and deep and persistent social exclusion. However, the HILDA survey, upon which the measure of social exclusion is based, does not include Indigenous Australians in very remote communities. Meaningful data about rates of relative income poverty and deprivation for Indigenous Australians could not be presented in the table either due to the lack of an Indigenous identifier (in the case of the SIH) or very small survey sample sizes affecting the reliability of estimates for deprivation.

Separate analysis using HILDA data show Indigenous Australians had a much higher relative income poverty rate (at 19.3 per cent) in 2010 compared with the Australian average (of 12.4 per cent). The same data source showed people with low education attainment had a relative income poverty rate of 23.6 per cent while public housing tenants had a relative income poverty rate of 39.7 per cent.²¹

Table 3.8 shows migrants from a non-English speaking background (NESB) were more likely than the average Australian to experience relative income poverty — with a relative income poverty rate three percentage points higher than the average. But the prevalence rates of deep and persistent social exclusion experienced by migrants is similar to the average for all Australians. This information suggests that migrants could be more resilient than some of the other groups highlighted. However, given the small sample of migrants and refugees in the HILDA survey, any results need to be interpreted with caution.

Elderly people are more likely than average to be classified as income poor, and slightly more likely than average to be assessed as deeply (and persistently) socially excluded. Even so, they are much less likely to experience multiple deprivation.

In some cases, the various characteristics can cluster and become mutually reinforcing. For example, people below retirement age who are experiencing financial stress or financial disadvantage are more likely to experience other forms of social disadvantage as a result of lack of financial resources. Similarly, people living in jobless households, lone parents, people with long-term health conditions and people who are dependent on income support are more likely to meet eligibility criteria generally applied to public housing. And Indigenous Australians living in remote areas are less likely to be able to access employment opportunities and

²¹ Unpublished estimates provided by Azpitarte from the Brotherhood of St Laurence.

receive a good formal education than those in urban communities, and are more likely to rely on social security.

While people in these groups are more likely to be disadvantaged, having these characteristics does not necessarily lead to disadvantage. For example, the vast majority of individuals who are lone parents, single adults, Indigenous or elderly are not experiencing deep and persistent social exclusion. As discussed elsewhere in this report, some people within these groups are more resilient. A discussion of the factors that contribute to a greater likelihood of becoming disadvantaged is included in chapter 4.

Composition of those who are disadvantaged

Groups that have a higher probability of disadvantage may also account for a relatively large or small proportion of all disadvantaged people. As a result it is useful to also consider the composition of those who experience disadvantage.

Just over 60 per cent of people experiencing *relative income poverty* are dependent on income support as their main form of income, just over a quarter are migrants from countries where the main language spoken is not English, a third are couples with no children, a quarter are lone parents and 15 per cent are aged over 65 years. Individuals can, of course, have a combination of these characteristics (ACOSS 2012).

Unpublished SEM data show just over 80 per cent of those who are *deeply and persistently socially excluded* have a long-term health condition or disability, just over 60 per cent have low educational attainment (Year 11 or less) and around a fifth are public housing tenants. Close to two fifths of people who are deeply and persistently disadvantaged are aged 60 years or over. While Indigenous Australians aged 15 years plus have a high rate of deep and persistent disadvantage they account for a relatively small proportion of all those who are deeply and persistently excluded (5 per cent). Lone persons and lone parents combined account for just under a half of those who are deeply and persistently excluded.

Individual tables showing the characteristics and composition of Australians experiencing relative income poverty, multiple deprivation, social exclusion, persistent income poverty and persistent social exclusion are provided in appendix A.

Falls in rates of social exclusion for vulnerable groups

There have been significant reductions in the prevalence of *deep* exclusion for a number of vulnerable groups in the past decade. The results of the SEM show between 2001 and 2010 the prevalence rate of deep exclusion for:

- Indigenous Australians more than halved from close 21 per cent to just over 9 per cent
- lone parents fell from just under 18 per cent to 10 per cent
- people with a long-term health condition or disability fell from just over 19 per cent to just over 13 per cent
- migrants from non-English speaking backgrounds fell from almost 11 per cent to just under 6 per cent.

Trends in prevalence of deep social exclusion for other groups are provided in appendix A.

Some caution should be taken in interpreting the results for Indigenous Australians and migrants from non-English speaking backgrounds. As indicated earlier, both groups have been identified as more likely to exit the HILDA survey. If those who exit are also more likely to be disadvantaged, this will tend to bias the results. The problems surrounding the results for Indigenous Australians are compounded by the non-sampling of Indigenous persons residing in very remote communities.

3.5 Where do people experiencing disadvantage live?

Poverty, deprivation and social exclusion can be concentrated in particular locations, often referred to as locational disadvantage. As described by Carpenter (2006):

... even the most 'successful' cities in terms of competitiveness are afflicted by urban poverty and social exclusion, often spatially focused pockets of deprivation that are home to low-income groups, few economic opportunities and run-down urban environments. (p. 2 145)

Disadvantaged areas or regions are generally characterised by people with lower levels of labour force participation and skills, lower educational attainment, and lower household incomes. Residents of disadvantaged regions are also more likely to have a health condition or disability. The regions themselves are characterised by poorer physical infrastructure and quality of housing, along with higher levels of crime and violence than more advantaged regions (AHURI 2010).

A number of studies have been undertaken on locational or regional dimensions of disadvantage in Australia. However, disadvantaged people can be co-located with people who are more affluent, making it more difficult to identify locational disadvantage with precision.

The location of Australians who are deprived and socially excluded

Saunders and Wong (2012) undertook locational analysis to ascertain whether experiences of deprivation and social exclusion among Australian adults varies by region. Using the results of the 2010 PEMA survey, the researchers investigated the extent of deprivation and social exclusion according to whether individuals resided in the outer suburbs (outer metropolitan areas with a population of 100 000 or more), the inner city (inner metropolitan areas of major cities with a population of 100 000 or more), large towns (with a population over 25 000), rural areas or villages (no population size specified), large country towns (over 10 000) and small country towns (under 10 000).

The survey results showed that:

- the prevalence of deprivation was highest in large towns and rural areas and lowest in the inner city
- rates of social disengagement of residents from large towns and rural areas were found to be generally higher than those recorded by residents of the inner city — the main difference being lower rates of participation of children in school activities and outings
- residents of rural areas reported the highest rates of service exclusion — particularly in relation to medical and dental services, child care and financial services
- residents of the inner city recorded higher rates of exclusion from aged care and disability support services compared with residents from other locations.

Regional comparisons in relation to economic exclusion revealed similar results — residents of small country towns and rural areas had higher rates of exclusion than residents of the inner city. The differences mainly related to difficulties raising \$500 in an emergency or \$2000 within a week.

However, residents of rural areas reported much lower rates of unemployment than residents in other regions and residents in jobless households were spread much more widely — with the highest rates recorded in large towns, the inner city and small country towns.

Unpublished SEM data also reveal the location of those who are disadvantaged. The data show the highest prevalence of persistent and deep exclusion was recorded by people in outer regional areas, followed by those in inner regional areas and major cities.²² The extent of disadvantage of residents in remote and very remote communities was not assessed due to very small sample size.²³

Socio-Economic Index for Areas (SEIFA) analysis

The ABS has also developed a number of socioeconomic indexes which use Census data to rank regions and areas according to their social and economic well-being. The Index of Relative Socio-economic Disadvantage is derived from Census variables related to disadvantage such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A low score indicates relatively greater levels of disadvantage.

The ABS SEIFA scores are relative rather than absolute measures of socioeconomic disadvantage, which make comparisons over time problematic. Further, the scores are an average for residents in Statistical Local Areas (SLAs) and therefore mask heterogeneity — where residents with various degrees of disadvantage are co-located with residents who may not experience disadvantage. This might occur in inner city SLAs where both public housing tenants and more affluent home owners reside.

Experience of multiple disadvantage appears to be becoming more geographically concentrated. The Australian Social Inclusion Board (2012) found that over 53 per cent of people experiencing multiple disadvantage lived in the bottom two SEIFA deciles in 2010 — up from 45 per cent in 2006.

Some states have higher concentrations of disadvantaged residents. ABS data show that New South Wales, South Australia, Tasmania and the Northern Territory have

²² The structure used by the Melbourne Institute/Brotherhood of St Laurence to determine regional concentration of people who are deeply and persistently excluded is based on the ABS Remoteness Area spatial unit which aggregates non-contiguous geographical areas (or Census Collection Districts) which share common characteristics of remoteness. The categories used are: Major Cities; Inner Regional Australia; Outer Regional Australia; Remote Australia; and Very Remote Australia.

²³ Only 0.4 per cent of the HILDA sample of individual respondents in 2010 resided in very remote areas while 1.7 per cent lived in remote areas. Just under 5 per cent of people aged 15 years plus in outer regional Australia were assessed as deeply and persistently excluded in 2010 followed by 4.3 per cent of people of the same age in inner regional Australia and 3.5 per cent of people in major cities. A person was assessed as persistently and deeply excluded if they recorded a score greater to or equal to 2 for at least four out of nine years.

much higher shares of residents in lower socioeconomic SLAs, while Victoria and Western Australia have much lower concentrations of their population in lower socioeconomic SLAs (table 3.9).

Table 3.9 Distribution of residents in bottom quintile of distribution of relative socioeconomic disadvantage, 2006

	<i>Residents in bottom 20% of SLAs</i>		<i>Share of total residents in bottom 20% of SLAs</i>		<i>Usual resident population</i>		<i>Share of total resident population</i>	
	Number	%	Number	%	Number	%	Number	%
New South Wales	1 008 026	38.6	6 538 957	33.0				
Victoria	480 468	18.4	4 925 969	24.9				
Queensland	487 146	18.6	3 890 542	19.6				
South Australia	326 925	12.5	1 511 583	7.6				
Western Australia	82 921	3.2	1 952 763	9.9				
Tasmania	159 268	6.1	475 515	2.4				
Northern Territory	65 939	2.5	188 979	1.0				
Australian Capital Territory	712	0.0	321 493	1.6				
Other Territories	2290	0.1	2 290	0.0				
Total	2 612 983	100.0	19 808 091	100.0				

Source: ABS (2006a), *Socio-economic Indexes for Areas (SEIFA)*, Cat. no. 2033.0.55.001.

Saunders and Wong (2012) found people living in regions at the bottom 10 per cent of the distribution of relative socioeconomic disadvantage tend to:

- be less satisfied with their location
- report a greater prevalence of neighbourhood problems (as measured by noisy neighbours, loitering teenagers and presence of rubbish and litter)
- report higher rates of vandalism, graffiti and damage to private property
- record a slightly higher service exclusion score
- record a much higher mean deprivation and economic exclusion score.

What do measures of locational disadvantage tell us?

The work of Saunders and Wong (2012) and others reveal that poverty, deprivation and social exclusion tends to be concentrated in particular locations. A range of information sources show Australians residing in more disadvantaged areas experience much higher rates of chronic disease and mental health problems. More disadvantaged regions are also characterised by higher rates of unemployment, people dependent upon income support and children living in jobless families. The

same regions exhibit lower rates of community volunteering and children participating in full-time study (Monitoring Inequality in Australia 2013).

People with higher socioeconomic status within disadvantaged regions tend to be more geographically mobile which contributes to even greater concentrations of disadvantage (Ryan and Whelan 2010). Government policy decisions to concentrate public housing in particular localities have also partly contributed to greater levels of locational disadvantage. As Whiteford (1995) said:

It is likely that the poorest neighbourhoods contain a high (and increasing) proportion of public housing tenants.

The increasing targeting of public housing on low income groups has the direct result that it appears that public housing areas have got poorer, because new entrants to public housing have lower incomes than those already there. (p. 12)

But there is less certainty about the direction of causality. For example, some disadvantaged people may decide to live in regions characterised by higher levels of disadvantage because rents and housing prices are lower.

3.6 The relative merits of the different measures of disadvantage

A number of measures of disadvantage have been examined in this chapter. No single indicator provides an over-arching and uncontested measure of the number of disadvantaged Australians. The various measures, however, provide different lenses for understanding the different aspects of disadvantage.

Simple measures such as relative income poverty are well-established and allow for comparisons with other OECD countries. However, their relatively narrow focus means they can overstate the extent of disadvantage of particular groups, such as the elderly. This problem is overcome, in part, by the use of additional filters which take into account factors such as consumption and net wealth.

Measures which consider disadvantage across a number of life domains provide useful information on the extent and depth of disadvantage. Some measures are more comprehensive than others and some domains are more meaningful for certain groups of individuals, depending on where they are in the life cycle. For example, having a job and a steady income will be more important for people of working age, while for those in retirement, more meaningful indicators might include the level of community involvement and social support experienced by individuals, and the availability and affordability of health care and disability services.

This suggests that different measures might be more or less helpful depending on the group or aspect of disadvantage being examined. For example, for those interested in personal capabilities (such as educational attainment and health) the SEM and Australian Social Inclusion Board measures might be more informative. Similarly, for those concerned with more fully understanding financial disadvantage, the SPRC measure, with its measure of deprivation, might prove more useful.

The regularity with which some indicators are available can also affect their usefulness. Some measures (such as the SEM) are available annually. Others are available much less regularly or on an ad hoc basis. Some measures are based on longitudinal data which enables measurement of persistence, while others rely on point-in-time estimates. Appendix B provides a table on the relative strengths and weaknesses of the various measures of disadvantage.

Better access to data — including from larger departmental databases — would help improve the quality of measures. As discussed earlier in the chapter and pursued further in chapter 6, the capture and retention of more disadvantaged people and households in surveys is highly problematic. Household surveys are less likely to include people who are more disadvantaged as they can be difficult to locate or are less likely or able to respond. This is particularly the case for the homeless or those at risk of homelessness as well as Indigenous Australians in more remote communities.

Migrants and recently settled refugees also tend not to be well represented in surveys used to inform some measures of disadvantage. To help address this, a longitudinal survey of 1 500 recently settled humanitarian families will be conducted annually by the AIFS between 2013 and 2018. A ‘top up’ sample was also added to the HILDA survey in 2011, which included a more representative share of migrants from the general population and recently arrived immigrants.

Disadvantaged groups also have a higher likelihood of leaving longitudinal surveys over time compared with those who are not disadvantaged. These factors may contribute to underestimation of the proportion of the population experiencing deep and persistent disadvantage.

Despite the deficiencies in data sources noted, measures such as the SEM provide valuable and regular information on the extent of, and trends in deeper disadvantage in Australia, and the characteristics of those most likely to experience deeper disadvantage.

However, some questions remain unanswered. While information is available on rates of transition between states of social exclusion and non-exclusion from one

year to another, little is known about the events (or combination of events) that trigger transitions. There is also a lack of information about factors that contributed to the fall in prevalence rates of deep exclusion for some of the more vulnerable groups between 2001 and 2010. The strength of the economy, which sets the foundation for providing employment opportunities, is obviously an important factor in explaining reduced rates of social exclusion. But other personal and social factors may also be contributing.

The following chapter looks at the factors which influence the likelihood of people becoming disadvantaged.

4 Factors influencing life chances of experiencing disadvantage

Key points

- The probability that someone will experience disadvantage is influenced by a number of factors including: their personal capabilities; their family circumstances; the support they receive; the community where they live (and the opportunities it offers); life events; and the broader economic and social environment.
- Many of these factors are interlinked, and when combined, can have a compounding effect — resulting in deep and persistent disadvantage. Untangling how the various factors interact and establishing causality is difficult.
- A child's early years are fundamental to shaping their life chances. While inherited genes influence their development, the quality of family environments, and the availability of appropriate experiences at various stages of development, are crucial for building capabilities.
- Gaps in capabilities between children from socioeconomically disadvantaged families and their more advantaged peers appear early in life. Starting school 'behind the eight ball' can begin a cycle of disadvantage.
- Children from low socioeconomic backgrounds perform more poorly at school, on average, than those from higher socioeconomic groups. They also have a higher probability of leaving school early and of not attending university.
- There is some evidence that stimulating learning environments, a high level of parental interest in education and having high achieving peers, can positively affect educational outcomes.
- People with low educational attainment generally have poorer labour market outcomes (compared to those who are better educated) and they are at greater risk of experiencing persistent unemployment and welfare dependency.
- Employment is the route out of disadvantage for most. But some job-poor households (those working less than 35 hours per week) experience persistent disadvantage.
- Events such as the onset of poor health or disability and relationship breakdowns can trigger disadvantage. People with poor health and disabilities can have more limited opportunities to engage in education, paid work and life in their local community. Others can face personal barriers (ranging from caring responsibilities to addictions and criminal records). These groups have an increased risk of experiencing persistent multiple disadvantage.

Understanding how and why people become disadvantaged is complex. There are many factors that can influence a person's life chances of experiencing disadvantage. Many of these factors are interlinked, and when combined, can have a compounding effect — resulting in deep and persistent disadvantage. This makes untangling the various influences and effects and establishing causality difficult (box 4.1).

Box 4.1 Establishing causality is not easy

The difficulties associated with establishing causality in the area of disadvantage should not be underestimated.

Randomised control trials are frequently referred to in medical and pharmacological testing as the 'gold standard'. They typically involve taking two groups with the same average characteristics and exposing members of one group to an intervention but not the other (the 'control' group).

But it can be difficult, for both ethical and practical reasons, to conduct randomised trials in the area of social policy. For example, in Project STAR, a large education experiment designed to test the effects of class size, about 10 per cent of the students were moved to classes of different sizes than the ones to which they were randomly assigned at first, in part because of parental complaints and organised lobbying.

Natural experiments, such as twin and adoption studies, are another approach used to test causality. Such studies offer the advantage of providing estimates of both genetic and environmental sources of variance. They can provide quasi-experimental tests of environmental theories.

But there are also factors that can be at play that cannot be observed or measured, such as motivation, values and attitudes. The uncontrollability of multiple influences means that the effects of these factors will affect outcomes in a probabilistic, rather than a deterministic, way. For example, not all children who experience adversity early in life experience long-term effects. There is no single predictable trajectory.

Risk and protective factors can also be interrelated which makes it difficult to isolate influences on outcomes.

Sources: Boivin and Hertzman (2012); PC (2009).

While there is a large body of research describing the causes and consequences of disadvantage, the majority of the evidence relies on cross sectional (or point-in-time) data rather than studies of individual life-courses. Little is known about the dynamics, or the causal effects and pathways that result in deep and persistent disadvantage.

But understanding what personal and family characteristics and what life events can make people vulnerable to disadvantage, and how such factors and events can

reinforce each other to further deepen disadvantage, is pivotal to policy makers understanding how policies and programs might affect the development of a person's capabilities, their opportunities, and their life outcomes.

As discussed in chapter 3, while the various measures of disadvantage identify similar groups of people who are at greatest risk, only a small share of people within these groups actually experience deep and persistent disadvantage. While for some people, factors are at play that mean they are on a pathway to deeper and more persistent disadvantage (the vulnerable), others have the capabilities or access to support and opportunities that enable them to avoid or find a way out of disadvantage (the resilient). As Hayes, Gray and Edwards (2008) said:

... risk is not destiny and, just as there are many points in a life where problems can emerge, so too there are windows of opportunity for positive change. (p. 24)

Understanding what drives the different outcomes is equally important for understanding what policies could make a difference.

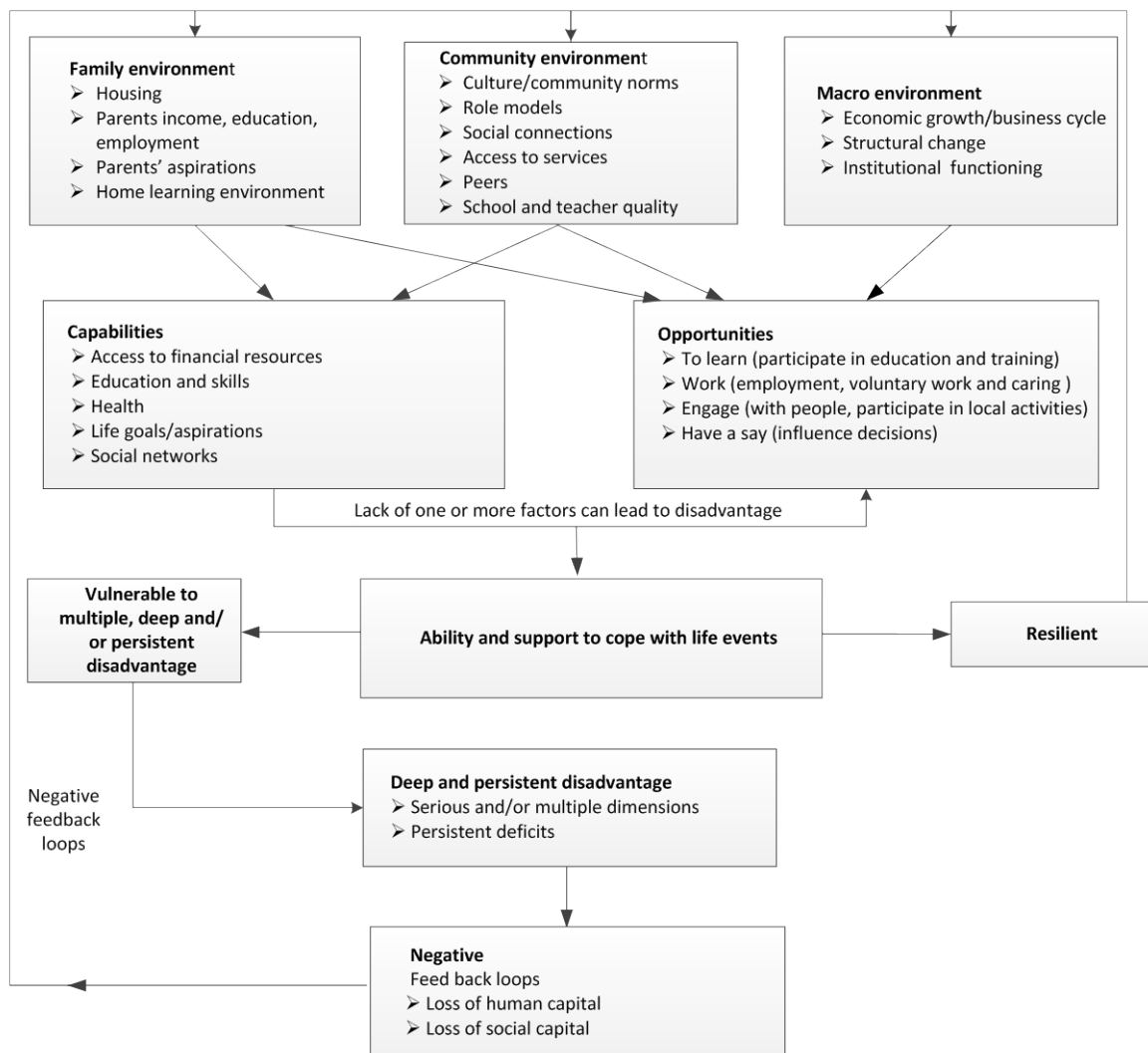
This chapter seeks to shed light on what is known about the factors that contribute to disadvantage (and where possible, deep and persistent disadvantage), by providing a synthesis of the available evidence. The chapter also draws on a framework to explain how the various factors might interact to influence a person's life outcomes and exposure to disadvantage (figure 4.1).

Influences on a person's life outcomes

A person's life outcomes are influenced by:

- their personal resources or capabilities. Personal capabilities include access to financial resources (including those provided by families), educational qualifications, physical and mental health, social networks and intangible characteristics such as life goals, aspirations, self-motivation, confidence and behaviour. Capabilities are what equip people to take advantage of opportunities (and deal with challenges) presented during life
- the opportunities available to them, including the extent to which a person has the opportunity to learn, to work, establish social networks and 'have a say' (Australian Social Inclusion Board 2012)
- life events (some of which can be beyond their control).

Figure 4.1 Factors influencing life chances of experiencing disadvantage



A person’s capabilities and opportunities are in turn influenced by family, community and the broader economic and social environment (figure 4.1).

- Families provide an important environment in which children develop critical competencies, attitudes and habits and can provide lifelong support to a person.
- Communities can shape people’s capabilities by providing an environment within which they develop their attitudes, aspirations and values (by providing role models, community norms and social connections). Communities also provide, to varying degrees, access to services.
- The broader macro environment and institutional functioning influences the opportunities available to people, for example, the availability of jobs, education, health and other social services and infrastructure.

The evidence points to there being critical times for building capabilities for life:

- the early years — these lay the foundation for children’s future learning and lifetime outcomes, including the ability to form trusting and caring relationships
- the school years — success at school is a key determinant of whether children go on to further education and training and employment
- beyond compulsory schooling and the transition between education and work — decisions made during this period can have lasting effects on future job opportunities and life chances.

Learning and skill building continues throughout life. Capacity building throughout adulthood can be important not only for retaining and upgrading skills (particularly with advances in technology) and for career advancement, but also for resilience (or the ability to ‘bounce back’ or adapt) to cyclical and structural changes in the economy.

Particular life events — such as the onset of poor health, an accident resulting in disability, the loss of a job or the breakdown of a relationship — can diminish a person’s personal resources and act as a trigger for disadvantage (figure 4.1). And, while such events can set anyone back for a time, the extent to which a person becomes vulnerable (or resilient) to deep and persistent disadvantage will reflect:

- their own capacity to deal with life events (a person’s motivation and confidence can be affected by events)
- their family and social support (and a person’s readiness to seek assistance)
- the availability of other coping resources (such as savings, insurance and social/human services).

Individuals and families with few personal or financial assets or social networks are likely to be more vulnerable to events, particularly if those events are sequenced close together.

This chapter looks at the evidence (for Australia and other OECD countries¹) about the relationships or interactions between an individual’s resources and opportunities and family, community and macroeconomic influences. It also examines how many of the determinants of disadvantage can be the accumulation of circumstances or events across different life stages and, in some cases across generations. The key determinants are discussed in terms of:

¹ It is important to remember that the extent of disadvantage differs across OECD countries and that policy differences will be reflected in research findings. The chapter draws on evidence relating to the broad definition of disadvantage (covering income poverty, deprivation and social exclusion).

-
- the early childhood years and how they can influence life chances (section 4.1)
 - success at school (section 4.2), including looking at the evidence on the relationship between parents' socioeconomic background and their children's educational experiences and outcomes
 - beyond school and the transitions between education and work (section 4.3)
 - the role of employment as a protector from disadvantage (section 4.4)
 - the onset of poor health and disability and disadvantage (section 4.5)
 - how family formation and relationship breakdowns can influence the risk of experiencing disadvantage (section 4.6).

4.1 Early experiences and how they can influence life chances

A child starts life with a set of personal resources or endowments — at conception they are dealt a hand of cards (by genetic heritage and maternal health). The evidence points to the importance of the antenatal period for shaping future development pathways for children (Center on the Developing Child 2010; Field 2010). Low birth weight has also been shown to be associated with poorer health and education outcomes (Black, Devereux and Salvanes 2005; Conley and Bennett 2000; Silva and Stanton 1996). And early life experiences and family environments play a critical role in shaping development and life outcomes of children (the extra cards they pick up along the way) (Bynner 1998; Conti and Heckman 2012). As Heckman (2011) said:

Each of us is born into circumstances over which we have no control. Our parents, their genes, education, health status, economic resources, and environment are passed onto us through our families and neighbourhoods. These endowments shape the trajectories of our lives. (p. 32)

Early childhood is a time of rapid development of the brain. Adequate stimulation and nutrition are essential for development during the early months and years of life (Center on the Developing Child 2010; McCain and Mustard 1999). While the science of early child development is an evolving field of research, neuroscientists, developmental psychologists, and behavioural scientists broadly agree that a child's early experiences and environments — whether positive or negative — have a powerful influence on brain development.

The amount and quality of stimulation can affect the development of the brain's neural pathways which shape language, capability, cognitive ability and emotional responses (Mustard 2008; Shonkoff 2000). Language and cognitive development

are thought to be particularly important during the early years of life. As McCain and Mustard (1999) said:

It is clear that the early years from conception to age six have the most important influence of any time in the life cycle on brain development and subsequent learning, behaviour and health. The effects of early experience, particularly during the first three years, on the wiring and sculpting of the brain's billions of neurons, last a lifetime. (p. 6)

Family and parental influence

In the early or foundation years of a child's life, children are particularly sensitive to parental inputs (and it is a time when parents tend to concentrate investment in their children). As Boivin and Hertzman (2012) said:

Families provide most early stimuli for children, define the social and economic resources available to the child, and largely control children's contact with the wider environment and the terms upon which it occurs. (p. 13)

Optimal early childhood experiences focus on the quality of interactions between an infant and parent or caregiver(s), with an emphasis on the reciprocal nature of continuous interactions between them. Hertzman (2004) noted that:

Rich and responsive language environments allow children to acquire language much more rapidly than environments where little conversation takes place, making children more ready for school. (p. 4)

While most families provide the support children require to build the capabilities they need for life, families dealing with problems such as poor mental health, substance abuse and domestic violence are likely to be less able to provide an environment conducive to nurturing children and learning.

Depression, for example, can affect the ability to parent — depressed parents tend to be less spontaneous and more withdrawn, angry and sad (Downey and Coyne 1990). Children living with parents who have poor mental health are more likely than children of parents without poor mental health to have emotional or behavioural difficulties, poor physical health and impaired social or academic performance (Elgar et al. 2004; Lovejoy et al. 2000).

Around 15 per cent of Australian parents living with children aged 0-14 are estimated to be affected by poor mental health (AIHW 2012a). Over one-third of 4-5 year old Australian children residing with a parent who has poor mental health fall into the bottom 15 per cent of the overall development domain (compared with 14 per cent of children whose parents do not have poor mental health) (Gong, McNamara and Cassells 2011).

The dependence of infants on others during the early years, together with their rapid physical, cognitive and emotional development, makes them particularly vulnerable to the effects of neglect, abuse and family violence. Children are at greater risk of abuse if they are: young (infants and toddlers are at highest risk); female; indigenous; have a disability; have lower socioeconomic status; have parents with mental illness or who misuse substances; or live in a family where there is domestic violence (Bromfield and Holzer 2008; Taylor et al. 2008). Aboriginal and Torres Strait Islander children are almost eight times as likely as non-Indigenous children to be the subject of substantiated child abuse and neglect (AIHW 2013a).

There is an extensive evidence base that shows that children who experience abuse or neglect in the early years are more likely to experience ongoing behavioural and learning problems, substance abuse and poorer mental and physical health and labour market outcomes (Boivin and Hertzman 2012; Lamont 2010, box 4.2). As Shonkoff (2011) said:

When early experiences are fraught with threat, uncertainty, neglect, or abuse, stress management systems are over-activated. The consequences can include disruptions of developing brain circuitry, as well as the establishment of a short fuse for subsequent stress response activation, which leads to greater vulnerability to a host of physical diseases. (p. 12)

The Australian Social Inclusion Board (2011) also said:

Rather than early experiences being forgotten, evidence shows that the earlier children are maltreated the more likely they are to develop behaviour problems in adolescence. (p. 14)

There is some evidence to suggest that exposure to adversity tends to persist through the various stages of a child's development, increasing the risk of poorer outcomes later in life. A United States study that followed mother-child dyads over the first 16 years of the child's life, found that the at ages 1, 4 and 16 years, the best predictor of child maltreatment was the cumulative level of risk exposure (this was above and beyond any individual risk factor) (MacKenzie, Kotch and Lee 2011). Boivin and Hertzman (2012) also noted that:

Not only is exposure to adversity not randomly assigned, but it also tends to persist through various development processes, thus increasing the risk of health and adjustment problems over time. (p. 39)

Box 4.2 **Child abuse — evidence of long-term consequences**

There is uncertainty about the extent of child abuse that occurs in Australia (only a proportion of child abuse and neglect is reported to child protection authorities). Estimates of the prevalence of child abuse occurring in 2007 range from 3.7 to 13.8 per cent (Taylor et al. 2008).

While child abuse and neglect is not necessarily a consequence of families experiencing deep and persistent disadvantage, the rates tend to be higher in families with lower socioeconomic status, where parents have a mental illness or misuse substances, or where there is evidence of domestic violence (Taylor et al. 2008).

Victims of child abuse and neglect can experience long-term effects. A recent survey of the literature (Lamont 2010) found the following patterns amongst such victims:

- poorer labour market outcomes — associated with poorer academic performance and behavioural problems
- higher rates of contact with the justice system — a United States study found higher rates of arrests, adult criminality and violent criminal behaviour in a matched study where the difference was the experience of abuse as a child. Substance abuse was also associated with higher rates of criminal behaviour such as theft and prostitution
- higher rates of homelessness — in a United States sample of homeless people, 72 per cent had suffered childhood abuse. Another study found that people who had experienced neglect and physical or sexual abuse as a child were 26 times more likely to have been homeless than those with no experience of abuse
- poorer physical health — linked to higher rates of overweight and obesity and high-risk behaviour (such as smoking, alcohol abuse and risky sexual behaviour)
- poorer mental health — a United States study found that adults who had suffered abuse as a child were 2.5 times more likely to have major depression, and 6 times more likely to suffer post-traumatic stress disorder than those who had not suffered abuse. Linked to this were higher rates of suicidal behaviour
- higher rates of substance abuse — a United States study found that adults who had experienced four or more instances of abuse as a child were 7 times more likely to consider themselves an alcoholic, 5 times more likely to have used illicit drugs, and 10 times more likely to have injected drugs than adults with no adverse experiences in childhood
- higher rates of re-victimisation and repeating the pattern of abuse — an Australian study found that 72 per cent of women who experienced abuse during their childhood also experienced violence as an adult compared to 43 per cent for women who had not experienced abuse in their childhood. A United States study found that one-third of children who experience abuse and neglect go on to repeat patterns of abusive behaviour with their children (but not for sexual abuse).

Sources: Lamont (2010); Taylor et al. (2008).

Child abuse and neglect can lead to children being placed into other care arrangements, including child protection services. In June 2012, there were around 39 600 children in out-of-home care (7.7 per 1 000 children) in Australia (AIHW 2013a). Ninety per cent of these children were on care and protection orders. There is some evidence to show that children in out-of-home care experience poorer long-term outcomes (Osborn and Bromfield 2007).

Emerging evidence also shows that income poverty impacts on child developmental outcomes and the effects are stronger when exposure to low income starts early in life and is prolonged (Duncan and Magnuson 2011; Zubrick et al. 2008). For example, using data from the Panel Study of Income Dynamics (a dataset covering United States children born between 1968 and 1975 with adult outcomes collected between ages 30 and 37), Duncan and Magnuson found evidence of links between income poverty early in life (prenatal through to age five) with both child achievement (years of school completed) and adult employment.

But not all children exposed to early adversity experience long-term effects. Boivin and Hertzman (2012) said:

Exposure to early adversity is a significant predictor of later problems, but not inevitably in all children. Rather, children vary tremendously in their response to adverse childhood experiences, there is no single path from early adversity to poor social, emotional, cognitive, and mental health outcomes. (p. ii)

Informal support can act as a strong protective factor for children in times of adverse experiences, for example, grandparents taking on care responsibilities as a result of parental substance misuse and other difficulties. Strong early attachment to an adult (such as a grandparent) has been shown to be a protective factor (Werner 1996). Personal capabilities, such as optimism and self-esteem also seem to make a difference. Moloney et al. (2007), for example, said:

What is sometimes referred to as ‘resilience’ in some children, which modifies the impact of maltreatment, seems to be influenced by a number of individual characteristics, such as optimism, self-esteem, intelligence, creativity, humour and a sense of independence. In addition, family, social or environmental factors that appear to modify negative effects include access to social support and/or to at least one unequivocally caring adult, neighbourhood stability and access to reasonable health care. (p. 12)

Resilience is discussed in more detail in section 4.2.

Community and childcare

Childcare settings and the health and community care system can be influential in shaping children's development and helping them realise their potential for future learning. This is particularly so when the family environment is not providing an engaging supportive environment (PC 2011a). Early childhood settings can also provide models of positive adult-child interactions and social networks for families.

Most Australian children are in some form of preschool program in the year prior to starting school. However, attendance varies across families and communities. For example, while 85 per cent of children aged 4-5 (those not attending school), attended a preschool or preschool program in 2011, children living in:

- couple families where both parents were employed were more likely to attend a preschool or preschool program (91 per cent) than those with neither parent employed (68 per cent)
- children in single parent households were more likely to attend preschool or a preschool program if their parent was employed (80 per cent) than if their parent was not employed (68 per cent) (ABS 2012a). Single parents have high rates of joblessness (box 4.6).

Biddle (2007) also found that Aboriginal and Torres Strait Islander children's preschool attendance declined with the increase in distance from capital cities and this was at a greater rate than that of non-Indigenous children.

The evidence shows that attending preschool improves children's readiness for school and students' performance (box 4.3). It also points to the value of high-quality preschool for enhancing the development of children (Conti and Heckman 2012; Heckman 2011).

Results from trials and programs show that good quality early childhood education, particularly for children from socioeconomically disadvantaged backgrounds, can contribute significantly to giving them a strong start to a good education and success in school. For example, early intervention programs for children from disadvantaged backgrounds conducted in the United States, including the High-Scope Perry Preschool Program and the Abecedarian Project show a positive and long term effect of early environmental enrichment on school achievement, employment outcomes and social behaviours (box 4.4).

Box 4.3 **Preschool, school readiness and students' performance**

Findings from the *Longitudinal Study of Australian Children* (LSAC) support the notion that children aged 4-5 years who attend preschool or a pre-year program have, on average, higher overall development, learning and cognitive and social-emotional outcomes than those children who do not. Children not in a preschool program, however, are slightly better on average in terms of overall physical health scores (Gong, McNamara and Cassells 2011).

Likewise, results from the Australian Early Development Index (AEDI) — a population measure of children's development as they enter school — shows that children who attended preschool (including in a day care centre) had lower rates of developmental vulnerability in one or more of the AEDI than children who had not attended preschool, regardless of the level of area disadvantage. Aboriginal and Torres Strait Islanders and children with language backgrounds other than English also had lower rates of developmental vulnerability if they had attended preschool (Sayers et al. 2012).

De Bortoli and Thomson (2010) found that the effects of preschool attendance to be more marked for Indigenous than non-Indigenous students. Comparing Indigenous and non-Indigenous students' performance on the Programme of International Student Assessment (PISA), Indigenous students who had attended preschool for more than one year were found to score, on average, 69 per cent points higher (on mathematical literacy performance) than Indigenous students who had not attended preschool at all. Among non-Indigenous students, they found, on average, a 33 score point difference between those students who had attended preschool for more than one year and those students who had not attended any preschool.

Sources: De Bortoli and Thomson (2010); Gong, McNamara and Cassells (2011); Sayers et al. (2012).

An evaluation of Australia's Home Interaction Program for Parents and Youngsters (HIPPY) — a program to support parents from disadvantaged backgrounds to read to and guide their preschool age children's early learning experiences — also found evidence of a range of positive outcomes resulting from the program including improvements in children's learning and literacy levels, home learning environments and parents' social connectedness (Liddell et al. 2011).

Box 4.4 Examples of early intervention programs

The richest source of information on early intervention programs come from the Perry Preschool Project and the Abecedarian Project. Both projects used a random assignment design and followed children into adulthood. Results from both studies show a positive and long-term effect of early environmental enrichment on a range of cognitive skills, school achievement, job performance and social behaviours.

The Perry Preschool Project was an intensive preschool curriculum administered to 58 low-income African-American children with initial IQs below 85 (65 children in the control group did not receive the program). The intervention was targeted at 3-year-olds and involved teachers conducting 2.5 hour classes for children 5 days a week and a weekly 1.5 hour home visit to promote parent-child interactions.

While participants IQs were *not* higher on average after age 10, their achievement test scores were higher (the explanation being that the adolescent treatment group were more engaged in school and so learnt more). Adults at age 40 who had participated in the preschool program were also more likely to have graduated from high school, were more likely to hold a job, had higher earnings, and had committed fewer crimes than adults who did not participate in the preschool program.

The Abecedarian Project studied 111 disadvantaged children born between 1972 and 1977. The mean age at entry was 4.4 months. The full year, full-day intervention continued through to age eight. The program had a preschool intervention and a subsequent school-age intervention. During the first three primary school years, a home-school teacher met with the parents of children in the treatment group to help them provide supplementary educational activities at home.

At age 30, Abecedarian Project participants had significantly more years of education than peers in the control group. They were four times more likely to have earned college degrees — 23 per cent of participants graduated from a four-year college or university degree compared to 6 per cent of the control group.

Participants of the project were also more likely to have been consistently employed (75 per cent had worked full time for at least 16 of the previous 24 months, compared to 53 per cent of the control group) and were less likely to have used public assistance.

Critics of the projects point to: small sample sizes; unsustained long-term effects on IQs; and the absence of statistical significance of some treatment effects.

Sources: Conti and Heckman (2012); Heckman et al. (2010); <http://highscope.org>; uncnews.unc.edu.

Gaps in children's development are evident early in life

Gaps in children's development across socioeconomic groups are evident early (Bradbury et al. 2011; Field 2010; Gong, McNamara and Cassells 2011; Goodman and Gregg 2010). For example, development scores for 4-5 year old Australian children show that the more income a family has the better the average overall

development score — a difference of around 7 points on average development scores of children in the bottom quintile and those in the top quintile. Also, children living in families suffering many forms of financial hardship (such as not being able to pay rent and going without meals) are more likely to have lower outcome scores — a difference of 8-9 points between those children living in families experiencing multiple hardships and those experiencing none (Gong, McNamara and Cassells 2011).

Gong, McNamara and Cassells (2011) found that the employment status of a child’s parents is strongly correlated with a child’s development and also that children who speak another language at home, have a long-term medical condition or disability, or are Indigenous, generally perform more poorly on average development scores than children who do not have these characteristics (table 4.1). It is interesting to note that average overall development scores for 4-5 year old Australian children with no parent working were lower than the average for Indigenous children.

Table 4.1 Average development scores by child characteristics, age 4-5^a
Mean

	<i>Overall development</i>	<i>Physical health outcome</i>	<i>Social emotional outcome</i>	<i>Learning and cognitive outcome</i>
Child speaking other language at home				
No	100.37	100.32	100.35	100.33
Yes	96.59	97.85	96.87	98.00
Child is Indigenous				
No	100.25	100.08	100.19	100.40
Yes	95.43	99.84	96.70	94.05
Child with medical condition/disability^b				
No	101.09	101.09	100.63	100.85
Yes	90.72	91.42	94.92	93.64
Parental work status				
At least one parent working	100.55	100.20	100.50	100.74
No parent working	94.34	98.16	95.24	94.13

^a Outcome scores have been standardised to have an average value of 100. Based on LSAC Wave 3 cohort, 2007-08 data. ^b Child with medical condition/disability indicates a child having any medical conditions or disabilities that have lasted, or are likely to last, for six months or more.

Source: Gong, McNamara and Cassells (2011).

Children start school with different learning capabilities and levels of preparedness. Results from the Australian Early Development Index (AEDI) shows that in 2012 when Australian children started school:

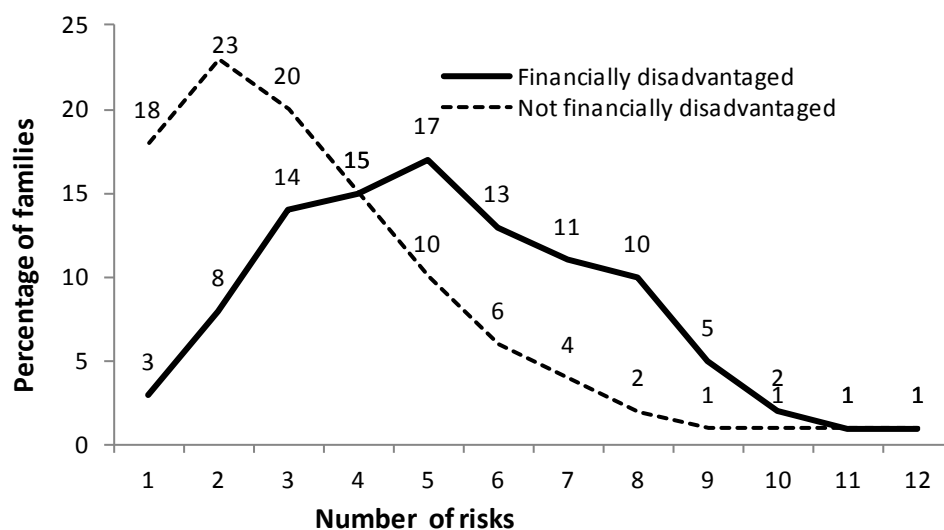
- one in five were developmentally vulnerable in one or more of the AEDI domains

- one in 10 were developmentally vulnerable on two or more of the domains
- Indigenous children were more than twice as likely to be developmentally vulnerable than non-Indigenous children
- children who only speak English, but were reported as not proficient in English, were more likely to be developmentally vulnerable on all the AEDI domains (Australian Government 2013).

Children that are developmentally vulnerable on two or more of the domains are more likely to have difficulty learning.

As discussed earlier, the more risk factors a child has in his or her life, the higher the probability of poor developmental outcomes. Edwards et al. (2009) found that Australian children from backgrounds of financial disadvantage were more likely than children from more financially advantaged homes to have multiple risk factors for low school readiness (figure 4.2).

Figure 4.2 **Distribution of risks among financially disadvantaged and non-financially disadvantaged families^a**



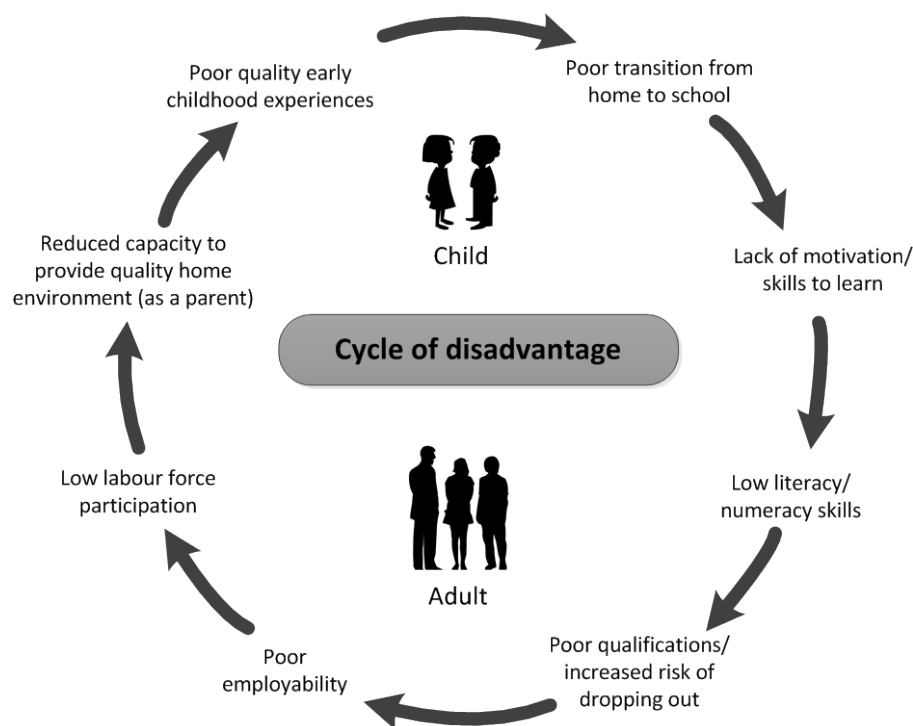
^a The index was formed by identifying and summing family and neighbourhood risk factors: *parental characteristics* (father absence, father unemployed, mother unemployed, mother less than 22 years of age at the birth of the child, mother having completed less than Year 12 education, mother born overseas and having poor English, maternal psychological distress); *parenting style* (lower warmth, higher hostility, lower use of reasoning and lower consistency); *family educational climate* (reading to the child on fewer than 3 days per week, fewer than 30 children’s books in the home, and higher level of child television watching); *neighbourhood characteristics* (high socioeconomic indexes for areas (SEIFA) disadvantage and remote non-metropolitan area).

Data source: Edwards et al. (2009).

Starting school ‘behind the eight ball’ can be the beginning of a cycle of disadvantage for children that sets a trajectory for poorer outcomes later in life (figure 4.3). Because learning is a dynamic process, early learning sets the conditions for the next stage of learning. As Conti and Heckman (2012) put it:

... a healthy child, or a child who is better able to pay attention in class, learns more and produces a greater store of cognitive ability. ... capabilities at one age enhance capabilities at later ages, and the development of capabilities in subsequent periods depends on the set of capabilities already present, and on investments, both at home and at school. (p. 18)

Figure 4.3 The cycle of disadvantage can start early in life



Source: The Smith Family (2010, p. 5).

If a child is not ‘school ready’ this can lead to disengagement in learning, which can lead to behavioural problems. Poor educational achievement increases the probability of poorer employment prospects, lower lifetime earnings and reduced ability to participate in society.

4.2 Success at school — education and life chances

Skills are considered to be the ‘global currency of 21st century economies’ (OECD 2012b, p. 3). Education provides skills, builds the capacity to learn and acts as a protector by creating greater labour market resilience. In turn, this increases lifetime job prospects, social engagement and the capacity for self-reliance.

There is strong evidence to show that education is associated with improved life chances. The evidence points to a relationship between education and:

- better labour market outcomes (employment and earnings)
- better health and improved life satisfaction
- raised levels of civic and social engagement (volunteering, associations, interest in civic/political matters)
- reduced crime (Fella and Gallipoli 2006; Lochner and Moretti 2004; Machin 2006; OECD 2010; 2012b; 2012d).

In addition, educated parents are more likely to assist with their children’s education (Bird and Higgins 2011) and educational attainment persists across generations (section 4.3).

The OECD report *Better Skills, Better Jobs and Better Lives* (2012b) concluded that:

Skills affect people’s lives and the well-being of nations in ways that go far beyond what can be measured by labour-market earnings and economic growth. For example, the benefits of skills to an individual’s health are potentially great. Skills also relate to civic and social behaviour as they affect democratic engagement and business relationships. ... Adults with high levels of foundation skills are much more likely to feel that they have a voice that can make a difference in social and political life. These results are consistent across a wide range of countries, confirming that skills have a profound relationship with economic and social outcomes across a wide range of contexts and institutions. (pp. 10-11)

In Australia, children of school age spend around 30 hours a week at school for about 40 weeks a year (they typically spend more hours at school than in any other place besides home). As such, schools play a critical role in providing opportunities to children for learning and developing literacy and numeracy skills, as well as ‘non-academic’ skills and attributes, such as attitudes to health and exercise and civic engagement. Schools can provide learning environments and experiences that are not available at home. As the Commission recently argued in the *Schools Workforce* report (PC 2012):

The importance of school education has increased with the shift to a more knowledge-based economy. (p. 3)

The weaker average performance of children from low socioeconomic backgrounds that is evident when they start school continues throughout the school years (box 4.5). There is also evidence that the gap widens as children get older (Hayes 2011, 2013, figure 4.4).

Box 4.5 Poorer outcomes for children from low socioeconomic backgrounds continue through the school years

The National Assessment Program — Literacy and Numeracy (NAPLAN) results show that lower levels of parental education in Australia are strongly associated with lower student performance, a result that holds across all the year levels tested (years 3, 5, 7 and 9). Parental attainment of a Year 12 or equivalent qualification appears to be a threshold qualification, below which the reading and numeracy achievement of students is significantly lower.

Results from the OECD's 2009 PISA — learning outcomes data for 15 year olds in three domains — reading, mathematical and scientific literacy — also show that across all literacy domains, the higher the student's socioeconomic background, the higher their performance. The evidence for Australia shows that:

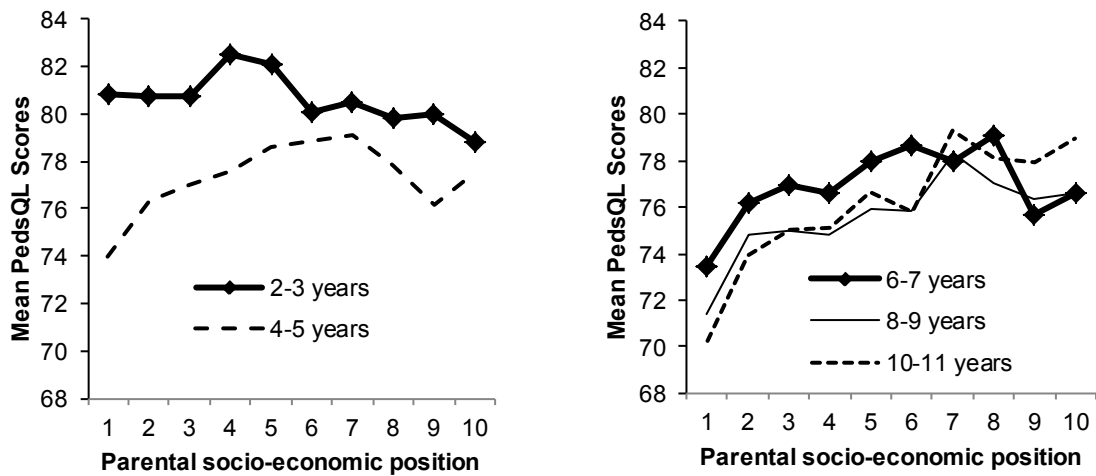
- on reading literacy, the gap between students from the highest and lowest economic, social and cultural quartiles was 91 score points, equivalent to one proficiency level or more than two full years of schooling
- in mathematical literacy, students in the lowest socioeconomic quartile scored, on average, 90 points lower than those students in the highest socioeconomic quartile
- in scientific literacy, the gap between the students in the highest and lowest socioeconomic quartiles was, on average, 96 score points
- the performance of Indigenous Australians in reading, mathematical and scientific literacy was, on average, one proficiency level lower (or around two full years of schooling) than that of non-Indigenous Australians

Thomson et al. (2011) concluded that:

... significant levels of educational disadvantage related to socioeconomic backgrounds can be equivalent to up to three years of schooling. This gap places an unacceptable proportion of 15-year-old students at serious risk of not achieving levels sufficient for them to effectively participate in the 21st century workforce and to contribute to Australia as productive citizens. (p. xiv)

Sources: Australian Curriculum, Assessment and Reporting Authority (2012); Thomson et al. (2011).

Figure 4.4 Outcomes for Australian children aged 2-3 to 10-11 years by socioeconomic position^{ab}



^a MeanPedsQL scores - Pediatric Quality of Life inventory or model which measures the extent of physical, emotional, social and school functioning of children. ^b Socioeconomic position (SEP) — ranging from 1 (the lowest decile) to 10 (the highest decile).

Data source: data provided by the Australian Institute of Family Studies, based on LSAC, Waves 1, 2, 3 and 4.

Explaining differences in educational attainment

Inherited abilities

One explanation for differences in educational attainment between children of low and high socioeconomic backgrounds is parents' cognitive abilities and inherited genes. Evidence from the United Kingdom (using the British Cohort Study with data across two generations), suggests that inherited cognitive abilities explain around one-fifth of the gap in cognitive test scores between children from the richest and poorest families after controlling for a number of environmental factors (Crawford, Goodman and Joyce 2010; Goodman and Gregg 2010).

Genetic explanations for children's success at school is a controversial and complex area because of interactions between genes and the environment. Evidence is now emerging that the same genetic endowment can result in different outcomes depending on the environment (Boivin and Hertzman 2012).

The evidence also points to a strong interaction between cognitive and non-cognitive skills or character traits such as perseverance, motivation and self-esteem (Cunha and Heckman 2009; Johnson and Kossykh 2008). According to Cunha and Heckman, scores on IQ tests can be raised when rewards are provided for correct

answers and the effectiveness of rewards depends on personality traits. Bowes, Grace and Hayes (2012) also said:

Children's experiences and responses are always a combination of features of their environment and their genetic inheritance. ... DNA is not destiny, and the interplay between environmental factors and genetic predispositions is much more complex than nature versus nurture. Some of these interactions are epigenetic Epigenetics is an exciting new field that highlights the impact of environmental influences on the expression of genes. (p. 12)

Differences in home learning environments

Differences in the home learning environment (children having greater access to books, computers, space to study), as well as differences in the quantity and quality of parental time investments, are found to be important for children's development. Carneiro and Heckman (2003) said:

A major determinant of successful schools is successful families. Schools work with what parents bring them. They operate more effectively if parents reinforce them by encouraging and motivating children. (p. 5)

Children growing up in poorer households (including jobless families) can lack the resources needed for education. This can place them at a disadvantage for learning which in turn can affect their attitude to learning and sense of being part of a school community. As O'Brien, the Chief Executive Officer of The Smith Family, said:

For children growing up in jobless households, education essentials can be difficult to access, like school uniforms and shoes, the right reading and text books, or a computer for children to develop the skills required in the 21st century classroom and workplace. When children are unable to 'fit in' their confidence, self-esteem and aspirations are likely to suffer and they may not feel that they belong at school. (in Cassells 2011, p. 3)

Australian children living in the most well off households (the top 20 per cent) are estimated to have, on average, access to 3.1 times the economic resources (a difference of over \$40 000 per year in 2009) of children living in the poorest households (the bottom 20 per cent). Households of children at the median had around 1.9 times the income of those living in the poorest households (Cassells et al. 2011).

While household income is important, good parenting and strong family relationships can help build social and emotional skills which are protective factors. Heckman (2011) argued that:

Good parenting is more important than cash. High-quality parenting can be available to a child even when the family is in adverse financial circumstances. While higher income facilitates good parenting, it doesn't guarantee it. *An economically advantaged*

child exposed to low-quality parenting is more disadvantaged than an economically disadvantaged child exposed to high-quality parenting. (p. 33, original emphasis)

Poor parenting can occur at any household income level. However, there is evidence to show that stress and conflict can affect parenting and a lack of money (or debt) is a key source of stress. Gray and Baxter (2012), using LSAC data, found that long exposure to family joblessness was associated with poorer developmental outcomes (across the learning/cognitive, social/emotional and physical domains) for children at eight to nine years of age (box 4.6).

The research also shows that children from disadvantaged or dysfunctional home environments have increased risk of a range of adverse outcomes such as criminality and substance abuse (Fergusson and Horwood 2003) and poorer health outcomes as adults (Graham and Power 2004; Melchoir et al. 2007; section 4.5).

Parental time investment (reading to children, assisting with homework) appears to increase with parental education:

- Bittman and Siphthorp (2012), using data from the LSAC, found that the higher a family's socioeconomic position, the higher the chances that a child would be read a story and the more likely it was that when stories were read, the activity would last for longer. Among the most disadvantaged families, 41-47 per cent of children were not read to at all on a given weekday or a weekend day, compared with 15-22 per cent of children in the most advantaged families.
- A review of literature on parental involvement and pupil achievement (Desforges and Abouchaar 2003) found that the extent and form of parental involvement to be strongly influenced by family social class, maternal education, material deprivation, maternal psycho-social health and single parent status and, to a lesser degree by family ethnicity. 'At-home good parenting' was found to have a significant positive effect on children's achievement even after all other factors shaping attainment were taken into account.

Results from PISA also show that economically advantaged parents are more likely to have read to their children regularly, sung songs, talked about what they had done during the day, and read signs aloud to their children. The difference was found to be consistent across the 13 countries and economies examined. On average, socioeconomically advantaged parents were 14 percentage points more likely to have engaged in the kinds of activities that are associated with positive outcomes for their children (OECD 2012c). As the OECD (2009) put it:

If the level of parents' education can be taken as an indicator of the quality of investment in children, children from more advantaged backgrounds get both more *and* higher-quality parental time investment. (p. 155, original emphasis)

Box 4.6 **Some evidence on the effects of joblessness on children**

Australia is reported to have one of the highest rates of joblessness amongst families across the OECD countries. In June 2012, there were 1.3 million jobless families (or 19 per cent of all families). Of these, 932 000 were jobless couple families (one in every six couple families) and 299 000 jobless one parent families (almost one in every three one parent families (ABS 2012b). Whiteford (2009) argues that joblessness among families:

... is one of the most significant problems facing Australian society. It is the most important cause of child poverty in Australia and is a major contributor to overall income inequality (p. 1).

Parental unemployment has been shown to have a negative effect on children's behaviour, educational attainment and future employment:

- Kalil and Ziol-Guest (2008), using the United States Survey of Income and Program Participation, found that fathers' involuntary job losses increased the likelihood that children will repeat a grade or be suspended or expelled from school.
- Kalil and Wightman (2009), using the United States Panel Study of Income Dynamics, found that parental job loss was associated with a reduced likelihood of youths obtaining any post-secondary education.
- Coelli (2005) using Canadian Survey of Labour and Income Dynamics found that parental job loss led to an increase in a child's probability of dropping out of high school and a decrease in the probability of entering university.

An Australian study using the first three waves of LSAC, the 2006 Census and the Department of Education, Employment and Workplace Relations Small Area Labour Market data, looked at the impact of living in a jobless family on the likelihood of NSW children aged 4 to 5 years to 8 to 9 years of age experiencing a range of behavioural or emotional problems. The study found that living in a jobless family increased the likelihood that a child will experience a range of behavioural or emotional problems:

- conduct problems, such as lying and fighting increases by 13.4 per cent
- peer problems, such as not forming positive relationships with peers and being bullied, increases by 7.6 per cent
- emotional problems, such as worrying and nervousness increases by 7.5 per cent
- hyperactivity problems, such as being restless and easily distracted, increases by 7.2 per cent (Gray, Taylor and Edwards 2011).

Also using LSAC data, Gray and Baxter (2012) found that on all developmental outcomes, longer exposure to family joblessness was associated with poorer outcomes for children aged 8 to 9 years. Parents in jobless families were found, on average, to have lower levels of human capital than those not experiencing joblessness. Also, they were found to exhibit poorer parenting skills.

Sources: ABS (2012b); Coelli (2005); Gray and Baxter (2012); Gray, Taylor and Edwards (2011); Kalil and Wightman (2009); Kalil and Ziol-Guest (2008); Whiteford (2009).

Attitudes and aspirations

There is evidence to show that parental aspirations and attitudes to education vary with socioeconomic position. This could play a part in explaining why children from families with a lower socioeconomic status typically do not do as well at school as children from higher socioeconomic families.

- Goodman and Gregg (2010) found that 81 per cent of mothers from the highest socioeconomic group in the United Kingdom expected their 9 year old would go to university. Just 37 per cent of mothers from the lowest socioeconomic group had the same expectations.
- A key finding of Polidano, Hanel and Buddelmeyer (2012), a study linking data from the 2003 PISA program with data from the 2003 Longitudinal Surveys of Australian Youth (LSAY), is that differences in educational aspirations of students and their parents at age 15 is the most important factor explaining the gap in school completions between low and high low socioeconomic status (SES) students. Polidano et al. found that not only are low SES students less likely to want to go on and complete school (76 per cent relative to 90 per cent for high SES), but they were less likely to report that their parents want them to go on to post-school study (58 per cent compared to 73 per cent for high SES).

The evidence on student dropouts also suggests that, while dropout usually occurs after a long process of student disenchantment (Lyche 2010), a key predictor is student and family attitudes towards school (including the inability to support children). Other predictors are: educational achievement; students' behaviour (behaviours such as drug or alcohol abuse and juvenile delinquency are associated with lower performance); background of students and family; school structure, resources and practices; educational system level policies and labour market conditions (OECD 2012d).

Location and neighbourhood effects

Where children live can place them at risk of poorer achievement at school.

- NAPLAN results show a consistent pattern for Australia overall of metropolitan students having higher mean scores than students from remote and very remote locations. The pattern is also seen in the percentage of students who achieve at or above the national minimum standard (Australian Curriculum, Assessment and Reporting Authority 2012).
- PISA results for 2009 show a gap between 15 year olds in metropolitan schools and remote schools across all domains (reading, mathematics and science literacy) that equates to almost 1.5 years of schooling (Thomson et al. 2011).

Results from the OECD's PISA also suggest that schools with a higher proportion of disadvantaged students are more likely to be dealing with economic and social problems that can inhibit learning. For example:

- students from lower socioeconomic areas tend to attend schools with fewer resources, in terms of class size, instruction time, participation in after-school lessons and availability of extra-curricular activities
- disadvantaged schools can lack the ability to attract and retain competent staff
- a higher share of disadvantaged students can have adverse effects on the organisation and processes of schools (for example, schools can have a charged emotional environment with a higher proportion of students who are anxious, angry or vulnerable). Students in disadvantaged schools may also have a wider range of abilities, as their prior attainment can be extremely heterogeneous.

The OECD (2012d) concluded that:

Disadvantaged schools tend to reinforce students' socioeconomic inequalities. ... This represents a double handicap for disadvantaged students, since schools do not mitigate the negative impact of the students' disadvantaged background and on the contrary amplify its negative effect on their performance. (p. 107)

Polidano, Hanel and Buddelmeyer (2012), however, found that while characteristics of schools (including resources, governance, teachers and peers) may affect academic performance up until age 15, they play only a small part in explaining differences in school completion rates by socioeconomic status in Australia. However, more positive attitudes of teachers in low socioeconomic status schools could help close the completion gap:

... we find that teachers contributing to a positive school culture tends to reduce the gap because it has a greater estimated effect on retaining low SES students. This result underlines the particular importance of teachers in promoting a positive learning culture in low SES schools where academic achievement may not be the norm among students and their parents. (p. 22)

A number of studies show that living in socioeconomically disadvantaged neighbourhoods can have a negative impact on learning and behavioural outcomes and on physical health (Edwards 2005; Edwards and Bromfield 2010; Leventhal and Dupéré 2011). Edwards (2005), for example, found that children living in the most disadvantaged neighbourhoods have lower social/emotional and learning outcomes than those living in more affluent neighbourhoods (when controlled for family income, parents' employment status, mother's education and other child and family variables). And, while the neighbourhood effects on children's outcomes were small they can accumulate over time and have a significant influence in the longer term. The neighbourhood effects were found to be a similar size to that of

family income, maternal education and living in a household with at least one employed parent.

Edwards and Bromfield (2010) looked at how neighbourhood social processes affect young children's emotional and behavioural outcomes and found the degree of neighbourhood socioeconomic disadvantage was related to children's level of hyperactivity, emotional symptoms and peer problems. Also, that neighbourhood safety and belonging influenced children's behavioural and emotional state. Edwards and Bromfield suggested that:

Neighbourhood social processes like neighbourhood belonging do play a role in explaining the influence of neighbourhood disadvantage on children's behavioural and emotional problems ... While building social capital is clearly important, addressing the service delivery system, enhancing parenting skills and providing employment in these areas are also important elements of a comprehensive strategy in addressing area-based disadvantage. (p. 13)

Evidence about resilience

As discussed earlier, not all children from disadvantaged families have poor outcomes. Hayes (2013) described disadvantage as 'A state rather than a trait!'

Resilience is the ability to 'bounce back' from stressful experiences. It is linked to 'positive emotionality through a variety of pathways, including openness to experiences and coping mechanisms' (Moloney et al. 2012, p. 22). Rutter (1985) referred to resilience as the 'steeling' effect of stressors.

Looking at why some disadvantaged children 'buck the trend' to succeed in later life (aged 30), Blanden (2006), in a study using data from the British Cohort study (children born in 1970), found that:

- the level of parental interest and parent's behaviour was important — those who bucked the trend were more likely to have a parent with some qualifications, who read to them as children and took an interest in their schooling
- stronger performance began early (higher test scores as young as 5 years old)
- attending school with higher achieving or more advantaged peers seemed to be associated with a higher probability of bucking the trend.

Other studies also find that peer quality contributes towards student academic success and attainment (Ewijk and Slegers 2010; OECD 2012d). The OECD (2012d) said:

The students themselves are a key resource of any school: a disadvantaged student has a better chance of success if he or she is in a school with students who have high expectations and are intellectually engaged. (p. 107)

A forty-year study of ‘high risk’ children living on the Hawaiian island of Kauai, found that while two-thirds of the children developed learning and/or behavioural problems, one-third were ‘resilient’ and did not. While the sources of resilience appeared to be related to personal characteristics (for example, positive temperament and self-esteem and a high degree of sociability), the resilient children:

- had the opportunity to establish a close bond with at least one caretaker (grandparent, older sibling) who gave them positive attention in the early years
- found a supportive role model
- relied on informal rather than formal sources of support: it was ‘kith and kin’ rather than the professional and social service agencies that were more important (Werner 1996).

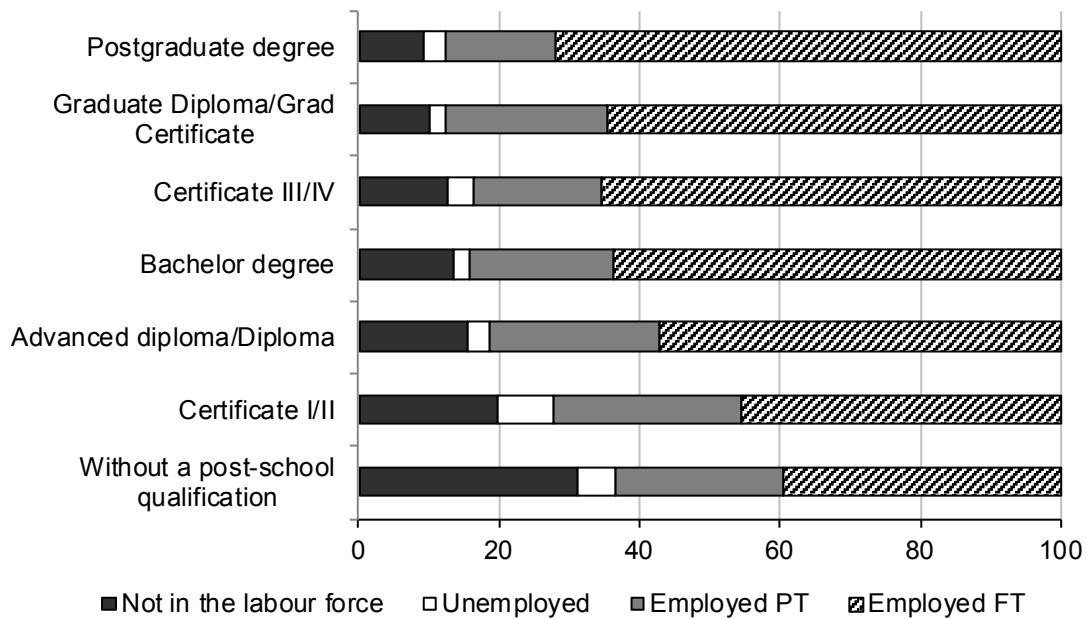
And, as mentioned earlier, evidence suggests that the effects of individual risk and protective factors in isolation are modest and what distinguishes high-risk children from other children is not exposure to a specific risk factor, but rather a life history characterised by multiple familial disadvantages that span social and economic disadvantage (impaired parenting, neglectful and abusive home environments, marital conflict, family instability, family violence and high exposure to adverse family life events (Fergusson and Horwood 2003; Melchoir et al. 2007). But again, the relationship is not deterministic.

4.3 Beyond school

Students leave school with different capabilities and this affects their transition to higher education and work. These differences can widen over time as better educated students take up further study and/or enter the workforce (and continue to develop skills). Students with weak basic qualifications are less likely to continue learning and developing skills over their lifetime. While skills are considered the global currency of 21st-century economies, this currency can depreciate if individuals do not use their skills (OECD 2012b).

It is well established that higher qualifications are strongly associated with better employment outcomes. Australians without post-school qualifications, or with basic post-school qualifications such as Certificates I and II, are more likely to be unemployed or not in the labour force compared to those with higher qualifications (figure 4.5).

Figure 4.5 Labour force status by qualification, 2012
Per cent

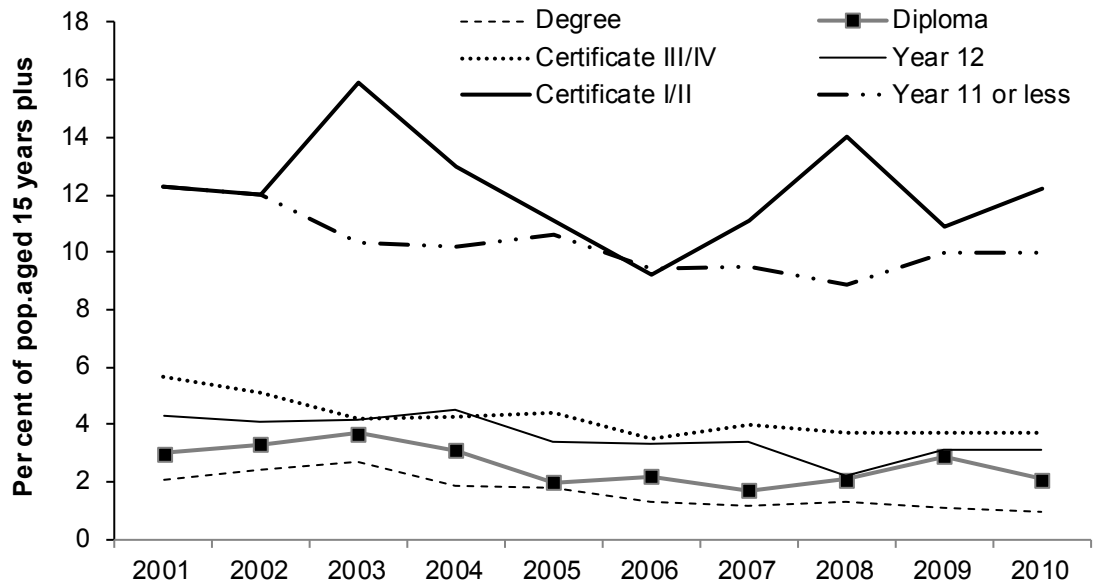


Data source: ABS (2012c), *Education and Work, Australia*, Cat no. 6227.0.

Low levels of education and skills are also strongly linked to social exclusion. Over the period 2001 to 2010, the prevalence of exclusion among those with less than Year 12 was almost three times the rate of those who had completed Year 12. Australians with less than Year 12 qualifications also have a higher risk of experiencing deep exclusion (figure 4.6, Azpitarte 2012b).

Young people with minimal qualifications and little or no training or experience can find it difficult to enter the labour market and secure permanent employment. This is particularly the case in more difficult economic times, and during such times they can also be among the first to lose their job.

Figure 4.6 Deep social exclusion by education attainment



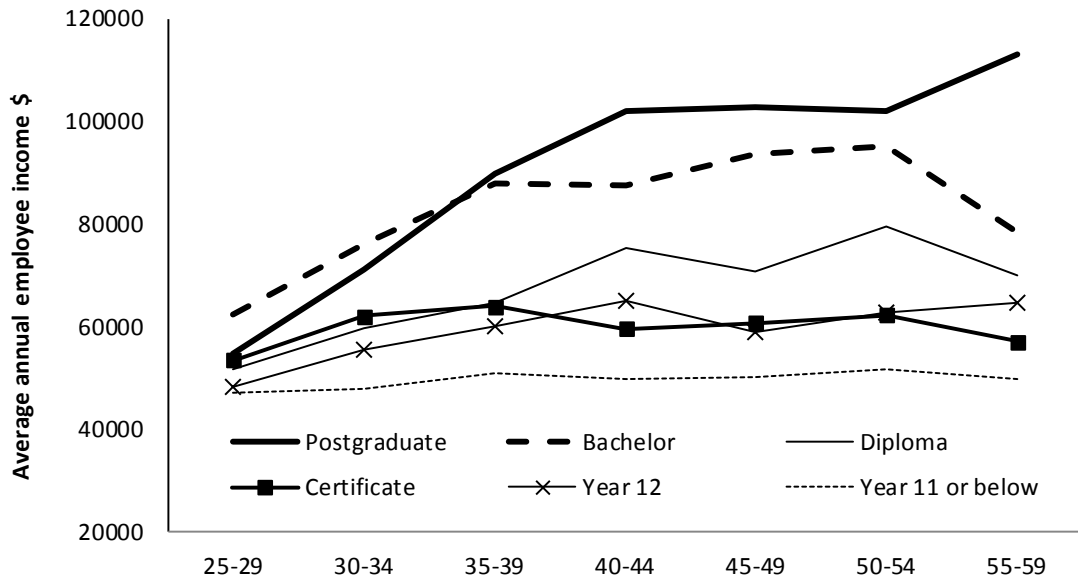
Data source: Azpitarte (2012b).

Just over 81 per cent of young Australians (15-24 years) were fully engaged in education or training and/or work in 2012 (ABS 2012c). Analysis based on 2009 data shows that of those young people not fully engaged in education, training and/or work, 47 per cent had not completed Year 12, 29 per cent were living in areas belonging to the lowest quintile of relative socioeconomic disadvantage and 15 per cent were mothers (ABS 2010c).

In Australia, and in many OECD countries, youth unemployment rates (for 15-24 year olds) are about twice those for the population as a whole. Spells of unemployment or joblessness when young, particularly if for longer periods, carry the risk of lasting effects on earnings and employment (known as scarring) — particularly when the person also has other characteristics that place them at risk of disadvantage (OECD 2012d). The experience of unemployment may also reduce the incentive to search for work.

Early school leavers are also likely to have lower paid jobs than those with Year 12 and higher education (figure 4.7).

Figure 4.7 **Average annual employee income of Australians of working age, 25-59 years, 2011-12**



Sources: Cassells et al. (2012), NATSEM calculations from 2009-10 Survey of Income and Housing, Basic Confidentialised Unit Record.

Average annual income data presented in a recent AMP.NATSEM Income and Wealth Report (Cassells et al. 2012) shows that:

- early in their working life, Australians with a Bachelor Degree earn more annually than all other education categories
- the gap between those with a higher education qualifications and those with lower education outcomes continues to widen across the life cycle, with the earnings of Australians with a Postgraduate degree overtaking those with a Bachelor degree at around 35-39 years
- the earning gap widens in the 40s and early 50s, with more educated people experiencing a steep income growth trajectory as they advance in their professional careers
- average salaries of those with low educational attainment increase only marginally over their working life.

Cassells et al. (2012) estimated that a person with a postgraduate degree will earn almost 1.8 times the projected lifetime earnings of a person with Year 11 or less education.

Education and intergenerational mobility

Access to and participation in higher education can increase life opportunities, particularly for children from low socioeconomic backgrounds, but as d’Addio (2007, p. 4) said ‘educational differences tend to persist across generations’. Defining social and intergenerational mobility, d’Addio said:

Social mobility refers to the extent to which, in a given society, individuals’ social status changes either within the life-course (intra-generational) or across generations (intergenerational). Intergenerational mobility — which implies the simultaneous consideration of the position of parents and their offspring in society — is therefore only one aspect of social mobility. (p. 12)

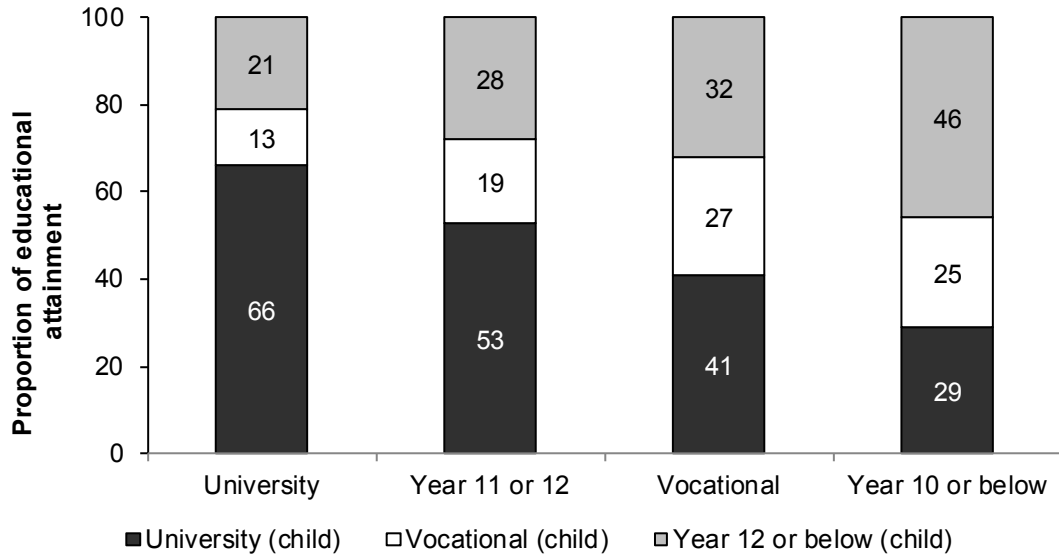
While the proportion of young Australians (20 to 24 years) with Year 12 qualifications has increased over the last decade (from 71 per cent in 2001 to 78 per cent in 2010), students for which both parents/guardians have Year 12 qualifications continue to be more likely to complete Year 12 (90 per cent), than those with only one or neither parent/guardian having attained Year 12 (78 and 68 per cent respectively) (ABS 2011a).

Students in non-metropolitan areas have lower rates of Year 12 attainment. In 2010, 81 per cent of young adults aged 20 to 24 years from major cities attained Year 12, compared to 67 per cent of students from inner or outer regional areas and 64 per cent from remote or very remote areas. Indigenous Australians have much lower rates of Year 12 retention (around one-third) when compared with non-Indigenous Australians (ABS 2011a).

University access rates for students from low socioeconomic backgrounds are also less than half those for students from high socioeconomic backgrounds. HILDA data show that in 2009, 15 per cent of university students aged 18-25 years enrolled in a bachelor degree were from a low SES background. The proportion of high SES students was around 44 per cent for all enrollees (Cassells et al. 2011).

Also, a person whose father has achieved a university degree is much more likely to go on to university — 66 per cent compared to 29 per cent for those whose father only obtained Year 10 or below (figure 4.8). Similar patterns emerged for sons and daughters, but daughters were found to be more likely to hold a university degree than sons across all levels of father educational attainment (sons were more likely to hold a vocational qualification than daughters).

Figure 4.8 **Highest educational attainment of Australians aged 30-44 years, by highest educational attainment of father^a**



^a Educational attainment of father is the educational attainment of the father when the child was aged 14 years. Where the father was not living in the household at age 14, the mother's education level was used.

Data source: Cassells et al. (2011), based on HILDA.

International comparisons undertaken by the OECD indicate that on average across OECD countries, young people from families with low levels of education in 2009 were less than one-half (odds of 0.44) as likely to be in higher education, compared to the proportion of such families in the population. For Australia, the corresponding odds of being in higher education for someone whose parents had low educational attainment was similar at 0.47 (OECD 2012e).

While some of the gap in educational attainment of students from different backgrounds reflects differences that emerged during the early years and continued (or widened) during the school years, it may also reflect that young people from lower socioeconomic families have lower aspirations for themselves. Corak (2006), on reviewing the evidence on intergenerational transmission of disadvantage across a number of countries, concluded that:

... the capacity of children to become self-sufficient and successful adults is compromised not only by monetary poverty, but by poverty of experience, influence, and expectation. This argument calls for broader thinking on the mechanisms and causes of generational mobility, and well may draw public policy into areas of social and labour market policies that touch on the functioning of families. (pp. 32-33)

There is also evidence to show that there is some intergenerational transmission of income (box 4.7). For example, Leigh (2007) found that, compared to sons with fathers in higher earnings quintiles, there was a slightly higher tendency for sons of low-income fathers to remain at the father's level of income and a lower tendency to move to the highest quintile.

Comparing the earnings of Australians aged 30-44 years, based on the highest educational attainment of father (when the 30-44 year olds were 14 years of age), Cassells et al. (2011) found a clear pattern of higher earnings for individuals whose father had achieved higher education levels. Comparing the occupational attainment of children with the occupation of their fathers also shows that those whose father was in a higher status occupation are more likely to be in occupations associated with higher SES. Over half those whose father was a manager or professional were employed in high status occupational categories, compared with less than 30 per cent of those whose father was in the lowest status occupations.

Welfare dependence

There is limited evidence to suggest that young Australians raised in families receiving income support have a higher probability of receiving income support (compared to other young people) in the transition period from education to work. For example, Pech and McCoull (2000) found that:

- over 40 per cent of young Australians whose parents were the most reliant on income support received income support during the year they turned 18 (compared with less than 15 per cent of those whose parents received the least income support). Most of the income support to the young Australians was unemployment benefits and was short-term in nature
- just under 7 per cent of young people experienced high or maximum income support dependence between their 16th and 19th birthdays. Also a gradient was evident based on the extent to which the young person's parents received income support — from around 2 per cent of young people whose parents received the least income support to just under 17 per cent for those whose parents received the most income support.

This study, however, only covers a stage of transition from dependency on the family to economic independence (between 16 and 19 years). Further research is required to ascertain the extent to which the findings are sustained as young people enter adulthood.

Box 4.7 Intergenerational transmission of income

An Australian study (Leigh 2007) looking at the extent to which a son's earnings reflects his father's predicted earnings, found that:

- 27 per cent of sons born in the lowest earnings quintile were in the lowest quintile
- 12 per cent had moved from the bottom to the top quintile.

Compared to sons with fathers in higher earnings quintiles, there was a slightly higher tendency for sons of low income fathers to remain at the level of their father's income (except for sons of the highest earning fathers who had a higher probability of remaining at that level) and a lower tendency for them to migrate to the highest quintile.

Table 4.2 Son's earnings compared with father's earnings

		<i>Father's Earnings Quintile</i>					
		1	2	3	4	5	Total
Son's Earnings Quintile	1	26.52	18.24	15.65	18.16	17.17	19.15
	2	19.45	23.95	18.98	19.85	16.65	19.80
	3	18.87	22.57	27.18	17.96	14.81	20.34
	4	23.39	18.63	18.34	19.22	22.97	20.51
	5	11.76	16.60	19.84	24.82	28.39	20.21
<i>Total</i>		<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>

^a Father's earnings are predicted hourly wages for a 40 year old in that occupation.

Source: Leigh (2007).

In a comparative country study, d'Addio (2007) found that around 25 to 30 per cent of sons remained in the same lowest quintile as their father with the exception of the United States where more than 40 per cent remained in the same lowest quintile (table 4.3). While care should be taken with international comparisons (due to methodological and data differences between countries) it appears that the extent of intergenerational transmission of income in Australia for the lowest earning quintiles (table 4.2) is not substantially different from the four European countries but is less than that in the United States and less than for the top quintiles in the selected countries (table 4.3).

Table 4.3 Intergenerational mobility across the earnings distribution

Probability of a son being in the same quintile as his father

	<i>Denmark</i>	<i>Finland</i>	<i>Norway</i>	<i>Sweden</i>	<i>United Kingdom</i>	<i>United States</i>
1 st Quintile	0.247	0.278	0.282	0.262	0.297	0.422
2 nd Quintile	0.249	0.216	0.238	0.225	0.228	0.283
3 rd Quintile	0.224	0.219	0.215	0.223	0.188	0.256
4 th Quintile	0.223	0.229	0.221	0.217	0.247	0.252
5 th Quintile	0.363	0.347	0.354	0.374	0.346	0.360

^a Based on the diagonal of the transition matrices estimated by Jantti et al. (2006).

Source: d'Addio (2007).

Children living in jobless households may lack a role model for encouraging aspirations for participating in work. The ‘Life Around Here Study’, a study of households in suburbs identified as being socially and economically disadvantaged (Broadmeadows in Melbourne, Mansfield in Adelaide and Carole Park in Brisbane), found that high levels of unemployment in these areas (36 of the 59 participating households did not have any adults employed at the time of the interviews), meant that there were few positive models around to assist with people moving into and maintaining employment (Hand et al. 2011).

Cobb-Clarke (2010), drawing on data from the Youth in Focus Project, compared average outcomes for 18 year olds in families that had never accessed the income support system to those 18 year olds in families receiving intensive income support. She found that young people in families with a history of intensive income support were less likely to be studying or attending university. They were also more likely to take health risks (smoking, drinking, illicit drug use), social risks (running away, coming into contact with police/courts) and to have health problems (asthma, depression). Cobb-Clarke concluded that:

Taken together, the results paint a clear picture of the link between socioeconomic disadvantage on the one hand, and poorer education and health outcomes and more risky behaviour on the other. Young Australians growing up in disadvantage do not begin adulthood with the same characteristics and life chances as those who do not. (p. 15)

4.4 The importance of employment

Joblessness increases the risk of disadvantage

Economic growth is the basis for increasing living standards and employment opportunities for Australians (box 4.8). People’s material standard of living is largely determined by their access to economic resources (income and wealth). Unemployment and joblessness more generally denies people access to an important income stream (with the attendant risk of entering into income poverty), reduces social status, and constrains engagement in meaningful activities.

While individuals’ circumstances vary, unemployment and joblessness increases the risk of economic hardship, particularly when people are relying largely on government support payments. The Newstart allowance for a single person with no children was \$244.85 a week (or \$12 766 a year) at the end of 2012. Average earnings for employed Australians (both full and part time) were \$1080 per week in November 2012 (equivalent to \$56 160 per year) (ABS 2013a).

Box 4.8 **Economic growth, living standards and job opportunities**

Economic growth plays a critical role in improving living standards and employment and educational opportunities for Australians. Over the two decades to 2012 the Australian economy has performed strongly:

- the size of the Australian economy, as measured by Gross Domestic Product (GDP), doubled (from \$186 billion to \$370 billion)
- income (GDP) per capita increased by 50 per cent
- 3.9 million more Australians became employed (reflecting both a growth in the population and an increase in the labour force participation rate)
- the unemployment rate halved from 10.8 per cent (December 1992) to 5.4 per cent (December 2012)
- the share of the unemployed that are 'long-term unemployed' fell from 35 per cent to 19 per cent.

The OECD (2012f), commenting on Australia's performance, said:

With 21 years of uninterrupted growth Australia stands out among OECD countries. (p. 13)

Over the period 1988-89 to 2009-10, individual labour earnings increased by around 38 per cent on average, while 'equivalised' final household incomes (also including direct government payments, government funded services and taxes and taking into account household size and composition) increased by 64 per cent (Greenville, Pobke and Rogers 2013). Real income growth in Australia occurred 'across the board' — that is, for the lowest to highest income groups. The rate of growth, however, was higher at the 'top end' of the distribution than the 'bottom end'.

More Australians are taking up higher education opportunities. Over the period from 1991 to 2012 the proportion of Australians aged 15 to 64 years with:

- post-school qualifications increased from 41.7 per cent to 58.8 per cent
- at least a bachelors degree increased from 9.6 per cent to 25.4 per cent.

Life expectancy in Australia is among the highest in the world and it continues to improve. Since 1990, life expectancy for Australian men has increased by 6 years and 4 years for Australian women. A boy born in Australia today can expect to live an average of 79.7 years; a girl 84.2 years.

Sources: ABS (2013b, *Australian National Accounts*, cat. no. 5206.0); ABS (2013c, *Labour Force, Australia*, cat. no. 6202.0); ABS (2012c, *Education and Work*, cat. no. 6227.0); ABS (2012d *Deaths, Australia*, cat. no. 3302); OECD (2012f); Greenville, Pobke and Rogers (2013).

The rates of income poverty, deprivation and social exclusion are high among the unemployed and jobless households (table 3.8, appendix A). For example, in 2010, more than 30 per cent of the unemployed experienced deep social exclusion.

The evidence shows that job loss and decreased earnings are disadvantage triggers.

- Smith and Middleton's (2007) review of poverty dynamic research in the United Kingdom found that job loss dominated as the key poverty trigger, with a decrease in earnings being the next most common trigger. Labour market events were found to be the main poverty trigger for men, while for women both labour market and relationship changes were triggers (reflecting the fact that divorce and separation are more likely to trigger poverty for women than men, section 4.6).
- Bane and Ellwood (1986), using United States data, found that earning changes accounted for about half of all poverty spells.

Long-term unemployment and joblessness

Long-term unemployment and joblessness are of most concern to policy makers because of the costs they impose on individuals, families, and society (chapter 5). People who are out of work for long periods of time often suffer a number of detrimental impacts, including economic hardship, and in particular reduced capacity to cover housing costs (which typically make up a large share of household budgets). In the absence of affordable housing it can be difficult for a person to find and hold down a job or engage in education or become part of the local community.

Most Australians who become unemployed do not remain so for long. The median duration of unemployment in Australia in 2012 was 14 weeks (ABS 2013c). The long-term unemployment rate in December 2012 was 0.7 per cent and the very long-term unemployment rate was 0.4 per cent. Australia has a relatively low long-term unemployment rate compared with many OECD countries (OECD 2012f).

In terms of persistence of long-term joblessness, HILDA survey data show that:

- just over 14 per cent of Australians under 65 years were in a jobless household for one or two years over the period 2001 to 2009 and almost 3 per cent were in a jobless household all nine years
- one fifth of households were job-poor (households where total usual hours of work are less than 35 hours per week) for one to two years, and just over 6 per cent were job-poor for all nine years (table 4.4).

Table 4.4 Years in jobless/job-poor household, 2001 to 2009
Per cent

Number of years	Children ^b					
	All persons ^a		Jobless		Job-poor	
	Jobless ^c	Job-poor ^d	Couple	Lone parent	Couple	Lone parent
0	70.8	52.5	77.6	38.0	62.0	14.0
1-2	14.2	20.0	14.0	15.4	19.1	13.8
3-4	5.4	8.5	2.9	15.6	6.0	15.1
5-8	6.8	12.7	4.2	25.9	96.8	35.2
9	2.8	6.3	1.3	5.1	3.2	21.9
Total	100	100	100	100	100	100

^a All persons comprise those aged 0-64 for the entire nine year period (i.e. aged 0-56 in 2001). ^b Children comprise those under the age of 18 years for the entire nine-year period (i.e. aged 0-9 in 2001) and are classified according to their household type in 2009. ^c No household member was in paid employment (or on paid leave from employment) at the time of interview. ^d A household where total usual hours of paid work of all household members combined are less than 35 hours per week.

Source: Azpitarte 2012b)

Long-term unemployed Australians are more likely than those unemployed for a short period to have lost their job (through being laid off, retrenched, or because the job was temporary or seasonal) rather than having left it voluntarily. Of the long-term unemployed, 72 per cent had lost their job. This compares with 57 per cent of the short-term unemployed having lost their last job (ABS 2011b).

The persistence of unemployment (or joblessness) can result in scarring, where an individual loses skills, self-confidence and workplace and social networks, which can further entrench them in disadvantage. As Sen (2000) put it:

People not only ‘learn by doing’, they also ‘unlearn’ by ‘not doing’, that is, by being out of work and out of practice. Also, in addition to the depreciation of skill through nonpractice, unemployment may generate loss of cognitive abilities as a result of the unemployed person’s loss of confidence and sense of control. In so far as this leads to the emergence of a less skilled group — with merely a memory of good skill — there is a phenomenon here that can lead to a future social exclusion from the job market. (p. 19)

The probability of exiting unemployment (like disadvantage) declines with the time spent in unemployment — a phenomenon known as *negative duration dependence*. Unemployed job seekers with high levels of employability tend to find jobs more quickly, but those that experience longer spells of unemployment become less attractive to employers which contributes to the loss of skills and disconnection from the labour market (OECD 2012b, 2012d).

People who are unemployed for extended periods of time can move from long-term unemployment to long-term joblessness as they become discouraged job seekers. There were around 90 000 discouraged job seekers in 2012 — around one-third in each of the age groups (15-44 years, 45-64 years and 65 years and over). While the main reason given by older workers (55 years and over) for not seeking work was that they were considered too old by employers, younger discouraged job seekers (aged 15-44) said it was because they lacked necessary schooling, training, skills or experience or there was a lack of jobs in their locality or line of work (ABS 2012e).

While poor health can affect a person's prospects of work (section 4.5), there is a body of evidence that shows being unemployed negatively affects an adult's physical and mental health, relationships and life satisfaction (Kessler, Turner and House 1987; Mathers and Schofield 1998). So while the time a person remains unemployed could reflect their poor health, the financial and psychological stress of unemployment could also contribute to their poor health (chapter 5). Reflecting this relationship, the National Health Survey shows, for example, that the long-term unemployed were four times as likely as employed people to say that their health was only fair or poor and almost three times as likely to have mental or behavioural problems (ABS 2011b).

Occupations and employment opportunities

The choice of occupation can influence the risk of not been in the labour force and the risk of experiencing recurrent or persistent disadvantage. Lattimore (2007), in a study on *Men Not At Work*, found that men with manual skills have a higher risk than average of being outside the labour force. This was thought to reflect:

- greater exposure to injury in occupations involving manual work
- reduced options for mobility to other occupations given educational background
- lower incentives to work given a smaller gap between wages and welfare alternatives
- their higher likelihood of entering unemployment.

There are less employment opportunities available today for low-skilled men than there were fifteen years ago (box 4.9).

Many of the low-skilled jobs available for men today are casual which is in contrast to more skilled occupations. In 2012, 44 per cent of male labourers and 22 per cent of male machinery operators and drivers were employed on a casual basis. This compares with 6 per cent of male managers, 8 per cent of male professionals and just under 15 per cent of male technicians and trade workers (ABS 2012f).

Box 4.9 Demand for unskilled workers has been falling

Structural change resulting from technological change and increased international competition has resulted in a shift in employment away from traditional industries such as manufacturing and agriculture to service industries. This has contributed to a relative decline in demand for unskilled labour, particularly in unskilled male dominated jobs. In the early 1980s, three-quarters of unskilled men had full-time jobs, today fewer than 60 per cent do.

Less educated and low skilled men are likely to have lower paid jobs in occupations such as labouring, machinery operating and driving. Together these occupation groups accounted for less than 8 per cent of all jobs created in the fifteen years to May 2012. In aggregate, labouring jobs increased by 125 000 in the past decade and a half while machinery operator and driving jobs increased by 120 000. These increases are dwarfed by the growth in professional jobs (up 1.1 million) and managers (up 511 000). The increase in labouring jobs for men in this period was the result of an increase of 75 000 part-time jobs and a 10 000 decline in full-time jobs.

In terms of the less skilled female workforce there has been strong growth in the number of community and personal workers — up 315 000 in the past 15 years (or over 70 per cent of all jobs growth in this occupation grouping). Just over half (55 per cent) of these jobs were located in health care and social assistance. Women also accounted for over 70 per cent of growth in sales jobs (which in total grew by 179 000).

Source: ABS (2012b) Labour Force Survey.

Casual workers are also less likely to have regular hours of work each week. In 2012, 55 per cent of casual employees reported earnings that varied from one week to the next and 58 per cent were not guaranteed a minimum number of hours per week (ABS 2012f). Fluctuations in weekly pay can make it difficult for people to meet weekly household expenses and to secure loans and build up superannuation. Buddlemeyer, Wooden, Ghantous (2006) found that almost one-half of all casual workers in Australia progressed to non-casual employment within three years.

Tomlinson and Walker (2010), in a study using British Household Panel Survey data, found that after taking education into account, occupational classes with higher skills were less likely to experience recurrent income poverty. Professionals, managers and other white collar administrative workers were among the most protected. Skilled blue collar workers, however, did not appear to be any more protected against recurrent poverty than unskilled workers or people in sales and customers service occupations.

Unemployment, joblessness, housing stress and homelessness

Because it reduces the ability of people to support themselves, lack of paid work is associated with housing stress and, at the extreme, homelessness (box 4.10). Not being able to pay the rent is a primary cause of eviction. Housing stress is more prevalent among households where the main source of income is either the Newstart Allowance or the job seeker Youth Allowance — just over 49 per cent of these households pay more than 30 per cent of their disposable income on housing, compared with 22 per cent for all households (Phillips and Nepal 2012).

The housing conditions in which people live, and the security of those living arrangements, can influence their health and wellbeing. Relationship breakdowns, the experience of trauma, poor mental health and addictions can also be factors that lead to deteriorating living conditions, including homelessness (box 4.10).

Overcrowding can have an impact on health, family violence and educational performance (Harker 2006; Social Care Institute for Excellence 2005). The disruption resulting from housing instability and homelessness can also mean that children frequently move between schools or miss out on schooling. As the Australian Social Inclusion Board (2011) said:

Inadequate, insecure or inappropriate housing, or at its most extreme, homelessness, is a major factor both underpinning and entrenching a cycle of disadvantage. Having a place to call home is almost undoubtedly the most important factor in people's daily lives; with this in place it becomes possible to develop other aspects of life. Conversely, without a home, or while in insecure or marginal housing situations, it is difficult for these other aspects to be attended to. (p. 32)

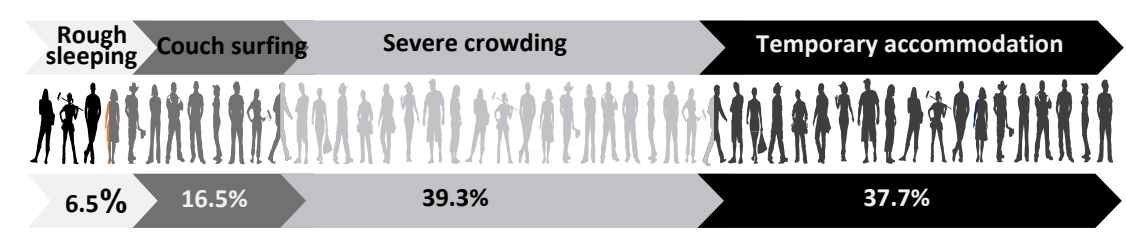
The Journeys Home (JH) survey (a longitudinal survey of homelessness in Australia, box 3.1), found that JH respondents had much lower levels of education on average, were less likely to be employed than the general population and had much longer income support histories (table 4.5). The incidence of mental illness (table 4.5) was found to be higher than that of the general population and smoking, drinking at 'risky' levels and drug use were more widespread (Scutella et al. 2012, Chigavazira et al. 2013).

Box 4.10 Some background facts about homelessness

On Census night 2011, there were 105 237 homeless Australians. The ABS definition of homelessness is informed by an understanding of homelessness as 'home' lessness, not rooflessness. The elements include: a sense of security, stability, privacy, safety and the ability to control living space.

Australians living in severely crowded dwellings represent the most common type of homelessness. Rough sleepers (people living in improvised dwellings, tents or sleeping out) account for around 7 per cent of homeless Australians (figure 4.9).

Figure 4.9 Proportion of homelessness by type, 2011



Data source: COAG Reform Council (2013).

A specific event — such as domestic violence or being evicted from stable housing — can trigger homelessness. For some people homelessness is a result of considerable personal disadvantage over a considerable period of time, including poverty, long-term unemployment, poor education, mental health problems, disability and substance abuse. Long-term homelessness often has its roots in adverse childhood experiences (Johnson et al. 2011; Lamont 2010; box 4.2).

Specialist homelessness agencies provided assistance to almost 230 000 clients (equivalent to 1 in 98 Australians) in 2011-12 (AIHW 2012b). Fifty-nine per cent of clients were female. Women aged 18-34 were the group most likely to access specialist homelessness services (37 per cent of all clients). Children aged 0-17 accounted for 29 per cent of all clients (while representing 23 per cent of the population).

The *main* reason clients gave for seeking homeless services were:

- domestic/family violence (25 per cent of clients, 34 per cent of females)
- financial difficulties (15 per cent)
- housing crisis (13 per cent)
- inadequate or inappropriate dwelling conditions (10 per cent).

Sources: ABS (2012g, 2012h); AIHW (2012b); COAG Reform Council (2013).

Table 4.5 Journeys home respondents – labour force status and incidence of mental health

	<i>JH Wave 1</i>	<i>JH Wave 2</i>	<i>Australian Population</i>
<i>Labour force status</i>			
Employed	20.0	24.3	62.6
Unemployed	29.9	25.4	3.4
Not in labour force	50.1	50.3	34.0
<i>Incidence of mental health</i>			
Bi-polar effective disorder	10.9	12.2	2.9
Schizophrenia	8.9	9.8	n.a.
Depression	53.5	57.5	11.6
Post-traumatic stress disorder	19.7	22.1	12.2
Anxiety disorder	41.3	45.5	26.3

Source: Chigavazira et al. (2012).

Respondents to this survey reported that relationship and family breakdowns were the leading trigger for the first instance of homelessness. Other triggers included:

- domestic and family violence or abuse
- financial difficulties
- problematic drug or substance use.

There is also some evidence of persistent homelessness. Almost 40 per cent of JH respondents reported been homeless at some stage between their wave 1 and wave 2 interviews. In wave 1, almost half of the JH respondents reported that they had spent at least one year homeless in their life and 23 per cent had spent four or more years homeless. People who had first experienced homelessness at a young age were more likely to experience persistent homelessness (half of the participants had their first experience of homelessness under the age of 18 and just under three-quarters had their first experience before 25 years). Scutella et al. said:

Those exposed to homelessness for the longest periods were the most likely to have had adverse childhood experiences such as being exposed to violence or abuse, having been placed into State care and child protection systems or have experienced poverty in childhood, than those with shorter homeless durations. In contrast, ... those never homeless or homeless for short periods tended to have stronger relationships with their families. (p. 3)

Employment — a way out of disadvantage

Employment is a key trigger for leaving disadvantage. Smith and Middleton (2007), on reviewing the United Kingdom literature on poverty dynamics, concluded that:

The single most common event to trigger an exit from poverty is an increase in the household head's earnings, including movement from unemployment to employment or increases in working hours or pay. Increases in the earnings of other household members are also important.

And:

Employment is also the most robust factor for keeping people out of poverty. (p. 10)

Likewise, Bane and Ellwood (1986), using United States data, found that over one-half of poverty spells ended when the household head's earnings increased. They also found that secondary earners can play a critical role in family's escaping poverty — over 20 per cent of all spells of poverty ended with changes in other household members. Bane and Ellwood said:

Overall ... although earnings changes of some sort account for only half of all beginnings, they explain 75 per cent of all endings. ... except for an increase in transfer payments of some sort, for most families the only route out of poverty must be through the earnings of one or more of its members. (p. 20)

Income poverty rates also point to the importance of employment in keeping people out of disadvantage.

- Less than 4 per cent of Australians employed full-time and 17 per cent employed part-time experienced income poverty in 2010 (compared with 63 per cent of those unemployed) (appendix A, table A.1).
- Across OECD countries in the mid-2000s, among those in a household with a head of working age, households where no one worked had an income poverty rate that was on average almost three times higher than those living in households with one worker, and 12 times higher than households with two or more workers (OECD 2008).

But while paid employment can be a route out of a state of disadvantage, it does not guarantee an absence of recurrent disadvantage as some jobs, particularly low-skilled jobs, are low-paid and hours of available work not assured.

Living in a job-poor household is experienced by more people, and appears to be more likely to be long term than joblessness. HILDA Survey data show that 28 per cent of Australians (aged 0 to 64 years) lived in a job poor household for three or more years and around 6 per cent for all nine years (over the period 2001 to 2009) (table 4.4).

Similarly, Tomlinson and Walker (2010) found that in the United Kingdom people occupying the lower segments of the labour market were the most prone to experiencing the low-pay-no-pay cycle (working in what could be defined as a

peripheral or unstable labour market). However, those employed in low-skilled jobs or in the peripheral labour market were found to be less at risk of recurrent poverty than people who were unemployed or economically inactive. Securing a position in the core labour market was found to be more important in providing protection against recurrent poverty than moving from unemployment into a job in the peripheral (or unstable) labour market. Also, the opportunities presented by the labour market were as important as, and often more important than, personal attributes and circumstances in determining the risk of recurrent poverty. Tomlinson and Walker (2010) concluded that:

Policies that simply encourage people to find work, without paying attention to the kinds of jobs that are available, cannot secure a marked reduction in recurrent poverty or a sustained decline in the poverty rate. The analysis underlines the importance of seeking to ensure the availability of high-quality jobs offering security and prospects as well as policies that foster job search and improved skills. (p. 30)

At the same time, it needs to be recognised that some people face significant limitations in relation to gaining and retaining paid work. Around 80 per cent of all Australians over the age of 25 years progress past Year 10, compared to two-thirds of people with a disability and half of those with severe or profound core activity limitations (PC 2011c). Other people have personal barriers (for example, family and caring responsibilities) which mean that they are unable to be fully, or even partially, engaged in paid employment. Some people have greater difficulty securing and retaining employment as a consequence of drug or alcohol addictions or periods of imprisonment.

While policies are increasingly recognising the need to do more to overcome such limitations (for example, by assisting people with disabilities or caring responsibilities to engage more fully in work), there remain real limitations for some people. This issue as it relates to poor health and disability is discussed in more detail in the next section.

4.5 Poor health, disability and disadvantage

People with long-term health conditions are one of the groups most likely to experience deep and persistent disadvantage (chapter 3). Equally, disadvantage can lead to poor health. The evidence shows a positive relationship between socioeconomic status and one's health. On reviewing the literature, Evans, Wolfe and Adler (2012) said:

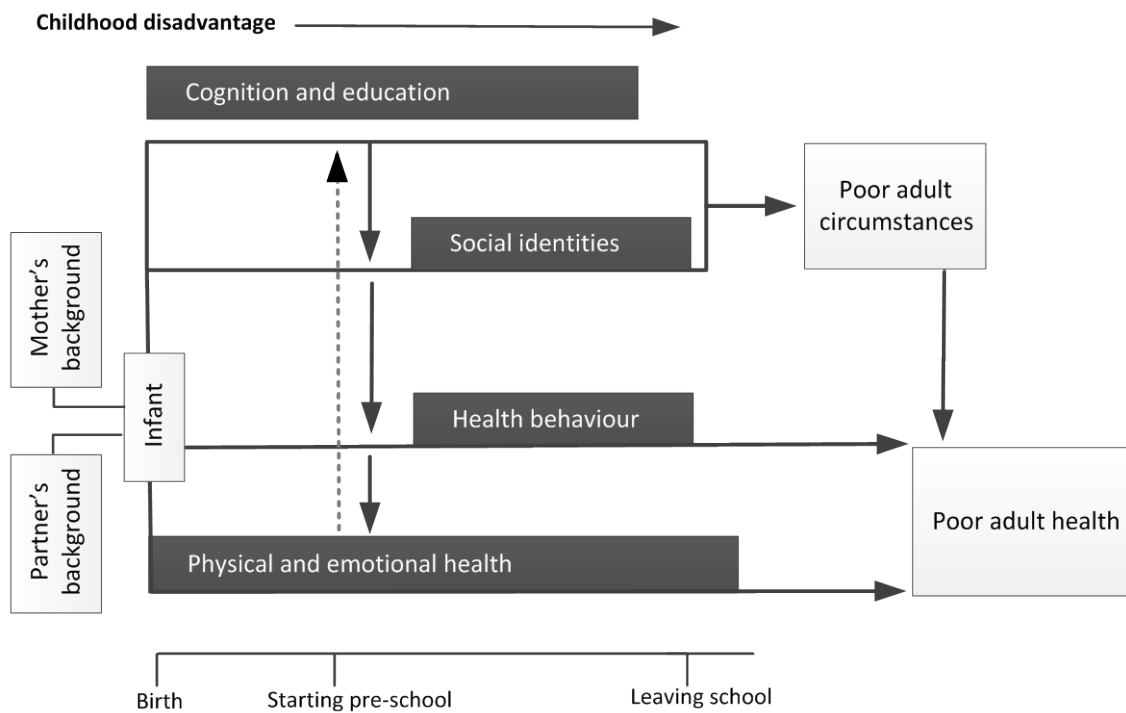
Literally thousands of papers document the SES-health gradient. These studies use different samples, outcomes, measures of SES, and statistical methods and over very different periods. (p. 3)

There is some evidence to show that disadvantage in childhood influences health in adulthood through a set of interlocking processes. As Graham and Power (2004) said:

While the evidence is both incomplete and complex, it suggests that links between childhood disadvantage and poor adult health can be broken down into their constituent elements: poor childhood circumstances, a set of interlocking child-to-adult health, poor adult circumstances and poor adult health. (p. 675)

Figure 4.10 captures these elements and provides a framework for linking childhood circumstances to adult health and the development of health behaviours.

Figure 4.10 **Lifecourse framework linking childhood disadvantage to poor adult health**



Source: Graham and Power (2004).

As discussed earlier, disadvantage can have an influence before birth (including through poor nutrition and substance effects on foetal development). An Australian birth cohort study (Brown et al. 2011) found that low birth weight was related to maternal stressful events, which were in turn associated with mothers' social health characteristics (including being less than 25 years of age; being single, divorced or widowed; having less than Year 12 school qualifications; having lower than average equivalised income; smoking during pregnancy; being underweight; and being Indigenous). Parents education and health behaviours also shape children's health behaviours.

A study undertaken by NATSEM (Brown and Nepal 2010, p. vii), using data from the HILDA Survey, found that 'household income, level of education, household employment, housing tenure and social connectedness matter when it comes to health'. Some of the findings included:

- those who are most socioeconomically disadvantaged are twice as likely as those who are least disadvantaged to have a long-term health condition
- around 45 to 65 per cent of Australians living in public rental accommodation have long-term health problems compared to 15-35 per cent of homeowners
- education and housing tenure are the two socioeconomic indicators that are consistently related to rates of obesity.

There are also gaps in life expectancy across demographic and socioeconomic groups. The gap between Indigenous and non-Indigenous life expectancy at birth is around 12 years for males and 10 years for females (SCRGSP 2013).

The onset of poor health and disability can happen to anyone, regardless of education, employment or wealth. And the onset of poor health, an accident or illness resulting in disability, or the birth of a child with a disability, can be a trigger event for disadvantage. The absence of good health can affect many aspects of an individual's life. As the OECD (2011b) said:

Being healthy is one of the most valued aspects of people's lives, and one that affects the probability of having a job, earning an adequate income, and actively participating in a range of valued social activities. (p. 103)

The Commission's report on *Disability Care and Support* found that people with disabilities and their carers, as a group, are among the most disadvantaged in Australia (PC 2011c). Disadvantage for this group manifests itself through poor financial status and social isolation, as well as lower personal wellbeing. In 2010:

- 42 per cent of people in households receiving the Disability Support Pension were estimated to be living in income poverty (ACOSS 2012)

-
- the rate of multiple deprivation of those whose main source of income was the Disability Support Pension was 43 per cent (this compares to an average for all Australian households of 15 per cent) (Saunders and Wong 2012)
 - almost half of all Australians who have a long-term health condition or disability experienced some form of social exclusion, and about 13 per cent experienced deep exclusion (Azpitarte 2012b; table 3.8).

Buddelmeyer and Verick (2007), using four waves of HILDA data, found that if the household head had a long-term health problem or disability, the conditional probability of both entry to poverty and persistent poverty were higher. Azpitarte (2012b) also found that the expected duration of spells of income poverty and social exclusion experienced by people with disabilities or long-term health conditions at be least one year more for people without such conditions. Azpitarte (2012a) said:

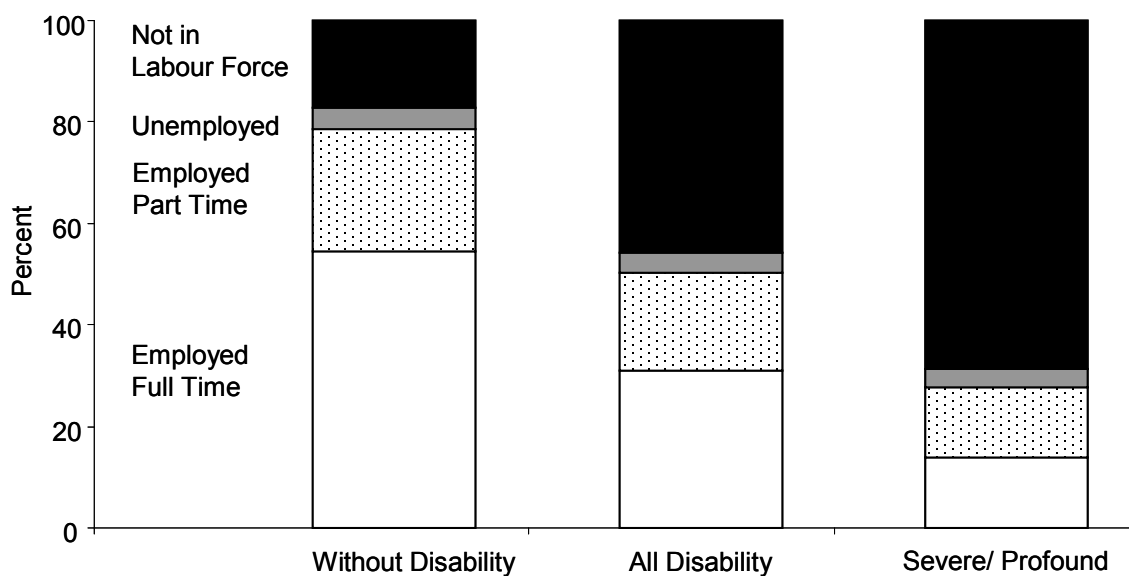
Disabilities and poor health are factors that may affect the opportunity of individuals to benefit from economic growth. We find that the income of individuals with poor physical health in 2001 grew about 1 per cent, less than half the income growth experienced by those with good physical health. Further, the annual income gain of individuals who reported no disability (\$956) was almost three times as large as that of those with a disability or long-term health condition (\$328). (p. 9)

The relative risk of disadvantage for this group is largely explained by the fact that people with poor health or disability (and their carers) are less likely to attain high levels of education and to participate in the labour market (so have reduced income). In 2009, around 31 per cent of people with severe or profound core activity limitations (of working age) were in the labour force compared to 54 per cent of people with a disability, and around 83 per cent of people without disability (PC 2011c, figure 4.11).

People with poor health and disability also often have higher costs of living due to their need for medication, equipment or aids, specialised housing, personal care costs and assistance with transport.

Polidano and Vu (2012), using HILDA data, looked at labour market impacts from disability onset up to four years after onset and found lasting negative impacts on employment, especially full-time employment. Labour market impacts from disability onset were found to be greater for those without post-school qualifications. Those without such qualifications were more likely to be on income support 3-4 years after onset.

Figure 4.11 Disability employment for people aged 15-64 years, 2009



Data source: ABS (unpublished), in PC (2011c).

Australia has a relatively low international ranking for employment outcomes for people with disabilities (ranking 21st lowest employment rate of 29 countries for people with disabilities, PC 2011c).

Centrelink administrative data show that in June 2011, almost half (46 per cent) of Australians (aged 15-64 years) on income support for at least 12 months received the Disability Support Pension and around 8 per cent received a carer's payment (Australian Social Inclusion Board 2012).

Some people with a disability do not participate in any activities outside of the home — ABS data show that people with profound core activity limitations were nine times more likely to be in this group than the general population. People with profound limitations are also likely to miss out on social activities at home:

- only 16 per cent had been visited by friends or family in 3 months, and around 59 per cent had not had a telephone call in 3 months
- around 18 per cent had not had any social contact in the last 3 months
- around 44 per cent had not used the Internet in the last 12 months (PC 2011c based on ABS 2010b).

Carers also have limited capacity to work

Informal carers also have less capacity for paid work than non-carers — in 2009, around 42 per cent of primary carers spent on average 40 hours or more per week

providing care (ABS 2010b). The labour force participation rate for primary carers is around 54 per cent compared to 77 per cent for non-primary carers and 80 per cent for non-carers. And, if carers do participate in paid work they are more likely to work part-time. This leads to carers receiving lower incomes on average than the general population — over 60 per cent of carers were in the lowest 40 per cent of income earners. And, most carers (over 70 per cent) are women (ABS 2008).

Disadvantage is also observed in the wellbeing of carers. The evidence shows significant differences in physical and mental health between carers and non-carers (Edwards et al. 2008). Carers are almost twice as likely to be in poor physical health than the general population (PC 2011c).

As discussed in chapter 5, carers report low levels of wellbeing (lower than the unemployed, people earning low wages and those living alone).

4.6 Relationships and families

Events such as relationship and family breakdowns or the death of a partner can trigger disadvantage (box 4.11 for marriage and divorce rate trends). This is particularly the case when a key source of income is lost.

The evidence suggests that divorce and separation are more likely to trigger poverty for women than for men (Bourreau-Dubois, Jeandider and Berger 2003; Ruspini 1998; Smith and Middleton 2007).

The Australian Social Inclusion Board (2011), reporting findings from qualitative research with 56 people from disadvantaged backgrounds, said that many participants pointed to the breakdown of their family as a trigger event that had knock-on effects for a range of negative behaviours that in turn further established long-term cycles of disadvantage (both psychological and financial).

Many families caring for people with a disability experience relationship breakdowns which can mean that primary carers are often the sole provider of informal care. For example, around 30 per cent of all female carers between the ages of 30 and 50 years had either been separated or divorced since they had started their role as carers (Edwards et al. 2008). For carers, the probability of separating is higher in the first ten years of caring (3 per cent each year on average; PC 2011c).

Family breakdown is also associated with an increased risk of young adults running away from home, becoming homeless, offending and using drugs (Australian Social Inclusion Board 2011). As discussed earlier, young people seeking assistance from

specialist homelessness services commonly cite family breakdown and family violence as reasons for seeking help.

Household stability has been found to offer protection from disadvantage. Smith and Middleton (2007), on reviewing the literature on poverty dynamics, said:

In terms of poverty resistance, household stability and continuity — rather than change — more commonly offer greatest protection. That is, poverty risks are less for individuals who maintain couple households and avoid separation, and who remain childless or do not increase their family size (thus have fewer children). (p. 11)

The particular situation of lone parents

As discussed in chapter 3, lone parents (particularly lone mothers with dependent children) are particularly vulnerable to disadvantage and are more likely than couples with dependent children to experience deep and persistent disadvantage. In 2010:

- around 25 per cent of lone parents had incomes below the income poverty line and around 45 per cent of those on Parenting Payment had incomes below the threshold (ACOSS 2012)
- rates of multiple deprivation among people whose main source of income was Parenting Payment were 58 per cent (Saunders and Wong 2012)
- around 11 per cent of lone parents experienced deep and persistent social exclusion (table 3.8)
- HILDA data show that becoming separated significantly increases the probability of remaining poor over two periods and entering poverty from one year to the next (Buddelmeyer and Verick 2007).

Around 15 per cent of Australian families are headed by lone parents (box 4.11).

Single parents may be less able to engage in paid employment since they do not have a co-resident parent to share the parenting responsibilities (most jobless parents are not in the labour force, rather than being unemployed; Baxter 2013). Based on the 2011 Census, 10 per cent of all children (aged up to 12 years) were living in jobless single-parent families.

HILDA data also shed some light on lone parents and the persistence of joblessness. Lone parents — most of whom are women — record the highest jobless rate. Almost 47 per cent of children in lone-parent households were in jobless households for three or more years and 31 per cent were in jobless households for more five or more years (table 4.4, Melbourne Institute 2012b).

Box 4.11 Declining marriage and divorce rates

Both marriage and divorce rates in Australia have declined over recent decades. Over the period 1990 to 2010:

- the marriage rate fell from 6.9 per 1 000 of resident population to 5.4 per 1000
- the divorce rate fell from 2.5 per to 2.3 per 1000
- the proportion of divorces involving children fell from 55.6 per cent to 49.5 per cent.

These figures suggest that the number of people affected by family breakdown is declining. However, the statistics relate only to the number of formally registered marriages and divorces, not de facto relationships.

In 2009-10, 11 per cent of Australians aged 18 years and over were living in a de facto relationship, while 53 per cent were in a registered marriage.

In 2012, there were around 961 000 lone parent families, making up 15 per cent of all families. About two-thirds of these one parent families had dependants living with them. 81 per cent were single mother families.

Sources: ABS (2012b, 2012i).

LSAC data also show that rates of joblessness are much higher in lone-parent families than two-parent families and living in a persistently jobless family is much more common for lone-parent families than two-parent families (Gray and Baxter 2010).

Australia is not unique. Across the OECD, poverty rates among non-employed lone-parent families are at least twice as high as among those with paid work. (OECD 2011d). Australia, however, has one of the lowest employment rates for single parents in the OECD (Koutsogeorgopoulou 2011).

Other international studies show that couples without children or dependants are among the least likely to experience recurrent poverty, while single parents are especially prone to the more severe forms of disadvantage, including long spells of disadvantage and chronic poverty (Smith and Middleton 2007; Tomlinson and Walker 2010).

Summing up: what we know, what we do not know

Disadvantage reflects a complex interaction of factors involving personal capabilities, family and community environments, life events and the broader economic and social environment. Untangling the various influences and effects and establishing causality (rather than mere correlation) is difficult. While this chapter has looked at many of the key factors and interactions that are associated with an

increased risk of people experiencing disadvantage, it has not covered them all, nor has it looked at the many possible combinations of factors (and the potential compounding effects) that can lead to deep and persistent disadvantage.

That said, there is strong evidence to show that education, employment and good health are associated with *protection* against disadvantage. Education stands out as the critical factor associated with improving life chances. Education not only improves a person's employment prospects and earning capacity, but the evidence also points to a relationship between education and better health, improved life satisfaction and raised levels of civic and social engagement.

The most disadvantaged, however, do not always have the opportunity to fully develop their own personal capabilities (or to provide a family environment that allows their children to develop their personal capabilities). Children from lower socioeconomic backgrounds perform more poorly at school, on average, than those from higher socioeconomic groups. They also have a higher probability of leaving school early and of not attending university (than children from higher socioeconomic groups) which limits their employment prospects.

The evidence points strongly to the importance of the early years of a child's life, including the home learning environment, for building capabilities so that children do not start school 'behind the eight ball' that sets a trajectory for poor educational outcomes. It also points to the need to better understand how to build the capabilities of children who come from disadvantaged backgrounds during the school years.

Importantly, economic growth and a strong macro environment translates into increased employment opportunities and incomes. Continued gains will depend on sound macro and microeconomic policy. But, economic growth can also be marked by changes in the composition of economic activity and job opportunities. And again, the most disadvantaged may have limited capacity to take advantage of the changes in opportunities because of where they are located, their education and skill levels and health status.

What is also evident from this chapter is that the knowledge base is thin in a number of areas. Further research would help build the evidence base about pathways in and out of disadvantage including in relation to addictions, imprisonment, child protection and migrants. A new longitudinal survey of humanitarian migrants — the *Building a New Life in Australia Longitudinal Survey of Humanitarian Migrants* — is expected to fill a significant information gap on the experiences and outcomes of humanitarian migrants who settle in Australia (Gray, Graycar and Nicolauo 2012).

It is also known that resilience is important for breaking cycles of disadvantage, but little is known about personal characteristics which make some people more driven to succeed and less likely to be knocked over by particular experiences. As Smith and Middleton, in Berthoud and Zantomio (2008), said:

Poverty dynamics research highlights groups with the greatest probability of persistent poverty, but it does not explain why some of those at greatest risk nevertheless avoid or escape poverty altogether. Better understanding of this would be important to help design a more effective, targeted response to tackling substantive poverty. (p. 5)

This issue of gaps in the knowledge base on deep and persistent disadvantage is discussed further in chapter 6.

5 The costs of disadvantage

Key points

- Disadvantage imposes personal costs on people and families who experience it, and costs on the broader community. Costs can be categorised in terms of the impact of disadvantage on material living standards (economic costs) and on quality of life (social costs). There are also dynamic dimensions as past disadvantage can continue to impose costs.
- The costs to material living standards can be measured in terms of the opportunity costs of foregone production, together with expenditure on 'regrettables'.
- Employment income accounts for most foregone production and is the result of the impact of current and past disadvantage on labour force participation, un/underemployment and productivity. Along with lower investment and loss of social capital, this has spillover effects on economic activity that affects the broader community.
- 'Regrettables' are spending (mostly by governments), in response to disadvantage (for example, spending on health, justice and welfare services). While contributing to economic activity, such spending comes at an opportunity cost of preferred goods and services. Transfer payments are a cost to the broader community, but are a benefit to those who receive them.
- The social costs of disadvantage are reflected in a lower quality of life. Lower life satisfaction can result from not engaging in work and other meaningful activities, and from poorer health and relationships (from current or past disadvantage). Measures of subjective wellbeing are increasingly being used to estimate these costs.
- For the community, social costs arise if disadvantage erodes social capital such as trust and civic engagement, and where it is associated with outcomes such as higher rates of crime. Many people in the community also value increasing the equality of opportunity.
- People experiencing disadvantage or the effects of past disadvantage bear much of the social costs in terms of their loss of quality of life. They also bear a large share of the economic costs associated with lower employment income (although this cost is shared by the broader community through income transfers).
- Estimates of the overall costs of disadvantage have very limited use (even if costs could be estimated with any confidence). What matters for policy is the extent to which policies can reduce these costs, relative to the cost of the policy.

Disadvantage imposes a range of costs on the people who experience it and those near to them. It also imposes costs on the broader community. Reflecting the multidimensional nature of disadvantage, the costs can be categorised in terms of the impact of disadvantage on material living standards (economic costs) and people's quality of life (social costs). There are also dynamic dimensions as past disadvantage can continue to impose costs.

This chapter looks at the evidence on the costs of disadvantage in Australia. For both conceptual and empirical reasons it does not estimate a total 'cost of disadvantage' (box 5.1). Rather, the chapter focuses on how to estimate the costs that could be avoided in the absence of particular types of disadvantage.

Box 5.1 Is the total cost of disadvantage the right thing to measure?

There are several reasons why the cost of disadvantage is a difficult concept to define and to estimate.

First, while most people have a view of what is an 'acceptable' level of disadvantage (or 'minimally tolerable life'), there is no consensus on what this is. As discussed in chapter 2, the choice of thresholds for measuring income poverty, deprivation and social exclusion are matters of judgement. Indeed, as Holzer et al. (2007) in a paper costing childhood poverty in the United States point out:

We omit from our estimates the poverty 'gap' of poor households themselves, defined as the difference between household income and its poverty threshold. To do so would be tautological: the costs of poverty would be defined as poverty itself. (p. 2)

Second, estimates of the total cost of disadvantage, like 'burden of disease' type studies, make the implicit assumption that the costs can be reduced to zero. Such total estimates provide very optimistic upper bounds on the potential returns to action and are not very useful from a policy perspective. For example, Laurie (2008) estimated the cost of poverty to Ontario in Canada to be 5.5 to 6.6 per cent of Ontario's GDP. But many of the causes of poverty, such as poor health, are likely to remain to some extent, even if income poverty were eliminated through transfer payments. So not all costs would be reduced. A more useful concept is 'avoidable cost', that would take into account fundamental factors that are unlikely to change with government intervention, such as a person's innate capacity to acquire skills or a base level of transitional unemployment.

Third, and in a related point, the causes and consequences of disadvantage are often hard to separate. A realistic counterfactual needs to take into account the extent to which causes as well as consequences can be reversed.

Sources: Holzer et al. (2007); Laurie (2008).

Identifying and measuring the avoidable costs of disadvantage is critical to evaluating policies and programs designed to prevent or ameliorate disadvantage. The literature on the costs of disadvantage focuses on three types of costs that can be quantified:

- foregone production, particularly employment income
- regrettable expenditures
- lower quality of life.

The first section of this chapter provides a framework for estimating the costs of disadvantage. It also looks at issues involved in empirical estimation. The following three sections examine empirical estimates of the three major sources of avoidable cost. The final section draws out the distributional implications of reducing these costs of disadvantage.

5.1 A broad framework for measuring avoidable costs

The cost of a particular type of disadvantage can be categorised in three broad ways:

- who bears the cost (individuals experiencing the disadvantage and those close to them, and others in the broader community)
- the type of cost (economic or social)
- the consequence (such as lower income and poorer health).

Ultimately, all measures of cost must estimate the difference between the value placed on the observed outcomes arising from the disadvantage and the value of the current and life-long (and, indeed, intergenerational) outcomes that are realistically possible from preventing or alleviating disadvantage (the counterfactual).

As discussed in chapters 2 and 3, assessing the extent of disadvantage involves identifying the share of the population that sits below a defined threshold (for example, income). As such, the costs depend not only on the number of people below the threshold, but also on the distance below the threshold. The distribution of the extent and depth of disadvantage is central to estimating the overall costs of disadvantage — the cost for any person, and the broader community, largely depends on the extent of disadvantage.

Personal costs of disadvantage are those that fall on people (and those close to them) who experience disadvantage. The costs to the broader community arise from the ‘spillover’ effects that disadvantage has on others in the community. Both personal costs and costs to the broader community can reflect past and current disadvantage, as the impacts of disadvantage can be long-lived and, importantly, intergenerational.

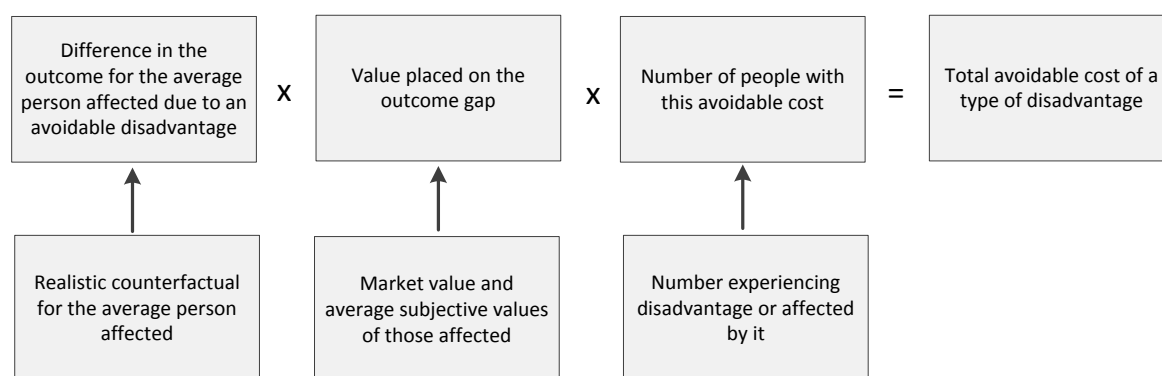
Estimating the avoidable cost of disadvantage involves:

- clearly identifying outcomes (direct and spillovers) that are the result of current or past disadvantage that could have been avoided
- measuring the difference or gap between the outcomes and those that would otherwise have occurred (the counterfactual) — while in general this will be undertaken for the ‘average’ gap, the distribution of this gap across those affected should be taken into consideration
- assigning a value to each outcome gap (as cost = the difference in the outcome X the value of the outcome X the number of people experiencing the gap)
- ‘adding-up’ the costs in a way that avoids double counting.

The steps for estimating the cost of avoidable disadvantage in any given year are summarised in figure 5.1.¹ The avoidable cost depends on the current experience of disadvantage, and the impacts of past experiences of disadvantage. While many of these costs are reflected in current disadvantage, some people can experience long term costs, even though they would not currently be described as experiencing disadvantage in the measures set out in chapter 2.

¹ This approach is different to a cost-benefit approach used in policy analysis which estimates the change in cost over time as well as the expenditure required to achieve that change through a policy or program intervention. The time series of expenditures on the intervention and the benefits (the reduction in the costs of disadvantage) are then discounted to assess the net present value of the intervention. The choice of discount rate is important in this approach. The discussion here takes an annual snapshot of the current costs that are a result of current or past disadvantage, so discounting is not required.

Figure 5.1 Steps in estimating the avoidable costs of disadvantage^a



^a While averages are usually used in the costings, this assumes that the experience of the affected population is symmetric.

Types of costs and measures of their value

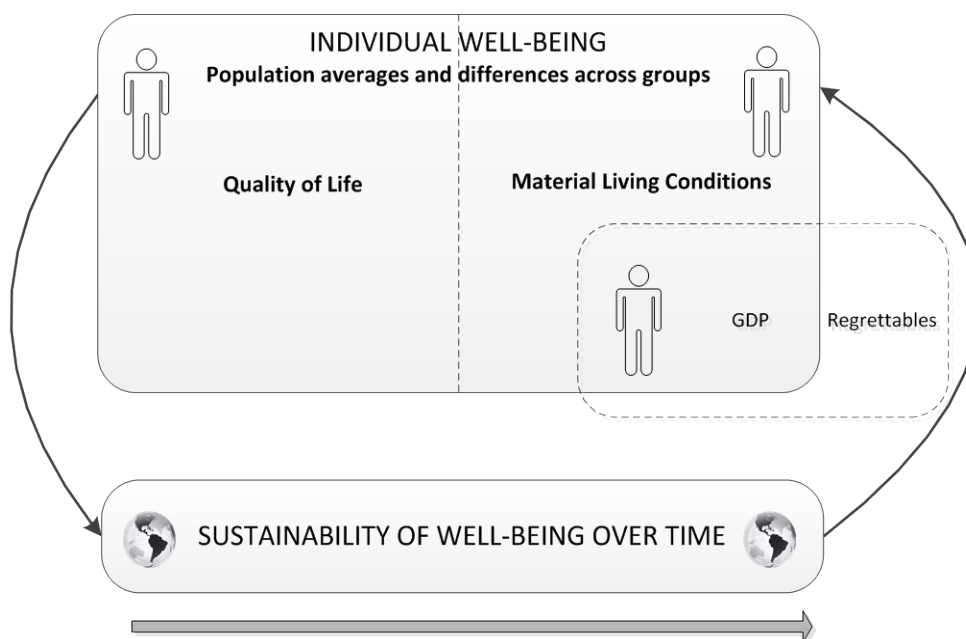
Chapter 2 identified the different ways of understanding and measuring disadvantage (income poverty, deprivation and social exclusion) and how disadvantage could be understood in the context of a wellbeing framework. The OECD's *'How's life?'* wellbeing framework (figure 5.2) divides wellbeing into material living standards and quality of life, with sustainability adding a longer term dynamic dimension.²

While clearly interdependent, making a clear distinction between material living standards and quality of life provides a useful way to categorise the different types of costs imposed by disadvantage. As material living standards depend largely on economic outcomes, to avoid double counting the quality of life measures are restricted to the impacts of social outcomes. This categorisation maps well to the triple bottom line approach — economic, social and environmental outcomes — in evaluation.³

² In the OECD framework, sustainability refers largely to leaving future generations with the ability to achieve living standards and quality of life comparable to that achieved by current generations. The time profile for the costs of disadvantage is more near term as most of the impact is on generations that are currently alive.

³ While environmental outcomes do impact on both the quality of life and material living standards, they tend to feature less in analysis of the impacts of disadvantage.

Figure 5.2 **OECD's *How's Life?* Wellbeing Framework**



Source: Derived from OECD (2011b).

Material living standards

The material living standards of individuals and households largely reflect their employment income and the assets they have access to (which can provide capital income and/or a flow of services such as housing). Income transfers, from government, families, or charitable organisations, can improve a household's material living standards. Living in an area which lacks public infrastructure and other services will reduce material living standards.

At the economy-wide level, material living standards depend on the level of income in an economy, the prices of goods and services that people want to purchase, and the distribution of income (these ultimately determine consumption). The current economic cost of disadvantage is estimated by taking the difference between the wellbeing (utility) from consuming the current level of material goods and services and the wellbeing from what could have been consumed in the absence of avoidable disadvantage.

By defining this economic cost in terms of utility, a distinction is made between production (usually measured by Gross Domestic Product, GDP) and utility. While a major source of economic cost is foregone production as the result of current or past disadvantage, which can be estimated in terms of lost GDP, there is another important economic cost of disadvantage.

The OECD framework identifies ‘regrettable’ expenditures (figure 5.2) — expenditure included in GDP that is not a preferred form of expenditure.⁴ It is money spent in response to undesirable situations, such as a natural disaster, security threat, or avoidable disadvantage. This spending changes the composition rather than the overall level of GDP.⁵

Economic costs can be measured (at the individual and broader community levels) in terms of the opportunity cost — the value of foregone production or income, or less preferred expenditures.

Total employment income foregone can be estimated by differences in participation and employment rates (including hours worked) multiplied by the wage rates that would have been achieved. For individuals, the value of the forgone income varies reflecting the different productivity contributions people would make if they were employed.⁶ As such, the total measure should apply wage rates that reflect the average labour productivity of those currently experiencing disadvantage.

At the broader community level, economic activity can be affected because lower income and/or employment resulting from disadvantage feeds through to lower investment in (and potentially a deterioration in) human capital and physical capital over time. Estimating this cost requires projecting the differences in investment (or rates of depreciation) and the impact this has on the stock of human (and other economic) capital, as well as how this impacts on the labour productivity of others. In practice this is hard to do, and this spillover cost is unlikely to be included in any measures of costs of disadvantage.

Regrettable expenditure can be both public and private. For example, a rise in disadvantage could lead to an increase in public spending on health, justice and welfare services. It could also lead to an increase in private spending, such as the cost of repairing property damage or private medical costs related to poor health.

⁴ This approach follows the Genuine Progress Indicator (GPI) methodology, which sought to adjust GDP measures to better reflect a measure of consumption valued by the community (Cobb et al. 1995). Included in GDP but excluded from the GPI are a range of costs including crime (legal costs, medical expenses, property repair and replacement costs), medical insurance, auto insurance and healthcare bills. Hamilton and Saddler (1997) produced a GPI for Australia, but this does not focus on the costs of disadvantage.

⁵ To the extent that resources in an economy are underemployed, an increase in regrettable expenditure could change the level of economic activity, but assessing the likelihood of such a change is not straightforward.

⁶ When people are not engaged in paid work they could be engaged in other activities, such as childcare and volunteering, that are not captured in GDP. However, severe disadvantage can also affect people’s capacity to engage in these non-market activities, and the extent to which they value them.

Such spending comes at an opportunity cost of more preferred goods and services. The best estimate of this cost is the spending that would otherwise have been outlaid on preferred goods and services (including saving to support future expenditure).

The public share of regrettable expenditure imposes an additional cost as it has to be funded through taxation revenues. Raising taxes imposes a deadweight cost associated with the distorting effect that taxes have on the economy.

The fiscal impact of disadvantage is often of concern to governments. This is the sum of the public expenditure on regrettables made in response to disadvantage plus the loss of tax revenue that would have been generated by the higher level of economic activity. The fiscal impact is not an additional cost of disadvantage, rather it adds together the parts of the economic costs that are relevant to the fiscal position of government.

It is important to note that not all spending on welfare and other programs that support or respond to disadvantage can be considered regrettable (box 5.2). The challenge in estimating regrettables is to identify what would not need to be spent if a particular type or source of disadvantage was reduced. Such assessments must be realistic about what can be achieved for the measure of regrettables to be meaningful.

Quality of life

Although material living standards have an important effect on people's quality of life, it is convenient for measurement purposes to consider the social costs of disadvantage separately from the economic costs. Social costs include the costs to individuals such as those arising from poor health or the lack of engagement that can come with being unemployed. They are personal costs because they directly affect the people experiencing disadvantage.

There can also be social spillovers as the quality of life for the broader community can be affected by other people's disadvantage. These spillovers are more likely to be pronounced when people's local neighbourhood is affected by the disadvantage experienced by others. But people may also care deeply about others in their community and experience a loss of wellbeing if the less fortunate are not provided with opportunities to live better lives.

Box 5.2 Are expenditures that reduce disadvantage ‘regrettable’?

Age pensions provide an income in retirement, and depending on their level relative to the poverty line, can make a big difference in both the measured poverty rate and the material living standards for many older people. Publicly funded early childhood education seeks to improve the capabilities of children, and is most important for children growing up in disadvantaged families. Early intervention and other support for people experiencing mental illness that enables them to engage in education and work can build their resilience to adverse events, helping them to avoid becoming disadvantaged. Few people would ‘regret’ these expenditures. This raises the question of whether expenditures that reduce disadvantage — either directly or in the future — can be considered as regrettable.

There is no hard rule that one type of public expenditure is a regrettable and another is not, but some are easier to classify than others. In general, expenditures that reduce a cause of disadvantage are not considered regrettable. For example, investments in capabilities, such as literacy and numeracy skills, that help prevent future disadvantage, are unlikely to be considered regrettable. On the other hand, transfer payments to people who are unemployed simply because they lack these skills are likely to be regrettable. Yet to the extent that unemployment payments provide a form of insurance (against unpredictable adverse events that lead to loss of employment) such transfers would probably not be considered regrettable. The key distinction is whether the event, and hence the transfer, was reasonably avoidable.

Expenditures that deal with the consequences of disadvantage for the broader community are likely to be considered regrettable. For example, restorative expenditures in response to the impacts of disadvantage, such as repairing property damage or treating injury, would be considered regrettable. Similarly, expenditures that seek to protect others from behaviours that are a consequence of disadvantage, such as some policing and justice activities, would be regrettable. However, only the share of these types of expenditures that could be avoided should be included as a cost of disadvantage.

As with economic costs, if disadvantage constrains the accumulation of human and social capital, there are dynamic elements to the cost. For example, as described in chapter 4, children growing up in severely disadvantaged households may find it more difficult to form loving and nurturing relationships, and could struggle to be good parents because of the absence of a good role model. For the broader community, longer term social costs could arise, for example, from outcomes such as reduced social cohesion, or a decline in civil society.

Quality of life outcomes, whether personal in nature such as self-esteem or community-wide such as erosion of community cohesion, are hard to measure and assign a representative or average value. Also, these values can depend on relative rather than absolute outcomes and they can change as people adjust to their situation. The benchmarks that people use to form their expectations can be the lives of people in their neighbourhood (keeping up with the Joneses), their family and friends, or in some cases perceptions of what is socially desirable. Such adaptation, habituation, and expectation effects will affect the values placed on the outcome gap arising from disadvantage.

A more expansive approach to measuring ‘progress’ has prompted the development of a range of measures of non-market outcomes (OECD 2011b). Some outcomes, such as personal health, have both objective and subjective measures that are well established (for example, the General Health Questionnaire). For others, especially those that are inherently subjective (such as the feeling of trust), standardised measures have yet to be developed. As discussed briefly below, there are a range of techniques for estimating the willingness to pay for some non-market outcomes (the average or community ‘norm’ value).

Adding up costs across the community

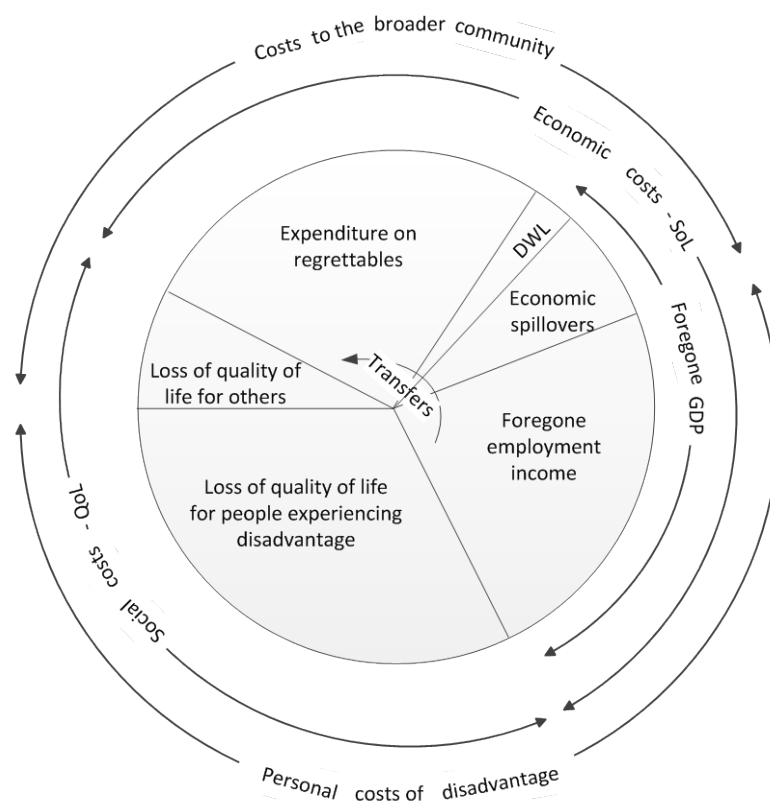
A summary of the categories of costs of disadvantage discussed above is provided in figure 5.3.

It is one way of identifying, measuring and reporting the costs of disadvantage. Of the costs, those affecting the quality of life and the economic spillovers affecting the broader community are rarely estimated. But, as the rest of this chapter presents evidence to suggest, these may be considerable.

Challenges estimating avoidable costs

While the broad framework for measuring costs is reasonably clear, implementation is not. Three main issues have to be addressed when estimating the avoidable costs of disadvantage — establishing a realistic counterfactual, limited data and estimation bias, and the avoidance of double counting.

Figure 5.3 One way of categorising the costs of disadvantage^{abc}



^a DWL is dead weight loss associated with the distortionary effect of taxes on economic activity. ^b QoL — quality of life. ^c SoL — material standard of living.

A realistic counterfactual

The difficulty of establishing a realistic counterfactual is highlighted in several studies. For example, Please (2008) concluding a review of the literature on the effectiveness of policies targeting homeless people said:

One of the messages from the review is that the pursuit of abstinence, independent living and paid work for all homeless people with a history of substance misuse may not be a realistic goal. Some individuals are highly vulnerable and have ongoing health, personal care and other support needs which may mean that they need long term service interventions and may not be able to live independently or have secure paid work. (p. 4)

More generally, as Culhane (2008) pointed out, measures of the expenditure on services associated with a group may ignore the services these people would use if they were not homeless:

... because most of this research does not include housed comparison groups, the degree to which these service needs or usage rates are different for people who are

homeless as compared to the housed poor more generally has not always been clear. (p. 100)

Culhane (2008) discussed the difficulty in identifying realistically avoidable costs from administrative data, which is usually only collected on those people receiving services. This lack of comparative data to estimate the differences in expenditures is a significant challenge in estimating the cost of disadvantage.

The problem of the counterfactual also arises in estimating improvements in employment income. As noted by Lattimore (2007):

The key to understanding the net economic costs of labour market inactivity is a comparison of outcomes under current inactivity rates with a *realistic* counterfactual that reflects the best achievable rate of re-engagement. (p. 116)

Lattimore goes on to note, in relation to education:

There are, however, some confounding influences that make it harder to determine the role of education in stimulating labour force participation, especially for the more vulnerable groups that are often the targets of policy. A variety of individual traits, associated with educational attainment, also affect labour market participation. ... These either affect educational choices or form the basis for preferential educational admission, which cause 'selection' bias when assessing the genuine effects of educational attainment. Overall, the problem arises because people are not randomly assigned education. People who undertake more education are different from people who do not. (p. 203)

A related point is that while there would be, in general, a labour market benefit from improvements in education and health, care is needed in extrapolating from average returns across the community to returns for individuals in different circumstances. For example, Holzer et al. (2007) applied a general adjustment factor of 60 per cent in their estimates of the employment cost of childhood poverty to reflect the lower overall potential income that children of poor families might achieve even if they did not grow up in poverty.

Establishing a realistic counterfactual is not easy. It is rarely realistic to assume that people who are experiencing serious disadvantage could achieve a life that has no costs associated with the causes or consequences of their past disadvantage. In rare situations there can be a natural experiment, say where policies or economic circumstances across jurisdictions have offered different opportunities for people to acquire capabilities. More generally, the outcomes in similar countries that have lower rates of disadvantage could provide a benchmark of what is avoidable disadvantage.

Limited data and estimation bias

There is relatively little data on the costs of disadvantage (more general issues around data are taken up in chapter 6). Three particular problems are:

- the use of case studies to estimate costs
- the omission of costs because they are hard to measure
- the exclusion of people of most interest in studying the costs of disadvantage in many data sources.

Cost estimates based on case studies are often not representative of the ‘average’ experience, which can lead to a risk of misinterpretation. For example, the ‘million dollar man’ estimate of the costs of public services provided to a homeless man in Nevada over a ten year period led to a plethora of similar studies of the ‘cost of homelessness’ (Culhane 2008). Such studies tend to take a particular high cost case and apply the estimate to the population of people who are homeless. Scaling up cost estimates from non-random samples needs careful attention to avoid selection bias.

A more fundamental measurement challenge arises because many of the personal and social costs of disadvantage are hard to measure. Most studies that attempt to estimate the cost of disadvantage focus on the economic costs and a particular source of disadvantage. For example:

- studies looking at the cost of child poverty estimate foregone employment income related to the higher probability of poor employment outcomes for children who experienced child poverty and regrettables associated with the higher rates of unemployment and higher spending on child welfare and health (box 5.3)
- homelessness studies tend to focus only on ‘regrettables’ spending, avoiding the question of what employment outcomes could have been achieved.

The focus on employment income and regrettables is pragmatic, as these are the most easily identified and measured costs. But the importance of the multi-dimensional nature of disadvantage suggests greater effort is required to estimate these costs.

Box 5.3 The costs of childhood poverty: some examples

Several studies have sought to estimate the costs of childhood poverty. While reducing all childhood poverty to zero is not a realistic outcome, few would dispute that it is highly desirable. Moreover, the causality is clear, as children cannot be held responsible for growing up in poverty. The approaches outlined below differed slightly in their focus and in the costs included in their quantifications.

Holzer et al. (2007) estimated the cost of child poverty at 4 per cent of GDP in the United States. They explained their approach as follows:

We focus in this paper on measuring how childhood poverty in the U.S. affects outcomes for adults later in life, and what these effects imply for the broader U.S. economy and society. We estimate the reductions in the annual aggregate U.S. production of goods and services (as measured by earnings) associated with childhood poverty, as well as the extra expenditures (both public and private) and reduced safety and well-being due to crime and poor health associated with adults who grow up poor as children. One can think of this exercise as estimating the total economic value of increased production and higher quality of life that would accrue to the U.S. if childhood poverty were eliminated. (p. 4)

Hirsch (2008) drew together three studies to put the annual cost of child poverty in the United Kingdom at 2 per cent of GDP (£25 bn). He identifies, but does not quantify, the personal and social costs (citing a literature review by Griggs and Walker 2008). The estimate is made up of regrettable expenditure and lost income derived from two of the studies.

- Bramley and Watkins (2008) estimated the cost of 'regrettable' expenditure on public services at £12 bn. They estimated the association between the proportion of children in poverty and the cost of the child-related services in a region to find the percentage of overall spending on the service attributable to child poverty. This is multiplied by the actual spending on the service to estimate the national cost to each service.
- Blanden, Hansen and Machin (2008) estimated the cost of foregone employment income as 1 per cent of GDP or £13 bn. They used cohort studies to look at the association between being in poverty at age 16 with earnings and employment chances up to age 34. In estimating the 'poverty penalty' on earnings and employment rates, the modelling controlled for parental characteristics to get as close as possible to an effect caused by poverty itself rather than other aspects of an individual's background. They also adjusted for potentially lower productivity, putting the earnings of the 'extra' employment at the 25th percentile. The cost included lower benefit payments associated with higher employment (£2 bn), foregone income tax revenue (£3 bn) and private income (£8 bn).

Sources: Blanden, Hansen and Machin (2008); Bramley and Watkins (2008); Griggs and Walker (2008); Hirsch (2008); Holzer et al. (2007).

The focus on a single source or type of disadvantage makes the analysis tractable, but introduces a potential bias given that other sources of disadvantage, such as a limitation of innate ability, are not included in the analysis. What this means is the estimates are partial as they do not reflect all the costs of disadvantage.

Such studies, however, provide the bulk of evidence on the ‘cost’ of disadvantage. A further problem is that these studies are often not focused on the most disadvantaged, and as such some of the estimates of average cost reduction cannot be applied with any confidence to the people most likely to experience deep and persistent disadvantage. As the costs associated with multiple disadvantage are not necessarily additive, adding partial estimates can overstate the actual cost imposed by disadvantage. Moreover, importantly from a measurement perspective, other sources of disadvantage need to be taken into account as they tend to reduce the extent to which the costs of disadvantage are realistically avoidable. The approach typically taken is to scale back the cost reduction that can be achieved to ensure a more realistic counterfactual.

Avoiding double counting

It is important to have a clear framework for estimating costs to avoid double counting. For example, the cost of foregone income can be estimated at the individual or economy-wide level but, as these are different ways to approach the measurement of the same thing, estimates should not include both.

The treatment of transfer payments is particularly important.

- For individuals, the main economic cost is the foregone income less the transfers they receive when unemployed.
- For the broader community the main regrettable cost is the transfers they pay for through their taxes.

If the transfers are not deducted when estimating the cost to the individuals, they are counted twice.

Laurie (2008), in a study of the costs of poverty for Ontario Canada, estimated the gain in income (and taxes paid) that would result if the average income of people living in poverty was to rise to the average of people in the second quintile. This kind of ‘morning after’ approach, while it adds in the gain in income, fails to deduct the loss of transfers from the additional income achieved.⁷

⁷ Such ‘morning after’ approaches usually fail the realistic counterfactual test. In this case it is unlikely that the most disadvantaged could achieve an income of those employed in the second quintile.

Double counting can also result when future costs as well as the current annual cost are taken into account. Past disadvantage raises the probability that a person will currently experience disadvantage, so any estimate of current costs of disadvantage will include the costs arising from past disadvantage. Projecting forward the costs of disadvantage, such as of child poverty, and adding them to the costs associated with current poverty (from past disadvantage) is effectively double counting. Laurie (2008) estimates both the intergenerational costs of child poverty in terms of future lost employment income and taxes, and the costs of current lower employment and productivity. This approach is fine provided the numbers are not added together.

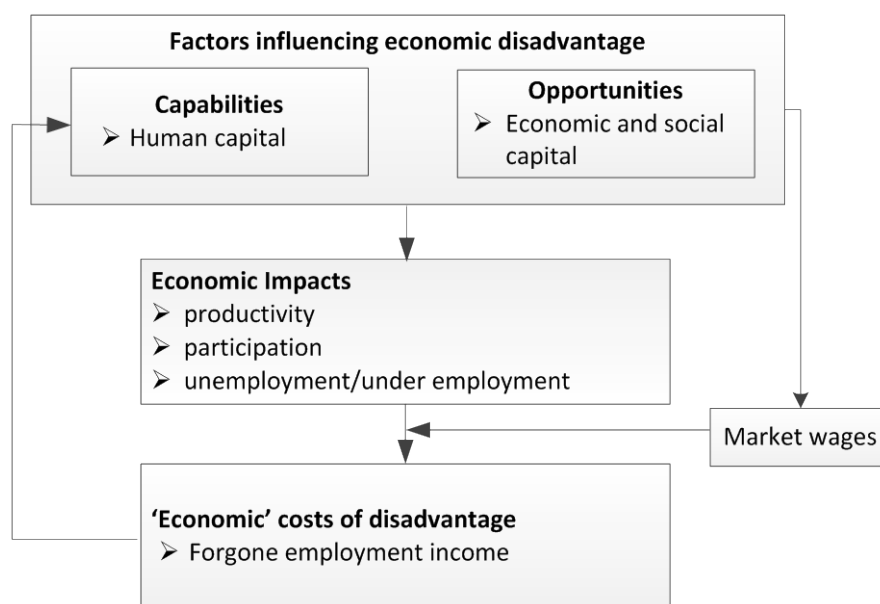
Another complex issue is how to treat cost estimates of reduced quality of life, particularly those costs that have been converted into money equivalents. For example, Holzer et al. (2007) estimated that the personal costs of poor health make up around 28 per cent of the estimated 4 per cent of GDP cost of child poverty in the United States. However, as noted by the authors, the loss of wellbeing from poorer health is included in the numerator of their overall estimate but not in the denominator GDP, thus magnifying the estimate as a share of GDP. This points to the importance of clarity on what has been included in the estimate.

A significant question is ‘What is the appropriate comparator?’ Costs as a share of GDP can make the scale of the estimate easier to comprehend than dollar measures. However, where social costs or those that relate to regrettable expenditure are included in the numerator the result should not be read as the increase in GDP that would be achieved if the disadvantage was avoided. While it is important to estimate these costs (where they are significant), care must be taken in their interpretation.

5.2 Forgone employment income

Lack of employment, and the income it would have otherwise generated, is a major source of disadvantage (chapter 4). Policies that improve people’s human capital, and the opportunities they have to apply it, reduce disadvantage and the cost it imposes on both a person’s standard of living and their quality of life. Figure 5.4 expands the link between capabilities and opportunities and employment income that was set out in chapter 4 (figure 4.1).

Figure 5.4 **Estimating the costs of disadvantage: employment income**



An individual's human capital and the opportunities for them to work provided by the economy affect people's productivity (and hence their wage rate), their participation and their likelihood of being unemployed or underemployed.⁸ Measuring these economic costs of disadvantage at the whole-of-economy level requires measuring the extent to which disadvantage lowers overall productivity and participation and/or raises unemployment. The dynamic effects of disadvantage also have to be factored in. Poor labour market outcomes can have long term effects as employment has a positive effect on a person's human capital, which flows through to higher potential employment income and, with this, a lower likelihood of disadvantage.

Pay-offs from investment in human capital

Increasing a person's human capital, opportunities to work, and access to supportive social capital will reduce their employment disadvantage. Both health and education are crucial contributors to the stock of 'human capital'. A person's human capital affects their probability of finding and holding a job, their productivity, and the level of income they can potentially earn. It can also affect their attitude to labour market participation, as can their family and community expectations and support (a

⁸ As discussed in chapter 4, the participation rate falls when the share of discouraged workers rises, so in examining the costs of disadvantage participation needs to include those people who are marginally attached to the labour force. Moreover, people participating in the labour force may not be fulfilling their potential due to unemployment or underemployment. Further, their employment may be insecure, with hours worked varying considerably from week to week.

form of social capital). Chapter 4 also drew attention to the negative impact on children of growing up in a jobless household. The strength of the economy sets the foundation for providing employment opportunities, and social capital can contribute in other ways such as through parents, family, and community networks helping people find jobs.

Estimates of the effects on employment and income from improvements in health and education provide one way to measure the opportunity cost of these low capabilities.⁹ Empirical work often uses econometric techniques to estimate the most likely change in participation and/or wages associated with a change in one element of a person's human capital, such as an extra year of education.

There is an extensive literature that examines the return to investment in human capital on both labour force participation and wages. Examples from Australian studies are given on education (box 5.4) and health (box 5.5). The focus of these types of studies are typically on the general population and not the most disadvantaged. This suggests care is needed in applying these estimates of the impact of a change in the level of education or health to estimating the costs of disadvantage.

For example, estimates examining productivity tend to focus on the returns to education and health of workers, as wages can be observed only for those in employment. Yet, as discussed above, it is not sufficient to assume that people of working age who are currently out of the labour force, unemployed or working fewer hours could all be employed full time at the wages of people with similar levels of measured human capital. For example, Forbes, Barker and Turner (2010) compared the characteristics of people in employment with those not in employment and found that, depending on their age, gender and whether they receive the Disability Support Pension, the average potential wage of people who are not employed or not in the labour force was between 65 and 75 per cent of the wage of people who are employed.

⁹ As discussed in chapter 4, poor health and low education are both causes and consequences of disadvantage.

Box 5.4 Some estimates of the effect of education on participation and wages

Educational attainment has a significant impact on labour force participation. Laplagne, Glover and Shomos (2007), when analysing *Household Income and Labour Dynamics in Australia* (HILDA) data, found that having a degree or higher qualification has the largest impact on labour force participation (relative to not completing Year 12) — boosting female participation by 20 percentage points and male participation by 9 percentage points. Attaining Year 12 was associated with around a 9 percentage point higher participation rate for women (compared with those who had attained Year 11 or lower), and around 6 percentage point higher participation rate for men.

These findings are common across countries, prompting de Mello and Dutz (2012), drawing on a selection of papers, to argue:

... people with poor skills face a much greater risk of experiencing economic disadvantage, and a higher likelihood of unemployment and dependency on social benefits. Conversely, according to one estimate, if student performance in the OECD area is raised by just half a school year, that would add USD 115 trillion to the economy over the working life of the generation born this year. (p. 9)

On average, wages rise with educational attainment, reflecting higher productivity of better educated workers. A Commission Staff Working Paper (Forbes et al. 2010) using HILDA data and controlling for individual fixed effects, found that the level of education had significant influences on hourly wages earned in Australia. Compared to a person with a year 11 education or less, on average: a man with a year 12 education earns around 13 per cent more, and a woman with year 12 education earns around 10 per cent more; a man with a diploma or certificate earns around 14 per cent more, and a woman with a diploma or certificate earns around 11 per cent more; and a man or a woman with a university education earns around 40 per cent more.

Sources: Forbes, Barker and Turner (2010); Laplagne, Glover and Shomos (2007), table C.5.

Econometric techniques produce estimates of the ‘average’ effect of a difference in human capital for groups of people distinguished by their level of human capital. The usefulness of such estimates in calculating the cost of disadvantage depends on the extent to which the method and data distinguishes the outcomes for groups experiencing the type of disadvantage of interest.

Box 5.5 Some estimates of the effect of health on participation and wages

Studies have been conducted on the impact of health on labour force participation. Health effects may be thought of as ‘prevention’ effects whereby changes in behaviour or living conditions help prevent individuals from acquiring a health condition. Early detection and treatment can also assist in reducing the incidence of health conditions. Laplagne, Glover and Shomos (2007) found that preventing a mental health or nervous condition has the largest positive impact. The increase in labour force participation was found to be between 26 and 30 percentage points higher for men and between 22 and 25 percentage points higher for women. Major injury had the next greatest effect on participation at around 14 percentage points for men and 16 percentage points for women.

Wages are also lower for people suffering from chronic poor health. For example, Cai (2007), using 2003 HILDA data, found that people reporting good health earned around 18 per cent higher wages than those reporting ‘poor’ or ‘fair’ health. Brazenor (2002) found that men with a nervous or emotional condition earn approximately 35 per cent less than the average male. Men who suffer from chronic pain or discomfort were estimated to earn 15 per cent less than average, and women with chronic pain or discomfort earned 10 per cent less. Forbes, Barker and Turner (2010) found that people in the workforce who suffer from chronic illnesses are estimated to earn wages between 1 and 5.4 per cent less (depending on the health condition considered). They found that largest effects related to poor mental health and major injury, which are associated with an average reduction in men’s wages of 4.7 per cent and 5.4 per cent respectively, and women’s wages by 3.1 and 3.5 per cent respectively. For long term health conditions the link between wages and health will be affected by the impact of health on educational attainment and work experience. This highlights the difficulty of using estimates such as these to put a cost on this source of disadvantage.

Sources: Brazenor (2002); Cai (2007); Forbes, Barker and Turner (2010); Laplagne, Glover and Shomos (2007).

An alternative to the econometric approach is to construct a ‘what if’ scenario. It involves comparing outcomes for one group experiencing disadvantage with a group that is similar in all characteristics other than those related to the disadvantage.¹⁰ A National Centre for Social and Economic Modelling (NATSEM) study (Brown, Thurecht and Nepal 2012) took this approach to provide a ‘hypothetical’ estimate of the impact on economic activity of achieving health

¹⁰ The validity of this ‘morning after’ approach lies in whether the ‘control’ group that forms the comparator is identical in all other aspects to the group experiencing the disadvantage. Econometric methods use statistical techniques to control for differences in other characteristics, although they too are limited by the available data. Panel data offers the advantage of being able to control for unobserved personal characteristics using fixed effect estimation. With a sufficient period of data, causality can also be examined.

equality between the top and bottom income quintiles in Australia. Brown, Thurecht and Nepal estimated that:

- if the bottom quintile had the same health profile as the top (holding the other characteristics of the bottom quintile constant), an additional 172 000 Australians would be in work
- if the ‘non-workers’ and the currently less healthy workers achieved the same earnings as the healthy workers in the bottom quintile total earnings would increase by \$2.8 billion per annum.

These estimates provide at best an estimate of the upper bounds of the costs that health disadvantage might impose on the Australian economy. They are based on the assumption that the only difference between those who are employed in the bottom income quartile and those who are not employed is their health status. As there are other correlated factors related to both health and unemployment, the actual gains are likely to be lower.

Distinguishing between individual and economy-wide impacts

A distinction needs to be made between the effect of a policy on reducing the economic costs of disadvantage for individuals (such as income poverty) and the economy-wide economic impact.

In terms of personal costs, at the individual or household level the focus is on the difference that avoiding disadvantage has on the income of the household. Any assessment of the effects of a policy on household income should take into account increases in household costs, any changes in transfer payments and after tax income. For example, when a person becomes employed their income is likely to increase but they will lose unemployment benefits and possibly other government payments. Household costs could also change, for example, childcare or other care services may need to be purchased (to replace parental or informal care) and the costs of transport (to commute to work) and clothing (suitable for work) could increase.

Changes in income support and other benefits can influence the outcomes of people experiencing disadvantage. For example, the 1996 welfare reform for single mothers in the United States was highly successful in getting these mothers into paid work, but the reduction in poverty for this group, such as it was, was in large part due to financial assistance including the earned income tax credit, health insurance, child care and other vital work services (Kane et al. 2002).

At the economy-wide level, the economic impact of a policy is the change in the overall level of economic activity (GDP) that comes with higher productivity, participation and lower unemployment. This is estimated as the total increase in labour income as a result of increased overall productivity (wage rate) and/or hours worked.

Changes in taxes and social welfare cash and in-kind transfers have a fiscal impact — changing the government’s budget balance — but, as discussed, do not alter the total level of income in the economy other than through reducing the deadweight costs of taxation when the level of transfer payments is reduced. That is, the distribution changes, but there is not much change in the overall level of economic activity.

The exception to this general rule is where the expenditure on additional services, such as childcare, has second round effects by raising the demand for labour. This depends on whether there were underemployed resources in the economy, and whether fiscal stimulus is effective at raising demand.¹¹

Spillover effects aside, to the extent that people who were not working had lower capabilities and hence productivity, the overall economic improvement will be less than proportional to the rise in hours worked. And while increasing capabilities raises potential productivity, there need to be opportunities to work. Hence the economic impact in the short run depends on the state of the economy. In the longer run, the state of the economy can in turn be affected.

Dynamic impacts on employment income

Unemployment and the loss of human capital

Evidence linking unemployment with lower probabilities of future employment and withdrawals from the labour market was presented in chapter 4. Unemployment can result in scarring — reducing a person’s capacity to return to work. Even relatively short periods of unemployment can reduce a person’s skills. Long periods can

¹¹ The benefit to overall employment depends on the point in the business cycle, the benefit being higher at times where there is a substantially lower utilisation of resources. The benefit also depends on how the fiscal expansion is financed, and whether this pushes up interest rates and crowds out alternative economic activity. The effect of government expenditure on GDP, known as the Keynesian multiplier, varies across countries as well as over the business cycle. Estimates of the multiplier for a number of countries have been made recently by Baum, Poplawski-Robeiro and Weber (2012).

severely reduce human capital and, in turn, lifetime income as well as have intergenerational effects.

- A study by Gregg and Tominey (1997), controlling for individual heterogeneity, found that in the United Kingdom experiences of unemployment at an early age resulted in wages being lower by 12 to 15 per cent at the age of 42, although the difference fell to 8 to 10 per cent if further periods of unemployment were avoided.
- Edin and Gustavsson (2004) estimated that 12 months of non-employment lowered an individual's skill rating by 5 percentage points.
- Loss of employability also increases with the duration of joblessness (Arulampalam 2001; Cahuc and Zylberberg 2004).

The importance of employment for enhancing human capital is also supported by findings for Germany and Austria that show that even low-wage jobs can contribute to building skills and enhancing future employment (Grun, Mahringer and Rhein 2011; Knabe and Plum 2010).

These effects are observed at the aggregate as well as the individual level. At an economy-wide level, high unemployment and low participation rates reduce the human capital available in the future. Examining trends for 20 developed countries, Ball (2009) concluded that a period of high unemployment arising as a consequence of a downturn in demand during a recession results in a higher natural rate of unemployment which only declines after a long period of strong growth. This effect has been called hysteresis.

While the evidence on the causal mechanisms is not conclusive, Ball (2009) points to the effect of unemployment on human capital as a probable cause. Liu, Sun and Lin (2012) also found evidence of hysteresis for both participation and unemployment rates in Australian states and territories.

The impact of disadvantage on life-time employment income

The largest gains in terms of economic activity are likely to be from policies that contribute most to building the human capital of young people who have many years of working life ahead of them. As discussed in chapter 4, long term joblessness in families raises the probability that the children will have lower educational outcomes and poorer labour market outcomes. The strong socio-economic gradient in educational attainment points to the potential costs of disadvantage (Polidano, Hanel and Buddelmeyer 2012).

Various estimates of the cost of childhood poverty have included the cost of lower lifetime income (box 5.3). Holzer et al. (2007), for example, estimated that in the United States, at a child poverty rate of 17 per cent, the annual cost of reduced employment income to the economy was 1.3 per cent of GDP. The estimates were based on an average intergenerational elasticity estimate of 0.5 (a measure of the effect of a percentage change in parental earnings on the percentage change in the earnings of their children as adults). Holzer et al. (2007) explained:

... an adult who grew up in poverty has a difference in family income of 0.98 log points, which represents the difference between the average incomes for poor families (about \$14,500) and twice the poverty line for a family of four (about \$38,800) in 2005. This implies a reduction of 0.49 log points in earnings for those who grew up in poverty relative to the median household. Since median adult earnings was about \$30,500 in 2005, a reduction of 0.49 log points associated with poverty reduces average adult earnings to about \$18,770, or by 39 per cent relative to median earnings. (p. 13)

Based on the share of the population who grew up in poverty, the estimate was that GDP was 2.1 per cent lower than it would otherwise have been. However, adjusting for ‘hereditary factors’ (estimated to explain about 40 per cent of the difference) reduced the estimate to 1.3 per cent of GDP.

While such estimates need to be treated with caution, and do not imply the returns likely from policy, they do indicate that the scale of the intergeneration effect is likely to be considerable.

Other dynamic ‘spillover’ effects on overall employment income

Reducing employment disadvantage and increasing participation and productivity can have other dynamic effects on the economy.

- Higher GDP means more output that can be consumed or saved and invested.
- Higher investment increases the resources available to support future economic activity, including investment in education.

By reducing future levels of disadvantage, taxpayer expenditure on related ‘regrettables’ and transfers would also be reduced. For example, attaining higher incomes and the scope to accumulate assets to support retirement (particularly housing) should reduce poverty rates in the future for the elderly. More generally, higher rates of employment in the future should reduce the welfare burden on governments, while increasing the tax base.

Such dynamic effects are clearly important to policy consideration, not least in assessing whether public investments can pay for themselves over time. However, they are not easy to assess. More generally, as the gains depend on a range of policy

decisions as well as market and household behaviours, such dynamic effects cannot readily be included in any quantification of the overall ‘costs of disadvantage’. It is certainly relevant to include them in assessments of the net benefits of policy, as long as due care is taken to ensure double counting is avoided, and assumptions about the realistic level of avoidable disadvantage, and the level of uncertainty in such estimates, are made explicit.

Some other impacts on material living standards

A person’s standard of living generally depends more on their household income than on their individual income, and on the services provided within the household. Household formation can affect the standard of living of the people in a household. The tendency of people to form partnerships with people with similar characteristics, including education, tends to reinforce the effect of both disadvantage and reductions in disadvantage (OECD 2011c). Unemployed men, for example, find it harder to form a stable adult partnership (chapter 4). While the framework set out in figure 5.1 takes the individual as the unit of account, in some cases the household would be more appropriate.

The measures of deprivation covered in chapter 3 point to the fact that material living standards also depend on the availability and affordability of services in the local community. Stronger economic activity in a region helps to promote investment in economic and social infrastructure — both because the higher income provides the revenue base for funding such investment, and because the community demands better services. This is one mechanism whereby people in a community benefit from a reduction in disadvantage in their locality, even where they themselves were not disadvantaged.

In addition to purchased goods and services, the standard of living a person experiences depends on the household services they receive. As with engagement in the labour market, disadvantage can reduce the capacity of people to engage positively in both household work and volunteering. For example, Lattimore (2007) reports the 1997 ABS *Time Use Survey* estimates that economically inactive males between the ages of 25 and 54 years contribute about half the time per week to unpaid voluntary work contributed by employed males. It is also likely that disadvantage has a material impact on non-market production (see also Berger and Waldfogel 2011).

While it is important to recognise these costs of disadvantage, estimating them is often hampered by lack of data and estimating a realistic counterfactual can be fraught. An example of this problem is that for Australia the data are not available

to distinguish whether disadvantaged neighbourhoods are a result of residents becoming (or remaining) disadvantaged, or whether disadvantaged people move into the neighbourhood, while those who overcome disadvantage move out. The locational policies of public housing agencies are also contributing factors.

5.3 Expenditure on ‘regrettables’

Three broad areas of regrettable expenditure have received the most attention:

- poor health
- antisocial behaviour
- relationship breakdown.

These costs can be measured in terms of out of pocket expenditures for those directly affected and costs to taxpayers (part of the fiscal impact).

Costs to taxpayers can include: spending on programs to ameliorate or prevent disadvantage (such as income transfers and early childhood education); spending in response to the consequences of disadvantage (such as homeless shelters, health services and counselling services); and the deadweight costs of taxation and administration costs. As discussed earlier, only the spending which could have been avoided should be included in any estimate of cost.

Expenditure related to poor health

Households where people experience chronic health problems and disability often have higher non-discretionary costs and other needs. Zaidi and Burchardt (2003) estimated that in the United Kingdom if the special needs of disabled people were taken into account in calculating their poverty line, the poverty rate for this group would increase threefold. A reduction in some types of disadvantage can reduce related household needs, for example, where a person’s health is improved, medical costs could be lower. In other cases public spending, such as spending directed to supporting people with disabilities, can reduce the personal costs of disadvantage.

In Australia, because of lower rates of private health insurance coverage of households in the bottom income quartile, and low capacity to ‘self-insure’, a substantial share of health care expenditure for those experiencing deep and persistent disadvantage falls to governments to fund.

The NATSEM study (Brown, Thurecht and Nepal 2012) which looked at the potential gains from addressing the social determinants of the health ‘gap’ between the top and the bottom income quartiles estimated annual savings of \$2.3 billion in hospital expenditure, \$273 million in Medicare services, and \$185 million in Pharmaceutical Benefit Scheme scripts. While not all of this expenditure is avoidable, it provides a very considerable, if upper bound, estimate.

Expenditure relating to anti-social behaviour and crime

Anti-social behaviour causes personal suffering for the victims and often the perpetrators. It also imposes financial costs on the victims, the community and on public expenditure in terms of: preventative programs; dealing with the consequences of such behaviour; and administering the criminal justice system.

While many of the most economically damaging crimes (most notably fraud) have been perpetrated by people of relatively high socio-economic status, there is evidence of partial correlations between disadvantage and higher rates of substance abuse, domestic violence, child abuse, personal assault, and property crime. For example, James and Glaze (2006) found evidence from the United States that many prisoners with mental health problems had a history of disadvantage including physical and sexual abuse, family histories of drug and alcohol abuse, homelessness and unemployment. The Australian Institute of Criminology (Rollings 2008) estimated that crime costs Australia around \$36 billion a year (4 per cent of GDP). Fraud makes up 40 per cent of this cost, burglary 10 per cent, drug offences 9 per cent, arson 8 per cent, criminal damage 7 per cent, and assault 7 per cent.

While some of this expenditure is borne privately, such as spending on better security systems and on repairing property damage, much is publicly funded. For example, justice services make up almost \$11 billion of the \$36 billion (Rollings 2008). Hospital treatment for the victims (and sometimes perpetrators) of interpersonal violence was estimated to cost between \$9 and \$10 million a year in Western Australia, with a mean cost per admission of close to \$4 000 (Meuleners, Lee and Hendrie 2007). Victims can receive publicly funded compensation and other services. Child protection services and the criminal justice system are similarly funded through taxation.

Expenditure relating to relationship breakdowns

While the personal costs are considerable, taxpayers shoulder a share of the financial burden of family breakdown through income and other support for single

parents and homeless people.¹² The size of these costs depends very much on the extent of welfare support provided. Whilst there are few studies of the direct costs of relationship breakdown, estimates of the costs of child poverty and of homelessness are relevant.

Child poverty is indirectly related to relationship breakdown through the greater risk to poverty of single parent households. Bramley and Watkins (2008) estimated that the cost to government services of dealing with child poverty in the United Kingdom ranged between £11.6 and £20.7 billion. This cost was predominantly made up of additional personal social services (around 25 per cent of the low estimate), acute healthcare (10 per cent), school education (25 per cent) and police and criminal justice services (11 per cent).

Homelessness is also influenced by relationship breakdown. A recent study by Baldry et al. (2012) illustrates the fiscal impact of homelessness on Australian governments. Following the lives of 11 young Australians who became homeless to identify the health, welfare, housing, police, legal and custodial services that were used by these people, Baldry et al. found that the lowest amount spent on any person in the study was \$960 000. One person incurred public spending of more than \$5.5 million between the ages of 12 and 21.

As discussed earlier, such an approach to estimating the cost of homelessness needs to be treated with some caution as such case studies do not reflect average expenditure. Indeed Culhane (2008) demonstrated that for the United States estimates, the greater the sample used in estimating the service related costs of homelessness the lower the average estimates tend to be. Also, the costs are not an estimate of the savings in expenditure that could be achieved by a policy. That said, given the magnitude of these costs, policies that are effective in avoiding at least some of the negative personal consequences of relationship breakdowns and avoiding homelessness are likely to produce a high public return.

Other expenditures to address and prevent disadvantage

Efforts by the Australian and State and Territory Governments to address and prevent disadvantage have broadened over time from a focus on income support that aims to alleviate poverty, to more active policies and programs. These address individual areas of need covering a wider range of disadvantages and investment

¹² While there are many reasons why people become homeless, relationship breakdown between parents, children and parents, and between other household members, is often a key factor. For those who experience long term homelessness, most have experienced childhood trauma (Johnson et al. 2011).

through preventative programs. Some not-for-profit organisations are also active in this area, in some cases delivering services on behalf of governments, and in other cases drawing on private contributions from the community to fund and staff their programs. Local governments also undertake some programs, such as home help services.

Many of the programs provide support to people who would not be classified as being disadvantaged (chapter 2), and as such determining what is spent on disadvantage is difficult. To the extent that programs are successful in reducing disadvantage, there are potentially significant benefits in reducing other costs of disadvantage as outlined above. However, programs that are not effective impose an economic cost on the community without any commensurate benefit, and inefficient programs consume more resources than is necessary. Assessing the effectiveness and efficiency of taxpayers' dollars spent on reducing disadvantage in Australia is beyond the scope of this study, but such a study is warranted. Any such assessment requires examining each program separately and looking at the collective impact of programs on particular groups of people.

Taxes raised to fund public expenditures on income transfers, health care for preventable diseases, and imprisonment (all of which can be affected by the extent of disadvantage), impose a deadweight cost on the economy. The cost depends on the efficiency of the taxes used to raise the revenue. Estimates by KPMG Econtech (2010) for the Henry Tax Review put these costs at between 8 cents per dollar of revenue (GST) and 67 cents (insurance taxes).

Deadweight costs add to the cost of the expenditure programs, as do the administrative costs of collecting the taxation and administering the programs. Unlike transfers, these deadweight costs impose a net cost on the economy.

5.4 Quality of life costs

Social exclusion measures recognise the importance to people of participation (not just in paid work, but in volunteering and social activities), relationships and of feeling connected to the community. Sen's approach to defining disadvantage includes a lack of freedoms as one of its sources, and this is reflected in the inclusion of indicators such as personal safety and measures of civil society in the OECD's *Better Life Index*. Like a person's health, these things matter because they directly affect the quality of a person's life. A cost of disadvantage is the reduction in the quality of life it causes.

Measuring quality of life costs is not easy. While a person's health, participation, and relationships might be observable, the values they attach to these outcomes are not. And, as discussed earlier, values can be affected by adaptation and a person's expectations (for example, if a person's outcome is similar to others it may not be of concern, so they would place a low value on what might have been) (box 5.6).

Box 5.6 Hedonic adaptation and estimates of personal costs

There is a school of thought within psychology that each person has a 'set point' of happiness or life satisfaction largely determined by genetics and personality, which they generally return to after relatively brief deviations caused by most life events or changed circumstances (Easterlin 2003; Helliwell 2008; Inglehart et al. 2008). This school of thought argues that people adapt to changes in their lives such as getting married or divorced, losing a job, being seriously injured or winning the lottery. While such events may cause fluctuations in well-being, in time people tend to return to their innate level of happiness or life satisfaction. At a societal level, the theory suggests that happiness levels, once basic needs are met, remain relatively stable over time.

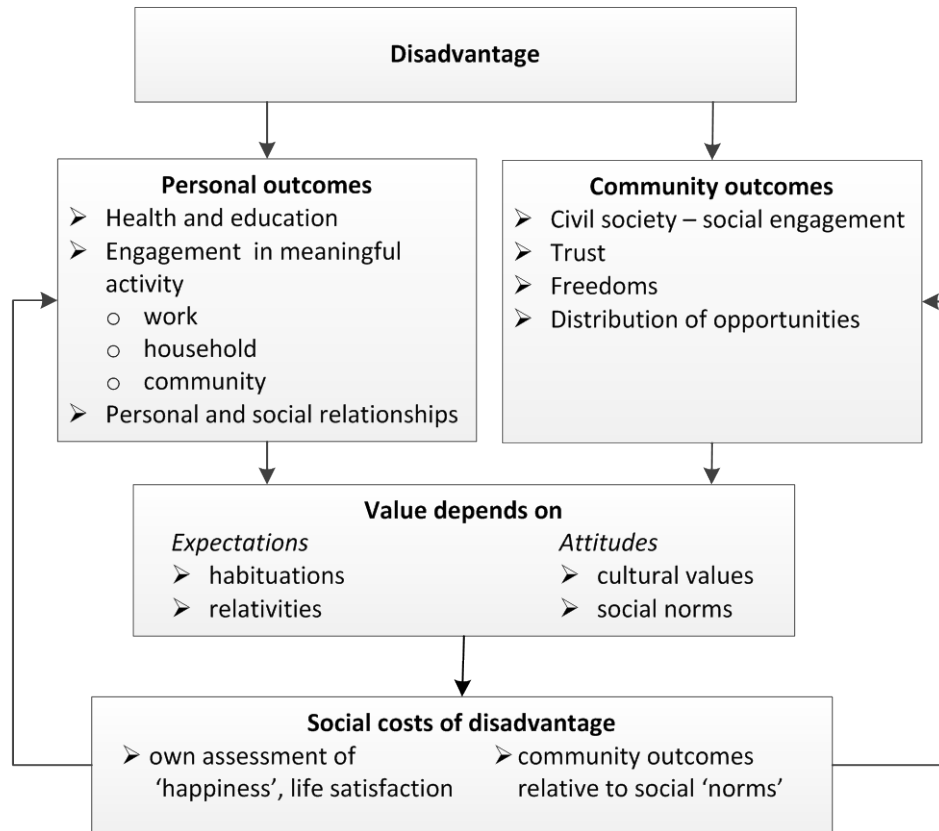
In recent years, researchers have focused on investigating whether, in various life domains, this process of hedonic adaptation is complete (that is, people fully adapt to changed circumstances in these areas of their life) and, if so, over what time periods. If the process of hedonic adaptation is shown to be incomplete or relatively protracted, it opens up the possibility that changes in objective life circumstances can meaningfully affect longer term wellbeing.

The evidence appears to suggest that there are significant variations between different life domains in the extent and speed of hedonic adaptation to changed circumstances. For example, Easterlin (2003) found that people adapt more fully to changes in their pecuniary circumstances (such as income) than in some non-pecuniary domains (such as health and family life). However, there can be considerable lags in adaptation even to desirable changes. For example, work by Di Tella and MacCulloch (2008) suggests that while the rich half of European nations fully adapt to higher levels of per capita income, this process of habituation can still take over five years.

Similarly, proxy indicators of social impacts of disadvantage (such as changes in social connectivity, civil society, and various freedoms) may be devised, but the importance of these changes to the community will vary and are not easily measured (PC 2003). The values placed on these community level outcomes will vary across individuals, but will also be affected by the social norms and cultural values in the community (recognising that there is a wide distribution of actual values in any one community).

A map of the information required to construct measures of both the changes in the personal and community outcomes (impacts) and the values placed on these changes is provided in figure 5.5.

Figure 5.5 **Estimating the costs of disadvantage: quality of life**



In the absence of market valuations for these costs, other indicators such as public expenditure, philanthropy and the extent of volunteering give some guidance to assessing the relative importance of different quality of life outcomes. Hedonic techniques have been used to assess quality of life aspects of employment, such as the health risks associated with a job. The ‘value of a statistical life’ has been fairly widely accepted as a measure of the cost of poor health or early death.¹³ Survey based approaches that ask about willingness to pay for outcomes can also be used. More recently, data sets that include questions on subjective wellbeing (SWB) are providing rough estimates of relative values of some of these personal and social impacts.

¹³ The ‘value of life’ literature draws on hedonic and stated preference techniques to estimate willingness to pay or willingness to accept compensation for different levels of injury, disability and pain and suffering. Value of life estimates may also take into account the employment income foregone, so studies that estimate employment effects directly need to use value of life estimates that exclude employment income impacts. See Murphy and Topel (2006) for an economic framework for valuing improvements in health.

Apart from the value of life estimates, most of the empirical estimates of non-market valuations have focused on estimating community willingness to pay for environmental outcomes. Relatively little empirical work has focused on the costs of disadvantage to people's happiness or life satisfaction or subjective wellbeing which measures different aspects of SWB (box 5.7). The main applications have been to examine the impact on people of unemployment and of poor health. The findings are discussed below.

The social costs of unemployment

A number of studies (Blanchflower and Oswald 2004; Clark and Oswald 1994; and Junankar and Kapuscinski 1992) have demonstrated that unemployment has a significant negative impact on quality of life (as measured by SWB). The total cost to an individual of unemployment is the income loss referred to earlier (less any transfers they receive) plus the personal cost. This personal cost arises as unemployment can impact on factors that affect people's quality of life such as their self-esteem and their relationships.

Dockery (2005), drawing on the *Longitudinal Surveys of Australian Youth* (LSAY) data, found a strong negative relationship between unemployment and life satisfaction for Australian youth. This negative relationship was also found for all working age people in the HILDA data (Dockery 2004).

Estimates of the personal cost of unemployment find that the costs to quality of life often exceeds the income loss. For example, Carroll (2007), using the first three waves of HILDA data and an individual fixed effect model, estimated that the non-pecuniary cost of a shift from employment to unemployment was equivalent to a loss in annual income of \$42 100 for men and \$86 300 for women in Australia. Similar estimates for women are found in other countries, but are lower for men.¹⁴

As discussed, the costs of unemployment can be affected by habituation. Dockery (2004), for example, provided evidence from the LSAY and HILDA data that the personal cost of unemployment tends to decline with the duration of unemployment. However, Clark (2006), in an examination of three European panel data sets, found little evidence of habituation in the 1990s.

¹⁴ This is a good example of the need for care in interpreting the costs of disadvantage. While the estimates indicate that the 'cost' of becoming unemployed for a person is roughly twice the income loss, the cost to GDP is limited to the income lost.

Box 5.7 Estimating the intrinsic impacts of disadvantage

A significant share of the costs of disadvantage are intrinsic, such as the personal costs imposed by exposure to risk, loss of self-esteem, emotional effects of a breakdown in personal relationships, and pain and suffering. It is hard to measure intrinsic outcomes and the value people put on them — indeed as the outcome is how people feel about something, this volume and value distinction is not always appropriate. And in any case, the outcome is often not observed.

Willingness to pay to avoid an adverse outcome, or the compensation required to offset the experience of such an outcome (willingness to accept), can be estimated in several ways. Hedonic methods use market prices for outcomes that vary only in the adverse characteristic to isolate the shadow price of the adverse characteristic. For example, the difference in wages associated with the risk of workplace injury forms the basis for most value of life estimates (Murphy and Topel 2006). Lack of relevant market comparators makes such techniques difficult to apply to many of the intrinsic costs of disadvantage.

Stated preference methods draw on survey data to estimate the trade-offs in outcomes people are willing to make between some measure of income or payment and the experience under examination. Valuations of environmental outcomes tend to draw heavily on stated preference approaches, often generating high estimates of willingness to pay to avoid adverse outcomes. However, such techniques are commonly criticised as being subject to biased responses (Arrow et al. 1993; Carson, Flores and Meade 2001; Henry 2010; Hausman 2012).

The growth in the collection of data on subjective wellbeing (SWB), which asks people how happy or satisfied with their life they are, provides another way to estimate the costs of disadvantage. As Dolan, Peasgood and White (2008) explained:

Rather than the ‘decision utility’ approach of revealed preferences (as reflected in market behaviour) or stated preference (e.g. using the contingent valuation method), SWB takes an individual’s well-being to be an overall assessment of their life. (p. 95)

This data can be used to estimate the intrinsic costs to those experiencing disadvantage by comparing their ‘life satisfaction’ or ‘happiness’ with people of similar characteristics (such as age, gender, marital status) who are not experiencing disadvantage. While large scale panel data sets are improving, the quality of the estimates and comparability of findings is limited by different categorisation of variables. Causality is often difficult to identify, and unobserved heterogeneity can under-estimate the significance of the observed factors. While Dolan, Peasgood and White (2008) note that ‘the existing evidence base is not quite as strong as some people have suggested’, they conclude:

There is also some agreement on things that are associated with SWB (e.g. age, separation, unemployment and health) which have been confirmed using different data sets, different countries, different time periods and different methods of analysis. (p. 113)

Expectations about income volatility appear to matter more than the actual experience. Schwarze (2008), using the German Socio-Economic panel data, found that satisfaction with income is more affected by ex-ante than ex-post volatility of income. Hence the relationship between duration of unemployment and SWB appears to be complex.

Relativities also appear to matter.

- Shields et al. (2009) found that the intrinsic effects of unemployment are lower for Australian unemployed men who live in areas of higher unemployment — a finding common to several other countries.
- Analysis of German panel data by Clark, Knabe and Ratzel (2009) found that high regional unemployment had the greatest effect on men with good job prospects, whether employed or unemployed, while it had fewer negative effects on those with poor job prospects.

This suggests that the level of unemployment in a region establishes a ‘social norm’ which reduces the personal costs of unemployment for those who are unemployed, but raises them for those who are employed or who are highly employable.

The social costs of poor health

As discussed in chapter 4, there is a strong socio-economic gradient associated with major health risk factors (such as smoking, physical inactivity, obesity and at-risk alcohol consumption), as well as with a failure to access early diagnosis and treatment. This impacts on employment and income and also (discussed below) on household needs. It also impacts directly on people’s quality of life.

Brown, Thurecht and Nepal (2012) report that people in the bottom income quartile experience much higher rates of mortality, low self-assessed health status, and long-term (and acute) health conditions. They also report much lower life satisfaction. For people in this bottom income quartile, those reporting good health were 30 per cent more likely to say they were satisfied with their lives compared with those reporting poor health. Dolan, Peasgood and White (2008) in their survey of factors affecting subjective wellbeing also reported that:

Psychological health appears more highly correlated with SWB than physical health ...Some of the association might be caused by the impact that well-being has on health but the effect sizes of the health variables are substantial ... Furthermore specific conditions, such as heart-attacks and strokes, reduce well-being. (p. 100)

The intrinsic cost of a health condition may decline over time as people adapt to their circumstances. Oswald and Powdthavee (2008) found that the longer a person

has experienced a disability, the lower the negative impact it imposes. However, adaptation is not complete, and people with poor health and disabilities generally report lower levels of subjective wellbeing (Cummins et al. 2010).

There may also be some intrinsic costs that increase with duration, such as caring responsibilities.

Social costs associated with caring

Carers of people with disabilities, including elderly carers, have been identified as a group that has a higher probability of experiencing disadvantage (chapter 4). In part this is because they have lower rates of participation in the labour market (PC 2011c), and hence lower incomes and potential to accumulate assets over their life time. But there are other stresses and demands on carers that can also reduce their quality of life.

While most people derive considerable pleasure and satisfaction from caring for loved ones, the burden of caring can exact an increasing cost on carers over time. However, adaptation also appears to play a role. For example, while Cummins et al. (2007), drawing on the Australian Unity Wellbeing survey, found that SWB was significantly lower for people with carer responsibilities than the average for those who did not (by around 23 per cent), the difference fell as duration of caring rose from less than 6 months to 6 months to 2 years. This suggested some degree of habituation, but the gap rose after 2 years. This could be due to a longer term accumulation effect of duration on carer wellbeing — habituation being replaced by exhaustion and financial stress.

Other social costs

Dolan, Peasgood and White (2008), in reviewing 153 papers using data from 19 major subjective wellbeing surveys, identified a number of social outcomes that significantly increased people's wellbeing. These include:

- membership of organisations (religious and other)
- being married
- socialising with family and friends
- feeling safe at home and in the neighbourhood
- living in a tolerant society.

The quality of social connections appears to underpin both social and neighbourhood trust and directly affect SWB (Helliwell and Putnam 2005). For example, Helliwell and Wang (2011) found a strong positive relationship between various measures of trust and subjective wellbeing for Canada. There also appear to be complex dynamic effects. In this respect Helliwell and Wang found strong negative links between social trust and deaths due to both suicides and traffic accidents.

Australian data show similar results. Cummins et al. (2005) found that the main difference between electorates exhibiting high and low wellbeing was not income, but the level of community connections. The electoral divisions which reported higher subjective wellbeing tended to have populations which were older, with more females, more married and widowed, and fewer who were never married. There was less income inequality within the divisions, and less ethnic diversity. To the extent that disadvantage undermines social capital, the impact can be estimated by the differences in SWB between communities with higher and lower levels of indicators of social activity.

As proposed by Sen in his ‘capability’ view of disadvantage (chapter 2), freedom of choice and autonomy are found to be important for people’s well-being (Ryan and Deci 2001). Diener and Biswas-Diener (2002) argue:

It appears that individuals who feel self-confident and are thus ‘psychologically empowered’ are more likely to make progress toward their personal goals, and are more likely to be happy. In order to be empowered, people need to possess the resources to reach their goals, and also to have the psychological mindset that they can reach the goals, and will actively do so. (p. 3)

The SWB literature shows that there are significant differences in the relative importance of different community outcomes across countries. Hence the social costs of different types of disadvantage are likely to differ across countries. For example, Alesina and Glaeser (2004) found major differences in attitudes to income inequality between the United States and United Kingdom. Kaltenthaler, Ceccolli and Gellany (2008) found considerable differences between countries within the European Union. Also, attitudes to policy interventions to reduce inequality were explained in terms of attitudes a person held in regard to politics and society rather than economic self-interest. Better data is needed to assess the value placed on these types of social impacts on disadvantage in Australia.

Some interesting indirect effects and feedback loops between social and economic ‘costs’ of disadvantage have also been investigated. For example, Winkelmann (2006), drawing on the German longitudinal socioeconomic survey, found that the duration of unemployment was lower the higher the level of social

capital. This analysis of the relationship between social and economic disadvantage was made possible by the sheer size of the data set. Examination of such issues for Australia is limited due to the small size of the longitudinal data samples (chapter 6).

5.5 The distribution of costs

There are two dimensions to the distribution of the costs of disadvantage and the benefits of reducing disadvantage — across the community and over time.

Distribution across the community

The costs of disadvantage are distributed unequally across the community. The personal costs borne by the people who experience disadvantage and their families depend on their loss of quality of life (social cost), their regrettable expenditure and foregone employment income (economic costs which are partly offset by transfers). The broader community bear the economic cost of the transfers and other public and private expenditure on regrettables. The broader community also bear much of the spillover economic and social costs.

Distribution of economic costs

Jobless households and people living on low incomes who lack assets are among those most likely to experience low material living standards (chapter 3). Their living standards depend largely on the generosity of income transfers (a cost to the broader community). The economic spillover effects are likely to be significant only in the longer run as a larger and more productive labour force (from improved capabilities) has a positive impact on economic activity. Although the productivity and participation benefits of engaging many of the disadvantaged in the workforce is lower than the community average, it is positive. And, if investments are made to improve their capabilities (including health), the impact will be greater.

The costs to the community is mainly spending on ‘regrettables’, which is largely taxpayer dollars directed towards the consequences of disadvantage. The distribution of this cost largely reflects the distribution of the tax burden across society.

There is also a geographic distribution effect. People living in locations with a high proportion of disadvantaged households are more likely to have a lower standard of living due to the correlation between disadvantaged locations and poorer access to

services. For example, Currie, Stanley and Stanley (2007) describe poor access to transport as a characteristic of areas with much lower standards of living.

Distribution of social costs

People in disadvantaged neighbourhoods also experience more intrinsic ‘neighbourhood’ effects. For example, Vinson (2007) described weak social networks, poor role models and a relative lack of opportunity as characterising some local areas in Australia.

To the extent that the source of disadvantage is related to poor community relationships and the social environment (such as safety), then average subjective wellbeing is lower across the people in that community. For example, Ludwig et al. (2012), drawing on a randomised housing mobility experiment in the United States, estimated that the gain in subjective wellbeing from moving from a low to high quality neighbourhood was the same as an increase in income of \$13 000 (on an average income of \$20 000).

The importance of relativities to people, and the effects of adaptation/habitation means the impact on the broader community wellbeing of a low quality of life for people experiencing disadvantage is not straight forward. On the one hand, if disadvantage is largely related to income, people who are relatively better off tend to report higher levels of subjective wellbeing, with one reason being that neighbours form a reference point for their assessment of their own wellbeing (Stutzer and Lalive 2004; Shields and Wooden 2003). On the other hand, as discussed above, the existence of disadvantage itself can impose a social cost where the community care about inequality or the outcomes for the most disadvantaged.

Distribution over time

There are important duration effects of disadvantage that impact on the economic and social costs over time.

As described in chapter 4, there are life-time costs of childhood poverty, abuse and neglect (and, in some cases intergenerational costs). These are a major source of future economic and social costs. For example, Berger and Waldfogel (2011) identified risks to the next generation of children in their review of studies on the long term consequences of child neglect or abuse.

Studies that have estimated the current costs of past child poverty give some sense of the distribution of costs (box 5.3). For example, Hirsch (2008) reported that of

the estimated 2 per cent of GDP annual cost of child poverty in the United Kingdom 32 per cent was foregone earnings of adults who grew up in poverty and the remainder higher government spending and lower tax revenues. Similarly, of the 4 per cent of GDP cost of childhood poverty in the United States estimated by Holzer et al. (2007), a third was estimated to be lost employment income, a third expenditure resulting from higher rates of crime, and a third due to poorer health. Of the health costs, while 15 per cent was for higher health expenditures, 85 per cent was from lost quality of life. With the exception of this intrinsic health cost, costs to quality of life for adults who grew up in poverty were not included in the estimates.

Other types of past episodes of disadvantage can also raise the probability of experiencing disadvantage in the future, and with this a higher probability of personal, economic and social costs in the longer term. For example, people who have experienced child abuse also have much higher rates of poor health, unemployment and poor social outcomes than those who do not (Lamont 2010, box 4.2). Periods of high youth unemployment have equally been found to result in long term personal costs associated with poverty and broader disadvantage, but also community costs, including for income support, job search assistance and other costs (Muir et al. 2003). Low income over a lifetime can leave people with few assets, especially housing, to support their living standards in retirement.

Some of the concerns about growing inequality stem from the potential long term economic consequences (OECD 2011c). Figini (1999) argued that this is due in large part to the effect of inequality on investment in human capital. More recently, Halter et al. (2010) examined European panel data to test the direction of causation and how this differs over time. This study found evidence that in the short run economic growth contributes to income inequality, as skills in short supply receive a greater share of the rewards, but over the longer term inequality tends to reduce growth.

The costs and benefits of interventions to address disadvantage

This chapter looked at the costs of disadvantage in terms of the effect on people's employment income (and with this the effect on the economy), expenditure on regrettables, and the costs of lower quality of life. While the types of costs that arise from disadvantage can be identified, there are few good estimates of these costs. Identifying what costs are avoidable, which is the appropriate counterfactual, is also fraught. But for governments it is not the overall costs of disadvantage that matters rather it is the extent to which these costs can be reduced by a policy or program.

The chapter provided one way to categorise the types of costs that could be examined to assess the benefits of an effective policy or program in a way that reduces the scope for double counting. Evaluations need to estimate the extent to which some or all these costs can be reduced by the changes that result from an intervention. The cost of the policy or program, including any unintended costs, also need to be taken into account in order to assess if the intervention is justified (that there is a net benefit).

Governments and community organisations in Australia invest considerable resources in preventing and addressing deep and persistent disadvantage. The balance is shifting somewhat away from passive expenditure (income support payments) to more active expenditure (such as early childhood intervention and labour market programs), in part in response to concerns about welfare dependency (RGWR 2000). But even with this shift, a strong evidence base and sound assessment of the likely effectiveness and efficiency of the policies and the comparison of net benefits per dollar expended is required.

The fact that relatively few Australians experience deep disadvantage over extended periods of time adds weight to the proposition that government policies and programs are preventing vulnerable people from slipping into deep and persistent disadvantage. But it remains the daily reality for a small share of Australia's population. How best to assist these people out of their circumstances remains an issue.

While an assessment of current policies and programs is beyond the scope of this research paper it is central to understanding how the costs of disadvantage might be reduced.

6 Where to from here? – measurement and data issues

Key points

- While there is general agreement that disadvantage is a multi-dimensional concept, researchers differ on how it should be defined and measured. And, there are challenges associated with multi-dimensional measures:
 - measuring the personal and social dimensions of disadvantage is complex
 - while a single multi-dimensional measure is useful for comparative headline analysis, it can mask changes in specific indicators or domains. A ‘dashboard’ of indicators is more difficult to interpret, but can provide policy-relevant information
 - the weighting given to particular questions or domains, when calculating a single multi-dimensional measure, is a matter of judgment. Different approaches and thresholds can lead to different conclusions about ‘who’ is disadvantaged and the extent, depth and persistence of disadvantage.
- These challenges point to the importance of clarity and transparency about the judgments used in measuring disadvantage.
- Gaps in the evidence base limit what is known about deep and persistent disadvantage. While longitudinal data is critical to understanding the dynamics of disadvantage, good data which follows people through the course of their lifetime and across generations takes time to amass — Australia’s datasets cover a relatively short period of time.
- People who are most disadvantaged are often not well represented in longitudinal studies. Some of the most vulnerable are often excluded (such as homeless people). The most vulnerable are also among the least likely to participate, and, if participating, among the most likely to drop out over time. Options for improving the representation of disadvantaged groups include: increasing the overall sample size; oversampling certain groups; and conducting specialised surveys of ‘at risk’ groups.
- Administrative data is an important potential source of information on the circumstances and life courses of Australians experiencing disadvantage, but it is not readily accessible to researchers. Privacy concerns limit data accessibility and the data is oriented to administrative needs which limits the scope of analysis.
- The integration of administrative data with other data sources has the potential to provide new knowledge to inform researchers and policy makers about deep and persistent disadvantage. A number of data integration projects are currently underway. These projects will be important for the expansion of research in this area.

As discussed in earlier chapters of this report, there are several ways in which disadvantage is understood and measured in Australia. There is no single indicator of disadvantage, but rather a range of estimates of the prevalence and extent of disadvantage based on different conceptions and calculation methods. Section 6.1 looks at where there is consensus (and contention) on the nature of disadvantage and the role the different measures play in understanding disadvantage.

Another key finding of this report is that gaps in the evidence base limit what is known about deep and persistent disadvantage. Many questions remain unanswered about why some people at risk of disadvantage are resilient and able to improve their situation while others continue to be disadvantaged or become more deeply disadvantaged. Inadequacies in the data limit what is known about the causal effects and pathways that result in deep and persistent disadvantage.

The chapter discusses the main information gaps and the opportunities for improving the availability of quality data for measuring and understanding deep and persistent disadvantage. The importance of longitudinal data for enriching the knowledge base on deep and persistent disadvantage and social mobility is discussed in section 6.2. Section 6.3 looks at administrative datasets as an important potential source of information.

6.1 Issues underlying the different measures of disadvantage

As discussed earlier in this report, the concept of disadvantage is contested. Gordon (2006) said:

It often seems that if you put five academics (or policy makers) in a room you would get at least six different definitions of poverty. The literature on poverty is full of controversies, implying that there are considerable differences in opinion on how poverty should be defined and measured. Many, possibly most, of these controversies arise from a misunderstanding of the differences between definition and measurement. (p. 32)

On the measurement side, however, there is general consensus that while static money-metric measures of disadvantage (based on either income or consumption) are useful and relatively easy to measure, they have well-known limitations, including that they are a partial measure and they fail to capture the dynamic nature of disadvantage (chapter 2). While a series of cross-sectional income data can generally establish the prevalence of income poverty, it does not shed any light on the depth or persistence of disadvantage or on causality. As Cellini, McKernan and Ratcliffe (2008) put it:

... studies of static poverty rates do not provide a complete picture of poverty. They do not reveal, for example, whether those in poverty last year remain in need or whether new individuals have fallen below the poverty threshold. Nor do they reveal how long individuals remain in poverty. (p. 578)

There is also general agreement that disadvantage is a multi-dimensional concept (encompassing not only material standards of living but also less tangible aspects of quality of life, such as social connections and personal safety) and that measures of disadvantage need to reflect this. As Nolan and Whelan (2011) said:

... while conventional poverty measures based on low income provide a satisfactory way of identifying the poor, they do not tell us all we need to know about what it *means* to be poor. Non-monetary deprivation indicators can then play a central role in capturing and conveying the realities of the experience of poverty, bringing out concretely and graphically what it means to be poor in terms of deprivation of everyday items and activities. (p. 16)

But, there are challenges associated with measuring the non-income and less tangible dimensions of disadvantage (chapter 5).

While a single multi-dimensional measure or index (such as the Social Exclusion Monitor) can be useful for comparative headline analysis, the importance of changes in the different underlying indicators can be masked or overlooked. Another approach, which can be useful for policy purposes, is to publish the separate indicators that make up a multi-dimensional measure. That said, as noted by the Poverty Analysis Group Discussion (2012), dashboards (where a number of indicators that are tracked simultaneously but not brought together into a single index) take the focus away from a single construct, but ‘a large dashboard’ of indicators can also be confusing. A dashboard of indicators also does not make weightings between the various dimensions explicit.

There are various judgments involved in the measurement of disadvantage. For multi-dimensional measures, judgments are made about which indicators should be included, and their respective weightings. Different judgments can lead to different conclusions about the extent, depth and incidence of disadvantage and the groups experiencing disadvantage. Such judgments should be informed by evidence about the importance of particular indicators for people’s wellbeing as well as the value the community places on various aspects of disadvantage (for example, on being deprived of certain goods and services). But, even where particular survey questions, such as those for deprivation measures, are tested against the broader community views, the threshold for including particular indicators remains a matter of judgment.

There are also judgments involved in calculating thresholds for the depth of disadvantage and the time that someone is disadvantaged before they are counted as ‘persistently’ disadvantaged. Different thresholds result in different estimates of the number and composition of disadvantage. This is reflected in different poverty lines (for example, the use of a 50 or 60 per cent median household income line); different thresholds of deprivation (such as the number of items regarded as essential that are not affordable); and different thresholds for exclusion (such as between deep and very deep exclusion).

Linked to the issue of thresholds is the sensitivity of some of the indicators of disadvantage to relatively small changes in life circumstances. For example, if people are clustered around an income poverty threshold, small changes in the level of social security payments can lead to large changes in the number of people ‘counted’ as income poor. Threshold rates do not provide information about the depth of poverty experienced below the threshold. This suggests that caution should be exercised when using a single or limited number of measures for understanding the nature, extent and duration of disadvantage.

Judgments underlying the various measures should be transparent so that they can be considered and debated. The development of the measures should be strongly grounded on evidence (and informed community discussion) of the effects of different aspects of disadvantage on individuals’ wellbeing. Multi-dimensional measures should be able to provide a better picture about how the different dimensions of disadvantage interact (and/or reinforce) one another.

The Poverty Analysis Group Discussion (2012, p. 7) recently stated that an approach which takes account of different theories ‘enriches the understanding and effectiveness of poverty analysis’. The Group also argued the need for continued investment in finding ways to better understand the nature of disadvantage:

Continued investment in approaches for better capturing the multi-dimensionality of poverty which are appropriate to different policy environments is therefore necessary — including combining qualitative and quantitative measures, listening to poor people’s own views on what indicators are important, developing new measures and metrics, and combining indicators. (p. 5)

6.2 Longitudinal data — critical for understanding disadvantage

Longitudinal data is critical to understanding the dynamics and possible causes (and effects) of disadvantage. It can provide information about income and consumption (for individuals and households) over time, as well as changes in other important

aspects of life such as education and employment, household formation, health status and social connections. It can provide insights into the factors which determine life-chances of children and social mobility, as well as contribute to the knowledge base about what works in terms of policy and why. Commenting on why it is so important to have data on the same person over time, Scobie (2009) said:

Cross-sectional surveys of firms or individuals are plagued with the fact that so many of the things that matter are unobservable or at best captured by a weak proxy. ... By observing the same individual repeatedly through time, we can, under a weak assumption, control for the unobservables and have potentially more robust evidence. (p. 173)

A Guide to Australian Longitudinal Studies put out by the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA 2013) also said:

Longitudinal data allows decision-makers to go beyond describing the extent of a policy problem to develop some understanding of how and why problems occur and what is likely to help. It also enables identification of the consequences of problems. Because longitudinal data tracks individual pathways, it can show how different people respond to opportunities and setbacks, and how their responses and outcomes change in the short and long term. This provides policy-makers a breadth and depth of perspective — showing how circumstances and policy levers affect outcomes over time. (p. 10)

But good data which follows people through the course of their lifetime, and particularly data which covers generations, takes a considerable time to amass and is expensive to collect. Some of the other challenges include: survey attrition (and the resulting small sample size of some groups and survey bias as reported in chapter 3); ‘seam phenomenon’ (seams can arise if there are changes in survey implementation between waves, such as the move from interviews with pencils and paper to computer-assisted technology); and censored spells that can bias results (where complete spells of disadvantage are not observed in the data — a person is not observed entering or leaving disadvantage because of the sample period) (Cellini, McKernan and Ratcliffe 2008).

There are limited longitudinal data bases in Australia. Other countries, including the United Kingdom, the United States, Canada, Germany and New Zealand, have more extensive longitudinal datasets.

As discussed in chapter 3, the main databases in Australia are the Household Income and Labour Dynamics in Australia (HILDA) Survey, the Longitudinal Study of Australian Children (LSAC) and the Longitudinal Surveys of Australian Youth (LSAY). These surveys have only been operating for a relatively short period of time and, as such, do not provide a complete picture of the life-course people take.

-
- The HILDA survey commenced in 2001 and data are available for the first ten waves of the study (Melbourne Institute of Applied Economic and Social Research 2013). While the survey data provide insights into whether people remain disadvantaged year on year (or move out of disadvantage), the data as yet do not provide information on pathways and subsequent life-course outcomes.
 - LSAC commenced in 2004 with two cohorts — families with 4-5 year old children and families with 0-1 year old infants. The LSAC has the potential to provide insights into children's developmental pathways and support the analysis of intergenerational transmission of disadvantage. However, as LSAC has been operating for less than a decade, the oldest children in the survey are only just beginning to approach school leaving age.
 - LSAY began tracking young people (at age 15 for ten years) in 1995. These are important years of transition from dependency to independence, but for many young people they are unlikely to be completed years of transition (for example, they may delay leaving the parental home, partnering and establishing a career).

... but often there are insufficient numbers of the most disadvantaged

Longitudinal surveys are limited in their coverage of people who are the most disadvantaged for a number of reasons. First, people most likely to be experiencing disadvantage are often excluded from longitudinal surveys as they can be difficult to contact. For example, the HILDA survey excludes homeless people and people living in very remote areas. Also excluded from the initial HILDA survey were people living in institutions (but people who move into institutions in subsequent years remain in the sample). The most disadvantaged people are also less likely, or able, to respond if contacted. As Saunders (2011) said:

Past experience indicates that those people who are experiencing poverty are often unlikely to respond to surveys that are sent to members of the general population. If the bias that results from this under-representation is to be avoided, special efforts are required to ensure greater participation by those most likely to be disadvantaged. (p. 9)

A second problem is that such participants are more likely to drop out from the sample over time. The Melbourne Institute of Applied Economic and Social Research notes that people from non-English speaking backgrounds, unemployed people, Indigenous Australians and people with low skills are more likely to drop out of the HILDA survey.

Without replacement strategies to ensure the survey remains representative, apparent trends may be confounded by sample attrition. Even if the representative nature of the sample is maintained, there will be shorter periods of data for at least some of the categories of interest, making it more difficult to identify persistence in disadvantage.

Third, the relatively small sample sizes in most longitudinal collections, together with the small share of the population who experience deep and persistent disadvantage, means relatively few unit record files are available for analysis. Working with small sample sizes has important implications for the level of robustness of the inferences that can be made.

There are several options for reducing or overcoming these difficulties. One is to have more special purpose surveys or focus groups. The need for more targeted surveys of those at high risk of deep and persistent disadvantage has been addressed for two groups — Indigenous children (the Longitudinal Survey of Indigenous Children (LSIC)) and people at risk of becoming homeless or actually experiencing homelessness (Journeys Home, box 3.1). Consideration may need to be given to the construction of more such focused surveys covering other deeply disadvantaged groups (for example, prisoners).

Other options include increasing the sample size or over sampling disadvantaged groups in the main longitudinal surveys, such as HILDA and LSAC. These options have the potential to improve the significance of findings and allow a finer-grained examination of factors contributing to disadvantage. Administrative data are another potential source of information (section 6.3).

... and more nuanced information on people's experiences is needed

The basic demographic and household characteristics of deeply and persistently disadvantaged people are captured in the existing surveys. But these characteristics are common to large proportions of the population — for example, lone parents, people with limited educational attainment, those with a long term health condition or disability and Indigenous Australians. While a large cross section of the community have characteristics which put them at risk of becoming disadvantaged, only a minority of people with such characteristics become deeply or persistently disadvantaged (chapter 3). For example, relationship breakdown is a known risk factor, but most lone parents do not become deeply or persistently disadvantaged. Similarly, many people experience poor health, but most people with a long-term health problem are not deeply or persistently disadvantaged.

A better understanding of causality is essential for informing policy makers about ways to effectively address deep and persistent disadvantage. Key questions are:

- what is the interaction between what triggers or causes disadvantage and the characteristics of those who experience deep and persistent disadvantage?
- why are some people with similar ‘at risk’ characteristics resilient, while others are more vulnerable to becoming disadvantaged for long periods of time?

Answering such questions requires data on the experiences of disadvantaged people, together with more information about their personal characteristics (extending beyond the more common demographic variables).

However, longitudinal studies on their own are not sufficient to establish causality. As noted by Boivin and Hertzman (2012) in the context of early adversity:

It is important to note that while cohort studies provide evidence that early adversity is *associated* with later life outcomes, longitudinal designs, on their own, are not sufficient to conclusively determine that early experiences are the ‘cause’ of behaviour and mental problems in adulthood. In addition to the implicit temporal sequence linking the presumed cause and effect, causal inference also requires conditions of control, such as experimental manipulation and random assignment, to be validly assessed. (p. 20, original emphasis)

As discussed in chapter 4 (box 4.1), randomised trials can provide the ‘perfect’ counterfactual. But, for both ethical and practical reasons, it is difficult to conduct randomised trials in the area of social policy. Natural experiments, such as twin and adoption studies, are another approach. These studies can be a quasi-experimental test of environmental (and genetic) sources of variance.

Smith and Middleton (2007) question whether the ‘right’ questions are being asked when it comes to triggers of poverty:

Findings in the literature about the triggers of poverty are confined to the content of the available data and, essentially, to what questions are asked in surveys. This raises the question of how confident we can be that all the ‘right’ questions have been asked and, so, whether all potential poverty triggers have been taken into account. ... Thus a second question follows: what other events need to be examined as potential poverty triggers? (p. 6)

While surveys commonly ask questions about education, employment and events such as marital or relationship breakdowns, few ask questions about other critical life events such as the death of a family member, the experience of trauma or addictions that could make people vulnerable to disadvantage. Similarly, the experience of service use is not always questioned and recorded. For example, the HILDA survey does not collect data on homelessness, access to transport, access to health and financial services or voter enrolment (Brotherhood of St Laurence 2011).

Not asking the right questions could result in under-reporting of disadvantage. It could also miss actions (such as receiving assistance or participating in programs) that could help develop resilience and provide people with opportunities.

While it is known that resilience is important for breaking cycles of disadvantage, less is known about the personal characteristics that make some people more able to cope and less likely to be knocked over by particular experiences (chapter 4). As Smith and Middleton, in Berthoud and Zantomio (2008), said:

Poverty dynamics research highlights groups with the greatest probability of persistent poverty, but it does not explain why some of those at greatest risk nevertheless avoid or escape poverty altogether. Better understanding of this would be important to help design a more effective, targeted response to tackling substantive poverty. (p. 5)

This necessitates not just datasets with details of people who are identified as disadvantaged, but details of those who, despite their risk factors, do not become disadvantaged.

Insights into resilience could also come from longitudinal qualitative research. As Smith and Middleton (2007) note:

Qualitative research is not bounded by predetermined questions and would be able to identify potential poverty triggers through reiterative inquiry with participants ‘on the ground’. While such findings from a longitudinal qualitative project could be used to inform survey design, the approach would also lend itself to exploring issues of, for example, personal agency, choice, aspiration and expectation in order to provide a ‘bottom-up’ perspective and deeper understanding of poverty dynamics. (p. 6)

Similarly, Levitas et al. (2007) argued the merits of qualitative research:

In general, qualitative research is superior to survey research for exploring individual experiences, and can offer far greater insights into complex interactions of factors. Qualitative research has enormous merits in its own right, but can also provide the basis for better questions for specialist surveys. (pp. 126-7)

In a similar vein, the Poverty Analysis Discussion Group (2012) argued for the need to improve and expand longitudinal studies, including the use of qualitative research:

There are a slowly expanding number of national panel household surveys – though still far fewer than we need. The rate of expansion could be greatly enhanced. These need to (a) be undertaken over a sufficiently long span, and with sufficiently long periods between survey dates to observe significant mobility; (b) include information on different social groups and categories; (c) be partnered with qualitative research which enhances the richness of understanding and addresses issues which are difficult to address through surveys. (p. 6)

Welfare agencies are a potentially valuable source for information about what it means (the realities of the experience) for people to be disadvantaged.

While the knowledge base on the dynamics of disadvantage is still relatively thin, further research (using more and improved panel datasets and data which cover increasingly longer trajectories of individuals' experience) is required to reveal additional insights into the nature and causes of persistent and recurrent disadvantage and to assist policy makers in designing more effective policies.

6.3 Administrative data

Administrative data sources can be an important source of information on the circumstances and life courses of people who are most disadvantaged. Government agencies, at all three levels of government, hold very large administrative datasets which may assist in unlocking a deeper understanding of factors influencing disadvantage, the government programs that are accessed by those experiencing disadvantage, and how those programs assist (or hinder) those who are the most vulnerable.

Administrative data can cover long periods of time and also largely address the problem of existing survey bias where deeply and persistently disadvantaged groups are poorly represented in surveys. However, in comparison with other countries, the accessibility of administrative data to researchers in Australia is limited.

There are a number of departmental datasets which could potentially shed light on the characteristics and pathways of people with multiple disadvantages.

The Department of Human Services (DHS) has extensive administrative datasets associated with its role in delivering payments and services to individuals and families across the social welfare, Medicare and child support programs. Recipients include disadvantaged groups or those at risk of becoming disadvantaged.

Legislation restricts the information collected to that required to determine an individual's eligibility for a payment or service. The Privacy Act prescribes the management of the data collected and its release. Databases for payments and services authorised under the Social Security Act are kept separate from those administered under the Medicare Act and the Child Support Scheme. The databases are not linked.

While some data are available on external websites and many requests for statistical information are met, external users seeking data must go through a formal request process. The DHS recently established an internal research and analysis capability

to better analyse its databases to inform the development of service delivery strategies including those that would assist individuals and their families in, or at risk of, disadvantage. The initiative has the potential to inform broader research.

FaHCSIA has a number of administrative databases associated with its role in the delivery of government services to various groups, many of which would include disadvantaged persons or those at risk of becoming disadvantaged.

- FaHCSIA has a longitudinal data warehouse which retains information on clients on income support from its Income Security Integrated System mainframe for 12 successive years until June 2007. The data series was discontinued at this point due to maintenance costs and other priorities.
- Another dataset focuses on client dependence on housing assistance, and is linked to ABS Census data. The data is used to flag those clients who change their address regularly during a calendar year as being vulnerable to financial disadvantage (and those at risk of homelessness) as well as those who are reliant on weekly rather than fortnightly housing assistance payments.
- The Child Support Evaluation Dataset provides information on child support.

Such data systems, however, have been designed for internal departmental purposes such as tracking payments rather than being set up for external research. Extracting information from the longitudinal dataset also requires expert knowledge of SAS (a data manipulation program) to interact directly with the mainframe in monitoring various income support payment systems. As with other departments, FaHCSIA faces tight legislative restrictions relating to privacy concerns which limit data availability to external users, even in a de-identified form.

The Department of Education, Employment and Workplace Relations (DEEWR) uses its Research Evaluation Database (RED) to analyse information on all income support recipients apart from clients of the Department of Veterans' Affairs. The database provides longitudinal information on the demographic characteristics of welfare recipients as well as the types of income support (benefit history) and other benefits and services that clients receive. The database also provides information on current income levels of welfare recipients (including earnings from paid employment and other sources of income), their household circumstances (partnered or single) and their children.

One of the limitations of this database is that it cannot shed light on activities undertaken by clients when they leave income support (for example, when they become employed or undertake education). Its longitudinal value relates to the time spent on income support — such as whether clients are engaged in part-time work

which reduces their reliance on income support, and whether they shift from one form of income support to another.

DEEWR has assisted the Melbourne Institute of Applied Economic and Social Research in the past to use the RED to undertake evaluation analyses on topics such as the impact of welfare-to-work reforms. This research was commissioned under the Social Policy Research Services Agreement (2010-12).

DEEWR also uses a Job Seekers Screening Instrument to profile newly registered job seekers as to the presence of different types of relative disadvantage which may contribute to them becoming long-term unemployed. If new job seekers are assessed as having multiple, or more severe, forms of disadvantage, they can be referred for earlier intensive assistance. This database could be a useful source of information on the degree of disadvantage faced by some job seekers which limits their capacity to participate in the workforce. However, the information is limited to job seekers receiving Newstart Allowance and Youth Allowance and does not include the large number of people with multiple disadvantage who are in receipt of the Disability Support Pension.

Data integration

Data integration (or data linkage) involves combining information from different data sources, such as surveys and administrative databases, to produce a new dataset. By linking the records in individual datasets, more information is leveraged from the combination of individual datasets than is available from the original sources taken separately. This maximises the potential value of existing datasets and can assist researchers to improve their understanding of deep and persistent disadvantage. For example, the LSAC links survey data with the administrative databases of Medicare Australia, the National Childcare Accreditation Council and National Assessment Program Literacy and Numeracy to further research factors influencing the development of children (NSS 2013).

Census Data Enhancement Project

In 2005, the Australian Bureau of Statistics (ABS) initiated the Census Data Enhancement Project. As part of this project, the ABS is linking census data to the following datasets to improve the quality of data:

- the Department of Immigration and Citizenship's (DIAC's) Settlement Database to facilitate evaluation of improvements implemented by DIAC to the Settlements Database

-
- a sample of student data from the National Assessment Program and the Australian Early Development Index, linking census data to school and early childhood education student enrolment data as part of a strategy to develop an Australian Longitudinal Learning Database
 - State and Territory Registers of Births, Deaths and Marriages, to assess the match between Indigenous status in the two collections. This will improve data on health status, wellbeing and life expectancy of Indigenous people and provide input into the development of national best practice guidelines for data linkage related to Indigenous people
 - the Australian Cancer database maintained by the Australian Institute of Health and Welfare with the objective of improving understanding of the relationships between socio-economic variables and cancer risks and outcomes, and improve the estimates of cancer incidence and mortality for the Indigenous community (ABS 2006b; ABS 2010c).

The Census Data Enhancement Project also involves the formation of a Statistical Longitudinal Census Dataset (SLCD) which will provide information on about 5 per cent of the Australian population. Wave 1 of the SLCD was created by selecting a random sample from the 2006 Census dataset. Wave 2 will endeavour to bring together the wave 1 records with their corresponding records from the 2011 Census. The 5 per cent SLCD containing 2006 and 2011 Census data will be available in 2013. The dataset will allow researchers to build a picture of how people move through transitions in their lives and what factors influence these transitions (ABS 2010c).

Statistical data integration involving Australian and state government data

In 2010, the heads of all Australian Government agencies and the Australian Public Service Commission endorsed a set of principles to govern the integration of Australian government data for statistical and research purposes, as well as a set of governance and institutional arrangements to support these principles. An important part of the arrangements is holding one agency accountable for the safe implementation of a data integration project. An Integrated Authority must be appointed for every data integration project involving Australian government data. The interim arrangements for accreditation are to be tested on Australian government agencies first. Following the testing phase, final arrangements will be put in place (expected to be October 2013, NSS 2013).

At the state level, Western Australia has been linking administrative data from state agencies since 1995. More than 700 studies have made use of linked data in areas such as health and aged care, development pathways for children, family connections, Indigenous identification and road safety (Data Linkage Western Australia 2013).

Examples of integrated datasets are provided in box 6.1.

Box 6.1 Data integration projects

The Ethics Committee of the *Australian Institute of Health and Welfare* (AIHW) approves data integration projects and while these projects focus on health issues, some are relevant to broader issues of disadvantage.

- Passports to advantage: health and capacity building as a basis for social integration.
- Mortality rates in a youth offender cohort: a 10 year follow-up.
- Mortality in people who inject drugs in Australia: record linkage of combined research cohorts.
- Validation of the Enhanced Indigenous Mortality Database using NSW Native Title Register data.
- Childhood Determinants of Adult Health Study linking data from the 1985 Australian Schools Health and Fitness Survey with the National Death Index.
- Linking data from the Supported Accommodation Assistance Program, juvenile justice and child protection sources to enable an analysis of movements between these sectors and the characteristics of young people who are involved in more than one these programs.

The *Population Health Research Network* (PHRN) is an Australian Government initiative responsible for building national data linkage infrastructure with the aim of improving health and health care outcomes. The PHRN is overseeing the development of new and expanded data linkage capacity in each Australian state/territory and supporting the establishment of a national Centre for Data Linkage.

The *Developmental Pathways in WA Children Project* is a multidisciplinary approach to investigating the pathways to health and wellbeing, education and juvenile delinquency outcomes among Western Australian children and youth. It is linking data from state government departments and agencies to create a significant research and policy planning/evaluation resource.

Sources: AIHW (2013b); Data Linkage Western Australia (2010); PHRN (2012).

In summary, administrative datasets can be an important source of information on deep and persistent disadvantage. Privacy policies by necessity limit data accessibility, but greater scope to confidentialise data, and apply confidentiality at the output rather than the input stage of analysis, could greatly enhance the scope to utilise administrative data to evaluate the effectiveness of policies and programs in preventing disadvantage and reducing costs.

The integration of administration data with other data sources also has the potential to provide new knowledge. There are several initiatives, particularly but not only, at the Commonwealth level that have the potential to significantly improve the level of information for researchers, policy makers and program administrators about deep and persistent disadvantage. It is important that these developments proceed and that there is greater transparency and availability of administrative projects in the future.

A Characteristics of Australians most likely to experience disadvantage

Characteristics of people experiencing relative income poverty

Analysis conducted by the Social Policy Research Centre (SPRC) for the Australian Council of Social Service (ACOSS) using ABS *Survey of Income and Housing* (SIH) data show a high prevalence of relative income poverty in 2009-10 for Australians who are:

- unemployed (63 per cent)
- not in the labour force (44 per cent)
- dependent on income support (37 per cent)
- single households and lone parents (25 per cent, table A.1).

Data on the composition of those experiencing poverty show that Australians whose main source of income is income support accounted for almost two thirds of those experiencing relative income poverty. People not in the labour force and not retired accounted for over 40 per cent.

Groups experiencing multiple deprivation and income poverty

The SPRC *Community Understanding of Poverty and Social Exclusion* (CUPSE) study conducted in 2006 provides estimates of multiple deprivation (four or more items) and income poverty by different demographic and other characteristics (table A.2).

People with the following characteristics experienced higher rates of multiple deprivation than the national average (15 per cent):

- Indigenous Australians (60 per cent)
- lone parents (40 per cent)
- people with a long-term health condition or disability (23 per cent)
- people whose main source of income is social security payments (27 per cent).

Table A.1 **Prevalence and composition of relative income poverty^a, 2009-10**

	<i>Prevalence rate</i>	<i>Share of total (%)</i>
Gender		
Female	13.5	53.8
Male	12.1	46.2
Age		
Under 15 years	17.3	25.4
15 to 24 years	12.0	13.1
25 to 64 years	11.3	46.8
65 years plus	13.2	14.7
Household type		
Single, no children	25.3	21.0
Lone parent	25.0	25.3
Couple, no children	8.4	15.3
Couple with children	9.0	33.1
Country of birth^b		
Australia	10.6	63.3
Other - main English speaking	11.7	10.5
Other	15.8	26.2
Labour force status		
Employed full time	3.8	17.7
Employed part time	17.2	15.4
Unemployed	63.3	8.4
Not in labour force - retired	14.0	15.6
Not in labour force - other	43.7	42.9
Main source of income		
Income support	36.5	62.2
Wages	5.2	29.4
Other	16.2	8.4
Total	12.8	100.0

^a Using 50 per cent of median equivalised household income. Data has been adjusted to take account of housing costs by deducting costs such as rents, mortgage payments and rates from the relevant poverty line and deducting households' housing costs from their incomes. ^b Data is only available on country of birth for those aged 15 years plus.

Source: ACOSS (2012).

Table A.2 Profile of deprivation and poverty
CUPSE 2006

<i>Household characteristic</i>	<i>Prevalence of multiple deprivation^a</i>	<i>Poverty rate^b</i>
	%	%
Age		
Under 30 yrs	21.4	21.2
30 to 64 yrs	15.2	11.8
65 yrs plus	8.5	18.8
Family type		
Single, working age	25.0	9.2
Working-age couple, no children	7.9	3.4
Working-age couple, with children	13.6	15.4
Lone-parent family	40.4	28.9
Older single person	13.0	7.8
Older couple	5.6	14.1
Main source of income		
Wages or interest	10.8	6.6
Social security payments	27.0	33.3
Educational attainment		
High school or below	18.7	18.4
Trade certificate	13.3	12.0
University	7.5	12.0
Housing tenure		
Owner/purchaser	7.8	9.9
Private renter	39.4	20.9
Public renter	47.4	37.5
Indigenous status		
Indigenous	60.0	38.1
Non-Indigenous	14.1	14.1
Has an ongoing health condition or disability		
Yes	22.9	25.1
No	12.8	11.9
Type of income support payment		
Age pension	9.8	Na
Service Pension	8.7	Na
Disability Support Pension	32.4	Na
Parenting Payment Single	63.2	Na
Newstart Allowance	59.0	Na
Total	14.6	14.4

^a Deprived of four or more essential items which have been identified as being essential by at least 50 per cent of the community sample. ^b Based on responses to the CUPSE survey using a threshold of 50 per cent of household equivalised median income. na — not available.

Source: Saunders (2011).

Australians with these characteristics are often public housing tenants (or private renters). Almost half (47 per cent) of all public housing tenants experience multiple deprivation along with 40 per cent of private renters (Saunders 2011).

More recent 2010 *Poverty and Exclusion in Modern Australia* (PEMA) survey data show unemployed people, people who are studying, people whose main source of income is social security payments, public and private renters, people with a disability and Indigenous Australians have much higher absolute and relative deprivation scores than the average (Saunders and Wong 2012).

In most cases, groups experiencing high deprivation rates also experience relatively high income poverty rates. An exception are single people of working age who recorded a relatively high deprivation rate (25 per cent) but a relatively lower income poverty rate (9 per cent). While relative income poverty is not a strong predictor of multiple deprivation, or vice versa, the SPRC CUPSE study found that the results for the different groups are highly correlated. However, for people over 65 years, the income poverty rate is much higher than the rate of deprivation (19 per cent compared to 9 per cent).

The SPRC caution that the income data derived from the CUPSE survey is not as robust as income data collected by the ABS *Survey of Income and Housing*. However, the poverty rates allow comparisons with deprivation rates. The relatively high poverty rates for older Australians indicate the clustering together of social security recipients just below the poverty threshold calculated using the CUPSE data (Saunders 2011).

Groups experiencing deep and very deep social exclusion

The SEM prevalence rates for social exclusion using HILDA data show those groups most likely to have experienced *deep* social exclusion in 2010 were:

- people who were unemployed (31 per cent of this group)
- people with a long-term health condition or disability (13 per cent)
- people who had Certificate I or II qualifications (12 per cent)
- people who were not in the labour force (11 per cent)
- lone parents with dependent children (10 per cent)
- Indigenous Australians (9 per cent)
- lone persons (9 per cent) (table A.3)

Public housing tenants also had a relatively high prevalence of deep social exclusion (21 per cent).

Table A.3 Prevalence of depth of social exclusion

	<i>Deep social exclusion^a</i> (% of group)		<i>Very deep social exclusion^b</i> (% of group)	
	2001	2010	2001	2010
Gender and age				
Male	6.8	4.0	1.3	0.6
Female	8.1	5.5	1.5	0.9
15 to 24 yrs	6.2	4.2	1.4	0.4
25 to 34 yrs	5.8	3.2	1.1	0.7
35 to 44 yrs	7.1	3.2	1.5	0.8
45 to 54 yrs	6.1	5.1	1.0	0.8
55 to 64 yrs	11.6	6.1	2.1	1.1
65 yrs plus	10.4	7.6	1.2	1.1
Family type				
Couple with no children	6.6	4.3	1.1	0.5
Couple with dependent children	4.0	2.4	0.5	0.4
Lone parent (dependent children)	17.8	10.1	4.9	1.3
Lone person	12.3	8.6	2.6	1.4
Country of birth				
Australia	7.0	4.4	1.3	0.7
Main English speaking	6.1	6.3	1.1	1.1
Other	10.9	5.7	1.8	0.8
Indigenous status				
Indigenous	20.8	9.1	9.7	2.8
Non-Indigenous	6.7	4.2	1.2	0.6
Health				
Has long-term health condition or disability	19.4	13.3	4.0	2.8
No long-term health condition or disability	4.1	1.8	0.6	0.1
Housing type				
Outright owner	6.5	4.2	1.0	0.4
Owner with mortgage	4.1	2.5	0.6	0.3
Private renter	11.4	6.4	2.4	1.2
Public housing tenant	27.4	21.1	7.1	6.6
Education				
Tertiary	2.1	1.0	0.2	0.1
Certificate III or IV	6.1	3.6	0.9	0.8
Year 12	4.3	3.1	0.6	0.4
Certificate I or II	13.6	12.2	3.8	0.1
Year 11 or less	12.7	9.9	2.6	1.7
Total	7.2	4.8	1.2	0.8

(continued on next page)

Table A.3 (continued)

	<i>Deep social exclusion^a</i> (% of group)		<i>Very deep social exclusion^b</i> (% of group)	
	2001	2010	2001	2010
Labour force status				
Employed full-time	1.1	0.5	0.1	0.1
Employed part-time	3.4	1.8	0.4	0.1
Unemployed	40.7	31.4	11.1	7.1
Not in the labour force	15.2	11.2	2.6	2.1
Total	7.2	4.8	1.2	0.8

^a Had an aggregate score of two or more from the seven domains of exclusion. ^b Had an aggregate score of three or more from the domains of exclusion.

Source: Brotherhood of St Laurence and Melbourne Institute Social Exclusion Monitor (unpublished data, June 2013).

The Australian Social Inclusion Board, using the results of the 2006 ABS General Social Survey, found that sole parents (13 per cent), lone persons (13 per cent) and people aged 55 to 64 years (11 per cent) were more likely to experience multiple disadvantage, along with 41 per cent of public housing tenants (Australian Social Inclusion Board 2010).

The Brotherhood of St Laurence and Melbourne Institute Social Exclusion Monitor (SEM) results show reductions in the prevalence of *deep* exclusion for most groups, and in particular for Indigenous Australians — which more than halved from 21 per cent in 2001 to 9 per cent in 2010. The prevalence of deep exclusion for lone parents with dependent children fell from 18 per cent to 10 per cent. The prevalence of *very deep* exclusion for Indigenous Australians also fell from 10 per cent to 3 per cent.

Some caution should be heeded in interpreting the results for Indigenous Australians, as they are based on a relatively small sample and the HILDA survey does not include Indigenous Australians residing in remote communities. The same caveats apply to the interpretation of data for Indigenous Australians from the CUPSE and PEMA surveys.

Characteristics of people experiencing persistent disadvantage

Persistent income poverty

Income poverty is more persistent for people in particular household types. According to HILDA data, elderly single people are far more likely to experience

persistent relative income poverty as measured by being in poverty for six to ten years between 2001 and 2010 (table A.4). But this measure of disadvantage does not take into account home ownership or other sources of wealth and does not correlate well with measures of deprivation for older people.

Table A.4 Years in relative income poverty by household type, 2001 to 2010^a

Per cent of total

	<i>0 years</i>	<i>1-2 years</i>	<i>3-5 years</i>	<i>6-10 years</i>	<i>Total</i>
Non-elderly couple	70.8	17.3	8.3	3.6	100.0
Couple with children	71.2	20.4	6.0	2.4	100.0
Lone parent	41.9	29.9	21.1	7.1	100.0
Non-elderly single male	60.1	21.8	13.1	5.1	100.0
Non-elderly single female	56.3	24.0	13.4	6.3	100.0
Elderly couple	36.9	28.4	17.9	16.8	100.0
Elderly single male	24.0	25.3	21.2	29.5	100.0
Elderly single female	26.7	20.1	17.5	35.7	100.0

^a Refers to subsequent poverty persistence of people who were in a classified household type in 2001.

Source: Melbourne Institute (2013).

Just over 7 per cent of lone parents experienced persistent relative income poverty. This indicates that a substantial number of children are growing up in households experiencing long periods of relative income poverty. Other data sources show lone parents and their children also experience deprivation and social exclusion.

Persistent social exclusion

The SEM enables analysis of the characteristics of those aged 15 years plus who could be regarded as experiencing ‘deep social exclusion persistence’ (two or more forms of exclusion for four or more years between 2001 and 2010). In terms of composition, the data show that:

- 81 per cent of people experiencing deep and persistent social exclusion had a long-term health condition
- 61 per cent had attained an education of year 11 or below
- 16 per cent were unemployed

In terms of prevalence:

- just over 11 per cent of people with a long-term health condition were deeply excluded (compared with the average for all Australians aged 15 years plus of just over 4 per cent)
- just under 12 per cent of unemployed people were deeply and persistently excluded
- just over 9 per cent of those with year 11 education or below were deeply excluded (table A.5).

The vast majority of people with poor health and low education, however, were not deeply and persistently excluded.

Indigenous Australians (aged 15 years plus) had a relatively high prevalence rate of deep and persistent exclusion — at 11 per cent — compared to 4 per cent for non-Indigenous Australians.

Lone parents also have relatively high rates of deep and persistent social exclusion (11 per cent). However, less than 7 per cent of older Australians (aged 60 years plus) experienced deep and persistent social exclusion (this contrasts with high rates of relative income poverty).

As mentioned earlier, many of those who experience persistent disadvantage are public housing tenants. Almost a quarter of public housing tenants experience deep and persistent social exclusion. This group accounts for just over a fifth of all those who are deeply and persistently disadvantaged.

Table A.5 Characteristics of those deeply and persistently excluded
Persons aged 15 years plus between 2001 and 2010

	<i>Composition (%)</i>	<i>Prevalence (%)</i>
Gender		
Male	40.8	3.7
Female	59.2	5.2
Age		
18 to 29 years	6.5	2.5
35 to 59 years	49.1	3.8
60 years plus	44.4	6.5
Family type		
Couple no children	31.3	4.2
Couple with children	16.4	1.9
Lone parent	19.8	11.3
Lone person	28.5	6.8
Other	4.0	9.3
Health		
Had long-term health condition	80.6	11.2
No long-term health condition	19.4	1.3
Country of birth		
Born in Australia	69.9	4.2
Born in main English speaking country	10.9	4.6
Other	19.2	5.6
Indigenous status		
Non-Indigenous	94.7	4.1
Indigenous	5.3	10.8
Educational attainment		
Tertiary education	5.9	1.1
Advanced diploma or diploma	4.2	1.9
Certificate III or IV	16.9	3.5
Year 12	8.8	2.9
Certificate I or II	3.3	7.8
Year 11 or less	60.9	9.3
Housing type		
Owned house outright	33.1	3.8
Owner with mortgage	15.5	2.1
Private renter	21.5	5.4
Public housing tenant	21.7	23.6
TOTAL	100.0	4.4

Table A.5 (continued)

	<i>Composition (%)</i>	<i>Prevalence (%)</i>
Location		
Major city	60.8	4.2
Inner regional	26.3	5.0
Outer regional	12.5	5.6
Remote	0.4	1.1
Labour force status		
Employed full time	6.4	0.8
Employed part time	8.6	2.0
Unemployed	16.1	11.5
Not in the labour force	68.9	10.1
TOTAL	100.0	4.4

^a An aggregate score of 2 or more and excluded for four or more years.

Source: Social Exclusion Monitor (2012) (unpublished data).

B Strengths and weaknesses of measures of disadvantage used in Australia

The strengths, weaknesses and characteristics of the various measures of relative income poverty, deprivation and social exclusion used in Australia are summarised in table B.1.

Table B.1 **Characteristics of different measures of disadvantage**

	<i>Definition</i>	<i>Data availability</i>	<i>Comparability</i>	<i>Coverage and quality</i>
Income poverty				
Relative poverty	Persons in households receiving less than 50% (or 60%) of household median equivalised disposable income	ABS SIH (biennially) HILDA (annually) CUPSE & PEMA surveys (ad hoc)	Comparisons available across groups and between countries; some differences in time frames and methodologies when comparing with other OECD countries	Partial indicator – covers some elements of financial hardship but not low consumption or low net wealth
Financial poverty (Headey)	Low income + low consumption + low wealth	HILDA	Can make comparisons with some OECD countries	More comprehensive indicator of those experiencing financial poverty
Deprivation				
Saunders (SPRC)	7 out of 48 essential items	CUPSE & PEMA surveys	Can compare deprivation of vulnerable sub-groups	Partial indicator – uses cross sectional data from ad hoc surveys – does not monitor deprivation dynamics
Social Exclusion				
Social Exclusion Monitor (SEM)	7 life domains (box 3.2) – equally weighted Sum score of 2 or more for deep exclusion; 3 or more for very deep exclusion – can be any combination of indicators	HILDA	Can make comparisons of rates of deep exclusion between sub-groups over time	More comprehensive indicator – can monitor dynamics or transition between states over time
Saunders (SPRC)	3 domains – income poverty, deprivation and exclusion 7 indicators out of 27	CUPSE & PEMA surveys (ad hoc – 2006 & 2010)	Can make comparisons of sub groups experiencing multiple exclusion in cross sectional surveys	Cross sectional estimates – does not track dynamics of spells of exclusion and non-exclusion

Australian Social Inclusion Board	3 domains – economic, personal and social with two indicators for each Need to have at least 3 indicators of the 6 to be classified as experiencing multiple disadvantage which is their proxy for social exclusion	ABS GSS (every 4 years)	Information available on characteristics of those experiencing multiple disadvantage	Cross sectional estimates — does not track dynamics of spells of exclusion and inclusion
-----------------------------------	--	-------------------------	--	--

Overlap or intersection or multiple or deeper disadvantage

SEM	Deep exclusion (score ≥ 2) or very deep exclusion (score ≥ 3) Aggregation of exclusion indicators – the greater the number of indicators, or the higher the score, the greater the level of social exclusion — can be any combination of indicators	HILDA	Can make comparisons of characteristics of those deeply excluded and rates of deep exclusion between sub-groups over time – transitional analysis possible	Sample size is too small to make meaningful conclusions about average duration of exclusion for key sub-groups and factors which trigger movements between states of exclusion and non-exclusion
Saunders (SPRC)	Overlap or intersection of poverty, deprivation and exclusion – “core disadvantaged”	CUPSE & PEMA surveys (ad hoc – 2006 & 2010)	Can make comparisons of the percentage of the population that are core disadvantaged in cross sectional surveys – can also monitor the degree of overlap between elements of disadvantage	Sample size is too small to provide information on characteristics of those who are core disadvantaged No transitional analysis possible between states
Australian Social Inclusion Board	Multiple disadvantage — at least 3 of 6 indicators of disadvantage	ABS GSS	Can make comparisons of characteristics of multiple disadvantaged in cross sectional surveys	Does not monitor dynamics or transitions between spells of exclusion and inclusion

References

- ABS (Australian Bureau of Statistics) 2006a, *Information paper: An Introduction to Socio-Economic Indexes for Areas (SEIFA)*, Cat. no. 2039.0, ABS, Canberra.
- 2006b, *Census data enhancement project: An update*, Cat. no. 2062.0, ABS, Canberra <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2062.0Jun%202006> (accessed 6 September 2012).
- 2008, *A Profile of Carers in Australia*, Cat. no. 4448.0, , ABS, Canberra.
- 2010a, ‘Are young people learning or earning?’ *Australian Social Trends* 4102.0 March, ABS, Canberra.
- 2010b, *Disability, Ageing and Carers, Australia: Summary of findings*, 2009, Cat. no. 4430.0, ABS, Canberra.
- 2010c, *Census data enhancement project: An update*, Cat. no. 2062.0, ABS, Canberra <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/34AACD1E9BF8FC00CA2577BC008175EE?opendocument> (accessed 10 September 2012).
- 2011a, *Australian Social Trends, Year 12 Attainment*, Cat. no. 4102.0, ABS, Canberra.
- 2011b, *Australian Social Trends, Long-term unemployment*, September 2011, Cat. no. 4102.0, ABS Canberra.
- 2011c, *Labour Force Australia: Labour Force Status and Other Characteristics of Families*, Cat. no. 6224.0.55.00, June ABS, Canberra.
- 2012a, *Childhood Education and Care, Australia*, Cat. no. 4402.0, ABS, Canberra.
- 2012b, *Labour Force Australia: Labour Force Status and Other Characteristics of Families*, Cat. no. 6224.0.55.00, ABS, Canberra.
- 2012c, *Education and Work*, Cat. no. 6227.0, ABS, Canberra.
- 2012d, *Deaths, Australia*, Cat. no. 3302.0, ABS, Canberra.
- 2012e, *Job Search Experience*, Cat. no. 6222.0, ABS, Canberra.
- 2012f, *Forms of Employment*, Cat. no. 6359.0, ABS, Canberra.
- 2012g, *Census of Population and Housing: Estimating Homelessness*, Cat. no. 2049.0, Canberra.
- 2012h, *Information Paper – Methodology for Estimating Homelessness from the Census of Population and Housing 2012*, Cat. no. 2049.0, ABS, Canberra.
- 2012i, *Australian Social Trends*, March Quarter, Canberra.
- 2013a, *Average Weekly Earnings, Australia*, Cat. no. 6302.0, November 2012

-
- 2013b, *Australian National Accounts*, Cat. no. 5206.0.
- 2013c, *Labour Force, Australia*, Cat. no. 6202.0.
- ACOSS (Australian Council of Social Services) 2012, *Poverty in Australia*, Paper no. 194, Sydney.
- Adelman, L., Middleton, S. and Ashworth, K. 2003, *Britain's Poorest Children, severe and persistent poverty and social exclusion*, Save the Children, London.
- AHURI (Australian Housing and Urban Research Institute) 2010, *Addressing locational disadvantage effectively*, August (Commissioned by Housing New South Wales).
- AIHW (Australian Institute of Health and Welfare) 2007, *Australia's welfare 2007*, Cat. no. AUS93, Canberra, AIHW.
- 2012a, *A picture of Australia's children 2012*, PHE 167, Canberra: AIHW
- 2012b, *Specialist Homelessness Services 2011-12*, Cat. no. HOU 267.
- 2013a, *Child protection Australia, 2011-12*, Child Welfare Series No. 55.
- 2013b, *Data integration*, <http://aihw.gov.au/data-integration/> (accessed 21 June 2013).
- Alesina, A. and Glaeser, E. 2004, *Fighting Poverty in the US and Europe: A World of Difference*, Oxford University Press, Oxford.
- Arrow, K., Solow, R., Portney, P., Leamer, E., Radner, R. and Schuman, H. 1993, Report of the NOAA Panel on Contingent Valuation, *Federal Register*, vol. 58, no. 10, January, pp. 4602-14.
- Arulampalam, W. 2001, 'Is Unemployment Really Scarring? Effects of Unemployment Experiences on Wages', *The Economic Journal*, vol. 111, no. 475, November, pp. 585–606.
- Atkinson, A. 1998, 'Social Exclusion, Poverty and Unemployment', in Atkinson, A and Hills, J (Eds), *Exclusion, Employment and Opportunity*, CASE Paper No. 4, Centre for Analysis of Social Exclusion, London School of Economics.
- Atkinson, A., Cantillon, B., Marlier, E. and Nolan, B. 2002, *Social indicators: The EU and social inclusion*, Oxford University Press, Oxford.
- Australian Curriculum, Assessment and Reporting Authority 2012, *NAPLAN Achievement in Reading, Persuasive Writing, Language Conventions and Numeracy: National Report for 2012*, ACARA, Sydney.
- Australian Government 1975, *Poverty in Australia, First Main Report April*, Commission of Inquiry into Poverty, AGPS, Canberra.
- 2009, *A Stronger, Fairer Australia*, Social Inclusion Unit, Department of Prime Minister and Cabinet, Blue Star Printing, Canberra.
- 2013, *A Snapshot of Early Childhood Development in 2012 — AEDI National Report*, Australian Government, Canberra.
- Australian Social Inclusion Board 2009, *A compendium of social inclusion indicators. How's Australia faring?*, Paragon Printers, Canberra.

-
- 2011, *Breaking Cycles of Disadvantage*, Printing Blue Star, Canberra.
- 2012, *Social inclusion in Australia: How Australia is faring*, Printing Blue Star, Canberra.
- Azpitarre, F. 2012a, *On the persistence of poverty in Australia: a duration analysis based on HILDA data*, Melbourne Institute of Applied Economic and Social Research, Melbourne.
- 2012b, *Social exclusion monitor bulletin November 2012*, Melbourne Institute of Applied Economic and Social Research and Brotherhood of St Lurance, Melbourne.
- Baldry, E., Dowse, L., McCausland, R. and Clarence, M. 2012, ‘*Lifecourse institutional costs of homelessness for vulnerable groups*’, *National Homelessness Research Agenda*, School of Social Sciences, University of New South Wales.
- Ball, L.M. 2009, *Hysteresis in Unemployment: Old and New evidence*, Working paper 14818, National Bureau of Economic Research, Cambridge.
- Bane, M. and Ellwood, D. 1986, ‘Slipping into and out of poverty’, *Journal of Human Resources*, vol. XXI.
- Baum, A., Poplawski-Robeiro, M. and Weber, A. 2012, Fiscal Multipliers and the State of the Economy, *IMF Working Paper*.
- Baxter, J. 2013, *Parents working out work*, Australian Family Trends No. 1.
- Berger, L.M. and Waldfogel, J. 2011, Economic Determinants and consequences of Child Maltreatment, *OECD Social, Employment and Migration Working Papers*, no. 111, OECD Publishing.
- Berthoud, R. and Bryan, M. 2008, ‘Deprivation Indicators’ in Berthoud, R. and Zantomio, F., *Measuring poverty: seven key issues*, Institute for Social and Economic Research, University of Essex.
- and Zantomio, F. 2008 *Measuring poverty: seven key issues*, Institute for Social and Economic Research, University of Essex.
- Besharov, D. and Couch, K. 2012, *Counting the Poor: New Thinking about European Poverty Measures and Lessons for the United States*, Oxford University Press, New York.
- Biddle, N. 2007, ‘Indigenous Australians and preschool education — who is attending?’, *Australian Journal of Early Childhood*, vol. 23, no. 3, pp. 9-16.
- Bird, K. and Higgins, K. 2011, *Stopping the intergenerational transmission of poverty: Research highlights and policy recommendations*, Chronic Poverty Research Centre.
- Bittman, M. and Siphthorp, M. 2012, ‘Turned on, tuned in or dropped out? Young children’s use of television and transmission of social advantage’, *LSAC Annual Statistical Report 2011*.
- Black, S., Devereux, P. and Salvanes, K. 2005, *From the Cradle to the Labour Market: The Effect of Birthweight on Adult Outcomes*.

-
- Blanchflower, D. and Oswald, A. 2004, Well-being over time in Britain and the USA, *Journal of Public Economics*, vol. 88, pp. 1359-1386.
- Blanden, J. 2006, *'Bucking the trend': what enables those who are disadvantaged in childhood to succeed later in life?*, Department for Work and Pensions, Working Paper No 31.
- Blanden, J., Hansen, K. and Machin, S., 2008 *The GDP costs of the lost earning potential of adults who grew up in poverty*, Joseph Rowntree Foundation, York.
- Boarini, R. and d'Ercole, M. 2006, *Measures of material deprivation in OECD countries*, Working Paper No. 37, Paris, OECD .
- Boarini R., Cohen, G., Denis, V. and Ruiz, N. 2011, *Designing the 'Your Better Life Index' Methodology and results*, OECD Statistics Directorate Working Paper, OECD, Paris.
- Boivin, M. and Hertzman, C. (eds) 2012, *Early Childhood Development: adverse experiences and developmental health*, Royal Society of Canada, Canadian Academy of Health Sciences Expert Panel (with Barr, R., Boyce, T., Fleming, A., MacMillan, H., Odgers, C., Sokolowski, M. and Trocmé, N.), Ottawa, ON: Royal Society of Canada.
- Bourreau-Dubois, C., Jeandidier, B. and Berger, F. 2003, *Poverty Dynamics, Family Events, Labour Market Events in Europe: Are There Any Differences between Women and Men?*, EPUNet-2003 Conference paper.
- Bowes, J., Grace, R. and Hayes, A. 2012, 'The Role of Context in Children's Development' in Bowes, J., Grace, R. and Hodge, K. *Children, families and communities: context and consequences*, 4th edition.
- Bradbury, B., Corak, M., Waldfogel, J. and Washbrook, E. 2011, *Inequality during the Early Years: Child Outcomes and Readiness to Learn in Australia, Canada, United Kingdom and United States*, IZA, Discussion Paper Series, ISA DP No. 6120.
- Bramley, G. and Watkins, D. 2008 *The public service costs of child poverty*. Joseph Rowntree Foundation, York.
- Brandolini, A. and D'Alessio, G. 1998, *Measuring well-being in the functioning space*, Italy.
- Bray, J. 2001, *Hardship in Australia. An analysis of financial stress indicators in the 1998-99 Australian Bureau of Statistics Household Expenditure Survey*, Occasional Paper no. 4, Department of Families Housing, Community Services, Canberra.
- Brazenor, R. 2002, 'Disabilities and labour market earnings in Australia', *Australian Journal of Labour Economics*, vol. 5, no. 3, pp. 319-334.
- Bromfield, L. and Holzer, P. 2008, *A national approach for child protection: Project report*, National Child Protection Clearinghouse, Australian Institute of Family Studies.
- Brotherhood of St Laurence 2011, *Social Exclusion Monitor Bulletin*, September.
- Brown, L. and Nepal, B. 2010, *Health lies in wealth, Health inequalities in Australians of Working Age*, Catholic Health Australia-NATSEM Report on Health Inequalities.
- Brown, L., Thurecht, L. and Nepal, B. 2012, *The cost of inaction on the social determinants of health*, Report No. 2, NATSEM, Canberra.

-
- Brown, S., Yelland, J., Sutherland, G., Baghurt, P. and Robinson, J. 2011, 'Stressful life events, social health issues and low birthweight in an Australian population-based birth cohort: Challenges and opportunities in antenatal care', *BMC Public Health*, vol. 11, no. 96, pp. 1-12.
- Buddelmeyer, H., and Verick, S. 2007, *Understanding the Drivers of Poverty Dynamics in Australian Households*, Institute for the Study of Labor (IZA), Discussion Paper Series, No. 2827, Germany.
- Wooden, M. and Ghantous, S. 2006 *Transitions from casual employment in Australia*, Project 09/05, Melbourne Institute of Applied Economic and Social Research, December
- Burchardt, T., Le Grand J. and Piachaud, D. 2002, 'Degrees of Exclusion: Developing A Dynamic, Multidimensional Measure', in Hills, J., Le Grand, J. and Piachaud, D., *Understanding Social Exclusion*, Oxford University Press, Oxford
- Vizard, P. 2011, Operationalizing the Capability Approach as a Basis for Equality and Human Rights Monitoring in Twenty-first-century Britain', *Journal of Human Development and Capabilities*, vol. 12, no. 1, pp. 91-119.
- Burkhauser, R. 2012, 'Deconstructing European Poverty Measures', in Besharov, D. and Couch, K., (eds.) *Counting the Poor, New Thinking about European Poverty Measures and Lessons for the United States*, Oxford University Press, Oxford.
- Bynner, J. 1998, *Origins of Social Exclusion: Risk Factors Affecting Young Children*.
- Cahuc, P. and Zylberberg, A. 2004, *Labor Economics*, Massachusetts Institute of Technology Press.
- Cai, L. 2007, *Effects of Health on Wages of Australian Men*, Melbourne Institute Working Paper no. 2/07, Melbourne.
- Calvo, C. and Dercon, S. 2007, *Chronic Poverty and All That: Measurement of Poverty Over Time*, CPRC Working Paper 89, Department of International Development.
- Carneiro, P. and Heckman, J. 2003, *Human Capital Policy*, National Bureau of Economic Research Working Paper Series, Working Paper 9495.
- Carpenter, J. 2006, *Addressing Europe's Urban Challenges: Lessons from the EU URBAN Community Initiative*; *Urban Studies*, 43 (12), pp. 2 145-2 162.
- Carroll, N. 2007, Unemployment and Psychological Well-being, *The Economic Record*, vol. 83, no. 262, pp. 287-302.
- Carson, R., Flores, N. and Meade, N. 2001, 'Contingent valuation: controversies and evidence', *Environmental and Resource Economics*, vol. 19. pp. 173-210.
- Cassells, R., McNamara, J., Gong, H. and Bicknell, S. 2011, *Unequal opportunities: Life Chances for children in the 'Lucky Country'*, Sydney.
- Duncan, A., Abello, A., D'Souza, G. and Nepal, B. 2012, *Smart Australians: Education and Innovation in Australia*, AMP.NATSEM Income and Wealth Report, Issue 32, October 2012, Melbourne, AMP.

-
- Cellini, S., McKernan, S. and Ratcliffe, C. 2008, 'The Dynamics of Poverty in the United States: A Review of Data, Methods, and Findings', in Policy Retrospectives, (ed) Besharov, D., *Journal of Policy Analysis and Management*, vol. 27, no. 3, pp. 577-605.
- Centre on the Developing Child at Harvard University 2010, *The Foundations of Lifelong Health are Built in Early Childhood*, (<http://www.developingchild.harvard.edu>, accessed 20 March 2012).
- Chigavazira, A., Johnson, G., Moschion, J., Scutella, R., Tseng, Y., Wooden, M. 2013, *Journeys Home Research Report No. 2, Findings from Waves 1 and 2*, Report prepared for the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs, February.
- Clark, A. 2006, *A Note on Unhappiness and Unemployment Duration*, Institute for the Study of Labour (IZA), Discussion Paper no. 2406, Bonn.
- Oswald, A. 1994, 'Unhappiness and Unemployment', *Economic Journal*, vol. 104, pp. 648-659.
- Knabe, A. and Ratzel, S. 2009, *Boon or Bane? Other's Unemployment, Well-Being and Job Insecurity*, Institute for the Study of Labor (IZA) Discussion Paper No. 4210, Germany.
- COAG Reform Council 2012, *COAG reform agenda: Report on progress 2012*.
- 2013, *Homelessness 2011-12: Comparing performance across Australia, Report to the Councils of Australian Governments*, National Affordable Housing Agreement, 30 April.
- Cobb, C., Halstead, T. and Rowe, J. 1995, *The Genuine Progress Indicator: Summary of Data and Methodology* (Redefining Progress).
- Cobb-Clarke, D. 2010, 'Disadvantage across the generations: What do we know about social and economic mobility in Australia?', *The Economic Record*, vol. 86, pp. 13-17.
- Coelli, M. 2005, *Parental Income Shocks and the Education Attainment of Youth*, Department of Economics, The University of Melbourne.
- Conley, D. and Bennett, N. 2000, 'Is biology destiny? Birth weight and life chances', *American Sociological Review*, vol. 65, pp. 458-467.
- Conti, G. and Heckman, J. 2012, *The Economics of Child Well-Being*, National Bureau of Economic Research, Working Paper Series, Working Paper 18466.
- Corak, M. 2006, *Do poor children become poor adults? Lessons from a cross-country comparison of generational earnings mobility*, Statistics Canada and Institute for the Study of Labor (IZA), Discussion Paper No. 1993, Germany.
- Crawford, C., Goodman, A. and Joyce, R. 2010, *Explaining the Socio-Economic Gradient in Child Outcomes: the Intergenerational Transmission of Cognitive *
- Culhane, D. 2008, 'The Cost of Homelessness: A Perspective from the United States', *European Journal of Homelessness*, vol. 2.1, pp. 97-114.

-
- Cumins, R., Hughes, J., Tomy, A., Gibson, A., Woerner, J., and Lai, L. 2007, *The Wellbeing of Australians: Carer Health and Wellbeing, Australian Unity Wellbeing Index, Survey 17.1*, Deakin University.
- Woerner, J., Walter, J. and Page, K. 2005, 'The Personal Wellbeing of Australians Living within Federal Electoral Divisions', Australian Centre for Quality of Life, *Australian Unity Wellbeing Index, Survey 13.1*, Deakin University.
- Weinberg, M., Perara, C., Gibson-Prosser, A., Collard, J. and Horfiniak, K. 2010, Part A: The report: The Wellbeing of Australians — Trust, Life Better/Worse, and Climate Change, Australian Centre for Quality of Life, *Australian Unity Wellbeing Index, Survey 24.0*, Deakin University.
- Cunha, E. and Heckman, A. 2009, *The Economics and Psychology of Inequality and Human Development*, Discussion Paper No. 4001, Institute for the Study of Labour (IZA)
- Currie, G., Stanley, J. and Stanley, J. 2007, *No way to go: Transport and social disadvantage in Australian communities*, Monash University Press, Melbourne.
- d'Addio, C. 2007, 'Intergenerational Transmission of Disadvantage; Mobility of Immobility across Generations? A Review of the Evidence for OECD countries', *OECD Social, Employment and Migration Working Papers, No. 52*, OECD Publishing, <http://dx.doi.org/10.1787/217730505550>
- Data Linkage Western Australia 2010, *Developmental Pathways Project*, <http://www.datalinkage-wa.org/projects/developmental-pathways-project> (accessed 12 June 2013).
- Data Linkage Western Australia 2013, *Projects*, <http://www.datalinkage-wa.org/projects> (accessed 6 June 2013).
- De Bortoli, L. and Thomson, S. 2010, *Contextual factors that influence the achievement of Australia's Indigenous students: Results from PISA 2000-2006*, <http://research.acer.edu.au/ozpisa/7> (accessed 18 March 2013).
- de Mello, L. and Dutz, M. (eds.) 2012, *Promoting Inclusive Growth: Challenges and Policies*, OECD Publishing.
- Desforges, C. and Abouchar, A. 2003, *The impact of parental involvement, parental support and family education on pupil achievement: a literature review*, Department for Education and Skills, Research Report RR433.
- Di Tella, R. and MacCulloch, R. 2008, 'Gross national happiness as an answer to the Easterlin Paradox?', *Journal of Development Economics*, vol. 86, pp. 22–42.
- Dickerson, A. and Popli, G. 2012, *Persistent poverty and children's cognitive development: Evidence from the UK Millennium Cohort Study*, Centre for Longitudinal Studies Working paper 2012/2.
- Diener, E. and Biswas-Diener, R. 2002, 'Will money increase subjective well-being? A literature review and guide to needed research', *Social Indicators Research*, vol. 57, pp. 119-169.

-
- Dockery, A. 2004, *Happiness, life satisfaction and the role of work: Evidence from two Australian surveys*, http://www.melbourneinstitute.com/downloads/hilda/Bibliography/Conference_Papers/Dockery_Happiness_life_satisfaction_and_the_role_of_work.pdf (assessed on 20 March 2013).
- 2005, 'The happiness of Young Australians: Empirical evidence on the Role of Labour Market Experience', *The Economic Record*, vol. 80, pp. 322-235.
- Dolan, P., Peasgood, T. and White, M. 2008, 'Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being', *Journal of Economic Psychology*, vol. 29, pp. 94-122.
- Downey, G. and Coyne, J. 1990, 'Children of depressed parents: An integrated review', *Psychological Bulletin*, 108, pp. 5- 76.
- Duncan, G. and Magnuson, K. 2011, 'The Long Reach of Early Childhood Poverty', *Pathways Winter*, <http://www.stanford.edu/mwg-internal/de5fs23hu73ds/progress?id=kgHdoG0C0T> (accessed on 20 March 2013).
- Easterlin, R. 2003, *Building a Better Theory of Well-Being, paper prepared for the conference Paradoxes of Happiness in Economics*, University of Milano-Bicocca, March 21–23.
- Edin, P. and Gustavsson, M. 2004, 'Time Out of Work and Skill Depreciation', *Department of Economics Working Paper 2004:14*, Uppsala University, October.
- Edwards, B. 2005, 'Does it take a village? An investigation of neighbourhood effects on Australian children's development', *Family Matters* No. 72, Summer.
- Baxter, J., Smart, D., Sanson, A. and Hayes, A. 2009, 'Financial disadvantage and children's school readiness', *Family Matters* 2009, No. 83.
- Bromfield, L. 2010, 'Neighbourhood influences on young children's emotional and behavioural problems', *Family Matters* 2010, No. 84.
- Higgins, D.J., Gray, M., Zmijewski, N., Kingston, M. 2008, *The Nature and Impact of Caring for Family Members with a Disability in Australia*, Research Report no. 16, AIFS (Australian Institute of Family Studies).
- Elgar, F., McGrath, P., Waschbusch, D., Stewart, S., and Curtis, L. 2004, 'Mutual Influences on Maternal Depression and Child Adjustment Problems', *Clinical Psychology Review*, August (24) 4, pp. 441-59.
- European Commission, 2004, *Joint Report by the Commission and the Council on Social Inclusion*, Brussels, 5 March.
- Eurostat 2010, *Combating poverty and social exclusion, A statistical portrait of the European Union 2010*, European Union, Publication Office of the European Union.
- Evans, W., Wolfe, B. and Adler, N. 2012, 'The SES and Health Gradient: A Brief Review of the Literature' in Wolfe, B., Evans, W. and Seeman, T. *The Biological Consequences of Socioeconomic Inequalities*.
- Ewijk, R. and Slegers, P. 2010, 'The Effect of Peer Socioeconomic Status on Student Achievement: A Meta-analysis. *Educational Research Review* 5, no. 2: pp. 134-50.

-
- FaHCSIA (Department of Families, Housing, Community Services and Indigenous Affairs) 2013, *Guide to Australian longitudinal studies*, Research and Analysis Branch, Canberra.
- Fella, G. and Gallipoli, G. 2006, 'Education and Crime over the Life Cycle', *Computing in Economics and Finance*, 192, Society for Computational Economics.
- Fergusson, D. and Horwood, L. 2003, 'Resilience to childhood adversity: Results of a 21 year study', in *Resilience and Vulnerability: Adaptation in the Context of Childhood Adversities*, Suniya S Luthar (ed.), Cambridge University Press, pp. 130–155.
- Field, F. 2010, *The foundation years: Preventing poor children becoming poor adults, The report of the Independent Review on Poverty and Life Chances*, London, HM Government, Cabinet Office.
- Figini, P. 1999, *Inequality and growth revisited*, Trinity Economic Paper Series, paper no. 99/2.
- Forbes, M., Barker, A. and Turner, S. 2010, *The Effects of Education and Health on Wages and Productivity*, Productivity Commission Staff Working Paper, Melbourne.
- Förster, M. and d'Ercole, M. 2009, *The OECD Approach to Measuring Income Distribution and Poverty: Strengths, Limits and Statistical Issues*.
- Gallipoli, G. and Fella, G. 2006, 'Education and Crime over the Lifecycle', *Computing in Economics and Finance*, 192, Society for Computational Economics.
- Gilbert, N. 2009, 'European Measures of Poverty and Social Exclusion': Material Deprivation, Consumption and Life Satisfaction, *Journal of Policy Analysis*, vol. 28, Issue 4.
- Gong, H., McNamara, J. and Cassells, R. 2011, 'Little Australians: Differences in early childhood development', *AMP.NATSEM Income and Wealth Report, Issue 28*, April, Sydney.
- Goodman, A. and Gregg, P. 2010, *Poor children's educational attainment: how important are attitudes and behaviour?* Joseph Rowntree Foundation.
- Gordon, D. 2000, 'Measuring absolute and overall poverty', in *Breadline Poverty: The measurement of poverty*, (eds) Gordon and Townsend.
- 2006, 'The concept and measurement of poverty', Chapter 2 in *Poverty and Social Exclusion in Britain: The Millenium survey*, (eds) Pantazis, Gordon and Levitas, Bristol, Policy Press.
- Gorecki, S. and Kelly, J. 2012, 'Treasury's Wellbeing Framework', *Economic Roundup*, Issue 3.
- Graham, H and Power, C, 2004, 'Childhood disadvantage and health inequalities: a framework for policy based on lifecourse research', *Child Care, Health and Development*, vol. 30, no. 6, pp. 671-678.
- Gray, M. and Baxter, J. 2010, 'Parents and the labour market', *The Longitudinal Study of Australian Children Annual statistical report 2010*, Australian Institute of Family Studies.

-
- , ——, 2012, ‘Family Joblessness and Child Well-being in Australia’, in Kalil, A., Haskins, R and Chesters, J., *Investing in Children, Work, Education, and Social Policy in Two Rich Countries*, Brookings Institution Press, Washington, D.C.
- Graycar, A. and Nicolaou, L. 2012, *Design Options for the Building a New Life in Australia Longitudinal Survey of Humanitarian Migrants*, June.
- Taylor, M. and Edwards, B. 2011, ‘Unemployment and the Wellbeing of Children Aged 5-10 Years’, *Australian Journal of Labour Economics*, Volume 14, Number 2, pp. 153-172.
- Gregg, P. and Tominey, E. 1997, *The Wage Scar from Youth Unemployment*.
- Grenville, J., Pobke, C. and Rogers, N. 2013, *Trends in the Distribution of Income*, Staff Working Paper, Productivity Commission.
- Griggs, J. and Walker, R. 2008 *The costs of child poverty for individuals and society: A literature review*. York: Rowntree Foundation.
- Grun, C., Mahringer, H. and Rhein, T. 2011, *Low-wage jobs: A means for employment integration of the unemployed? Evidence from administrative data in Germany and Austria*, IAB Discussion Paper, 1/2011, Institute for Employment Research.
- Halter, D., Oechslin, M. and Zweimuller, J. 2010, *Inequality and Growth: the neglected time dimension*, Institute for Empirical Research in Economics, University of Zurich, Working Paper series, No. 507.
- Hamilton, C. and Saddler, H. 1997, *The Genuine Progress Indicator: A new index of changes in well-being in Australia*, The Australia Institute Discussion paper No. 154, October.
- Hand, K., Gray, M., Higgins, D., Lohoar, S. and Deblaquiere, J. 2011, *Life around here, Community, work and family life in three Australians communities*, Research Report No. 19, Australian Institute of Family Studies, Melbourne.
- Harding, A., Lloyd, R. and Greenwell, H. 2001, *Financial Disadvantage in Australia 1990 to 2000, The Persistence of Poverty in a Decade of Growth*, The Smith Family, NSW.
- Harker, L. 2006, *Chance of a lifetime, The impact of bad housing on children’s lives*, Shelter, September.
- Hausmann, J. 2012, ‘Contingent Valuation: From Dubious to Hopeless’, *Journal of Economic Perspectives*, vol 26, no. 4, pp. 43–56.
- Hayes, A. 2011, *Two speed childhoods? From sketching the problem to scoping solutions*, Australia’s Institute of Health and Welfare Conference, National Convention Centre, Canberra, November.
- 2013, *Disadvantage in the here and now: The state of our knowledge versus the knowledge of the state*, Social Policy Research Workshop, conducted by the Department of Families, Housing, Community Services and Indigenous Services, Canberra 26-27 March.
- , Gray, M. and Edwards, B. 2008, *Social Inclusion, Origins, concepts and key themes*, Commonwealth of Australia.

-
- Heady, B. 2006, *A framework for assessing poverty, disadvantage and low capabilities in Australia*, Melbourne Institute Report No. 6, Melbourne Institute of Applied Economic and Social Research, University of Melbourne.
- Krause, P. and Wagner, G. 2009, 'Poverty redefined as low consumption and low wealth, not just low income: Its psychological consequences in Australia and Germany', Joint Paper OECD-University of Maryland Conference, *Measuring Poverty, Inequality and Social exclusion: Lessons from Europe*, Paris, March 16–17.
- Marks, G. and Wooden, M. 2005, 'The dynamics of income poverty in Australia: evidence from the first three waves of the HILDA survey', *Australian Journal of Social Issues*, vol. 40, no. 4, pp 541–52.
- Heckman, J., Moon, S., Pinto, R., Sveljev, P. and Yavitz, A. 2010, *A new cost-benefit and rate of return analysis for the Perry Preschool Program: A Summary*, National Bureau of Economic Research, Working Paper 16180.
- 2011, 'The Economics of Inequality, The Value of Early Childhood Education', *American Educator*, Spring.
- Helliwell, J. 2008, 'Life Satisfaction and Quality of Development', *NBER Working Paper* No. 14507, National Bureau of Economic Research, Cambridge.
- and Putnam, R. 2005 The Social Context of Well-Being, in Huppert, F.A., Keverne, B. and Baylis, N. (eds.), *The Science of Well-Being*, London: Oxford University Press, pp. 435–59.
- and Wang, S. 2011, 'Trust and Wellbeing', *International Journal of Wellbeing*, vol. 1, no.1, p. 42–78.
- Henry, K. 2007, *Addressing extreme disadvantage through investment in capability development*, Keynote Address to the Australian Institute of Health and Welfare Conference on 'Australia's Welfare 2007', 6 December.
- 2010, The Value of the Environment, Address to the *Environment Business Australia Forum*, Thursday 4 March.
- Hertzman, C. 2004, *Making Early Childhood Development a Priority, Lessons from Vancouver*, Canadian Centre for Policy Alternatives, BC Office.
- Hick, R. 2012, 'The capability approach: insights for a new poverty focus', *Journal of Social Policy*, Cambridge University Press.
- Hirsch, D. 2008, *Estimating the costs of child poverty: round-up, Reviewing the evidence*, Joseph Rowntree Foundation, York.
- Holzer, H., Schanzenback, D., Duncan, G. and Ludwig, J. 2007, *The economic costs of poverty in the United States: Subsequent effects of children growing up poor*, Institute for Research on Poverty Discussion paper no. 1327-07.
- Inglehardt, R., Foa, R., Peterson, C. and Welzel, C. 2008, Development, freedom, and Rising happiness: A Global Perspective 1981-2007, *Association for Psychological science*, vol. 3, no. 4, pp. 264-285.

-
- James, D.J. and Glaze, L.E. 2006, Mental Health problems of Prison and Jail Inmates, Bureau of Justice Statistics, Special report, <http://bjs.ojp.usdoj.gov/index.cfm?ty=pbdetail&iid=789>[2] (accessed 19 March 2013).
- Jäntti, M., Bratsberg, B., Roed, K., Raaum, O., Naylor, R., Österbacka, E., Björklund A. and Eriksson, T. 2006, 'American exceptionalism in a new light: a comparison of intergenerational earnings mobility in the Nordic countries, the United Kingdom and the United States', *IZA discussion papers*, No 1938, IZA-Bonn
- Jensen, J., Spittal, M., Crichton, S., Sathiyandra, S. and Krishnan, V. 2002, *Direct measurement of living standards: The New Zealand ELSI Scale*, Ministry of Social Development, Wellington.
- Johnson, P. and Kossykh, Y. 2008, *Early Years, Life Chances and Equality: A literature review*. Frontier Economics, Research report 7. Equality and Human Rights Commission.
- Johnson, G., Parkinson, S., Tseng, Y. and Kuehmler, D. 2011, *Long-term homelessness: Understanding the challenge — 12 months outcomes from the Journey to Social Inclusion pilot program*. Sacred Heart Mission, St Kilda, Melbourne.
- Jones, A. and Smyth, P. 1999, 'Social Exclusion: A new framework for social policy analysis?' *Just Policy*, 17, pp. 11-21.
- Junankar, P. and Kapuscinski, C. 1992, *The Costs of Unemployment in Australia*, Economic Planning Advisory Council, Background Paper No. 24, Canberra, AGPS.
- Kalil, A. and Wightman, P. 2009, 'Parental Job Loss and Children's Educational Attainment in Black and White Middle Class Families', *National Poverty Center Working Paper Series*, #09-02.
- Kalil, A. and Ziol-Guest, K. 2008, 'Parental Employment Circumstances and Children's Academic Progress', *Social Science Research*, 37, pp. 500-515.
- Kaltenthaler, K., Ceccolli, C. and Gellany, R. 2008, 'Attitudes to Eliminating Income Inequality in Europe', *European Union Politics*, vol. 9. no. 2, pp. 217-241.
- Kane, A., Sawhill, I., Weaver, K. and Haskins, R. (eds) 2002, *Welfare Reform and Beyond: the Future of the Safety Net*, Brookings Institution Press.
- Kessler, R., Turner, J. and House, J. 1987, 'Unemployment and health in a community sample', *Journal of Health and Social Behaviour*, vol. 58, pp. 51-59.
- Klasen, S. 1998, *Social Exclusion. Children and Education in OECD countries: Some conceptual and measurement issues*, University of Munich.
- Kloprogge, J. 1998, *Social Exclusion in the Netherlands: Discussions and Initiatives*.
- Knabe, A. and Plum, A. 2010, *Low-wage jobs — Stepping stone or poverty trap?*, School of Business and Economics Discussion Paper, 2010/28, Freie Universität Berlin
- Koutsogeorgopoulou, V. 2011, 'Enhancing Labour Utilisation in a Socially Inclusive Society in Australia', *OECD Economics Department Working Papers*, No. 852, OECD Publishing.

-
- KPMG Econtech, 2010, *CGE Analysis of the Current Australian Tax System*, Final Report 26 March 2010, prepared for Department of Treasury, Excess Burden of Australian Taxes.
- Lamont, A. 2010, *Effects of child abuse and neglect for adult survivors*, NCPC Resource Sheet, April 2010, National Child Protection Clearinghouse, Published by the Australian Institute of Family Studies, ISSN 1448-9112 (Online) ISBN 978-1-921414-29-9.
- Laplagne, P., Glover, M. and Shomos, A. 2007, *Effects of Health and Education on Labour Force Participation*, Staff Working Paper, Melbourne, May.
- Lattimore, R. 2007, *Men Not at Work: An analysis of men outside the labour force*, Productivity Commission Staff Working Paper, Canberra, January.
- Laurie, N. 2008, *The Cost of Poverty: an analysis of the economic costs of poverty in Ontario*, Ontario Association of Food Banks, Canada.
- Leigh, A. 2007, 'Intergenerational Mobility in Australia', *The B.E. Journal of Economic Analysis & Policy*, Volume 7, Issue 2 (Contributions), Article 6.
- Leventhal, T. and Dupéré, V. 2011, 'Moving to Opportunity: Does long-term exposure to 'low-poverty' neighbourhoods make a difference for adolescents?', *Social Science & Medicine* 73, pp. 737-743.
- Levitas, R., Pantazis, C., Fahmy, E., Gordon, D., Lloyd, E. and Patsios, D. 2007, *The Multi-dimensional Analysis of Social Exclusion*, Bristol, Department of Sociology and School for Social Policy, University of Bristol.
- Liddell, M., Barnett, T., Roost, F. and McEachran, J. 2011, *Investing in our future an evaluation of the national rollout of the Home Interaction Program for Parents of Youngsters (HIPPY)*, Hippy Australia, Brotherhood of St Laurence.
- Lochner, L. and Moretti, C. 2004, 'The effects of education on crime: Evidence from prison inmates, arrests and self-report', *American Economic Review* 94, pp. 155-189.
- Lovejoy, M., Graczyk, P., O'Hare, E. and Neuman, G. 2000, 'Maternal depression and parenting behaviour: A meta-analytic review', *Clinical Psychology Review*, 20(5), pp. 561-592.
- Liu, D., Sun, C. and Lin, P. 2012, Hysteresis Hypothesis in Unemployment and Labour Force Participation rates: Evidence from Australian States and Territories, *Australian Economic Papers*, vol. 51, no. 2, pp. 71-84.
- Ludwig, J., Duncan, G., Gennetian, L., Katz, L., Kessler, R., Kling, J. and Sanbonmatsu, L. 2012, Neighbourhood Effect on the Long-Term Well-being of Low Income Adults, *Science*, vol. 337, no. 6101, pp. 1505-1510.
- Lyche, C. 2010, 'Taking on the Completion Challenge, A literature review of policies to prevent dropout and early school leaving', *OECD Education Working Papers*, No. 53, OECD Publishing. <http://dx.doi.org/10.1787/5km4m2t59cmr-en>
- Machin, S. 2006, 'Social Disadvantage and Education Experiences', *OECD Social, Employment and Migration Working Papers*, No. 32.

-
- Mack, J. and Lansley, S. 1985, *Poor Britain*, George Allen & Unwin (Publishers) Ltd, London.
- MacKenzie, M., Kotch, J. and Lee, L. 2011, 'Towards a cumulative ecological risk model for the etiology of child maltreatment', *Children and Youth Services Review* 33, pp. 1638-1647.
- Mathers, C. and Schofield, D. 1998, *The health consequences of unemployment: the evidence*. Australian Institute of Health and Welfare.
- McCain, M. and Mustard, F. 1999, *Reversing the brain drain: Early study: Final report*, Ontario Children's Secretariat, Toronto.
- Melbourne Institute of Applied Economic and Social Research, 2012a, *Poverty Lines: Australia*, December Quarter 2011, Melbourne.
- 2012b, *Families, Incomes and Jobs*, vol. 7, Melbourne.
- 2012c, *HILDA Survey Annual Report 2012*.
- 2013, *Families, Incomes and Jobs*, vol. 8, Melbourne.
- Melchior, M., Moffit, T., Milne, B., Poulton, R. and Caspi, A. 2007, 'Why do children from socio-economically disadvantaged families suffer from poor health when they reach adulthood? A lifecourse study', *American Journal of Epidemiology*, vol. 166, pp. 966-974.
- Meuleners, L., Lee, A. and Hendrie, D. 2007, *A population based study examining the impact of interpersonal violence victimisation on mental health*, report to The criminology Research Council, Curtin University of Technology.
- Moloney, L., Smyth, B., Weston, R., Richardson, N., Qu, L and Gray, M. 2007, *Allegations of Family Violence and Child Abuse in Family Law Children's Proceedings, A pre-reform exploratory study*, Australian Institute of Family Studies, Research Report No. 15
- Weston, R., Qu, L and Hayes, A. 2012, *Families, life events and family service delivery, A literature review*, Australian Institute of Family Studies, Research Report No. 20.
- Monitoring Inequality in Australia 2013, Public Health Information Development Unit, University of Adelaide, <http://www.publichealth.gov.au/inequality-graphs/monitoring-inequality-in-australia-introduction.html>
- Muir, K., Maguire, A., Slack-Smith, D. and Murray, M. 2003, *Youth Unemployment: a contextual, governmental and organisational perspective*, A report by The Smith Family for the AMP Foundation.
- Murphy, K. and Topel, R. 2006, The Value of Health and Longevity, *Journal of Political Economy*, vol. 114, no. 5, pp. 871–904.
- 2006, *Early Child Development and Experience-Based Development — The Scientific Underpinnings of the Importance of Early Child Development in a Globalised World, February*, National Research Council and Institute of Medicine 2000.

-
- 2008, *Investing in the Early Years: Closing the Gap Between What We Know and What We Do*, Thinker in Residence. Department of the Premier and Cabinet, Adelaide, April.
- Nolan, B. and Whelan, C. 2011, *Poverty and Deprivation in Europe*, Oxford University Press.
- NSS (National Statistical Service) 2013, Statistical data integration involving Commonwealth data, <http://www.nss.gov.au/nss/home.nsf/pages/Data+Integration+Landing+Page?OpenDocument> (accessed 13 March 2013)
- Nussbaum, M. 2000, *Women and Human Development: The Capabilities Approach*, Cambridge University Press, Cambridge.
- OECD 2008, *Growing Unequal? Income distribution and poverty in OECD countries*.
- 2009, *Doing Better for Children*, OECD Publishing.
- 2010, *Improving Health and Social Cohesion Through Education*, OECD Publishing
- 2011a, *Tackling disadvantage, vulnerability and precariousness: proposal for country reviews*, Working Party on Social Policy, DELSA/ELSA/WP1(2011)13, Meeting to be held at the OECD Conference Centre, 8-9th December 2011.
- 2011b, *How's Life?: Measuring well-being*, OECD Publishing.
- 2011c, *Divided We Stand: Why Inequality Keeps Rising*, OECD Publishing.
- 2011d, *Doing Better For Families*, OECD Publishing.
- 2012a, *OnLine Information Service (OLIS) Statistics Portal*, (accessed 27 March 2012).
- 2012b, *Better Skills, Better Jobs, Better Lives, A Strategic Approach to Skills Policies*.
- 2012c, *Let's Read Them a Story! The Parent Factor in Education*, PISA, OECD Publishing.
- 2012d, *Equity and Quality in Education, Supporting Disadvantaged Students and Schools*, OECD publishing.
- 2012e, *Education at a Glance 2012: OECD Indicators*, OECD Publishing.
- 2012f, *OECD Economic Surveys: Australia*.
- Osborn, A. and Bromfield, L. 2007, 'Getting the big picture'. *A synopsis and critique of Australian out-of-home care research*, Child Abuse Prevention, No. 26.
- Oswald, A. and Powdthavee, N. 2008, 'Does Happiness Adapt? A Longitudinal Study of Disability with Implications for Economists and Judges', *Journal of Public Economics*, vol. 92, no. 5–6, pp. 1061-1077.
- Oxley, H., Dang, T. and Antolin, P. 2000, 'Poverty dynamics in six OECD countries', *OECD Economic Studies* No. 30, 2000/1.
- Payne, A. 2009, Working poor in Australia: an analysis of poverty among households in which a member is employed, *Family Matters*, 2009, No. 81, Australian Institute of Family Studies.

-
- PC (Productivity Commission) 2003, *Social Capital: Reviewing the Concept and its Policy Implications*, Research Paper, AusInfo, Canberra.
- 2009, *Strengthening Evidence-based Policy in the Australian Federation*, Roundtable Proceedings, Canberra 17-18 August, vol. 2: Background Paper.
- 2011a, *Early Childhood Development Workforce*, Research Report.
- 2011b, *Caring for Older Australians*, Report No. 53, Final Inquiry Report, Canberra.
- 2011c, *Disability Care and Support*, Report No. 54, Canberra.
- 2012, *Schools Workforce*, Research Report.
- Pech, J. and McCoull, F. 2000, 'Transgenerational welfare dependence: myths and realities', *Australian Social Policy* 2000/1
- Perry, B. 2002, 'The Mismatch between Income Measures and Direct Outcome Measures of Poverty', *Social Policy Journal of New Zealand*, vol 19, pp. 101-127.
- Phillips, B. and Nepal, B. 2012, *Going Without: Financial Hardship in Australia*, report prepared for Anglicare Australia, Catholic Social Services Australia, The Salvation Army, UnitedCare Australia, August.
- PHRN (Population Health Research Network) 2012, *Current projects*, <http://www.phrn.org.au/about-us/current-projects>, (accessed 14 September 2012)
- Pierson, J. 2001, *Tackling Social Exclusion*, Routledge, London.
- Please, N. 2008, *Effective Services for Substance Misuse and Homelessness in Scotland: Evidence from an International Review*, Scottish Government Social Research.
- Polidano, C., Hanel, B. and Buddelmeyer, H. 2012, *Explaining the SES Schools Completion Gap*, Melbourne Institute Working paper no. 16/12, Melbourne Institute.
- and Vu, C. 2012, 'Labour Market Impacts from Disability Onset', Melbourne Institute Working Paper Series, Working Paper No. 22/12.
- Poverty Analysis Discussion Group, 2012, *Understanding Poverty and Wellbeing, A Note with Implications for Research and Policy*, April.
- RGWR (Reference Group on Welfare Reform), 2000, *Participation Support for a More Equitable Society, Full Report*, Department of Family and Community Services, Canberra.
- Ringen, S. 1987, *The possibility of politics*, Oxford: The Clarendon Press
- Robeyns, I. 2003, *The Capability Approach: An Interdisciplinary Introduction*, University of Amsterdam, Amsterdam.
- Rollings, K. 2008, Counting the cost of crime in Australia: a 2005 update, *Research and public policy series*, no. 91, Australian Institute of Criminology, Canberra.
- Room, G. 1995, 'Poverty and social exclusion: the new European agenda for policy and research' in G. Room (ed.), *Beyond the Threshold: The Measurement and Analysis of Social Exclusion*, Bristol: Policy Press.
- Rowntree, S. 1901, *Poverty, A study of town life*, Macmillan and Co, London.

-
- Ruspini, E. 1998 'Women and poverty dynamics: the case of Germany and Britain', *Journal of European Social Policy*, vol. 8, no. 4, pp. 291–316.
- Rutter, M. 1985, 'Resilience in the Face of Adversity, Protective Factors and Resistance to Psychiatric Disorder', *British Journal of Psychiatry*, vol. 147, pp. 598–611.
- Ryan, C. and Whelan, S. 2010, *Locational disadvantage, socio-economic status and mobility behaviour – evidence from Australia*, paper presented at the 39th Australian Conference of Economists ACE10, Sydney, Australia, 29th September.
- Ryan, R. and Deci, E. 2001, 'On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being', *Annual Review of Psychology*, vol. 52, pp. 141–66.
- Sandoval, H. and Urzua, C. 2009, 'Negative net incomes and the measurement of poverty: a note', *Journal of Management, Finance and Economics*, vol. 3, no. 1, pp. 29–36.
- Saunders, P. 2008, 'Social Exclusion: Challenges for Research and Implications for Policy', *The Economic and Labour Relations Review*, Vol. 19, No. 1, pp. 73-92.
- 2011, *Down and out: poverty and exclusion in Australia*, The Policy Press.
- , Hill, T., and Bradbury, B. 2007, *Poverty in Australia: Sensitivity Analysis and Recent Trends*, University of New South Wales, October.
- , Naidoo, Y. and Griffiths, M. 2007, *Towards new indicators of disadvantage: deprivation and social exclusion in Australia*, Social Policy Research Centre, November 2007.
- and Whiteford, P. 1989, *Measuring Poverty: A Review of the Issues*, Report prepared for the Economic Planning Advisory Council, Australian Government Publishing Service, Canberra.
- and Wong, M. 2012, *Promoting Inclusion and Combating Deprivation: Recent Changes in Social Disadvantage in Australia*, Social Policy Research Centre, University of New South Wales, Sydney.
- Sayers, M., West, S., Lorains, J., Laidlaw, B., Moore, T. and Robinson, R. 2012, 'Starting school: A pivotal life transition for children and their families', *Family Matters*, No. 90.
- Schwarze, J. 2008, *Subjective Measures of Economic Well-Being and the Influence of Income Uncertainty*, Institute for the Study of Labor (IZA) Discussion paper no. 3720, Institute for the Study of Labor, Germany.
- Scobie, G. 2009, 'Evidence-based policy: reflections from New Zealand' in Productivity Commission, *Strengthening Evidence-based Policy in the Australian Federation, Roundtable Proceedings, Canberra, 17-18 August 2009, vol. 1: Proceedings*, Canberra.
- SCRGSP (Steering Committee for the Review of Government Service Provision) 2013, *Report on Government Services 2013, Indigenous Compendium*, Productivity Commission, Canberra.
- Scutella, R., Wilkins, R. and Horn, M. 2009 *Measuring poverty and social exclusion in Australia: A proposed multidimensional framework for identifying socio-economic*

-
- disadvantage*, Working Paper No. 4/09, Melbourne Institute of Applied Economic and Social Research.
- , — and Kostenko, W. 2009, *Estimates of poverty and social exclusion in Australia: A multidimensional approach*, Working paper No. 26/09, Melbourne Institute of Applied Economic and Social Research.
- , Johnson, G., Moschion, J., Tsen, Y., and Wooden, M. 2012, *Journeys Home Research Report No. 1*, July, Report prepared for the Australians Government Department of Families, Housing, Community Services and Indigenous Affairs.
- Sen, A. 1985, 'A sociological approach to the measurement of poverty: a reply to Professor Peter Townsend', *Oxford Economic Papers*, vol. 37, pp. 669-76.
- 2000, *Social exclusion: Concept, application and scrutiny*, Social Development Papers No. 1, Office of Environment and Social Development, Asian Development Bank, June.
- 2009, *The idea of justice*, The Belknap Press of the Harvard University Press, Cambridge, Massachusetts
- Shields, M., Wheatley Price, S. and Wooden, M. 2009, Life Satisfaction and the Economic and Social Characteristics of Neighbourhoods, *Journal of Population Economics*, vol. 22, pp. 421–443.
- and Wooden, M. 2003, Investigating the Role of Neighbourhood Characteristics in Determining Life Satisfaction, *Melbourne Institute Working Paper Series no. 24/03*, Melbourne Institute of Applied Economic and Social Research, Melbourne.
- Shonkoff, J. 2000, *From Neurons to Neighborhoods: The Science of Early Childhood*.
- 2011, 'Building a Foundation for Prosperity on the Science of Early Childhood Development', *Pathways Winter*, pp. 10-15 .
- Silva, P. and Stanton, W. 1996, *Child to Adult: The Dunedin Multidisciplinary Health and Development Study*, Oxford University Press, New Zealand.
- Smith, A. 1910, *An Inquiry into the Nature and Causes of the Wealth of Nations*, An Electronic Classic Series Publication, www2.hn.psu.edu/faculty/jmanis/adam-smith/wealth-nationals.pdf, accessed 30 April 2013.
- Smith, N. and Middleton, S. 2007, *A review of poverty dynamics research in the UK*, Joseph Rowntree Foundation.
- , —, 2008, 'Longer-term perspectives, should we focus on persistent rather than temporary poverty?' in Berthoud, R. and Zantomio, F. (eds) *Measuring poverty: seven key issues*, Institute for Social and Economic Research, University of Essex.
- Smith Family 2010, *Breaking the Cycle of Disadvantage, A submission from The Smith Family to The Australian Government Social Inclusion Board*, July.
- Social Care Institute for Excellence, 2005, 'What is the impact of environmental housing conditions on the health and well-being of children?', *SCIE Research Brief 19*.
- Social Exclusion Unit 2004, *Breaking the Cycle, Taking stock of progress and priorities for the future*, Office of Deputy Prime Minister, London.

-
- Stanton, D. 1980, 'The Henderson poverty line — A critique', *Social Security Journal*, December.
- Stevens, A. 1999, 'Climbing out of poverty, falling back in: Measuring the persistence of poverty over multiple spells', *Journal of Human Resources*, vol. 34, pp. 557–588 .
- Stiglitz, J. Sen, A and Fitoussi J-P 2009, *Report by the Commission on the Measurement of Economic Performance and Social Progress*, Commission on the Measurement of Economic Performance and Social Progress.
- Stutzer, A. and Lalive, R. 2004, The Role of Social Work Norms in Job Searching and Subjective Well-being, *Journal of the European Economic Association*, vol. 2, no. 4, pp. 696–719.
- Taylor, P., Moore, P., Pezzullo, L., Tucci, J., Goddard, C. and De Bortoli, L. 2008, *The Cost of Child Abuse in Australia*, Australian Childhood Foundation and Child Abuse Prevention Research, Melbourne.
- Thomson, S., De Bortoli, L., Nicolas, M., Hillman, K. and Buckley, S. 2011, *Challenges for Australian education: results from PISA 2009: the PISA 2009 assessment for students' reading, mathematical and scientific literacy*, PISA national reports, Australian Council for Education Research.
- Tomlinson, M. and Walker, R. 2010, *The impact of family and labour market changes on recurrent poverty*, Joseph Rowntree Foundation.
- Townsend, P. 1979, *Poverty in the United Kingdom*, Penguin Books, Harmondsworth.
- Travers, P. and Richardon, S. 1993, *Living Decently: Material Well-being in Australia*, Oxford University Press, Melbourne.
- Tsumori, K., Saunders, P. and Hughes, H. 2002, *Poor Arguments: A Response to the Smith Family Report on Poverty in Australia*, Issue Analysis No. 21, The Centre for Independent Studies.
- United Kingdom Social Inclusion Unit 2004, *The drivers of social exclusion*, Office of the Deputy Prime Minister, London.
- Vinson, T. 2007, *Dropping Off The Edge: The Distribution of Disadvantage in Australia*, Jesuit Social Services and Catholic Social Services Australia.
- Werner, E. 1996, 'Vulnerable but invincible: high risk children from birth to adulthood', *European Child & Adolescent Psychiatry*, 5, pp. 47-51.
- Whiteford, P. 1995, 'Does Australia have a ghetto underclass?', *Social Security Journal*, June.
- 2009, 'Family joblessness in Australia', *Social Policy Research Centre, Newsletter*, Number 102, May.
- Winkelmann, R. 2006, *Unemployment, Social Capital and Subjective Wellbeing*, IZA Discussion paper no. 2346, Institute for the Study of Labour, Bonn.
- Wolf Shenk, J. 2009, 'What makes us happy?' *The Atlantic Magazine*, June.
- Wolff, J. and De-Shalit, A. 2007, *Disadvantage*, Oxford University Press.

World Bank 2000, *World Development Report 2000/2001: Attacking Poverty*, Washington, World Bank.

Zaidi, A. and Burchardt, T. 2003, *Comparing incomes when needs differ: equivalisation for the extra costs of disability in the UK*, CASE paper No. 64, Centre for the Analysis of Social Exclusion, London School of Economics.

Zubrick, S., Smith, G., Nicolson, J., Sanson, A., Jackiewicz, T. and the LSAC Research Consortium, 2008, *Parenting and families in Australia*, Department of Families, Housing, Community Services and Indigenous Affairs Social Policy Research Report, No. 34.