

Chapter 6: A sustainable society

Overview

Sustainability requires that at least the current level of wellbeing be maintained for future generations. The Government's policies seek to do more than this. The Government's goal is to improve the wellbeing of current and future generations.

Wellbeing and sustainability are multi-dimensional concepts that go beyond material living standards. In this report wellbeing and sustainability are assessed through the prism of the stock of economic, environmental, human and social resources.

The natural environment is a key component of the wellbeing of current Australians and of the endowments passed to future generations. It is difficult to measure the contribution of the environment to wellbeing, creating a risk that it will be undervalued and suffer damage.

Similarly, wellbeing is enhanced if Australians share the benefits of economic growth and members of society have the opportunity to participate in economic and social activities. Education, quality health services and access to employment, for instance, contribute to higher productivity growth and higher labour force participation. They also contribute to the ability of Australians to be active members of society.

For some Australians poor economic and social outcomes can persist. Disadvantage affects the lives of those involved, their families and communities, as well as negatively affecting workforce participation, productivity and governments' fiscal sustainability. The Government's Social Inclusion agenda is seeking new ways to overcome disadvantage.

6.1 Wellbeing and sustainability

6.1.1 A framework for wellbeing and sustainability

Wellbeing relates to the aspects of life that people and societies value. It is a multi-dimensional concept that incorporates notions of individual freedoms, opportunities and capabilities. The Commission on the Measurement of Economic

Performance and Social Progress¹ identified the following dimensions of wellbeing: material living standards; health; education; personal activities; political voice and governance; social connections and relationships; environment; and insecurity (economic and physical).

An alternative classification of wellbeing is to look at five dimensions: consumption possibilities; distribution; complexity; risk; and opportunity and freedom.² These dimensions cut across each of the dimensions identified by the Commission.

The wellbeing of a generation is determined by the 'stock' of resources that is inherited from previous generations and the choices that generation makes. The stock refers to the quantity and quality of all of the tangible and intangible economic, social, human and environmental resources that are available to a generation (Box 6.1).

Box 6.1: Stocks, wellbeing and sustainability

The many different forms of resources that comprise the stock of resources available to a generation include: renewable and non-renewable resources; physical capital including machines and buildings; human capital (for example through education and research); and the quality of institutions for maintaining a properly functioning human society. The stock of resources is a dynamic concept that comprises a multitude of tangible and intangible elements that are interrelated and difficult to define and measure.

The stock of resources inherited by a generation influences the set of capabilities available to them, where capabilities are the skills and abilities needed to take up opportunities. These capabilities influence the extent of a person's opportunity set and their freedom to choose among this set to live a life that they and society value; that is, the level of wellbeing experienced.

The choices made by a generation will dictate the quantity and quality of the stock of resources available, or 'bequeathed', to future generations. A stylised depiction of wellbeing and sustainability is at Chart 6.1.

In some instances, choices made by a generation that increase their wellbeing will necessarily expend a particular component of the stock of resources. For example, the consumption of non-renewable resources by one generation will reduce the quantity of non-renewable resources bequeathed to subsequent generations.

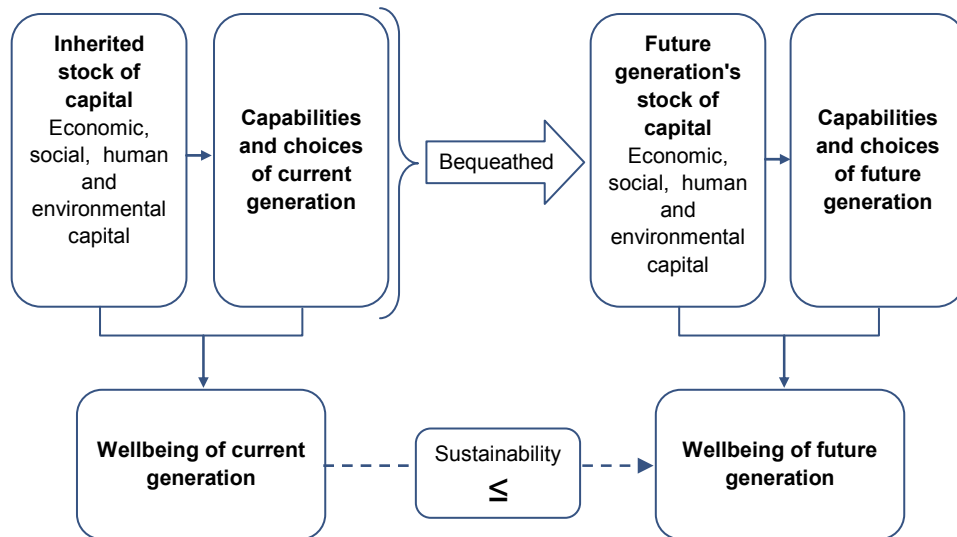
1 Joseph Stiglitz, Amartya Sen and Jean-Paul Fitoussi, *Report by the Commission on the Measurement of Economic Performance and Social Progress*, 2009.

2 Treasury, 'Policy advice and Treasury's wellbeing framework', *Economic Roundup*, Winter 2004.

In other instances, the choices made by a generation that result in an increase in their level of wellbeing may also result in an increase in the endowment of resources bequeathed to future generations. Human capital, such as education, is one example.

A reduction in the endowment of a particular component of the stock does not necessarily lead to a reduction in the wellbeing of future generations if, for example, there are technological advancements that increase efficiency or utilise alternative resources. The challenge for each generation is making choices now about the use of the stock of resources without knowing what knowledge and technological advancements will be available to future generations.

Chart 6.1: Wellbeing and sustainability



6.1.2 GDP as a measure of wellbeing

Gross Domestic Product (GDP) is the measure of the total market value of goods and services produced in Australia. The economic projections in the IGR are based on the 3Ps framework for growth in real GDP.

GDP per capita has traditionally been used for measuring progress over time and as a proxy for living standards. Australia has experienced improvements in living standards over time, averaging 1.9 per cent of real GDP annually over the past 40 years. With population ageing, this improvement in living standards is projected to slow to 1.5 per cent per annum.

GDP per capita is not a comprehensive measure of wellbeing, because wellbeing encompasses more than material living standards.

An assessment of wellbeing is a point-in-time assessment of the level of wellbeing experienced by people and society. It entails significant tradeoffs that are not easily captured by a comprehensive summary indicator. Indicators of wellbeing need to be comprehensive, consider distribution, and provide both an objective and subjective assessment.

To measure sustainability, indicators are needed that tell us about the qualitative and quantitative changes in the various 'stocks' that matter for future wellbeing. The different perspectives people and societies have on wellbeing will result in different assessments as to whether wellbeing has improved over time.

6.1.3 International IGR and sustainability reports

Nearly all of the economies in the OECD produce long-term fiscal projections (Table 6.1). Few countries have incorporated the potential impact of policies related to environmental issues into their long-term projections.

Table 6.1: International comparison of intergenerational reporting

	First/ most recent	Frequency	Time horizon	Cost drivers		
				Health, aged care, old age pension	Other welfare	Environment
Australia	2002/2010	Every 3-5 years	40 years	Yes	Yes	No
Austria	2001/2009	12-18 months(a)	50 years	Yes	No	No
Belgium	2001/2009	12-18 months(a)	40 years	Yes	No	No
Canada	2000/2002	<i>Ad hoc</i>	40 years	Yes	Yes	No
Czech Republic	2004/2008	12-18 months(a)	50 years	Yes	No	No
Denmark	1997/2008	Annually(a)	Until 2070	Yes	Yes	Yes
Finland	2001/2008	12-18 months(a)	40 years	Yes	No	No
France	2008/2008	12-18 months(a)	40 years	Yes	np	No
Germany	2005/2008	Every 4 years	Until 2050	Yes	Yes	No
Greece	2001/2009	12-18 months(a)	50 years	Yes	Yes	No
Hungary	2004/2008	12-18 months(a)	40 years	Yes	No	No
Ireland	2002/2008	12-18 months(a)	40 years	Yes	No	No
Italy	2001/2009	12-18 months(a)	50 years	Yes	No	No
Japan	2007/2009	<i>Ad hoc</i>	10-40 years	Yes	Yes	No
Korea	2006/2006	<i>Ad hoc</i>	25 years	Yes	Yes	No
Luxembourg	2006/2008	12-18 months(a)	30 years	Yes	No	No
Netherlands	2000/2006	<i>Ad hoc</i>	Until 2100	Yes	Yes	No
New Zealand	1993/2006	Every 4 years	40 years	Yes	Yes	No
Norway	1993/2009	Every 3-5 years	50 years	Yes	Yes	No
Poland	2004/2008	12-18 months(a)	40 years	Yes	No	No
Portugal	2001/2009	12-18 months(a)	40 years	Yes	Yes	No
Slovak Republic	2004/2009	12-18 months(a)	40 years	Yes	Yes	No
Spain	2002/2009	12-18 months(a)	40 years	Yes	No	No
Sweden	1999/2009	Annually	Until 2060	Yes	Yes	No
Switzerland	2008/2008	Every 4 years	50 years	Yes	Yes	No
United Kingdom	1999/2008	Annually	50 years	Yes	Yes	No
United States						
OMB	1997/2009	Annually	75 years	Yes	Yes	No
CBO	1991/2009	Every 2 years	75 years	Yes	Yes	No
GAO	1992/2009	3 times per year	75 years	Yes	Yes	No

(a) Conducted for EC Stability and Convergence Program.

Notes: Current as at end December 2009.

np Data not published.

Source: Federal Treasuries and Finance Ministries (excl. Netherlands), OECD, CBO, Netherlands Bureau for Economic Policy Analysis.

While there is a growing appreciation internationally of the importance of sustainable development, many countries are yet to develop quantitative indicators to assess sustainability in terms of economic, social, and environmental resources (Table 6.2).

Table 6.2: Economic, social and environmental sustainability reporting

	Organisation	First/most recent	Frequency	Dimension of sustainability		
				Economic	Social	Environmental
Australia	ABS(a)	2002/2009	Biennial	Yes	Yes	Yes
Ireland	CSO(a)	2003/2009	Annual	Yes	Yes	Yes
UK	DEFRA	2004/2009	Annual	Yes	Yes	Yes
Canada	Institute of Wellbeing(b)	2009/2009	<i>Ad hoc</i>	Yes	Yes	No
38 countries	UN	1990/2009	Annual	Yes	Yes	No
EU27	EC	2007/2007	Biennial	Yes	Yes	Yes

(a) Is a member of the OECD working group on Statistics for Sustainable Development.

(b) Private sector institution.

There is no consensus internationally on defining and measuring sustainability.

- The United Nations publishes an annual *Human Development Report* to explore sustainable development challenges including poverty, gender, democracy, human rights, cultural liberty, globalization, water scarcity and climate change.
- The Australian Bureau of Statistics produces a biennial report titled *Measuring Australia's Progress*, which assesses a variety of economic, social (life expectancy, education and training, democracy, governance and citizenship) and environmental indicators (biodiversity, air quality, and land use).
- The European Commission has developed a framework, consisting of 155 indicators that assess the sustainability of Europe's development.
- The Commission on the Measurement of Economic Performance and Social Progress released a report in 2009 which aims to consider what additional information might be required to produce more relevant indicators of social progress.

6.2 The environment

The environment offers direct and indirect benefits to wellbeing. The environment's direct contribution to wellbeing comes from the fact that it sustains life, provides health benefits and generates considerable enjoyment. We also are enriched simply by its existence. It is difficult to estimate the value of the environment's direct contribution to wellbeing, creating the risk that it will be undervalued and suffer damage (Box 6.2).

Box 6.2: Estimating the non-commercial value of the environment

The environment's direct contribution to wellbeing is generally non-commercial. Non-commercial values can be estimated through surveys, where respondents are asked to rank or put a value on different environmental outcomes. Australian applications of stated preference techniques include the valuation of remnant vegetation in central Queensland and the valuation of water for environmental flows in New South Wales.

'Revealed preference' techniques infer non-commercial values by considering outcomes in a related commercial market. Such techniques have been employed to assess aircraft noise pollution in Sydney and recreational values in the Great Barrier Reef and Kakadu National Park.

The usefulness of revealed preference techniques can be limited because of loose associations between the environment and the 'related' commercial markets and because they only measure a subset of non-commercial values. Similarly, survey responses can be inconsistent with actual behaviour, and the values expressed can be unrealistically high or low. Importantly, no valuation technique captures unanticipated shifts in the values and preferences of future generations. Nonetheless, efforts to measure the non-commercial value of the environment are important as they demonstrate that wellbeing depends on much more than just material consumption.

The environment's indirect contribution to wellbeing is as an input to production. The value of this indirect contribution is difficult to estimate. Australia's natural resources are a substantial component of Australia's total commercial assets. With technology improvements, the environment will potentially play a more sophisticated role in production in the future.

The importance of the environment and the impact of government policy on it are covered in more detail in Chapter 5.

6.2.1 Well-designed environmental policy

Individuals making decisions affecting the environment would rarely be fully aware of, or personally accrue, the range of benefits offered by the environment and all the costs from environmental degradation. Consequently, there is a role for government environmental policy to influence decision-making.

Environmental policy can involve education and research, public ownership and management (such as national parks), or influencing private behaviour, including through regulations, property rights, market-based mechanisms or subsidising certain activities.

Market-based mechanisms such as permit trading are generally superior to regulations and standards. Market-based mechanisms encourage (and reward) ongoing behavioural change from those most able to change, rather than requiring pre-determined behaviours or outcomes irrespective of the costs involved.

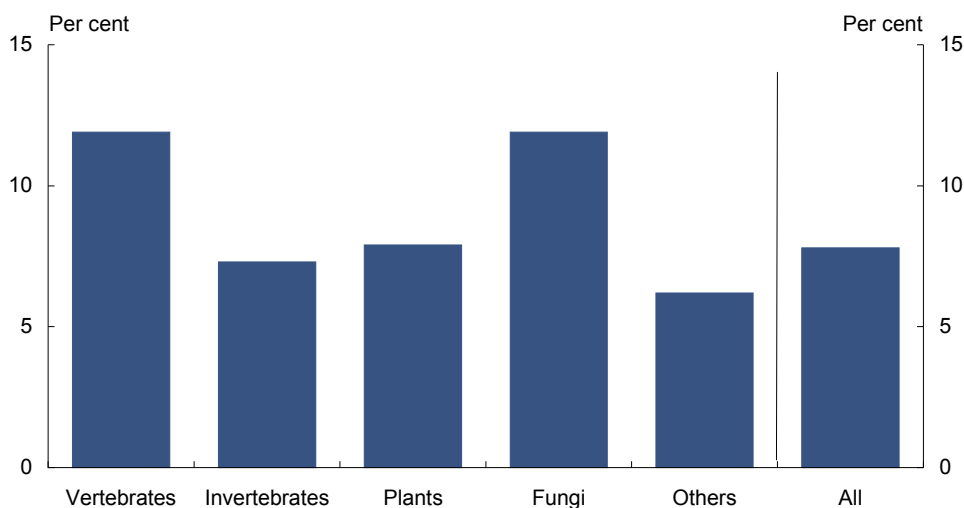
The CPRS is an important use of a market-based mechanism and property rights. The permits issued under the CPRS will be secure and tradeable, facilitating sound long-term decision-making. This will achieve substantial emissions reductions in a way that exploits the cheapest abatement opportunities.

6.2.2 State of the environment

The Government's environmental policies, including those relating to climate change and water and land management, recognise the environment's particular importance to the living standards of current and future generations of Australians. This reflects the fact that Australia is a unique continent, exceptionally rich in biodiversity and resources. Australia:

- supports around 8 per cent of the world's species (Chart 6.2); and
- could sustain its extraction of many non-renewable resources for many generations to come (Chart 6.3).

Chart 6.2: Australia's share of the world's described species



Source: A Chapman, *Number of Living Species in Australia and the World: A Report for the Australian Biological Resources Study*, 2009.

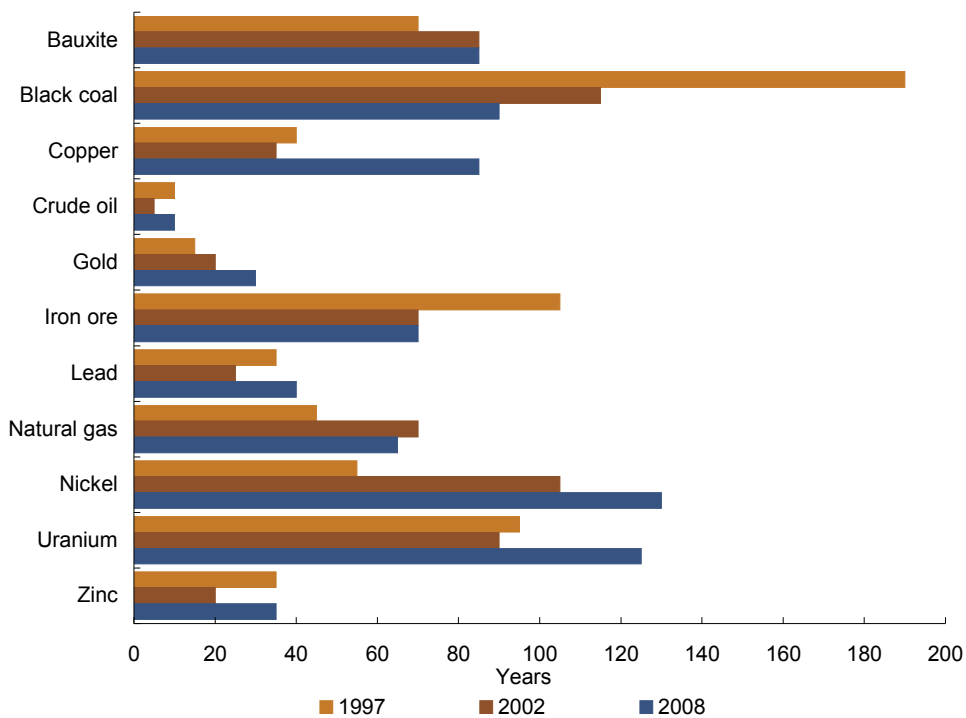
Of great concern are indicators that suggest that Australia's unique biodiversity is threatened. Chart 6.4 outlines the significant number of flora and fauna species that

are threatened or already extinct, and Chart 6.5 shows the decline in native vegetation since European settlement.

The threat to Australia’s biodiversity is in large part a result of a long history of poor management of particular native species and of the land, water and climate. Improved management, appropriately balancing environmental with commercial and social values, is urgently required if wellbeing is to be sustained.

The Government is making progress in this regard through the specific policies discussed in Chapter 5, as well as through the wide range of initiatives under the Caring for Our Country program and implementation of the *Environment Protection and Biodiversity Conservation Act 1999*. Still, as reflected in the Government’s active participation in the development of a new National Biodiversity Strategy, continual progress in this area of policy is required to match our growing awareness of the importance of the environment to current and future generations.

Chart 6.3: Indicative life of Australia’s non-renewable resource stocks^(a)

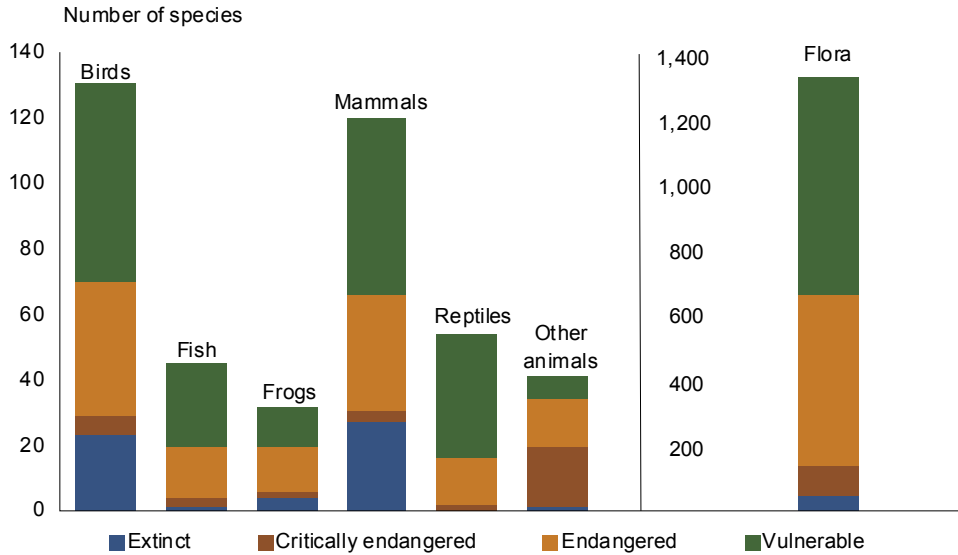


(a) The indicative life of a non-renewable resource is calculated as the stock of the accessible economic demonstrated resource relative to annual production. Brown coal’s indicative resource life in 2008 was 490 years.

Note: The data for crude oil and natural gas is based on economic demonstrated resources, which for these two commodities is equivalent to accessible economic demonstrated resources.

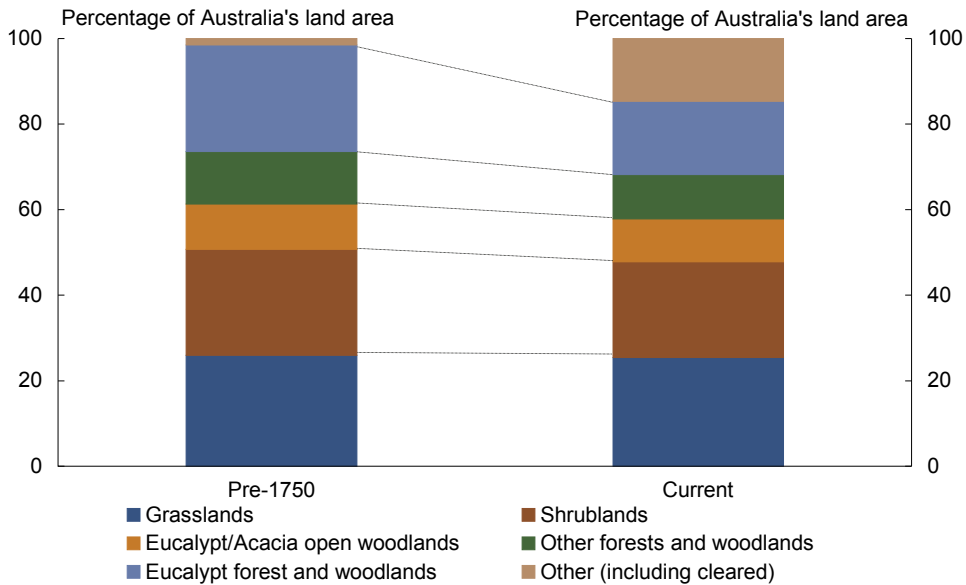
Source: Geoscience Australia.

Chart 6.4: Threatened and extinct species



Source: *Environment Protection and Biodiversity Conservation Act 1999 — Species Profile and Threats Database*, October 2009.

Chart 6.5: Estimated vegetation cover



Source: Department of the Environment and Water Resources, *Australia's Native Vegetation: A summary of Australia's Major Vegetation Groups*, 2007.

6.3 Human and social capital: education, skills and health

Human and social capital are key components of the 'stock' of resources passed to future generations.

Human capital (the stock of skills, knowledge and health that individuals possess) is a function of the level of education, employment, and health services in a society, and the freedom and opportunity of individuals to access those services. Both the level and the distribution of human capital are important to the wellbeing of current and future generations.

Higher levels of human capital support workforce participation and increased productivity. This is an increasingly important consideration as the working age population declines as a proportion of total population.

Human capital also is important for individual wellbeing in its own right. For example, better health or higher education levels can improve quality of life.

Human capital within and between generations is increased through investments in education and health. The role of parents and carers also is crucial to the development of each generation's human capital.

Social capital refers to the social relationships, networks and norms within society and the institutions that underpin these, such as the justice system, governance and representative democracy.

6.3.1 Australia's stocks of human capital have been improving but disadvantage persists

On the whole, Australia's stocks of human capital are improving over time. Still, societal wellbeing is compromised by persistent and intergenerational disadvantage for some individuals. This poses significant challenges for social policy.

Disadvantage exists where an individual lacks access to resources. Low educational outcomes, for example, are generally associated with poorer health and wage outcomes. Disadvantage can be persistent and passed across generations.

Indigenous Australians, in particular, tend to experience multiple forms of disadvantage that can be passed to future generations (Box 6.3).

Box 6.3: Indigenous disadvantage

The Productivity Commission's *Overcoming Indigenous Disadvantage Key Indicators 2009 Report* notes that Indigenous Australians are, on the whole, markedly disadvantaged when compared to non-Indigenous Australians.

- Unemployment rates for Indigenous Australians are, as a percentage of the labour force, greater than for non-Indigenous Australians. In 2006, the Indigenous unemployment rate was more than three times the non-Indigenous unemployment rate (16 per cent compared to 5 per cent).
- Indigenous Australians have significantly lower rates of post-secondary attainment compared to non-Indigenous Australians. For those aged 25-64 years, non-Indigenous Australians were more than twice as likely as Indigenous Australians to have a non-school qualification in 2006 (53 per cent compared to 26 per cent).
- Indigenous Australians suffer from poorer health outcomes than non-Indigenous Australians. The overall age standardised rate of diabetes/high sugar levels is three times as great for Indigenous Australians as non-Indigenous Australians.
- Based on combined data for Australia for 2005–2007, estimated life expectancy at birth was 67 years for Indigenous males, and 73 years for Indigenous females. This represents a gap between Indigenous and non-Indigenous life expectancy at birth of 12 years for males and 10 years for females.
- Indigenous Australian households' mean (average) equivalised gross household incomes in 2006 were about 62 per cent of non-Indigenous Australian households' incomes (\$460 per week compared to \$740 per week).
- 41 out of every 1,000 Indigenous children were on care and protection orders, compared to 5 in every 1,000 non-Indigenous children as at 30 June 2008.
- Indigenous Australians were hospitalised as a result of spouse or partner violence at 34 times the rate of non-Indigenous Australians in 2006–07.

The Government has allocated significant resources to Closing the Gap in Indigenous Disadvantage and improving the wellbeing of Indigenous Australians.

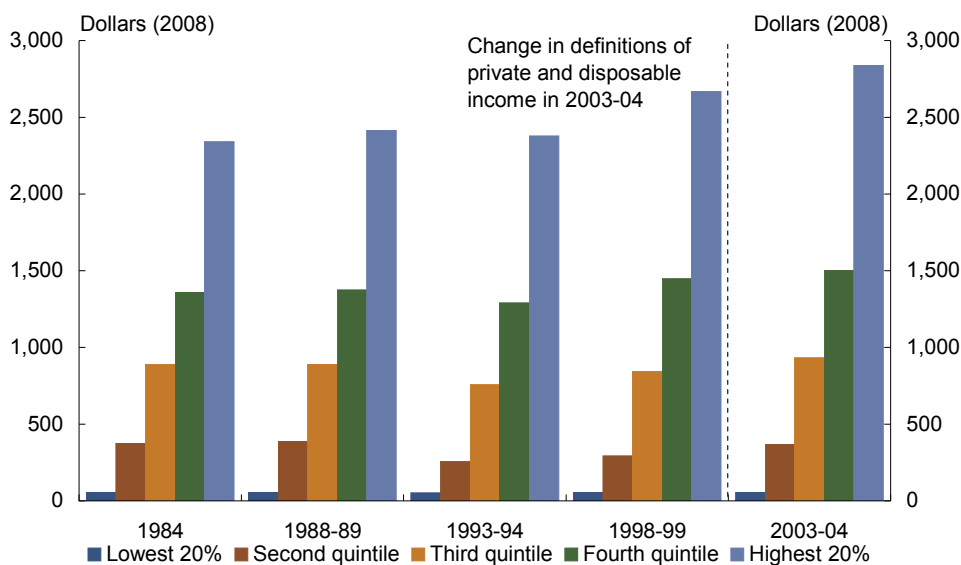
Income disadvantage

Australia experienced growth in its real net national disposable income per capita of 3 per cent per annum on average during the period 1994–95 to 2008–09.³ This improvement in material living standards is expected to continue, although at a slower rate with the ageing of the population.

Increased real incomes have not been shared equally. Income inequality in terms of private income has increased over the 20 years to 2004 (Chart 6.6). While the private incomes of low income households have been growing, this growth has been slower than for high income households.

Chart 6.6: Trends in private income, all households

Private weekly income for gross income quintiles, all households, 1984–2004



Notes: There is a structural break in the series that results in some loss of comparability between 1998–99 for private income and gross income. All figures have been converted to 2008 dollars using a CPI deflator. Gross income consists of private income plus social assistance benefits in cash. Sources: ABS cat. no. 6537.0, 2001; ABS cat. no. 6537.0, 2007.

The increase in private income inequality has been reduced by the tax and transfer system. Once taxes and transfers are taken into account, there has been a larger increase in weekly disposable income for the first and second gross income quintiles since the 1980s (Chart 6.7). The tax and transfer system has led to a redistribution of income that has resulted in the disposable incomes of those at the lower end of the income spectrum growing at a faster rate than their level of private income.

³ Thomson Reuters, <http://thomsonreuters.com>; OECD, *OECD Economic Outlook No. 86*, November 2009. OECD Income Distribution data; extracted by Social Policy Research Centre, University of New South Wales.

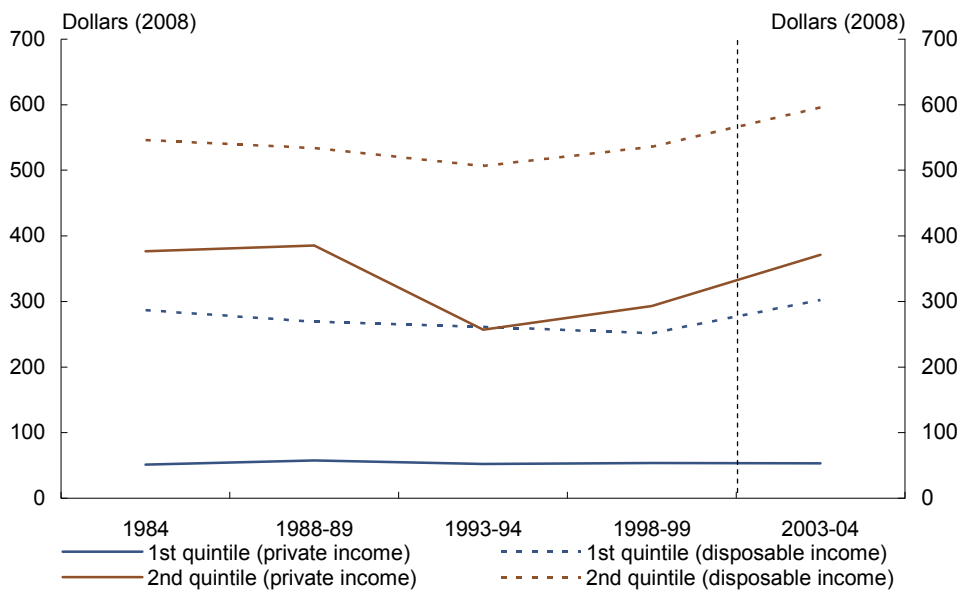
Australia's tax and transfer system is progressive and highly redistributive, and as such is relatively effective at improving household disposable incomes for those on the lowest private income levels. The share of transfers paid to the lowest income quintile is higher in Australia than in any other country in the OECD. Australia also has the lowest share of taxes paid by the bottom income quintile (among those OECD countries which collect tax data in their income surveys).⁴

A recent OECD Working Paper found that Australia performs well compared to other OECD countries in terms of targeting of low income support benefits when considered both in terms of incentives to return to the workforce and reducing the risk of poverty.⁵

With a growing and ageing population, it will be important that the tax and transfer system works together with active labour market policies to support those on lowest private incomes, while encouraging labour market participation.

Chart 6.7: Trends in private and disposable income, 1st and 2nd quintiles

Average weekly private and disposable income at the 1st and 2nd gross income quintile, 1984–2004



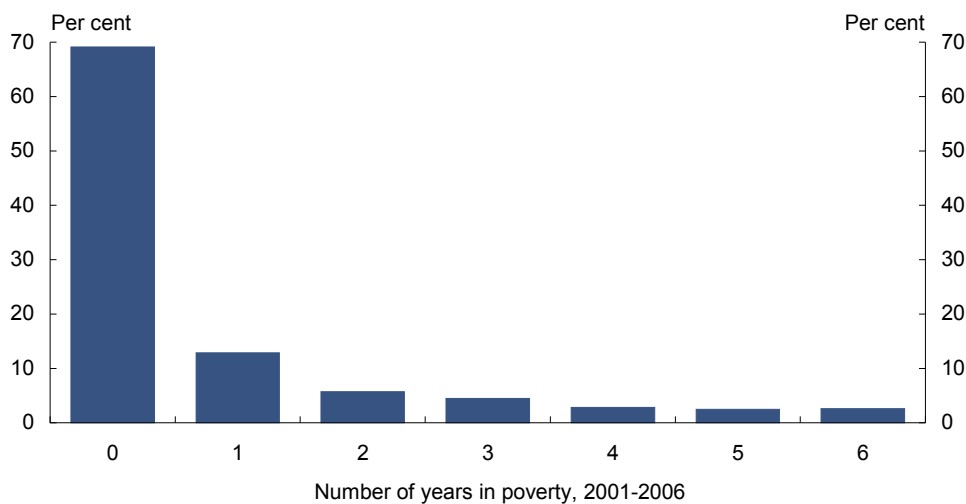
All figures have been converted to 2008 dollars using a CPI deflator.
Sources: ABS cat. no. 6537.0, 2001; ABS cat. no. 6537.0, 2007.

4 OECD Income Distribution data; extracted by Social Policy Research Centre, University of New South Wales (unpublished).
5 H Immervol, 'Minimum-income benefits in OECD countries: Policy design, effectiveness and challenges', OECD Social, Employment and Migration Working Paper No. 100, released 7 January 2010.

The provision of public services, rather than direct cash transfers, also can alleviate poverty and help people to grow their skills and capabilities. Mainstream services need to be easily accessible by those facing or at risk of multiple disadvantage; and there may need to be supplementary targeted services available to the most disadvantaged individuals and households.

For most Australians, experiences of income poverty are largely temporary. Almost one in three Australians earned less than half of median income at some point between 2001 and 2006 (Chart 6.8). About 18 per cent of all Australians experienced relative income poverty for a period of one or two years, and only 2.6 per cent of Australians experienced relative income poverty in all years between 2001 and 2006.

Chart 6.8: Percentage of Australians who experienced relative income poverty for between 0 and 6 years, 2001–2006



Notes: Population weighted results. Percentages may not add up to 100 owing to rounding.
 Source: Wilkins, R, Warren, D and Hahn, M, 2009, *Families, Incomes and Jobs*, Volume 4. Melbourne Institute of Applied Economic and Social Research, The University of Melbourne.

Access to education

Educational attainment is a critical element of human capital, in its own right and through its contribution to workforce participation. Improved education and skills will contribute to enhancing productivity and optimising workforce participation.

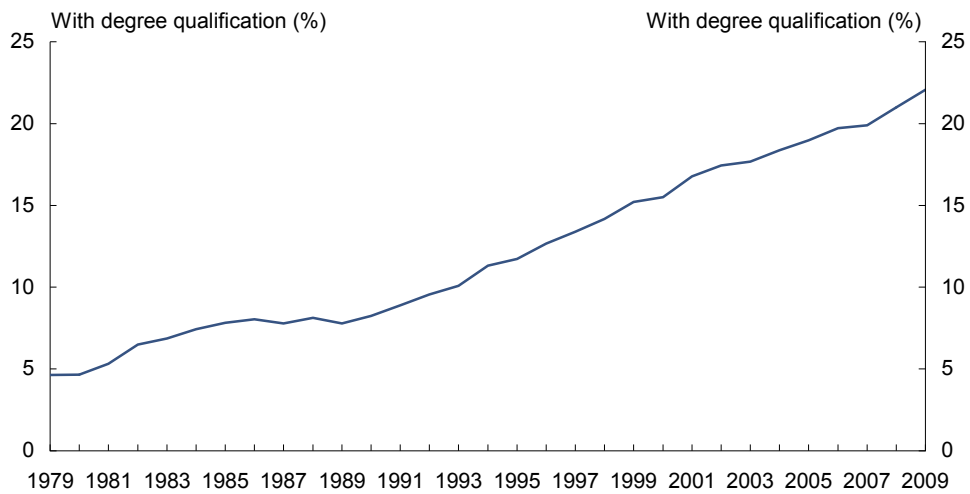
Australians are showing strong and improving results in terms of educational attainment. For example, the percentage of the working age population with a bachelor degree or higher qualification rose from 5 per cent in 1979 to 22 per cent in 2009 (Chart 6.9).

Still, Australians from low socio-economic groups are more likely to experience poorer education outcomes, and these poor outcomes tend to persist across generations,

suggesting improving educational attainment is likely to play a role in addressing disadvantage over time.

Young Australians from lower socio-economic status backgrounds appear to lag at least one school year behind the Australian average, and by more than two years when compared to students in the highest socio-economic quartile.⁶

Chart 6.9: Proportion of working age population that has attained a tertiary degree, 1979–2009

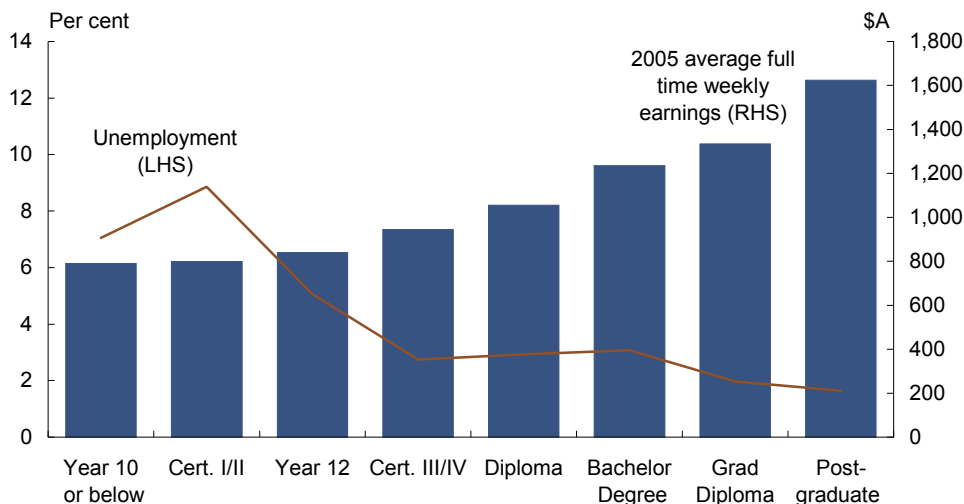


Source: ABS cat. no. 6227.0, 2009.

Higher educational attainment is associated with lower levels of unemployment and higher wage levels (Chart 6.10).

6 OECD Programme for International Student Assessment (PISA), 2006.

Chart 6.10: The correlation of education with employment and wage outcomes



Note: 2005 average full-time weekly earnings, all persons.
Source: ABS cat. no. 6278.0, 2006.

Educational attainment and qualifications seem to be correlated across generations. For example, Australian students whose parents achieved low educational attainment were achieving significantly lower mathematical scores at age 15.⁷

The Government is making significant investments to improve educational attainment for children at risk of disadvantage — including improving literacy and numeracy and the quality of teaching, and focusing more effort on schools in low socio-economic communities. These investments aim to break the cycle of educational disadvantage, so that future generations are provided with capabilities and opportunities that their parents may never have had.

Access to employment

Supporting workforce participation is critical to meeting the economic and fiscal challenges of an ageing population. Workforce participation also is associated with a range of positive life outcomes such as sense of identity, financial independence and opportunities to socialise with others.

As the working age population declines as a proportion of total population, it will be important that all Australians have the opportunity to contribute productively to the nation's economic prosperity.

⁷ OECD, *Growing Unequal?: Income Distribution and Poverty in OECD Countries*, 2008, p 211.

Australia has performed well in terms of employment outcomes, with the unemployment rate declining over the past 25 years. The unemployment rate is substantially below the OECD average, with Australia's rate standing at 5.6 per cent in November 2009, compared to 8.8 per cent for the OECD average.⁸ Still, pockets of high unemployment remain.

While Australia's workforce participation rate for youth (15–24 years) is among the highest in the OECD, participation for people with no post-school qualifications remains significantly below those with post-school qualifications (around 10 percentage points lower).⁹

In order to lift youth participation and productivity, the Government is investing an additional \$6.7 billion in vocational education training through the National Skills and Workforce Development Agreement with the States and Territories. Support for higher education is being increased, including by uncapping the number of supported places. It is the Government's goal for 40 per cent of all 25–34 year olds to attain a bachelor level qualification or above by 2025.

Australia's employment rate for people with a disability is lower than the OECD average. As part of the 2009–10 Budget the Government committed \$1.2 billion over four years to implement reforms to the disability employment services.

The longer people are unemployed, the harder it becomes to return to work. There is also evidence of an association between long-term joblessness and persistent intergenerational disadvantage.¹⁰ Positively, Australia's long-term unemployment rate has fallen in recent decades from a high of almost 4 per cent in the early 1990s to less than 1 per cent today.¹¹

Maintaining these low levels of unemployment, and where possible further improving participation and employment levels, will become increasingly important as the working age population declines as a share of total population.

Health outcomes

Good health makes it easier for people to participate in society and in economic activities. It is also an important component of wellbeing in its own right.

8 ABS cat. no, 6202.0, 2010; *Labour Force*, Australia, December 2009; OECD Labour Force Statistics.

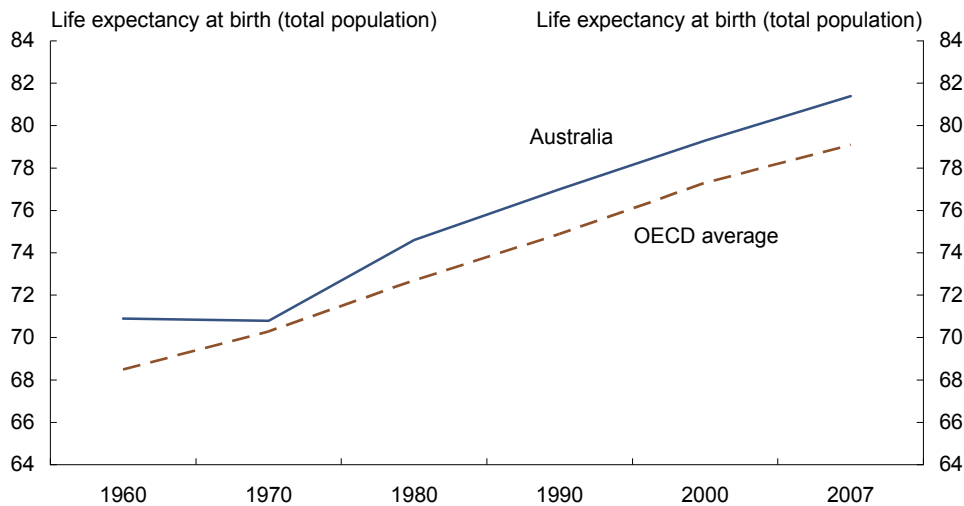
9 S Kennedy, N Stoney, L Vance, 'Labour force participation and the influence of educational attainment', *Economic Roundup*, Issue 3, 2009.

10 J Pech and F McCoull, 'Transgenerational welfare dependence: myths and realities', *Australian Social Policy*, 2000(1), 43–67.

11 Australian Bureau of Statistics, *Labour Force, Australia, Detailed*, cat. no. 6291.0.55.001, ABS, Canberra, 2009.

Life expectancy at birth is a proxy for measuring the overall health of a population. In 2007, Australians were among the longest lived OECD members¹² (Chart 6.11). Continued improvements in life expectancy are forecast for Australians. It is projected that men born in 2050 will live an average of 7.6 years longer than those born in 2010, and women an average of 6.1 years longer.

Chart 6.11: Life expectancy at birth (1960–2007)



Source: OECD *Health at a Glance 2007*, Table A.2.1a; OECD *Health at a Glance 2009*.

Indigenous life expectancy is significantly below that of the general population (12 years lower for males and 10 years lower for females). The Government has committed to close this life expectancy gap within a generation.

Where there are cases of persistent poor health, often it is found alongside other forms of disadvantage, including income poverty (Table 6.3). Poor health can contribute to, and perpetuate, disadvantage. There is evidence that low maternal socio-economic status can lead to poorer child health, and mental health in particular, that in turn may lead to poorer educational and labour force outcomes in the future.¹³

¹² OECD, *Health at a Glance, 2009: OECD Indicators*, Organisation for Economic Co-operation and Development, Paris, 2009.

¹³ J Currie, 'Healthy, Wealthy, and Wise: Socioeconomic Status, Poor Health in Childhood, and Human Capital Development', *Journal of Economic Literature*, 47(1), 2009, pp 87-122.

Table 6.3: Comparison of disease rates by percentage of the population and level of disadvantage

	Most disadvantaged quintile (% of population)	Least disadvantaged quintile (% of population)
Arthritis	17.3	12.9
Asthma	11.9	7.6
Malignant neoplasms	1.9	1.4
Heart, stroke and vascular disease	7.2	3.7
Diabetes	5.3	2.6
Mental and behavioural problems	14.2	10.4

Source: ABS cat. no. 4364.0, 2009.

6.3.2 Other factors affecting human and social capital

Early childhood

Cost-effective investments to build the capabilities of children and youth are critical for building the human and social capital of the next generation. For instance:

- Poor nutritional intake and poor health outcomes in early life can be associated with ongoing cognitive impairment.¹⁴
- Maltreated children are less likely to have the cognitive and socio-emotional skills required to perform well at school,¹⁵ which can have implications for their educational outcomes and their employment opportunities later in life.
- There is evidence that children whose parents relied heavily on income support are more likely themselves to rely on income support when they reach adulthood than are other children. For example, young people are more likely to support the provision of income support payments, and perceive inequality as the result of forces beyond their control, if their family received income support payments.¹⁶

Individual resilience

Psychological studies have looked at educational and life outcomes for children with risk factors for long-term disadvantage (such as learning difficulties, behavioural

14 A Sorhaindo and L Feinstein, 'What is the relationship between child nutrition and school outcomes', *Research Report No. 18*, Centre for Research on the Wider Benefits of Learning, London, 2006.

15 S Twardosz and J Lutzker, 'Child maltreatment and the developing brain: A review of neuroscience perspectives', *Aggression and Violent Behaviour*, vol. 15/1, 2010, pp 59-68.

16 J Baron, D Cobb-Clark and N Erkal, 'Cultural Transmission of Work-Welfare Attitudes and the Intergenerational Correlation of Welfare Receipt', *Centre for Economic Policy Research Discussion Paper No. 594*, The Australian National University, 2009.

disorders, social and emotional problems, low family income and parental criminality).¹⁷ These studies suggest that some children possess greater resilience which enables them to overcome the risk factors in their lives.

Appropriate parenting is particularly important in developing children's emotional and learning skills, but there is also a critical role for early childhood development programs, and for responsive schools.

Locational impacts

Locations that contain high concentrations of one component of disadvantage tend also to rank higher on other components. Locational disadvantage can reflect a number of factors such as: wealthier people are able to afford the higher property values in more desirable locations, lack of transport (making it difficult to take up job opportunities) or lack of community infrastructure to support those facing disadvantage.

Policy can play an important role by targeting improved service provision to locations with high levels of disadvantage. In such areas, multi-faceted policy interventions are important to address the multiple types of prevailing disadvantage.

6.3.3 Social Inclusion Agenda

The Government's Social Inclusion Agenda is seeking new ways to overcome disadvantage in the Australian population, to ensure that all Australians will be able to:

- learn by participating in education and training;
- work by participating in employment, voluntary work and family and caring;
- engage by connecting with people and using their local community's resources; and
- have a voice so that they can influence decisions that affect them.

The Government is developing a framework to tackle multiple and entrenched disadvantage in Australia. Box 6.4 outlines the Government's social inclusion principles. State and Territory governments have endorsed the principles as part of their commitment to develop a National Action Plan on Social Inclusion.

¹⁷ A Masten, K Best and N Garmezy, 'Resilience and development: Contributions from the study of children who overcome adversity', *Development and Psychopathology*, Vol. 2, Issue 04, Oct 1990, pp 425-444.

Box 6.4: Principles for Social Inclusion in Australia

1. *Building on individual and community strengths* — Making the most of people's strengths, including the strengths of Aboriginal and Torres Strait Islander peoples and people from other cultures.
2. *Building partnerships with key stakeholders* — Governments, organisations and communities working together to get the best results for people in need.
3. *Developing tailored services* — Services working together in new and flexible ways to meet each person's different needs. For some members of the Australian population experiencing, or at immediate risk of, significant exclusion, mainstream services may not be sufficient or appropriate to mitigate exclusion.
4. *Giving a high priority to early intervention and prevention* — Heading off problems by understanding the root causes and intervening early.
5. *Building joined-up services and whole of government(s) solutions* — Getting different parts and different levels of government to work together in new and flexible ways to get better outcomes and services for people in need.
6. *Using evidence and integrated data to inform policy* — Finding out what programs and services work well and understanding why, to share good ideas, keep making improvements and put effort into things that work.
7. *Using locational approaches* — Working in places where there is a lot of disadvantage, to get to people most in need and to understand how different problems are connected.
8. *Planning for sustainability* — Doing things that will help people and communities deal better with problems in the future, as well as solving the problems they face now.

While there is a need to maintain policy settings which support improvements in human and social capital for the benefit of the majority of Australians, interventions targeted at addressing the specific needs of those experiencing multiple and/or persistent disadvantage are also warranted.

The evidence suggests that simply increasing government expenditure does not necessarily lead to improved life outcomes for the recipients. Mainstream services need to be accessible to those who need them most. Targeted assistance, designed around the needs of the individual, also may be required to assist those facing multiple, entrenched disadvantage.