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AUSTRALIA: INEQUALITY AND
PROSPERITY AND THEIR IMPACTS IN A
RADICAL WELFARE STATE

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Executive Summary

Over the last 30 years or so the Australian economy has been subject to wide-ranging reforms. These reforms include reducing high protective tariffs on imported goods and removing some non-tariff barriers, floating the Australian dollar, deregulating the financial services sector, deregulating the labour market, increasing efficiency between the federal and state branches of government, privatizing government-owned industries, and reforming the tax system. The social security system has also been subject to considerable reform – some periods saw retrenchment of social security support, while others saw increased targeting and generosity to the poor, or retrenchment for some groups and improvement for favoured categories.

Accompanying these changes, and partly as a result of some of them, unemployment increased significantly in different periods. Some family changes reinforced these negative trends, and Australia developed an extremely high concentration of joblessness in households with no adults in paid employment. While overall employment has grown strongly in the second half of this period, this has been accompanied by a growth in part-time employment and casual work.

Over this 30 year period, there have been a number of relatively distinct periods in income growth and in inequality trends in Australia. The period from the early 1980s to the mid-1990s saw relatively slow rises in real incomes accompanied by periods of falling inequality as well as rising inequality, with the overall result of a slow widening in income inequality.

The late 1990s saw both increases in real incomes and rapid increases in inequality, while the beginning of the new century saw much smaller inequality increases and periods when inequality fell, as real incomes continued to rise.

From 2003 up until the Global Financial Crisis there were much more rapid increases in real disposable incomes, but also increases in income inequality (with the proviso that trends in incomes and in inequality are both affected by the changes to the ABS income surveys).

The increases in real disposable incomes for Australian households were greater than in any period since the 1960s. After Ireland – and from a much higher base - Australia enjoyed the largest real increases in mean and median real incomes of any OECD country, and since 2008 Australia has continued to move ahead.

In terms of overall social welfare, rising inequality in different periods did tend to offset the effects of rising real incomes, but overall the Sen welfare index (SWI) shows very large increases in wellbeing, with the SWI being 50% higher than in 1994-95 and only marginally lower in 2009-10 than at its peak in 2007-08.

The causes of these trends are complex and also differ between periods. The most important source of income inequality in Australia is related to access to earnings. Inequality of wage rates for full-time workers has tended to increase close to continuously over this period, as a result of modest real wage increases at the bottom of the earnings distribution and much greater increases at the top of the distribution. Over the longer run, these disparities were partly offset by rising real wages for women, although gender wage gaps have increased since around 2004, so that overall little progress has been made since the mid-1990s. In some periods rising employment for women tended to increase family income inequality, but over the last decade rising female employment has tended to reduce overall inequality.

Changes in family composition and the demographic structure of the population appear to have reinforced trends towards rising inequality, but the effect is much less important than access to employment.

The income share of the richest 10% and the richest 1% started to increase in the late 1970s, and the pattern of increase is very similar to those in other English-speaking countries, but because Australia started with a relatively low income share for the richest groups, the share of the top 1%, for example, is about half that in the United States, and not dissimilar to that in many European countries.

The tax and transfer systems are important mechanisms by which Australian governments have acted to offset rising inequality in market incomes. However, the effectiveness of the tax and transfer systems in reducing inequality reached its peak in the mid-1990s and subsequently declined (although very recent initiatives may start to offset this). The decline in the effectiveness of the tax and transfer systems in reducing inequality is partly explained by some transfers not keeping pace with rising community incomes, but it appears that the main reason is a decline in the redistributive impact of direct taxes.

Taking broader measures of household incomes tends to show both higher living standards and lower inequality than standard income measures. For example, adding the value of government non-cash benefits (health and education being the most important) and deducting indirect taxes reduces inequality (and raises final incomes). Taking account of imputed income from owner-occupied housing has an even greater effect on inequality, because home ownership is much greater among households over 65 years, and in Australia these households tend to have much lower cash incomes than younger households.

However, while the level of income inequality is lower using these broader measures, the overall trend on virtually all measures of resources is towards greater inequality in the last decade.

1 Introduction

This is an extended version of a chapter that will appear in *GINI Growing Inequalities' Impacts, Volume 2, Changing Inequalities and Societal Impacts in Rich Countries: Thirty Countries' Experiences*, (Salverda et al. (Eds), Oxford University Press, 2013 forthcoming). The GINI Project is funded by the European Union under the Socio-Economic and Humanities theme of the 7th Framework Programme. The project involves country studies and international comparisons across EU countries, the USA, Japan, Canada and Australia.

The overarching objective of the GINI project is an improvement in the understanding of changing inequalities and their impacts in the various countries of the European Union in comparison to other developed countries, including a longer-term perspective and with attention paid to impacts on society as a whole. The study is broad, and includes analysis of changes in income and educational inequalities, their social impacts, their cultural and political impacts and their interaction with policies. To some extent, the approach adopted in the project has been influenced by the work of Wilkinson and Pickett in *The Spirit Level* (2009), in that it seeks to identify what can be said about the broader consequences of trends in inequality in dimensions such as health outcomes, crime, and social trust among other factors.

In preparing the Chapter on Australia it was necessary to provide a good deal of background on Australian institutional arrangements and their historic development for readers who may have limited knowledge of these details. It was also necessary to settle on a theme that helps identify what is distinctive about Australian experience. For example, chapters in the forthcoming collection include 'Austria: the bastion of calm?', 'Greece: the (eventual) social hardship of soft budget constraints', 'Ireland: inequality and its impacts in boom and bust', 'Divided we fall? The wider consequences of high and unrelenting inequality in the UK', and 'The United States: high and rapidly increasing inequality'.

In seeking to identify factors that make Australian experience distinctive an obvious starting point is the enormous increase in prosperity that Australia has enjoyed since the early 1990s that appear to have turned us into a ‘miracle economy’ (Goot, 2013), as shown by the fact that over the past 15 years or so Australian households have enjoyed the second highest increase in average real disposable income in the OECD (OECD, 2011).¹ But over the same period income inequality increased – while the poorest 10 per cent of Australians experienced the fifth greatest increase in their incomes, the richest decile had the largest increase of any OECD country (OECD, 2011). Rising inequality and rising prosperity are therefore characteristic of Australia’s experience over recent decades.

Given this background, this paper assesses trends in inequality and their impacts in Australia since the early 1980s when Australia embarked on a wide-ranging set of economic reforms (and detailed household income surveys first became available). From some perspectives these reforms have been revolutionary, but have they been successful in providing broad-based income growth? Has the increase in income inequality that can be observed since the 1980s been necessary for economic growth and what are the impacts of these trends on broader measures of household wellbeing?

Reforms since the 1980s have been controversial, in part because they appear to have involved overturning some of the fundamental assumptions of earlier social and economic policies. Some of the criticisms of these trends have been not dissimilar to the arguments raised by Judt (2010, p.2), that ‘for thirty years we have made a virtue out of the pursuit of material self-interest: indeed, this very pursuit now constitutes whatever remains of our sense of collective purpose. ... Much of what appears “natural” today dates from the 1980s: the obsession with wealth creation, the cult of privatization and the private sector, the growing disparities of rich and poor.’

Have there been growing disparities between rich and poor in Australia? Is the finding of rising household income inequality robust? In the United States there has at times been what appears to be a small cottage industry of commentators and think tanks arguing that inequality has not really increased, sometimes on technical grounds, or that income inequality is not a reliable indicator of the distribution of wellbeing (Wilkinson, 2009). Australia has not had as much of this literature, but there are those who argue that the increase in inequality has had desirable as well as undesirable effects (Ergas, 2012) or that concerns about inequality are

¹ Australian income growth up to 2008 was only exceeded by Ireland, which started from a much lower level, and between 2008 and 2010 household disposable income in Ireland dropped by close to 10 per cent compared to 1.5 per cent in Australia.

motivated by the ‘politics of envy’ or that policy should be concerned with poverty rather than inequality. This paper addresses these issues by reviewing trends in range of dimensions of inequality and also through analysis of trends in poverty and disadvantage.

The paper is structured as follows. To put the post-1980 trends in context, the paper starts with an outline of the relationship between inequality and the growth of household incomes over the longer term, discussing some of the unique features of Australia’s experience, in particular the industrial relations system and the design of the Australian welfare state. Section Three of the paper discusses trends in income inequality since the early 1980s using official data published by the Australian Bureau of Statistics, in combination with a review of earlier studies and new analysis of ABS unit record data. This analysis shows that there have been periods when income inequality fell as well as periods when it rose, but overall there have been two main periods in inequality trends – from the 1980s to the mid-1990s when both income inequality and household incomes rose slowly, and the period from the early 1990s to 2008, when both incomes and inequality rose more rapidly. These periods roughly correspond to the period of the Hawke-Keating government in the 1980s and 1990s and the Howard Government from 1996 to 2007. Care should be taken in interpreting the role of specific governments in these trends, however, since any government both inherits the circumstances left by its predecessor and transmits circumstances to its successor, and election cycles do not correspond precisely with economic cycles. The period since the Global Financial Crisis – as it is called in Australia – or the Great Recession - as it is known overseas – may yet show divergent trends, but available data suggest a small fall in household incomes and in income inequality.

Section Four discusses the driving forces behind these trends, arguing that the main influence on market inequality trends has been changes in employment status, increasing inequality in the first period, but then decreasing market inequality in the latter part of the second period. Section Five then discusses in more detail changes in Australian labour market institutions, Section Six discusses changes in earnings disparities, Section Seven looks at trends in employment, unemployment and under-employment and Section Eight briefly reviews educational inequalities.

Australia has a distinctive – indeed close to unique – welfare and tax system, leading Castles and Mitchell (1990, 1993) to label this a ‘radical welfare state’. Gruen (1989) also argued that the Australian welfare state was more *avant garde* than rearguard. Section Nine looks at the impact of the direct tax system and the social security system in reducing inequality and how this impact has changed over time. The tax-transfer system increased its effectiveness in the period from 1982 to the mid-1990s, but only partly offset the rise in market income

inequality. Since the mid-1990s the extent of redistribution has fallen, and in fact the more rapid rise in disposable income inequality since the 1990s is a result of reduced government redistribution. This is then followed by a discussion of broader measures of redistribution, in particular the impact of taking account of indirect taxes and government non-cash benefits in the form of spending on health and education. Taking account of these factors reduces the estimated level of inequality but does not change the direction of the trend. Section Eleven analyses trends in expenditure inequality and finds that while the level of inequality varies the finding of increased inequality also applies to expenditures. This is followed by a brief summary of trends in top incomes and by a discussion of debt and wealth inequalities. Overall while the distribution of wealth is substantially more unequal than the distribution of income, the joint distribution of income and wealth gives a very different picture, mainly because of the very high level of home ownership among lower income groups particularly the aged.

Section Fourteen reviews patterns and trends in income poverty finding that relative poverty (using a poverty line set at 50 per cent or 60 per cent of the median) has shown mixed progress over time, but that using a poverty line held constant in real terms shows very large reductions in poverty. Section Fifteen reviews what is known about recent trends in income mobility. This is followed by a review of measures of material deprivation and then by a brief discussion of indigenous disadvantage. The paper concludes with a discussion of the prospects for inequality trends in Australia in coming years.

The approach adopted in the paper is to focus on incomes at the household level or at the income unit (or nuclear family) level, and to seek to identify the role of labour market and government institutions in influencing the distribution of income. In the economic literature more broadly, the dominant explanation for widening wage disparities in rich countries is that of increasing demand for high-skilled, high ability workers, driven by skill-biased technological change, combined with the effects of increased trade and globalisation, which are generally seen as complementing high-skilled labour and substituting for low-skilled labour (Doiron, 2012; OECD 2011). However, this paper does not discuss these issues directly, but focuses on institutional responses to economic change, as this is the approach adopted as part of the GINI study.

As a major caveat, it should be evident that the paper covers a very wide range of topics and as a result the treatment of some of this is inevitably superficial. I am responsible for any errors of interpretation, but it seemed potentially useful to include this material to give a broader perspective on inequalities in Australia.

2 The longer term economic and social context

While Australia is not currently considered to be a particularly low inequality country, this has not always been the case. Egalitarianism has long been a significant issue in Australian political debate, although egalitarianism is not the same thing as low inequality. Thompson (1994, viii) notes that the idea of egalitarianism has been used as shorthand for a 'cluster of values and beliefs, many of which are conflicting, or at least inconsistent.' Hirst (2006) concludes that the desire for equality in social, political and economic realms has been a major force in Australian history. Garnaut (2002, pp. 12-13) argues that the Australian concern for equity lasted the entire 20th Century, and that no important policy change is feasible if it violates broadly supported conceptions of equity, whichever political party is in power.

By most accounts during the period leading up to Federation in the late 19th century, Australia had the highest per capita income in the world, substantially above that of the United Kingdom and other leading countries (Maddison 2003; McLean, 2012). Moreover, during the same period - and for a considerable later period - there was a widely held view that Australia was characterised by a relatively equal distribution of income. Ward (1977) has argued that when commentators spoke of Australia as 'a working man's paradise' in the late 19th Century, they were aware of 'exaggeration in the figure of speech, but not usually of irony' (Ward, in Métin, 1977). It was after a visit to Australia and New Zealand in 1899 that Andre Métin coined his memorable description of Australasian politics as 'socialism without doctrine', arguing that Australasia had contributed little to social philosophy, but had gone further than any other land along the road of social experimentation: Australian colonies in the 19th Century included the first jurisdictions to introduce the eight hour day (1856), among the first where women won the vote (1894), the first Labor Party government in the world (1899), and among the first to use the secret ballot (1856). While not the first in introducing social security, Australia and New Zealand were pioneers in welfare state legislation with Age Pensions introduced in New South Wales and Victoria in 1900 and nationally from 1909 and a Maternity Allowance in 1912.

Kelly (1994) has argued that the Australian federation started with a set of generally accepted policy principles, which he called 'The Australian Settlement', comprising five main elements: White Australia, Industry Protection, Wage Arbitration, State Paternalism and Imperial Benevolence. There is considerable debate about this characterisation (Maddox, 1998; Roe, 1998), not least because it may be influenced by the assumed desirability of the economic reforms of the 1980s and later. McLean (2012) also argues that Australia was characterised by

institutional adaptability and innovation, and growth-enhancing policy responses to major economic shocks for a considerable period, and not just since the 1980s.

Nevertheless, under the Deakin Government in the early 1900s, protective tariffs for manufacturing industry came to be linked with relatively generous wages and conditions for male workers and to policies of immigration restriction designed to exclude non-European migrants. In the sphere of wage arbitration the Australian colonies introduced industrial relations courts in the 19th century and in 1904 the Commonwealth introduced a Conciliation and Arbitration court to hear and arbitrate industrial disputes, and to make awards that determined the pay and conditions of wage earners. In the Harvester case in 1907 the Court introduced the concept of the 'basic wage', effectively a very generous minimum wage intended to guarantee employees a standard of living which was reasonable for 'a human being living in a civilized community'.

Castles (1985) has described Australia at this time and later as a 'wage earner's welfare state'. The key features of this approach were high minimum wages, and in the post-World War II period, extremely low unemployment, easy access to owner-occupied housing (Castles, 1998) and the targeted system of welfare state benefits that was almost wholly non-discretionary in character. This led to low levels of poverty by international standards. Those in work were not poor because arbitrated wages were (at least, in principle) sufficient to support a working husband, a wife who stayed at home and at least two children. The presumption was that wage-earners were males and the prevailing pattern was an extreme version of what has come to be called the 'male breadwinner state'. Similarly, Garnaut (2002) notes that the original focus of the post Harvester wage system was on the equitable treatment of 'employed adult white males', with the result that women who were either single or assumed not to be primary wage earners were paid about 40 per cent of the male wage.² The unemployed were also not covered in this framework, although in the post-WWII period the unemployment rate rarely exceeded 2 per cent of the labour force before the mid-1970s.

Australia lost its exceptional income ranking and by the early twentieth century, Australia's per capita income was comparable to that of other advanced countries, and just prior to World War II Australia's income trailed that of the United States and United Kingdom by a slight margin (McLean 2004). While in the 1950s Australian GDP per capita again briefly exceeded the level in the USA, this margin did not last, and by 1970 had fallen to around 85 per cent of the US level in purchasing power terms.

² Aborigines – when employed – might be paid even less, and non-European immigration was restricted.

Since the early 1970s – and accelerating in the 1980s - Australian economic policy has been subject to wide-ranging reforms by successive governments. These included reducing high protective tariffs on imported goods and removing some non-tariff barriers, floating the Australian dollar, deregulating the financial services sector, increasing efficiency between federal and state governments, privatizing government-owned industries, deregulating the labour market, and reforming the tax system, including introducing a Goods and Services Tax (a VAT) and a Capital Gains Tax and cutting marginal income tax rates (Freebairn, 1998). These reforms are often seen to reflect a newly dominant neoliberal agenda (Quiggin, 1999), or what in Australia has been called ‘economic rationalism’ (Pusey, 1991).

The benefits of these changes took time to appear. Gregory (1993) labelled the period 1970 to 1990 as ‘the disappointing decades’, noting that from the mid-1970s to 1990 Australian real wages stagnated, unemployment increased fourfold and the male full-time employment-population ratio fell by 25 per cent.³ Gregory (1993) also pointed to the widening dispersion of male wages, job losses from the middle of the earnings distribution and job growth mainly for those with low earnings. Some family changes such as the growth in lone parenthood reinforced these negative trends, and Australia developed an extremely high concentration of non-employment in households with no adults in paid employment.

Since the 1990s, however, this situation has reversed, and Frijters and Gregory (2006) more recently wrote of a new ‘golden age’ in the Australian economy. This shift has turned Australia into one of the fastest growing advanced economies in the world (Goot, 2013). Following a fall in GDP in 1990-91, Australia has since enjoyed a period of uninterrupted economic growth, accelerating after the late 1990s (Edwards, 2006).

For most developed countries, the recent Global Financial Crisis resulted in the steepest decline in economic activity since the great depression (OECD, 2009). Australia, along with Poland and Korea, were the only OECD countries to escape negative real GDP growth in the 2008-09 year⁴ with respective GDP growth of 1.4 per cent, 1.8 per cent and 0.2 per cent⁵, and since then real GDP has grown by more than 8 per cent.

³ The period could be seen as analogous to but somewhat shorter than ‘les trente piteuses’ (Baverez, 1997) in France, which followed ‘les trente glorieuses’ (Fourastié, 1979).

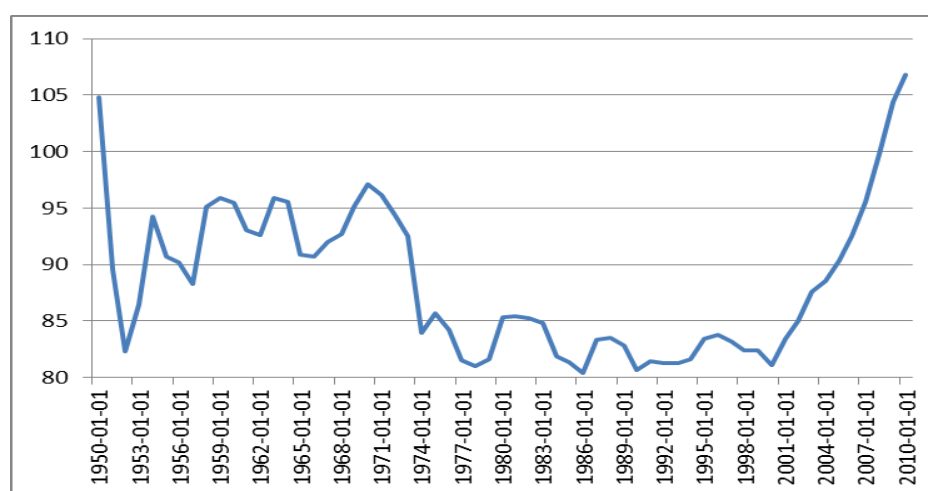
⁴ The Australian fiscal stimulus package was the third highest in the OECD over the period 2008 to 2010; only the USA and Korea spent more on discretionary stimulus (OECD, 2011b). The spending component (compared to tax cuts) of the fiscal stimulus was higher in Australia than any other OECD country. For discussion, see Leigh (2009b).

⁵ A number of non-member OECD countries managed relatively strong growth throughout the GFC. Among the significant non-member OECD countries in 2009, China and India had the strongest

These recent trends followed a period of sustained increases in Australian living standards. Between 2002 and 2011 real per capita household disposable income in Australia grew by 2.8 per cent per year (compared to an average of 1 per cent per year over the previous 21 years) (Sheehan and Gregory, 2011). Median household income fell marginally in the period between the onset of the global financial crisis and the 2009-10, but in the decade before the GFC median household income grew by 53 per cent after adjusting for inflation. Income growth was highest for the richest 20 per cent of the population at close to 60 per cent in real terms, but even for the poorest 20 per cent, real incomes grew by more than 40 per cent between 1996 and 2007-08.

Indicative of the changes in Australia's economic performance, Figure 1 shows Federal Reserve Bank of St Louis estimates that between the early 1950s and 1970, Australian GDP per capita in purchasing power terms fluctuated around 95 per cent of the US level, but after 1970 fell to around 85 per cent of the US level and fluctuated between 80 and 85 per cent until 2000. In contrast, between 2000 and 2010, Australian GDP per capita rose from 81 per cent to 106 per cent of US levels, although in part this reflects a slowing of GDP growth in the USA after 2001.

Figure 1: Purchasing Power Parity Converted GDP Per Capita Relative to the United States, G-K method, at current prices for Australia (USA=100)



Source: FRED Economic data, <http://research.stlouisfed.org/fred2/categories/32291>, January 23 2013.

The dramatic reversal in Australia's comparative economic performance has been variously described as the 'quiet boom' that changed Australia's place in the world (Edwards, 2006), putting Australia into 'The Sweet Spot' (Hartcher, 2011), and achieving 'The Australian Moment: How We Were Made For These Times' (Megalogenis, 2012). But the reforms of the

performing economies with annual growth of 8.7 per cent and 5.7 per cent (IMF 2010). These countries are amongst Australia's most important destinations for exports.

last 30 years have also been controversial, being seen as the 'Unmaking of the Australian Keynesian Way' (Battin, 1998) and 'A Nation Building State Changing Its Mind' (Pusey, 1991).

As noted by Garnaut (2002), 'the history of the period after 1983 was and is seen by some as a comprehensive retreat from the values and policies through which Australians in the early Federation had primarily defined their nationality' (2002, p.7). A strong element of the criticisms made of this economic reform agenda is its perceived impact on income disparities, with arguments that reforms under the Labor government in the 1980s resulted in declining real wages (Maddox, 1989) and rising poverty (Watts, 1989), redistribution from the working class to the rich and residualisation of social services (Carson and Kerr, 1988), and that overall the record of the Labor Government in 1980s even compared unfavourably with that of the Thatcher government in UK in the comparable period.⁶

3 Recent trends in inequality

As noted earlier, Australia used to be thought of as a low inequality country. Eric Hobsbawm's 'Age of Extremes: The Short Twentieth Century 1914-1991' (1995) contains only seven references to Australia, but two of these concern income inequality. In discussing the post-war 'Golden Age' Hobsbawm notes that income inequality was unusually low in a number of Asian countries but that: 'None, however, were as egalitarian as the socialist countries of Eastern Europe, or at the time, Australia' (p. 356)⁷. The qualifying phrase 'at the time' is significant, because Hobsbawm's final reference to Australia during the 'crisis decades' of the 1980s is as follows: 'By world standards the rich 'developed market economies' were not –or not yet – particularly unfair in the distribution of their income. In the most inegalitarian among them – Australia, New Zealand, the USA, Switzerland ...' (p.407).

Clearly Hobsbawm noticed that there is an apparent contradiction between Australia being as egalitarian as Eastern Europe in the 1960s⁸ but as inegalitarian as the USA in the 1980s, but he did not address explanations for this dramatic reversal. Hobsbawm should not necessarily be criticised for this, for many other authors present dramatically diverging pictures of income

⁶ For a contrasting view, see Whiteford (1994).

⁷ Kakwani (1980) is given as the source for this conclusion.

⁸ Hobsbawm notes that equality in the socialist countries was 'a certain equality of poverty' (1995, p.12).

inequality in Australia at different points in the 20th Century – albeit not within 50 pages in the one book - and usually not the same author. So, what happened?

Table 1 in the Annex provides an overview of selected studies of income inequality in Australia over the past twenty years.⁹ It is apparent that Australian researchers have employed a range of data and methods to analyse inequality. Overall, while some (4) studies showed little change in income inequality or some (2) periods of decline, most (14) studies found rising income inequality. It should also be emphasised that the cumulative picture is of rising income inequality over the longer run; the continuation of small increases ultimately results in an upwards trend. However, it is important to note that in some periods there are indications of falling inequality, and that the concepts and measures used can make a significant difference.

The Australian Bureau of Statistics (ABS) has conducted household income surveys since the late 1960s, although it is only surveys since 1982 that are comprehensive and available for public analysis.¹⁰ There have been major changes in methodology over the years, giving rise to a diversity of estimates of inequality. While changes have been made on a regular basis, recent changes are most significant. In 2007–08 the ABS revised its standards for household income statistics following the adoption of new international standards.

Implementation of the broader income measure in 2007–08 resulted in an \$85 increase in mean weekly gross household income, compared to the previous definition, a difference of roughly 5 per cent. The inclusions affected 3.4m households in total (43 per cent). Most of the impact was on employment income, which increased by \$89 per week on average. The inclusion of non-cash employment benefits and bonuses had the most impact (\$43 and \$32 per week respectively). In 2007–08, the Gini coefficient on the new basis was 0.331, which is higher than that compiled on the former basis (0.317). This reflects that most of the changes have been at the higher end of the income distribution i.e. the fourth and highest quintiles.

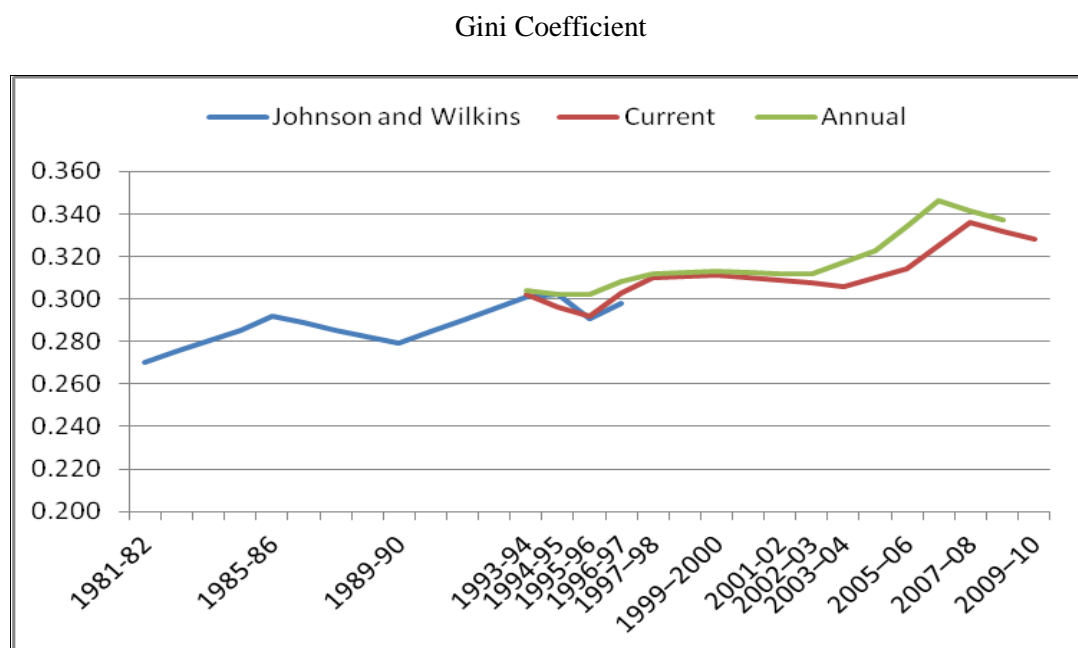
In summary, these changes mean that the income measure is more comprehensive and thus better captures the extent of income inequality in Australia. However, the observed increases in income levels and in income inequality in recent years are likely to be exaggerated, although this means that inequality was higher in previous years than previously measured.

⁹ A range of measures are used in these studies and this paper. The most common of these are as follows: the Gini coefficient ranges between 0 and 1 with a higher Gini implying greater inequality; the P90/P10 ratio is the income of the unit at the 90th percentile relative to that at the 10th percentile, with a higher ratio implying greater inequality; the Q5/Q1 ratio is the ratio of the income share of the richest 20 per cent to that of the poorest 20 per cent, with a higher ratio implying greater inequality

¹⁰ For surveys of earlier trends in income inequality, see Richardson (1979) and Ingles (1981).

Figure 2¹¹ shows the two longest series of estimates – those prepared by Johnson and Wilkins (2006) from 1981-82 to 1996-97, and official figures prepared by the ABS, from 1994-95 to 2009-10.¹² The figure also includes ABS estimates of annual income inequality. Despite the differences in income measures and equivalence scales, the long run trend is clear. There are periods in which inequality fell – 1986 to 1990, 1994-95 to 1996-97, and 1999-2000 to 2002-03, but overall inequality rose over the whole period, from around 0.27-0.29 in the 1980s, to 0.30-0.31 in the 1990s and early 2000s, and 0.32-0.34 in the mid and late 2000s.¹³

Figure 2: Longer run trends in income inequality in Australia, 1981-82 to 2009-10



Source: Johnson and Wilkins (2006); ABS (various years).

Figure 3 shows trends in real mean and median incomes. Johnson and Wilkins (2006) find that real mean equivalised incomes rose by around 0.5 per cent per year between 1981-82 and

¹¹ The scale in Figure 2 has been chosen as it represents the range of income inequality across high-income OECD countries in the mid-2000s, with Denmark having a Gini coefficient of around 0.22 and the USA around 0.36.

¹² Both series are based on current income recorded in the surveys, although the equivalence scales differ – Johnson and Wilkins (2006) use the square root of family size, while the ABS uses the ‘modified OECD equivalence scale’.

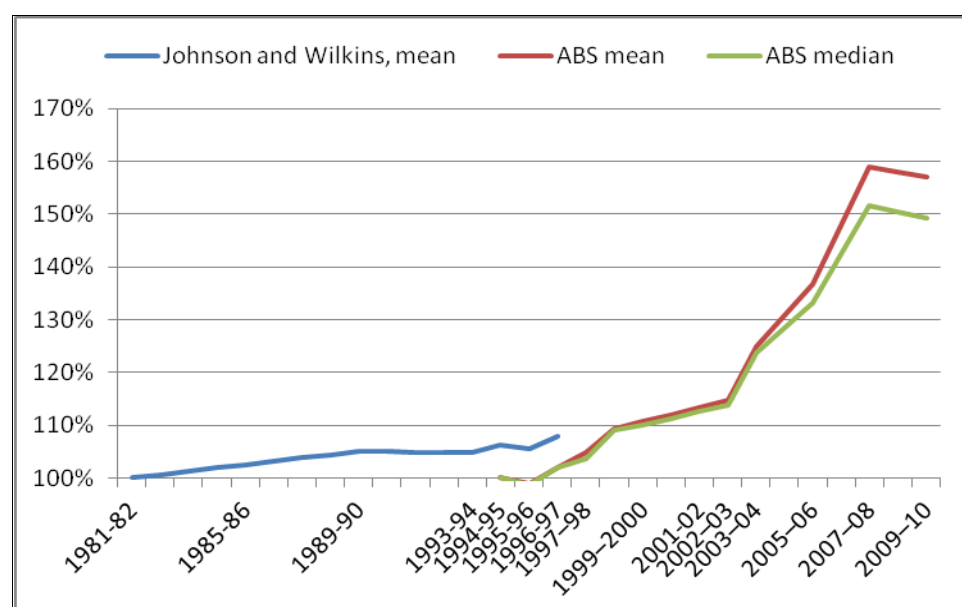
¹³ A further source of more recent information on income inequality trends is the Household, Income and Labour Dynamics in Australia (HILDA) Survey, a household-based panel study which began in 2001. In broad terms the series are quite similar, although the ABS surveys show somewhat higher levels of inequality over most of the period since 2001.

1996-97, with falls in real mean income between 1989-90 and 1993-94 and again between 1994-95 and 1995-96.

In contrast, since the mid-1990s, the ABS figures show much more rapid increases in real equivalised incomes. Since 1996-97 real mean incomes grew by at least 2 per cent per year up until 2002, with real mean equivalised incomes then growing by between five and eight per cent per year up until 2007-08, after which they declined by about 1.5 per cent. Trends in real median incomes follow a similar pattern to those for mean incomes, with slightly lower increases after 2002.

Figure 3: Trends in real mean and median income unit incomes in Australia, early 1980s to late 2000s

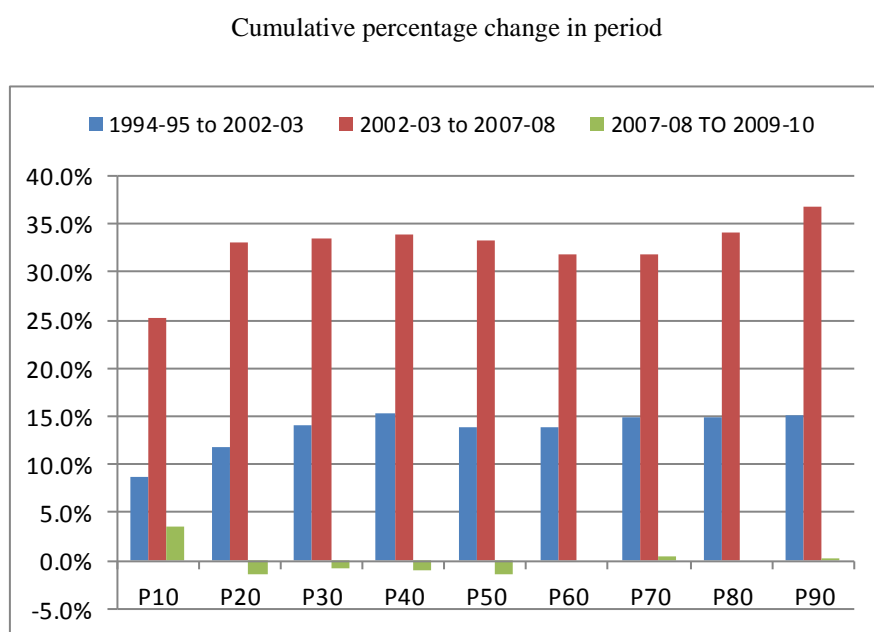
Johnson and Wilkins: 1981-82=100; ABS: 1993-94=100



Source: Calculated from ABS Surveys of Income and Housing and Johnson and Wilkins (2006).

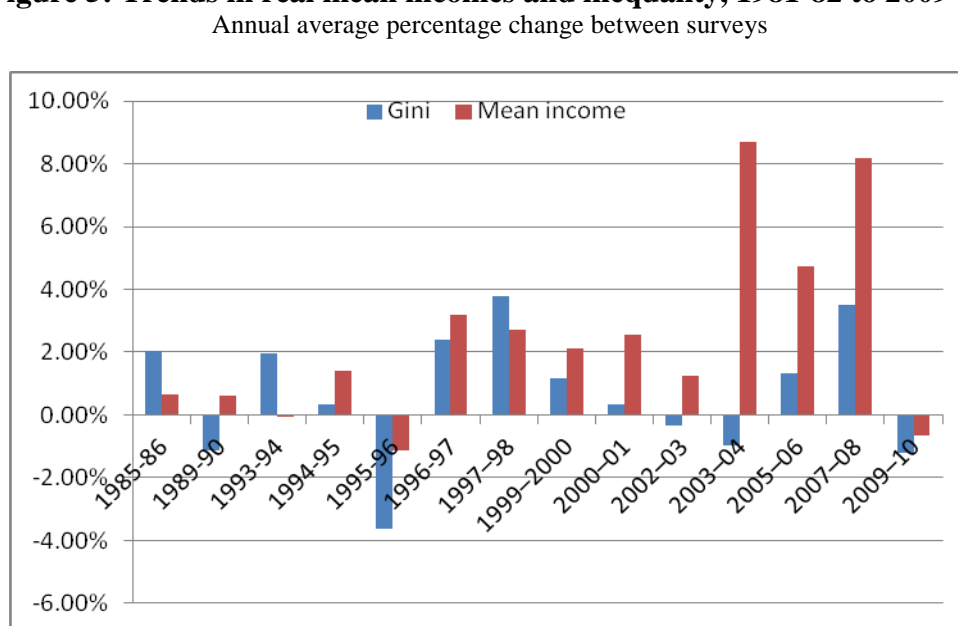
Figure 4 shows trends in real incomes at different decile points from 1994-95 to 2002-03, from 2002-03 to 2007-08 and then between the latest two surveys. In the first period real incomes grew least for the lowest decile, but averaged between 10 and 15 per cent for other income groups. After 2002-03 real incomes grew by between 25 per cent at P10 and 36 per cent at P90, with households between P20 and P50 doing better than those just above the median. Following the GFC, real incomes fell slightly or remained unchanged for most of the income distribution, with a small real increase for P10 and minor changes at P60 and above.

Figure 4: Trends in real incomes at decile points in Australia, mid-1990s to late 2000s



Source: Calculated from ABS Surveys of Income and Housing.

Figure 5: Trends in real mean incomes and inequality, 1981-82 to 2009-10

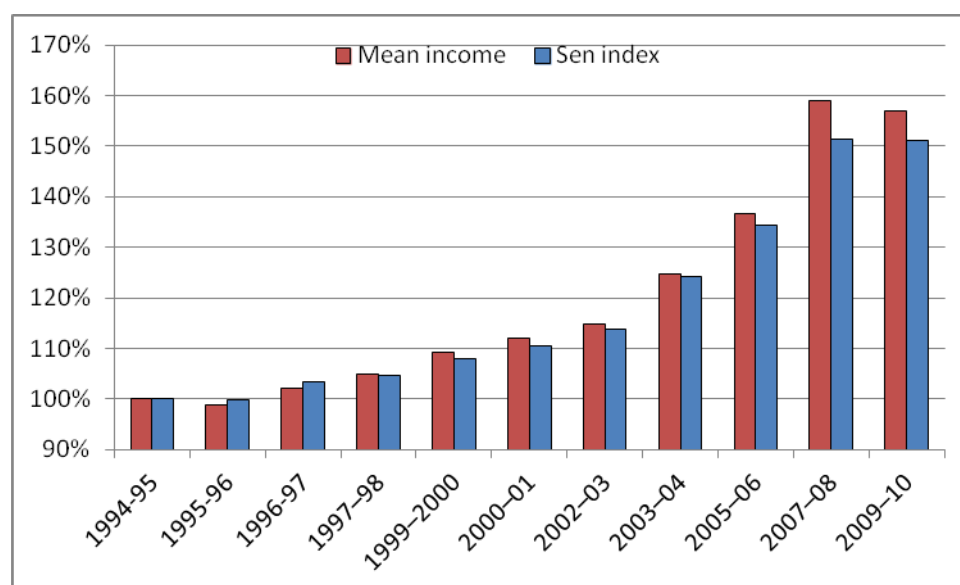


Source: Calculated from ABS Surveys of Income and Housing and Johnson and Wilkins (2006).

Figure 5 compares trends in real mean equivalised income and in the Gini coefficient between 1981-82 and 2009-10. The figures are the average annual percentage change between surveys. It is notable that the periods show divergent trends, some with rising inequality and rising mean incomes, others with falling inequality and rising incomes, but no periods with rising inequality and falling incomes. The size of the changes is also diverse across periods.

Figure 6 shows the changes in real mean equivalised income since 1994-95 and compares this with the change in the Sen Welfare Index over the same period. The Sen Welfare Index was proposed by Sen (1973) and is average income multiplied by one minus the Gini coefficient, with the effect that rising inequality will offset to some extent the welfare gains from rising average incomes.

Figure 6: Trends in real mean incomes and Sen Welfare Index, 1994-95 to 2009-10
1994-95=100



Source: Calculated from ABS Surveys of Income and Housing.

In terms of the Sen Welfare Index (SWI), rising inequality in different periods did tend to offset the effects of rising real incomes by around 7 per cent, but overall the welfare index shows very large increases in wellbeing, with the SWI being 50 per cent higher than in 1994-95 and only marginally lower in 2009-10 than at its peak in 2007-08.

4 What factors drive inequality trends?

What factors have influenced these trends in inequality? As a starting point it can be noted that the single most important source of household income is wages and salaries - in 2009-10 around 61 per cent of all households had wages and salaries as their main income source, with government pensions and allowances being next most important at 25 per cent (ABS, 2011). For families of working age, earnings (including self-employment) account for more than 90 per cent of all market income (Whiteford and Redmond, forthcoming). It is therefore the distribution of earnings that is likely to be the main factor driving inequality trends, but it is important to note that the distribution of earned income is determined not only by disparities in wage rates, but even more importantly by access to earnings and hours of work.

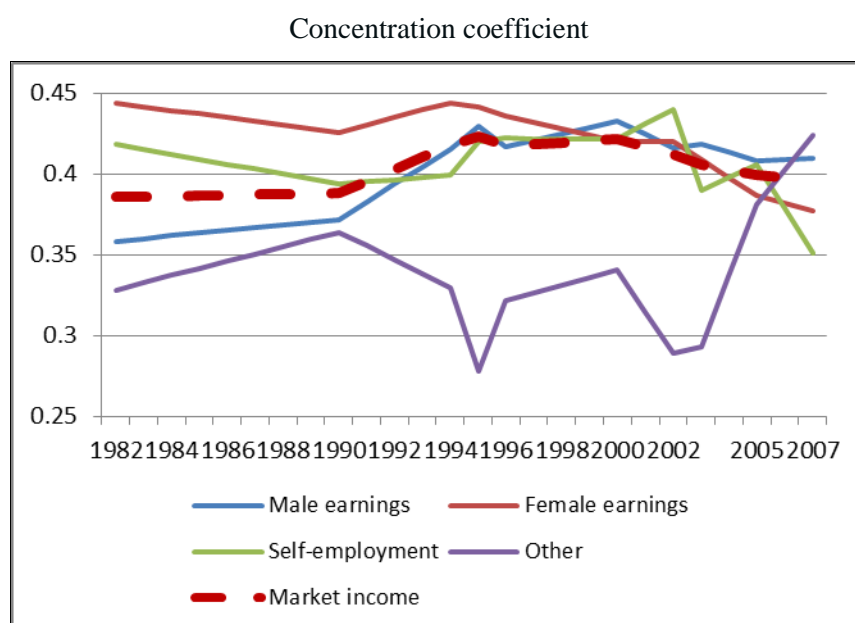
In looking at the period 1982 to 1997-98, Johnson and Wilkins (2006) found that approximately half the growth in private income inequality over this period was due to changes to the distribution of income unit types, labour force status and demographic characteristics. However, changes in labour force status (i.e. shifts between employment, unemployment and non-participation) by themselves acted to increase market income inequality by the full amount attributed to all the characteristics examined. Changes to the income unit composition of the population also increased income inequality (by a smaller amount), while changes in the distribution of the demographic characteristics, such as age, education and migrant background actually reduced inequality by a similar magnitude to the effect of changes in income unit composition (i.e. they offset each other). Johnson and Wilkins (2006) also concluded that much of the increase in market income inequality not attributable to the characteristics analysed is likely to have reflected changes in wage rates, particularly at the top end of the wage distribution.

Rising inequality in the 1980s and 1990s appears to be strongly influenced by recessionary downturns. For example, Bradbury (1992) looked at changes in inequality between 1981-82 and 1988-89, using microsimulation to assess the impact of changes in labour force status. He found that the increase in unemployment in the 1982-83 recession unambiguously increased inequality; this was followed by a period of strong economic recovery, but where the benefits of employment growth were mainly enjoyed by families in the middle of the income distribution. Similarly, Saunders (1992) found that the early 1990s recession increased inequality, primarily by reducing the income shares of the second to fifth deciles, who are most affected by higher unemployment. In this context it is worth noting that Figure 4 shows that in the period of the GFC real incomes fell for the second to fifth deciles, but overall inequality fell because of the increase in the incomes of the poorest decile associated with the pension increase in this period.

More recent analysis (Whiteford and Redmond, forthcoming) also points to the importance of employment and earnings for trends in inequality among income units of working age. Figure 7 shows trends in income inequality among different components of market income, measured by the concentration coefficient for each income component within the overall distribution of disposable income. Inequality of earnings can be thought of as the product of inequality of wage rates per hour worked and inequality in hours worked, particularly influenced by those income units where there are very few or zero hours worked. What is notable is that for the first part of this period the distribution of female earnings was the most unequally distributed income source within the overall household distribution, reflecting the fact that women with earnings tended to be the partners of men with higher earnings. Since

the mid-1990s, however, the impact of female earnings has tended to reduce inequality, primarily because the growth in women's earnings started to benefit lower income families (Austen and Redmond, 2012).

Figure 7: Trends in income inequality in different income components among working age households, Australia, 1982 to 2007-08



Source: Whiteford and Redmond, forthcoming.

Male earnings inequality increased over the first half of the period and peaked around 2000, after which its contribution declined. Overall, it can be seen that market income inequality among people of working age peaked in 2000 and started to decline thereafter, with the main reason for this being earnings growth in the lower half of the income distribution, mainly associated with higher employment both among men and women.

Austen and Redmond (2008) looked specifically trends in the incomes of women relative to men, finding that in 1982 women of working age received 31 per cent of all income of people in this age group, but by 2006 this had increased to 38 per cent, although virtually all of this increase had occurred by 1995-96, while in the decade to 2005-06 women's share of total income changed little. Further analysis by Whiteford and Redmond (forthcoming) suggests that this was due to widely divergent trends in male and female earnings in the first period. Between 1982 and 1995-96 real earnings for men fell in the second to seventh deciles of working age households, so that on average real male earnings in 1995-96 was only 2 per cent higher than in 1982. Men in the third decile had aggregate real earnings that were 30 per cent lower in 1995-96 than in 1983, and most others below the median were 15 per cent worse-off in real terms. This was an employment effect rather than a wage rate effect. In the same

period overall real earnings for working-age women increased by 37 per cent, with the increases being greatest towards the bottom of the household income distribution. Again this was largely the result of greater hours of employment. The narrowing of the gap between aggregate male and female earnings was thus due to lower employment among men and higher employment among women.

In contrast, in the period 1995-96 to 2007-08 average real male earnings increased by 47 per cent, while average real female earnings increased by 54 per cent, so the gap remained fairly stable. The real increases in earnings for men were greatest in the bottom three deciles and in the top decile, while for women the increase was greater for the bottom eight deciles than for women in the richest 20 per cent of working-age households, with the increases being particularly marked in the second and third deciles of the household distribution.

‘Other’ income is from property and investments and shows very wide variations in its contribution to inequality, being lower than most of the main income sources for the period up to 2003, and then increasing dramatically to be the most unequally distributed income source in 2007-08. Close to 40 per cent of investment and property income is held by the richest decile. Further analysis by Whiteford and Redmond (forthcoming) found that different inequality indices suggest that very high incomes show much greater volatility in levels of inequality; for example the Gini coefficient and the P90/P10 ratio for working age households varied by less than ten per cent between 1981-82 and 2009-10, but the squared coefficient of variation (which is sensitive to very high incomes) fluctuated by between 20 per cent and 50 per cent higher over this period, increasing significantly between 2003 and the GFC, and falling significantly after 2007-08. However, income from property and investments increased from around 6.5 per cent of disposable income of working age families in 1982 to around 10 per cent in 2007-08, so even though it is very unequally distributed its low weight in overall household income means that it has less of an effect on overall income inequality than changes in the distribution of earnings.

A further factor is trends in inequality among people of pension age (65 years and over). The relative incomes of people aged 65 years and over have increased significantly over time – up until the late 1990s the average equivalised income of households with a head 65 years and over were around 60 per cent of those of the total population, but since the late 1990s onwards that ratio has risen to around 70 per cent. This change was associated with a very large increase in inequality among people aged 65 years and over. The Gini coefficient for couples aged 65 years and over increased from 0.236 in 2000-01 to 0.339 in 2007-08, or from about 75 per cent of the Gini coefficient for the whole population to more than 100 per cent (ABS, various years). For single older people the increase in inequality was not quite so dramatic but

still very large – increasing from 0.231 in 2000-01 to 0.298 in 2007-08, and then falling to 0.259 in 2009-10 (ABS various years). Rising inequality among older people appears to be related to trends in capital income, with higher income people over 65 benefiting most.

To sum up, overall market inequality trends reflect rising inequalities in earnings between the early 1980s and late 1990s-2000 and falling inequality in earnings after that, with the main factor being changes in employment rather than changes in wage rates. Inequality in income from capital has been highly volatile over this period and seems not to have had a major impact on inequality among working-age households, but has among pensioner and retired households.

5 Driving forces: Labour market institutions

To explain the contrasting trends in market income inequality since the early 1980s it is necessary to look at changes in Australian labour market institutions, as well as potentially related changes in earnings disparities and in labour market status.

As noted earlier a distinctive feature of Australian social arrangements is the role of labour market and workplace relations institutions. The Commonwealth Court of Conciliation and Arbitration was established in 1904. According to Creighton and Stewart (1990), the basic legal character of the federal conciliation and arbitration system remained unchanged over the subsequent 85 years. The two primary characteristics of the system were the use of a permanent and independent tribunal funded publicly to exercise conciliation and arbitration, and that the system was compulsory in that either party could be compelled by the other to submit differences for resolution. The resolutions of the Court, which later became a Commission, were legally binding.

The system developed into a mechanism for establishing and implementing minimum labour standards, including wage rates, hours of work, annual leave, sick leave¹⁴, allowances and notice of termination payments. Among the most visible manifestations of this at different periods were national wage cases to determine the adjustment of wages in relation to inflation and productivity changes. Up until the middle of the 1980s, the basic terms and conditions of more than 80 per cent of the employed workforce were governed by the awards and determinations of the state and federal tribunals. According to Campbell and Brosnan (1999), in general, Australia had consistently displayed a relatively egalitarian wage structure with

¹⁴ Paid sick leave entitlements were introduced in 1921. See Castles (1992) for a discussion.

more compressed wage differentials than in the UK and the USA - a feature linked to the impact of the award system.

However, this relatively egalitarian wage structure and the provision of social protection for sickness were not associated with strict employment protection legislation. According to the OECD index of the strictness of employment protection, the level of employment protection in Australia only exceeds that in the other English-speaking countries of Canada, Ireland, New Zealand, the United Kingdom and the United States (OECD, 2013a).

Changes to wage setting institutions took place over time. The 'basic wage' was abolished in 1967. A 1968 pay case awarded equal pay for Aboriginal workers in the cattle industry. Equal pay for women doing equal work was introduced in 1969 and extended in effect in 1972, while the principle of the family support in the wage system was ended in 1974. These changes helped to narrow substantially the gender differential in wage rates, leading in the period between 1970 and 1975 to an estimated increase of approximately 30 per cent in real wages for Australian women relative to men (Gregory, 1999).

The Accord between the ACTU and the ALP, and the election of a Federal Labor Government in 1983 ushered in a new phase in industrial relations. Maternity leave, occupational superannuation, then later, family leave became award entitlements. Structural problems in the economy were addressed by unions through award restructuring. A policy of strategic unionism was adopted which saw the amalgamation of some 300 unions into 20 'super' unions. Enterprise bargaining became the main avenue for wage increases.

Since the late 1980s, there has been a shift in the level at which bargaining takes place, towards a hybrid system placing emphasis on agreements at the enterprise and workplace level (Hawke and Wooden, 1998). Following a decision of the Australian Industrial Relations Commission (AIRC) in 1991, enterprise bargaining has become more common.

A major development came with the 1996 *Workplace Relations Act* which for the first time meant that agreements could be struck directly between employers and workers, without union intervention if desired, and would be recognised as legally binding before the Industrial Relations Commission.

Further major changes came with the *Workplace Relations Amendment Act* in 2005, popularly known as Work Choices. Work Choices dispensed with unfair dismissal laws for companies with fewer than 100 employees, removed the 'no disadvantage test' which had sought to ensure workers were no worse off on balance as a result of being covered by an individual or a collective agreement than they would if they were covered by the relevant award, and requiring workers and employers to submit their certified agreements directly to the

Workplace Authority rather than going through the Australian Industrial Relations Commission. The Act altered the processes and institutions involved in setting minimum wages, as well as the criteria used in the determination process. It also significantly compromised a workforce's ability to legally go on strike, requiring workers to bargain for previously guaranteed conditions without collectivised representation, and significantly restricted trade union activity and recruitment on the work site.

The passing and implementation of the new laws was strongly opposed by the Opposition and the trade union movement, and was a major issue in the 2007 federal election. Labor subsequently won the election (and the Prime Minister lost his seat in Parliament), with Work Choices being one of the biggest issues of the campaign. The new government repealed the entirety of the Work Choices legislation shortly after assuming office.

The Federal *Fair Work Act* came into effect from 1 July 2009, replacing the *Workplace Relations Act*.¹⁵ The main features of the *Fair Work Act* include: increased protection from unfair dismissal; ten minimum employment conditions; standards for good faith collective bargaining; assistance in bargaining for low paid workers; clear rules governing industrial action; widened provisions for unpaid parental leave; and rights to request flexible working arrangements.

These changes have been accompanied by shifts in the structure and role of trade unions. Membership declined from around 50 per cent of the workforce in 1976 to 25 per cent in 2000 and under 20 per cent currently, concentrated in a small number of large industry and multi-industry unions and in the public sector.

6 Driving Forces: Earnings disparities

The institutional framework described above appears to have had a major influence on earnings inequality in Australia. Lydall (1968) concluded that among 25 countries surveyed, Australia, and New Zealand (then with similar industrial relations institutions), and the Communist countries of Czechoslovakia and Hungary had the lowest degree of dispersion of (pre-tax) employment income around 1960.¹⁶

Evidence from later OECD sources is also consistent with the view that even in the late 1990s Australia had a less unequal distribution of earnings than the majority of OECD countries. This was associated with a relatively high minimum wage level, a narrow gap between male

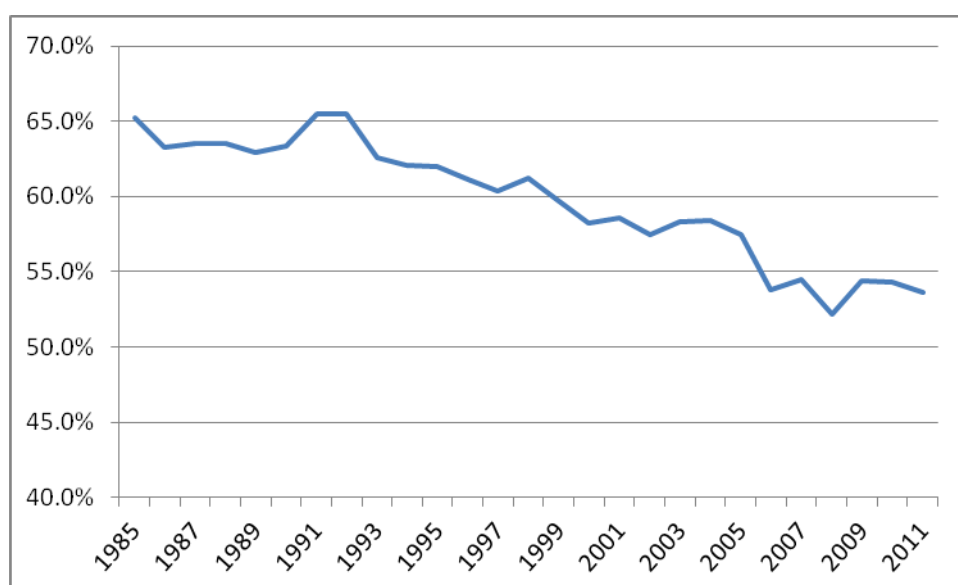
¹⁵ Details of the legislation and its provisions are at www.fairwork.gov.au.

¹⁶ For a more detailed discussion, see Whiteford (1998).

and female earnings and a smaller share of low pay than many other countries. The most likely explanation for this was the legacy of Australia's wage fixing institutions continued to compress wage differentials. However, since the mid-1990s wage disparities have continued to widen, so that Australia has moved to the middle of OECD countries in terms of rankings. Nevertheless, disparities in earnings in Australia are more similar to those in a range of European countries than they are to the USA.

Figure 8: Minimum wage, Australia, 1985 to 2011

Minimum wage as per cent of median wage



Source: OECD, http://stats.oecd.org/Index.aspx?DatasetCode=INVPT_I#

Figure 8 shows that since 1985 the minimum wage has fallen from 65 per cent to 54 per cent of the median wage. In 1985 Australia had the highest minimum wage in the OECD relative to the median, whereas in 2011 it was the sixth highest.¹⁷

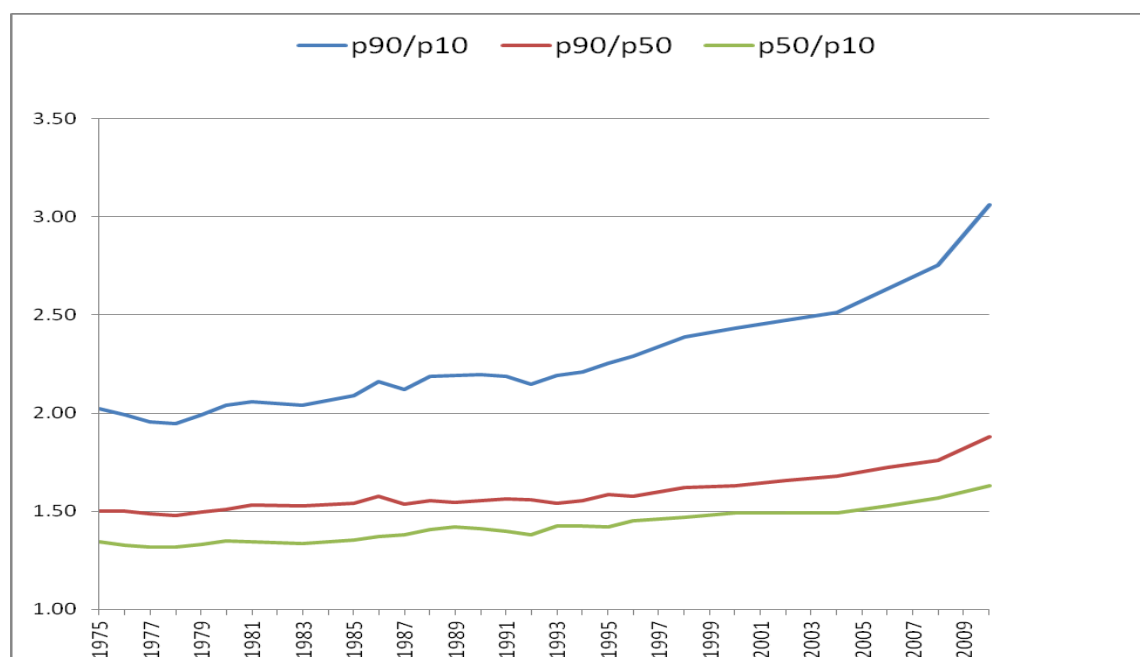
In 2010 the 90/10 ratio¹⁸ for full-time male and female workers was the sixteenth lowest ratio of 28 OECD countries, a considerable fall down the OECD rankings, from 11th lowest in the 1990s and 13th in 2005. It should be noted, however, that many of the countries with lower

¹⁷ Australia did not have a statutory national minimum wage until 2006, so this estimate is based on the lowest minimum rate contained in awards prior to this date.

¹⁸ That is the ratio of the earnings of someone at the 90th percentile to that of a person at the 10th percentile.

measured dispersion use hourly earnings measures or are net of tax, which could both be expected to reduce measured dispersion.¹⁹

Figure 9: Trends in wage dispersion, Australia, 1975 to 2010



Source: ABS, Survey of Employee Earnings and Hours (EEH Survey), ABS Cat. No. 6306.0.

Between 1975 and 2010, the minimum wage rose by 10 per cent in real terms, and the 10th percentile wage rose by 14 per cent. Real wage growth was much greater at higher income levels – the median rose by 38 per cent in real terms and the mean by 50 per cent; while the 90th percentile wage was 72 per cent higher in real terms.

Figure 9 shows the resultant changes in wage dispersion over the period since 1975. The 90/10 ratio for full-time non-managerial employees has increased from around 2 to 1 to just over 3 to 1. The increase in inequality was slightly greater in the top half of the earnings distribution than below the median. The 50/10 ratio increased from 1.35 to 1 to 1.63 to 1, an increase of 21 per cent ; however, the 90/50 ratio increased more from 1.50 to 1 to 1.88 to 1, an increase of 25 per cent per cent.

¹⁹ The Austrian and French data are for annual earnings, although for full-year, full-time workers. The French, Italian and Swiss data are net of tax. Figures for Denmark, Greece, Iceland, New Zealand, Poland, Portugal and Spain are for hourly earnings, while the remaining countries are weekly or monthly. The age ranges of workers differ across countries.

Looking at similar but earlier figures, Keating (2003) notes that changes in earnings dispersion could be the result either of changes in the structure of employment or in relative rates of pay for different types of employee. His major finding is that 'the widening dispersion of earnings is principally due to changes in the structure of labour demand in favour of more skilled jobs. Relative rates of pay for major occupation groups appear to have hardly varied over the last twenty-five years' (Keating, 2003, p.3).

It seems likely that the relatively compressed distribution of earnings in Australia explains the apparent paradox of Hobsbawm's reranking of Australia from a low inequality country in the 1960s to a high inequality country in the 1980s. Early studies of inequality focused on the distribution of earnings and in some cases restricted this to earnings inequality among men working full-time. Evidence is limited, but suggests that earnings inequality in Australia has been lower than in many other OECD countries; it was not just that income inequality has risen from this low point because of widening wage gaps and the decline in the share of full-time work in total employment (see below), but that what was being measured in the past was the least unequal component of household income.

7 Driving forces: Employment, unemployment and underemployment

In addition to widening wage disparities, and in common with many other OECD countries, the Australian labour market deteriorated seriously from the 1970s onward. As noted earlier, the Australian system was oriented towards the male full-time worker model. Labour market changes over the past 35 years have undercut this model. In the late 1970s more than 60 per cent of all employment was accounted for by men working full-time, with another quarter being women working full-time, with 15 per cent of those employed being part-time, mainly women. Male full-time employment stayed above 60 per cent of all employment until 1980, but then declined - particularly in the recession of the early 1980s, but continuing until 1990 when the share had fallen to 54 per cent (ABS Labour Force Survey, 6202.0).

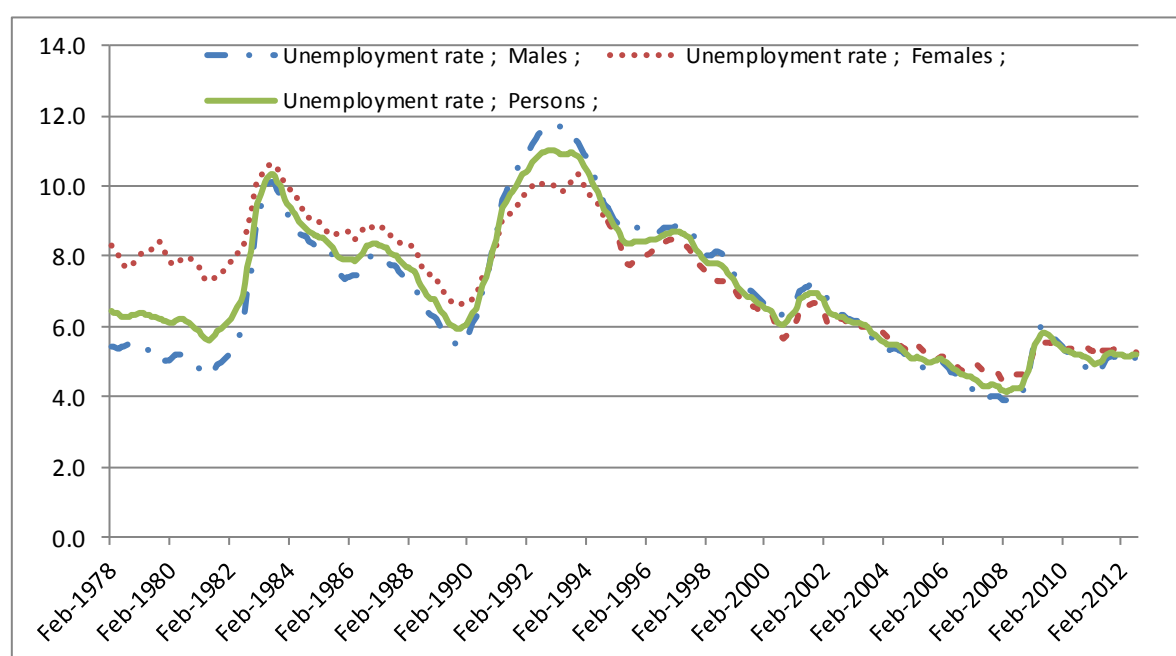
The overall employment to population ratio had fallen from 57 per cent in the late 1970s to a low of 54 per cent in the middle of 1983, but then rose back to close to 60 per cent in 1990. The declining male full-time share of this employment was matched by an increase in female employment, particularly part-time employment. The recession of the early 1990s saw the overall employment rate fall from 60 per cent to under 56 per cent by 1993, but a long period of economic growth saw this reversed, with employment peaking at 62.9 per cent before the GFC, and subsequently falling slightly to around 61.5 per cent.

Again while the overall rate of employment increased strongly after 1993, the male full-time share of this continued to decline to around 46 per cent in early 2013. The female full-time

employment share has remained remarkably stable over this 35 year period at between 23 per cent and 25 per cent, but the part-time share has roughly doubled to 30 per cent.

Figure 10 shows trends in unemployment from 1978 to 2012; the recessions of the early 1980s and the early 1990s are clearly observed. After its peak in 1993, unemployment fairly consistently declined, so that in February 2008 unemployment was just below 4 per cent, its lowest level since 1974. Unemployment then started to increase, reaching 5.8 per cent of the labour force between June and August 2009 before declining to 5 per cent in December 2010 but increasing to 5.4 per cent by late 2012. While the increase in unemployment since the beginning of 2008 has been significant, this is well below the increases in most other OECD countries. In mid-2012, Australia had the 7th lowest unemployment rate in the OECD.

Figure 10: Unemployment rate, Australia, 1978 to 2012



Source: Australian Bureau of Statistics, Labour Force Survey.

The recession of 1990s saw a sharp decline in the participation rate; this recovered in the late 1990s and fluctuated around 63 per cent to 64 per cent between 1995 and 2005. Strong employment growth saw the participation rate rise to around 65 per cent in 2007. There was some stabilisation and then a minor fall following the GFC, but since late 2009 the participation rate remained close to historic highs of around 65 per cent.

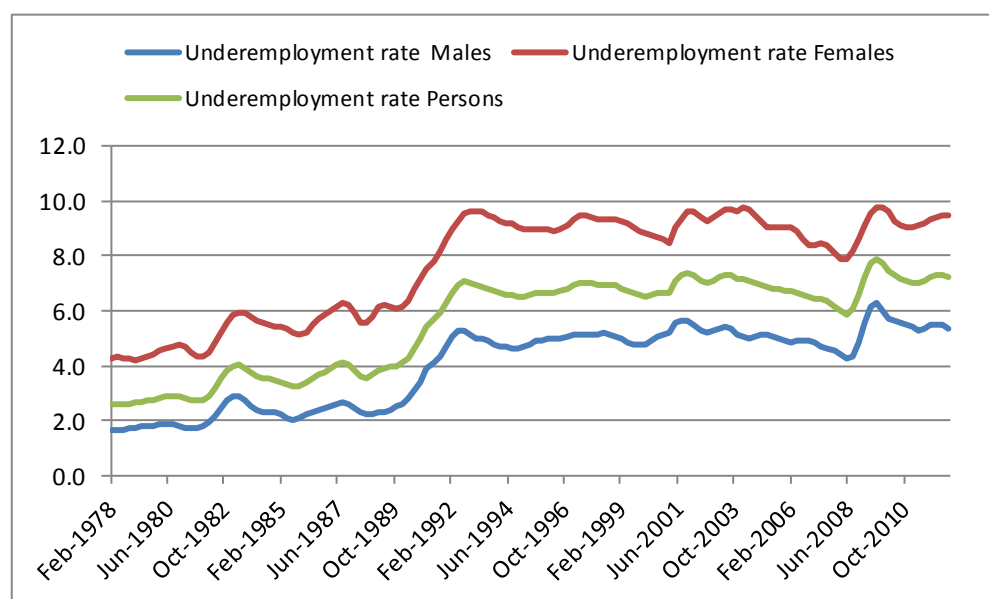
As noted above, the Australian workforce is characterised by a very high share of part-time work. In 2012 around 30 per cent of total employment was part-time, 45 per cent for women and 16 per cent for men. Most part-time workers are female - 70 per cent in 2012, but male part-time employment has grown more rapidly than female part-time employment, more than

doubling since 1990. The level of part-time employment is the third highest in the OECD after the Netherlands and Switzerland.

Partly reflecting the high level of part-time employment, Australia also has a high level of underemployment – people who want to work longer hours than they do. In fact, Australia has the highest head count rate of underemployment in the OECD (OECD, 2013), with the result that labour force underutilisation in Australia is close to the OECD average. Figure 11 shows that the underemployment rate – like the part-time employment rate – is higher for women than men. It can be noted, however, that many part-time workers want quite small increases in hours, so that underemployment measured in hours is lower than measured in terms of individuals.

There was a very large increase in underemployment in the recession of the early 1990s, reaching a peak for women of close to 10 per cent of the employed labour force. There was a slight downward trend in unemployment after 2003, but a sharp increase at the time of the GFC, followed by stability.

Figure 11: Underemployment rates, males, females and persons, Australia, 1978 to 2012



Source: Australian Bureau of Statistics, Labour Force Survey.

In addition, Australia has seen a growth in casual employment over this period. Casual employees are those who are not entitled to paid holiday or sick leave but who may receive a higher rate of hourly pay to compensate for this.²⁰ In addition, casual employees do not

²⁰ Casual loadings are set by industry awards and workplace agreements and may vary between 23 per cent and 25 per cent.

qualify for protection from unfair dismissal and have no right to notice of employment termination (Burgess, Campbell and May, 2008). The proportion of casual employees has grown significantly over the last two decades (from 17 per cent in 1992 to 20 per cent in 2009) (ABS, 2010).²¹

There is another area in which Australia's employment performance is very weak. On standard measures of individual joblessness, Australia ranks 7th lowest in the OECD and is 6 percentage points below the OECD average. When looking at the share of the working age population living in jobless households, in contrast, Australia is the 5th highest in the OECD and more than 4 percentage points above the OECD average. On the measure of jobless households with children, Australia is again the 5th highest in the OECD and 5.5 percentage points above average.

Looking at the ratio of household joblessness to individual joblessness, only three OECD countries have higher ratios than Australia (Germany, Norway and the United Kingdom), and when the focus is on families with children only Germany and the United Kingdom have higher ratios. The ratio of family to individual joblessness in Australia is more than twice the OECD average (Whiteford, 2009).

To a significant extent, the concentration of household joblessness among families with children is related to low employment rates among lone parent families. The proportion of families with children headed by a lone parent roughly doubled between 1980 and 2004, from 12.2 per cent to 23.4 per cent, before falling to 20.9 per cent in 2008 (Whiteford, 2009). The proportion of children under 15 years currently living in lone parent families at around 17 per cent is just above the OECD average (compared to 25 per cent in the USA, for example), but Australia has the sixth lowest employment rate for lone parents in the OECD (OECD Family Database, 2013b).

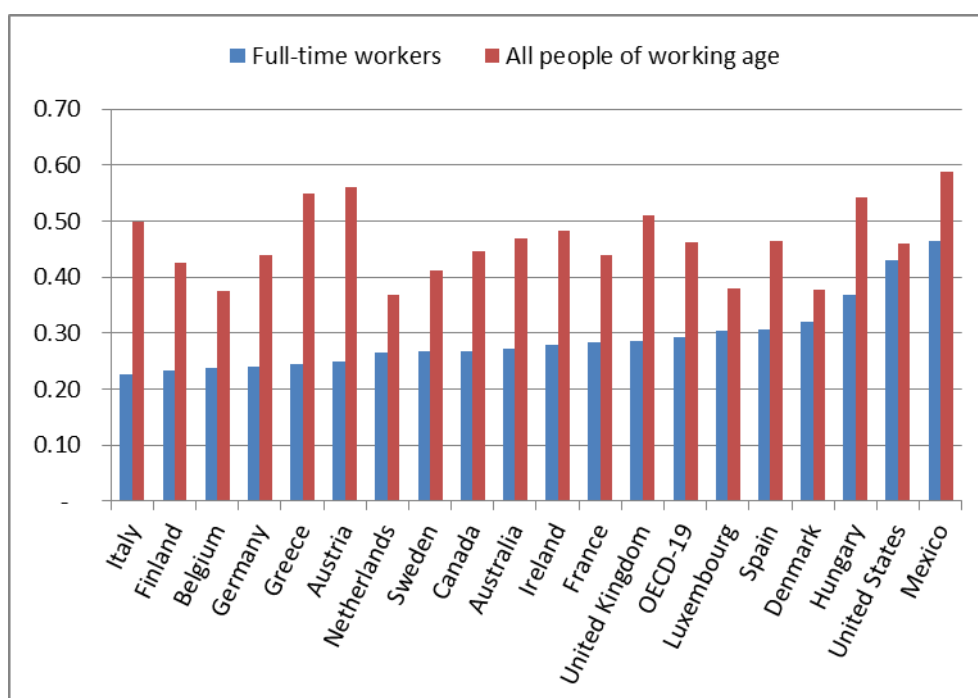
At different periods, however, couples with children have been significantly affected by unemployment, particularly in the recession of the early 1980s, when 8.5 per cent of couples with children had neither parent in paid work and again in 1993 where the jobless rate for couple families reached 10.8 per cent. Strong employment growth from the mid-1990s saw this fall to 4.3 per cent by 2008 (Whiteford, 2009).

²¹ There is a strong relationship between casual employment and part-time employment. In 2009, 72 per cent of all casual employees worked part-time hours. The proportion of employed men who are casual employees increased from 11 per cent in 1992 to 16 per cent in 2009, while for women the proportion remained stable at about 25 per cent. In 2007, about half (52 per cent) of all casual employees reported that they would prefer not to work on a casual basis even taking into account the effect this may have on their income.

The concentration of household joblessness in Australia has a significant effect on overall income inequality. Figure 12 shows OECD (2008) estimates of earnings inequality in the mid-2000s. The figures show the concentration coefficients of earnings for full-time workers (male and female) and for all persons of working age, including those who have no earnings. Among full-time workers earnings inequality is below the OECD average and not dissimilar to Sweden, for example. Adding people of working age who have no earnings substantially increases inequality in many countries, including Australia, where the concentration coefficient increases from 0.27 to 0.47, and makes overall earnings inequality slightly greater than in the United States.²²

Figure 12: Earnings disparities, OECD countries, mid-2000s

Concentration coefficient of earnings



Source: OECD (2008), <http://dx.doi.org/10.1787/421482623283>

In summary, the combined impact of changes in workplace relations, earnings and employment status has been to see a significant widening in earned income disparities. For full-time workers, earnings gaps have increased, but more importantly the share of all employment that is full-time has fallen significantly from 85 per cent to 70 per cent, with a concomitant increase in part-time work as well as casual employment. However, it has been

²² Disposable income inequality is higher in the USA because of higher inequality of capital incomes and a less redistributive social security system.

the concentration of joblessness in families where no one has paid work that appears to be the major contributor to overall inequality of earnings. As noted above, a full-time worker at the 90th percentile earns about three times as much as a full-time worker at the 10th percentile. However, a family at the 90th percentile of the income distribution for working-age households had earnings in 2009-10 that were 50 times greater than households at the 10th percentile of the distribution (Whiteford and Redmond, forthcoming). This reflects the fact that earnings in such low income households are negligible – around \$2,000 a year.

8 Driving forces: Educational inequality

Educational attainment is a major influence on socio-economic circumstances in Australia (ABS, 2012a). In 2010, people aged 20-64 years were more likely to be employed if they had attained Year 12 (school leaving qualification) than those who had not (81 per cent compared with 72 per cent). The gap is maintained throughout most of the life course, for those aged 25-34 years being 82 per cent compared with 69 per cent and for those aged 55-64 years 73 per cent compared with 60 per cent.

In 2010, young adults were more likely to have attained Year 12 if they lived in Major Cities (81 per cent) compared with Inner or Outer Regional Areas (67 per cent) and Remote or Very Remote Areas (64 per cent). There is considerable variation between the proportions of 20-24 year olds with Year 12 across states and territories. For example, in 2010 the proportion of people (20-24 years) with Year 12 ranged from 59 per cent in the Northern Territory to 86 per cent in the Australian Capital Territory.

People who have attained Year 12 are more likely to be working in 'white collar' jobs than those who had not. In addition, in 2009, people aged 20-64 years who had personal gross weekly income in the highest quintile were far more likely to have attained Year 12 (70 per cent) than those who had not (30 per cent). Leigh (2008) estimates that the increase in hourly wages from raising educational attainment by one year is in the order of 8-11 per cent, with the largest gains being for grade 12 completion and Bachelor degree completion. When participation effects – on the intensive and extensive margin – are taken into account, the benefits of education and training are larger still. This calculation favours high schooling the most. For example, the annual earnings increase from completing year 12 is estimated to be 30 per cent.

Over recent decades there has been a significant increase in the level of educational attainment in the Australian community (ABS, 2011). The proportion of 20-24 year olds with Year 12 increased from 71 per cent in 2001 to 78 per cent in 2010. Between 1984 and 1992, the proportion of students continuing through to Year 12 markedly increased from 45 per cent

to a peak of 77 per cent. Since decreasing slightly in the early 1990s, the apparent retention rate²³ remained relatively stable (at around 75 per cent) from 2002 to 2008, before rising to 78 per cent in 2010. In 2010, the Year 12 apparent retention rate for female students was 83 per cent compared with 73 per cent for male students.

Despite the increase in educational attainment, there is a good deal of current concern with educational inequalities (Review of Funding for Schooling, 2011). Results from PISA for 2009 show that Australia has a higher degree of performance inequality than the OECD average. Across all literacy domains, the higher the level of student socioeconomic background, the higher the student performance: one in four students from the lowest quartile of PISA's index of economic, social and cultural status performed below the proficiency baseline across each of the PISA domains (Review of Funding for Schooling, 2011). In relation to the reading literacy domain, the gap between Australian students from the highest and lowest economic, social and cultural status quartiles was found to be equivalent to almost three years of schooling, and the average performance of Australian students from the lowest quartile is significantly lower than the OECD average. Students from lower socioeconomic backgrounds are less likely to attain a Year 12 or equivalent qualification. In 2009, Year 12 attainment rates for students from low and medium socioeconomic backgrounds were 56 and 62 per cent respectively, compared to 75 per cent for students from high socioeconomic backgrounds. In 2010, the university access rate for students from low socioeconomic backgrounds was around half (17 per cent) that of students from high socioeconomic backgrounds (35 per cent) (Review of Funding for Schooling, 2011).

9 Redistribution: the effects of direct taxes and cash transfers

The Australian social security system differs markedly from those in other OECD countries. In Australia payments are flat-rate and financed from general taxation revenue, and there are no separate social security contributions; benefits are also income-tested or asset-tested, so payments reduce as other resources increase. Importantly, payments are not time-limited and continue for as long as people remain entitled.

In 2012, social expenditure in Australia was estimated to be 18.7 per cent of GDP (including pensions, unemployment payments, family payments, healthcare and community services)

²³ The apparent retention rate is an alternative way to measure the proportion of Australian students continuing their secondary school education. It is calculated by dividing the number of full-time students in Year 12 by the number of full-time students in the base year and converting the figure into a percentage.

compared to an OECD average of 21.7 per cent, a level lower than the United States and Japan, and the tenth lowest in the OECD (OECD, 2013c).

With taxes at about 27 per cent of GDP in 2008 compared to an OECD average of close to 35 per cent, Australia is the sixth lowest-taxing country in the OECD. Because of the absence of social security contributions, income tax takes a high share of total tax revenue than in many other OECD countries, averaging 55-60 per cent of total revenue since 1980, compared to an OECD average of around one-third.

It is also important to note that the interactions between the tax and benefit systems can have significant implications for perceptions of levels of spending and also for redistribution. Adema and Ladaïque (2009) show that accounting for private social benefits and the impact of the tax system on social expenditure has a significant equalizing effect on estimated levels of social effort across OECD countries. For example, direct taxes (including social security contributions) paid on cash transfers are 5 per cent of GDP in Sweden and Denmark, but are less than 0.5 per cent of GDP in Australia. Indirect taxes on goods and services bought by benefit recipients are over 2 per cent of GDP in Nordic countries, but less than half that level in Australia. Non-pension tax expenditures (either tax credits similar to cash benefits or tax concessions aimed at stimulating the provision of private social benefits, but not including support for pensions) are of limited value in Nordic countries, but are close to 2 per cent or more of GDP in the USA (but only 0.4 per cent of GDP in Australia). Australia, however, has the highest level of pension tax expenditures in the OECD (Whiteford, 2010).

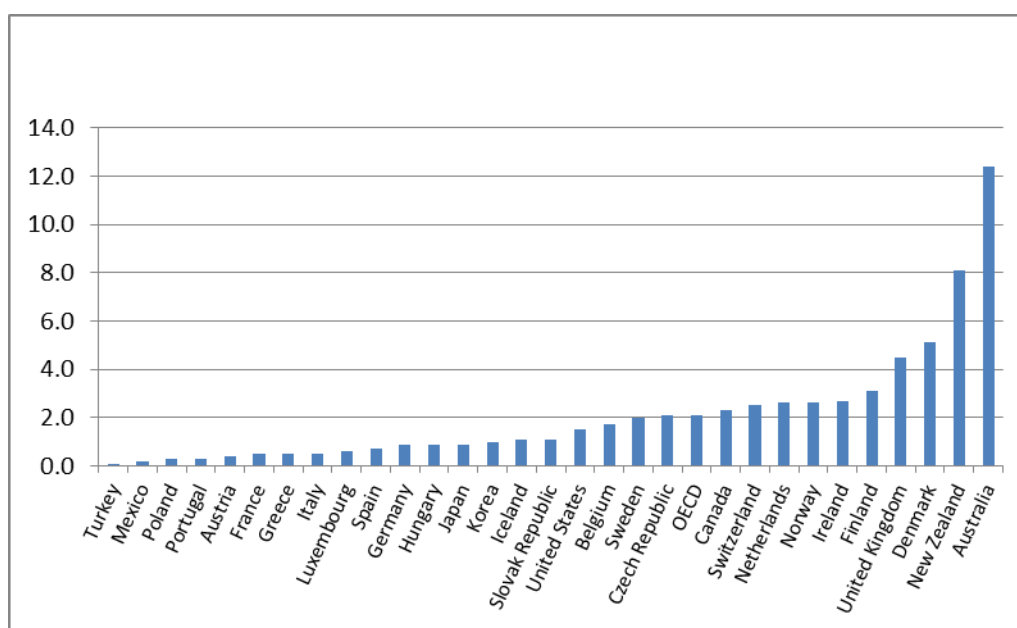
Australia also has a higher than average level of private social spending (Adema and Whiteford, 2009), with most spending on short-term sickness being provided by employers, and since 1992 mandatory private pensions have grown to cover more than 90 per cent of employees. The value of superannuation funds has grown from around 20 per cent of GDP in the early 1980s to more than 100 per cent by 2012, with annual payouts (mainly lump sums) exceeding public spending on age and related pensions.

Australia is often regarded as the epitome of the 'liberal' or residual welfare state; Esping-Andersen (1990) found Australia to have the lowest score on his de-commodification index, while Korpi and Palme (1998) found Australia as the only example of a targeted (rather than basic security) welfare state. These characterisations are disputed, however, for example, by Gruen (1989) and by Castles and Mitchell (1990, 1993) who argue that Australia is one of a distinctive 'radical' group of nations, focusing its redistributive effort through instruments rather than high expenditure levels.

The characterization of Australia as a ‘radical’ welfare state is apt. Australia is the strongest example of a country using the ‘Robin Hood’ approach to the welfare state (Barr, 2001), relying more heavily on income-testing and directing a higher share of benefits to lower-income groups than any other OECD country. The poorest 20 per cent of the population receives nearly 42 per cent of transfer spending; the richest 20 per cent receives only around 3 per cent. As a result, as shown in Figure 13 the poorest fifth receives twelve times as much in cash benefits as the richest fifth, the highest ratio in the OECD and about 50 per cent more than the next most targeted country, New Zealand (Whiteford, 2010). It is worth noting, however, that the targeting of benefits in Australia will be reinforced by the concentration of household joblessness; in this sense part of the reason why benefits are spread more widely across the income distribution in other countries is that people receiving social security payments are more likely to live in households with others not receiving payments; to some extent this implies that in these countries, inequality is ‘hidden’ within the household.

Figure 13: Progressivity of transfers, 2005

Ratio of cash benefits received by poorest 20 per cent of households to richest 20 per cent



Source: Whiteford, 2010.

Because of these design features, Australia also has the most ‘target efficient’ system of social security benefits of any OECD country (OECD, 2008; Whiteford, 2010). Australia also has one of the most progressive systems of direct taxes of any OECD country (OECD, 2008), but the progressivity of taxes in Australia is not a consequence of particularly high taxes on the rich, but reflects the fact that lower-income groups in Australia pay much lower taxes than similar income groups in other countries (with the exception of the United States and Ireland).

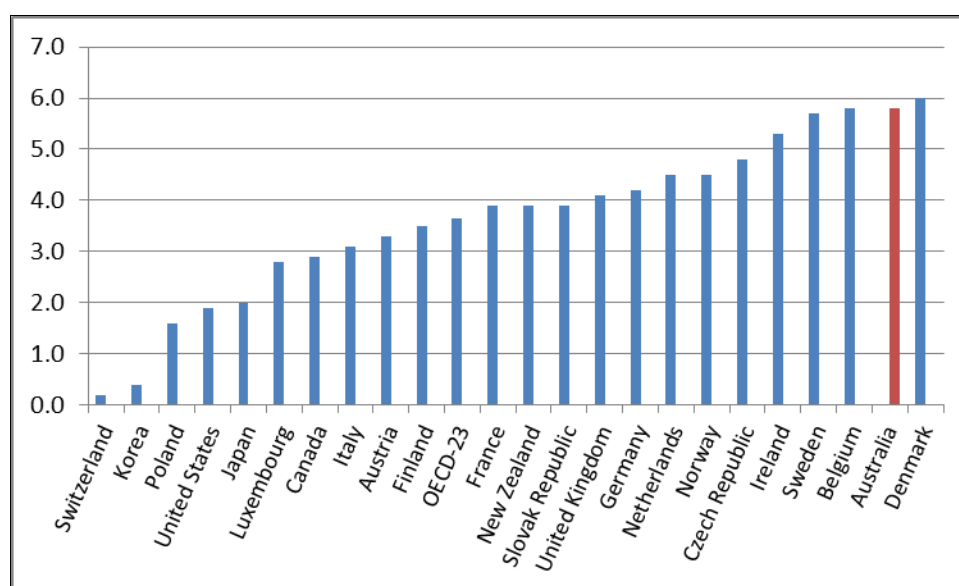
This is a result of the low level of direct taxes on social security recipients; effectively, any individual fully reliant on a social security payment will pay no income taxes.

The extent to which the Australian welfare state redistributes to the poor is determined by the interactions between the tax and social security systems, both in terms of the size of taxes collected and benefits paid and the distribution of taxes and benefits. Figure 14 shows ‘net redistribution’ to the poorest 20 per cent of the population in 2005 (Whiteford, 2010). This is calculated by estimating the level of spending on social security benefits as a percentage of household disposable income and then taking account of how much of this goes to the poorest fifth. The same procedure is used to calculate how much tax is paid by people in that group, which is then subtracted from the benefits received to give ‘net redistribution to the poor.’

Even though Australia spends below the OECD average on social security benefits, the distribution of benefits is so progressive, and the level of taxes paid by the poor is so low, that Australia redistributes more to the poorest 20 per cent of the population than any other OECD country except Denmark (which spends about 80 per cent more than Australia).

Figure 14: Net redistribution to the poor, 2005

Cash benefits after direct taxes received by poorest 20 per cent of households as a percentage of household disposable income



Source: Whiteford, 2010.

The welfare state has been subject to major reform since the 1970s; some periods saw retrenchment of social security support, while others saw increased targeting and generosity to the poor, or retrenchment for some groups and improvements for favoured categories. Overall, social spending rose from just over 10 per cent of GDP in 1980 to an estimated 18.7 per cent in 2012 (OECD, 2013c). The growth in spending reflects a range of factors, including

the deterioration in the labour market, increased generosity for some groups such as the aged, and the extension of new payments in other periods.

Part of this increase was in the context of the Prices and Incomes Accord between the Labor government and the trade union movement in the 1980s, under which wage restraint was compensated for by increases in the 'social wage'. Universal health insurance which had been introduced and phased-out in the 1970s was reintroduced in the mid-1980s, and broader superannuation coverage was encouraged in the 1980s and mandated in the 1990s. Assistance for low income working families with children was expanded from the late 1980s onwards, with spending on benefits for children rising from around 0.5 per cent of GDP to peak at more than 2 per cent of GDP in 2005, so that by 2007 Australian spending on child-related payments was the third highest in the OECD. Spending also increased in 2000 as social security recipients were compensated for the introduction of the Goods and Services Tax, and again in 2009-10 as fiscal stimulus. Despite these and other reforms the basic architecture of the Australian social security system remained relatively unchanged, and Australia has continued to have the most progressive distribution of benefits in the OECD since the 1980s (OECD, 2008), and probably before that.

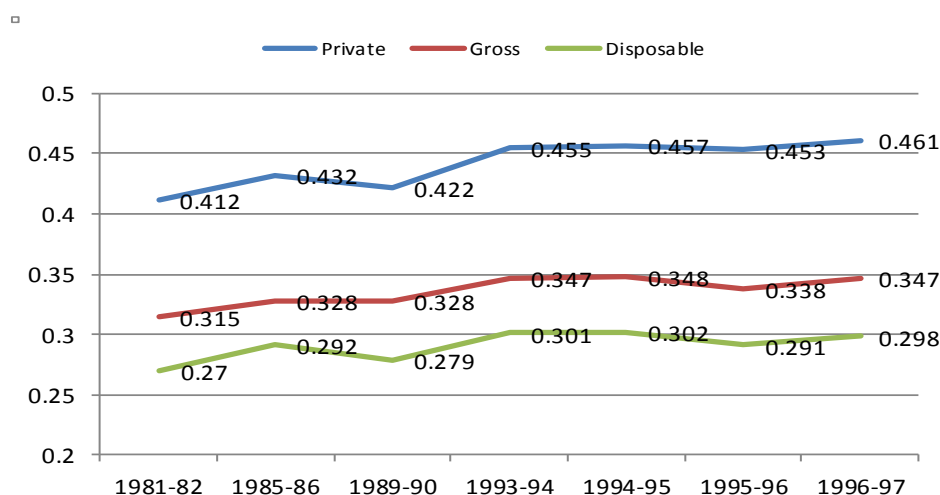
The number of people affected by the social security system has also changed over time reflecting trends in the labour market. In the early 1970s fewer than 5 per cent of people of working age received a social security benefit. Expansion of eligibility and deteriorating labour market conditions saw this rise to 20 per cent in 1982. There was some recovery in the late 1980s, but the increase in unemployment saw the percentage of people of working age receiving benefits peak at 26 per cent in 1996, before falling to 16 per cent in 2008, with a slight increase thereafter. The proportion of households²⁴ whose main source of income is government benefits shows a similar trend, falling from around 21 per cent in 1996 to 12 per cent in 2008, but with the strongest fall among those aged 55 to 64 years from 38 per cent to 17 per cent. This decline reflects both policy reforms from the early 1990s onwards, and the significant improvement in labour market conditions. It also means that the redistributive impact of the social security system contracted due to the reduced need for welfare spending.

Figure 15 shows trends in inequality of private, gross and disposable incomes from 1981-82 to 1996-97 (Johnson and Wilkins, 2006). Over this period the most important explanation for rising inequality was the increase in inequality of private incomes, with the Gini coefficient

²⁴ Individual benefit recipiency rates are calculated by comparing administrative data on the number of people receiving basic income support payments (but not payments for children) to population estimates; while household rates are estimated from income surveys.

increasing from 0.412 to 0.461. The transfer system offset part of this, so gross income inequality increased by 0.032 Gini points. The direct tax system slightly increased its inequality reduction effect with an increase of 0.004 Gini points.

Figure 15: Trends in inequality at different stages in redistribution, 1981-82 to 1996-97
Gini coefficients

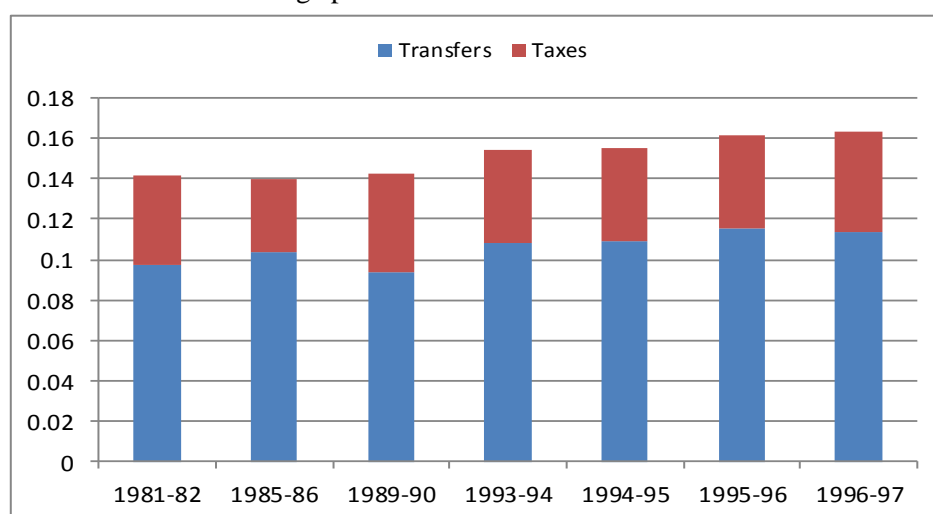


Source: Calculated from Johnson and Wilkins (2006).

Together, the tax and transfer systems offset around 43 per cent of the increase in private income inequality. It is evident that a substantial part of the rise in income inequality occurred in the 1990s recession. It is also worth noting that while the tax and transfer system offset only part of the rise in overall income inequality, the increase in transfer spending and the targeting of tax cuts between 1982 and 1995-96 was sufficient to compensate households below the median for the loss in real earnings referred to earlier. The third decile were most adversely affected by the recessions in this period, with their real market income falling by around \$73 per week in 2007-08 terms – around 25 per cent - between 1982 and 1995-96; this was completely offset by increased transfers of \$64 per week and reduced taxes of around \$10 per week. Other groups below the median did better. However, as noted all this did was preserve the real incomes of these groups; inequality widened because the market incomes of higher income groups increased in real terms (Whiteford and Redmond, forthcoming).

Figure 16 shows the redistributive impact of the social security system is more than twice as great as the impact of the direct tax system (although the tax system is needed to fund social security). In 1981-82 the tax transfer system reduced inequality by around 34 per cent and in 1996-97 by just over 35 per cent, but of a somewhat higher level of market income inequality.

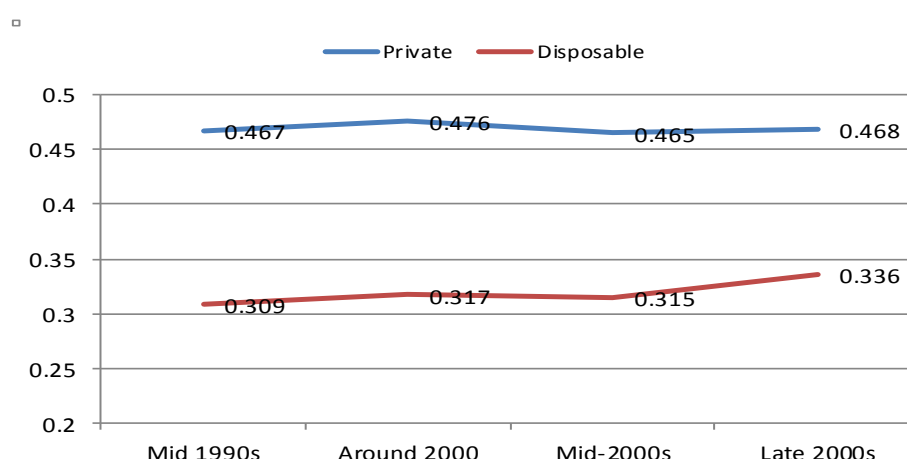
Figure 16: Trends in redistributive impact of taxes and transfers, 1981-82 to 1996-97
Percentage point differences in Gini coefficients



Source: Calculated from Johnson and Wilkins (2006).

Official ABS income inequality figures do not give private or gross inequality trends. However, figures supplied by the ABS to the OECD do compare private and disposable income inequality, as shown in Figure 17. The OECD and Johnson and Wilkins (2006) find the total redistributive impact of the tax and transfer systems in the mid-1990s is virtually identical (a reduction of 0.158 Gini points). The OECD find this was about the same in 2000, but that by 2003 the redistributive impact of the tax-transfer system had started to fall – to 0.150 Gini points in 2003 and 0.132 Gini points in 2007-08. In the mid-1990s benefits and taxes reduced inequality by close to 34 per cent; this reduced to 33 per cent around 2000, 32 per cent in 2003 and 28 per cent in 2007-08.

Figure 17: Trends in inequality of private and disposable incomes, 1994-95 to 2007-08
Gini coefficients

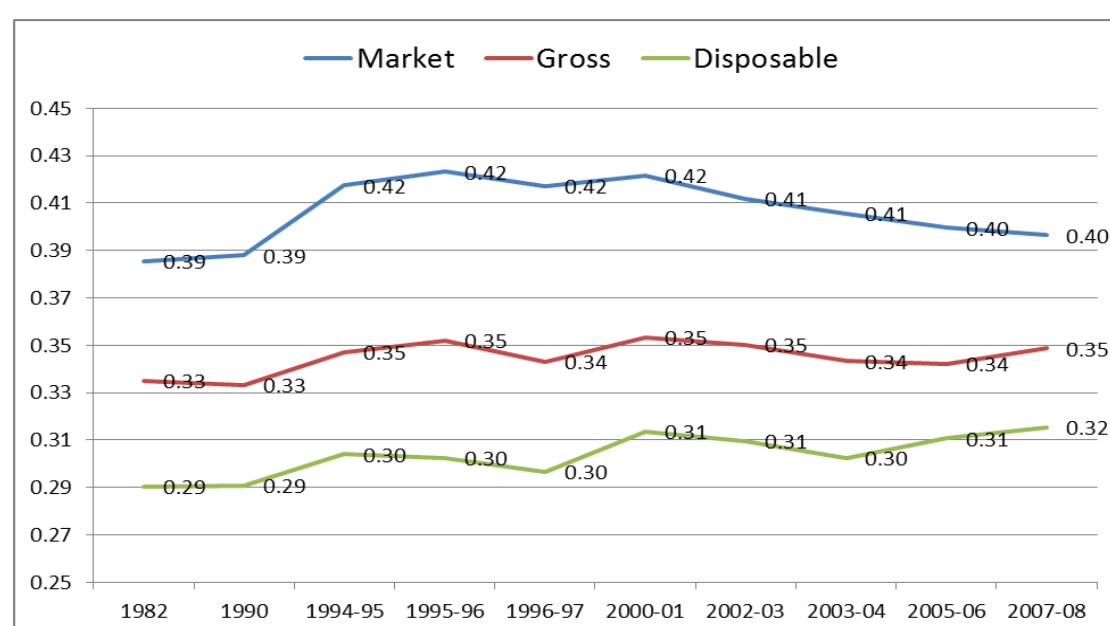


Source: OECD Income Distribution database.

Figure 18 shows estimates from Whiteford and Redmond (forthcoming) of income inequality among working-age income units for the whole period from 1981-82 to 2007-08. To ensure consistency over this time period, this analysis strips out the effects of the recent data improvements made by the ABS, as discussed above. The trends shown are very similar to those found by Johnson and Wilkins (2006) and the OECD (2011) with market income inequality starting to fall after 2000, but gross and disposable income inequality rising after 2003. The most important factor behind this reduced redistributive impact is a fall in the level of taxes after 2003, with higher income groups benefiting most.

Figure 18: Trends in inequality of market, gross and disposable incomes for working age income units, 1981-82 to 2007-08

Gini coefficients



Source: Whiteford and Redmond, forthcoming.

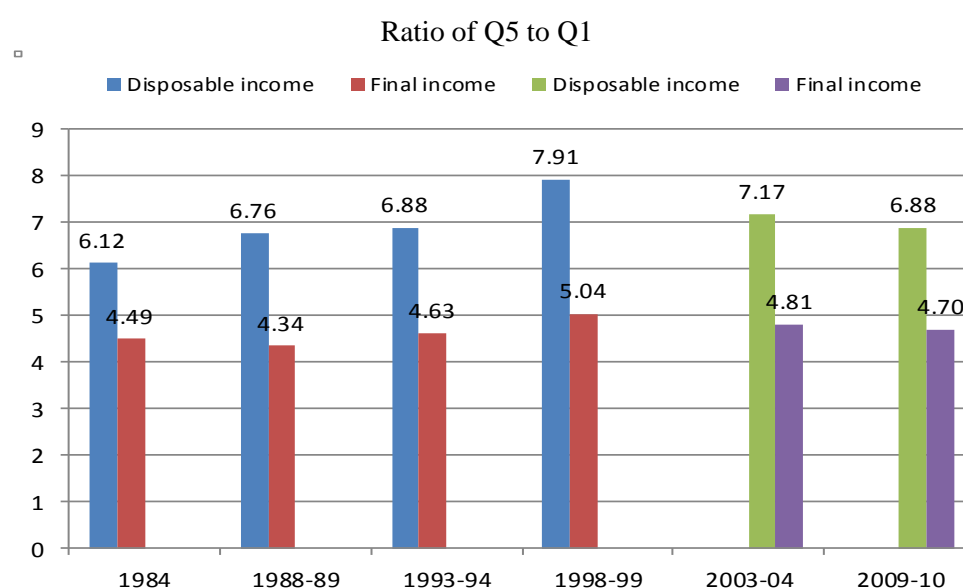
10 The effects of government services and indirect taxes

The discussion above has focused on the impact of cash transfers and direct taxes, but governments also redistribute resources to households through the provision or financing of public services, and they also finance spending through indirect taxes. A comprehensive accounting of the impact of government therefore needs to take these into account. The ABS has published estimates of the redistributive impact of non-cash benefits and indirect taxes for 1984, 1988-89, 1993-94, 1998-99, 2003-04 and most recently for 2009-10. As with income distribution statistics, major changes have been made to the methodologies for imputing the

value of non-cash benefits and indirect taxes, with the result that the series is not fully comparable over time.²⁵

Figure 19 shows ABS estimates of income disparities by income concepts for successive studies from 1984 to 2009-10. It is particularly important to note that households are ranked by gross income quintiles, and income measures are not equivalised. In 1984 the highest gross income quintile received 6.1 times the disposable income of the poorest quintile, but after adding non-cash benefits and deducting indirect taxes, this disparity was reduced to 4.5 to 1. Over the period shown, income disparities widened for disposable income, but initially narrowed in respect of final income, before rising again in the 1990s.

Figure 19: Income disparities by income concept, Australia, 1984 to 2009-10



Source: Calculated from ABS, Government Benefits, Taxes and Household Income, various years.

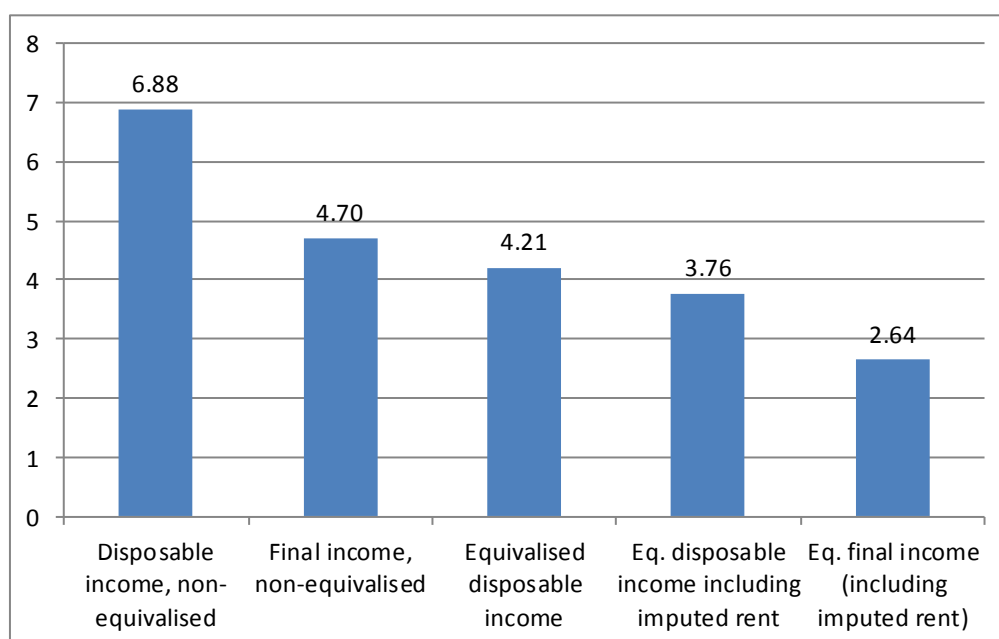
As noted, the latest two studies involve a changed definition of private income – and hence of disposable income – since they include imputed income from owner-occupied housing and private rental subsidies. This broadening of the income concept has a substantial impact on disposable income inequality, with the Q5/Q1 ratio for disposable income being lower in 2003-04 and 2009-10 than shown using the different income measure for 1998-99.

²⁵ Up until 1998-99, the ABS did not present results adjusted by equivalence scales and households were ranked by gross income. In 2009-10 major improvements were made: a more comprehensive measure of private income, including net imputed rent for owner occupied dwellings and the net benefit that can be attributed to households living in subsidised private rentals; improvements to the allocation of social transfers in kind for health benefits, housing benefits and child care assistance; inclusion of electricity concessions provided by State and territory governments for the first time; and, improvements to the methodology for estimating taxes on production for ownership of dwellings.

These figures are of interest in showing trends over the longer term, but conceptually results for equivalised income concepts are preferred. Figure 20 shows equivalised household income distributions for different income concepts in 2009-10. Including the impact of imputed rent and taking account of non-cash benefits and indirect taxes significantly reduces estimated inequality.

Figure 20: Income disparities by income concept, Australia, 2009-10

Ratio of Q5 to Q1



Source: Calculated from ABS, Government Benefits, Taxes and Household Income, 2009-10.

Table 1 shows a broader measure of the impact of welfare state arrangements in Australia, including the effects of government non-cash benefits (health, education, child care etc.) and indirect taxes in 2009-10. For example, the lowest quintile of equivalised disposable income receive only 3.3 per cent of all private income (including imputed income from owner-occupied housing) but they are paid more than 36 per cent of all cash benefits, so that their share of gross income doubles to 6.6 per cent. They also pay only 1.2 per cent of all direct taxes (while the richest quintile pay 56 per cent of direct taxes), increasing their share of disposable income to 7.5 per cent. Health benefits are approximately equal across the distribution, but education benefits are more value to lower income groups. Together with all other non-cash benefits (e.g. child care, housing, utility subsidies) they raise the share of disposable income plus benefits in kind for the lowest quintile to 10.8 per cent. Indirect taxes are regressive in that the poorest quintile pays 12.5 per cent of all indirect taxes (although their share of disposable incomes is 7.5 per cent). Overall the share of final income of the

lowest quintile increases to 11.3 per cent. In aggregate, the Australian welfare state reduces the Q5/Q1 ratio from 13.7 to 1 to 3.1 to 1, or by 77 per cent.

Table 1: Distribution of income, social expenditures and taxes by income quintile, Australia, 2009-10

Share (%) of total by equivalised disposable income quintile

	Lowest	Second	Third	Fourth	Highest	Ratio Q5/Q1
Private income	3.3	9.1	16.5	25.0	45.0	13.71
Cash benefits	36.5	34.7	18.9	7.8	2.5	0.07
Gross income	6.6	11.6	16.7	23.3	40.8	6.21
Direct taxes	1.2	5.2	12.4	23.3	56.2	48.73
Disposable income	7.5	12.7	17.5	23.3	38.2	5.10
Health benefits	21.0	25.0	20.0	18.0	16.1	0.77
Education benefits	24.1	22.1	22.4	17.8	13.8	0.57
Disposable income plus social transfers in kind	10.8	15.0	18.0	22.1	33.5	3.12
Indirect taxes	12.5	15.1	19.0	23.2	30.1	2.41
Final income	11.3	15.1	17.6	21.3	34.7	3.08

Source: Calculated from ABS, Government Benefits, Taxes and Household Income, 2009-10, Cat. No. 6537.0.

11 Expenditure inequality

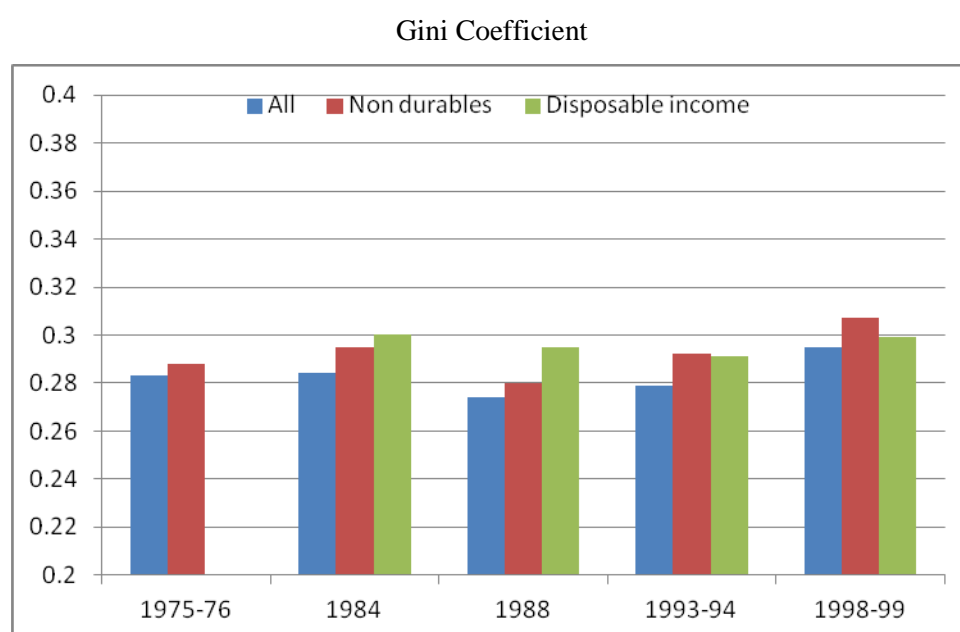
It has been argued that consumption or expenditure is a more appropriate measure of household well-being than income. From this perspective what matters for household well-being is consumption, since households are better able to smooth consumption rather than income over their lifetime. However, the number of studies of inequality in household expenditures is more limited than studies of household income inequality, and in a number of cases the analytical approach adopted is not ideal

For example, using the four Household Expenditures Surveys conducted between 1975 and 1993, Barrett, Crossley and Worswick (2000) examine trends in consumption inequality among Australian households and compare consumption inequality with income inequality. They found that consumption is much less unequal than income. Further, while both income and consumption inequality rose over the period covered by the surveys, consumption inequality rose by much less. For example, the Gini coefficient for equivalent gross income inequality rose by 0.043 (17 per cent) while the Gini coefficient for equivalent nondurable consumption rose by 0.019 (9 per cent). They note that one interpretation of the results is that some income inequality in Australia reflects transitory fluctuations which households can smooth, and that some of the growth in income inequality over the study period reflects an

increase in these transitory fluctuations. This result, however, was derived from a modified HES dataset that excluded the top and bottom 3 per cent of observations and all households with a head aged less than 25 years or more than 49 years. The study also adopted a restricted measure of expenditure.

Johnson and Wilkins (2006) also track changes in expenditure inequality from 1975-76 to 1998-99. Their results are shown in Figure 21. This shows that inequality in terms of total expenditure as well as expenditures on non-durable items increased to a minor extent between 1975-76 and 1984. Data for disposable income from the same surveys are available from 1984 onwards and show that income inequality was higher than expenditure inequality at this time. Inequality on all measures declined in the second half of the 1980s, and in terms of incomes, inequality continued to fall until 1993-94. Both measures of expenditure inequality show increasing Gini coefficients over the 1990s. However, Johnson and Wilkins (2006) results are not equivalised.

Figure 21: Trends in expenditure inequality, 1975-76 to 1998-99

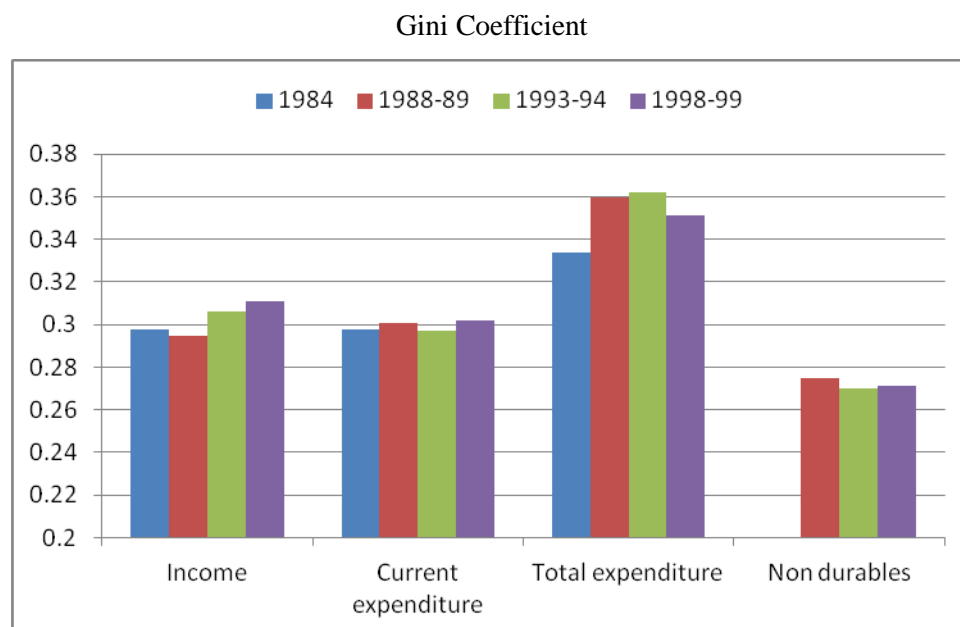


Source: Johnson and Wilkins, 2006.

Harding and Greenwell (2002) analyse income and expenditure inequality trends between 1984 and 1998-99, and use equivalised income and expenditures. Their results are shown in Figure 22. Income inequality increased between the late 1980s and mid-1990s. Harding and Greenwell (2002) note that the increase in inequality was driven by declines in the income shares of the bottom 10 per cent and, to a lesser extent, the middle 20 per cent of Australians during the 1990s, and an increase in the income share of the top 10 per cent. Inequality of expenditure on current goods and services did not change significantly over the period 1984

to 1998-99. Inequality of total expenditure (including 'savings' via expenditure on investment properties, superannuation, etc.) increased between 1984 and 1988-89 but apparently decreased between 1993-94 and 1998-99.

Figure 22: Trends in income and expenditure inequality, 1984 to 1998-99



Source: Harding and Greenwell, 2002.

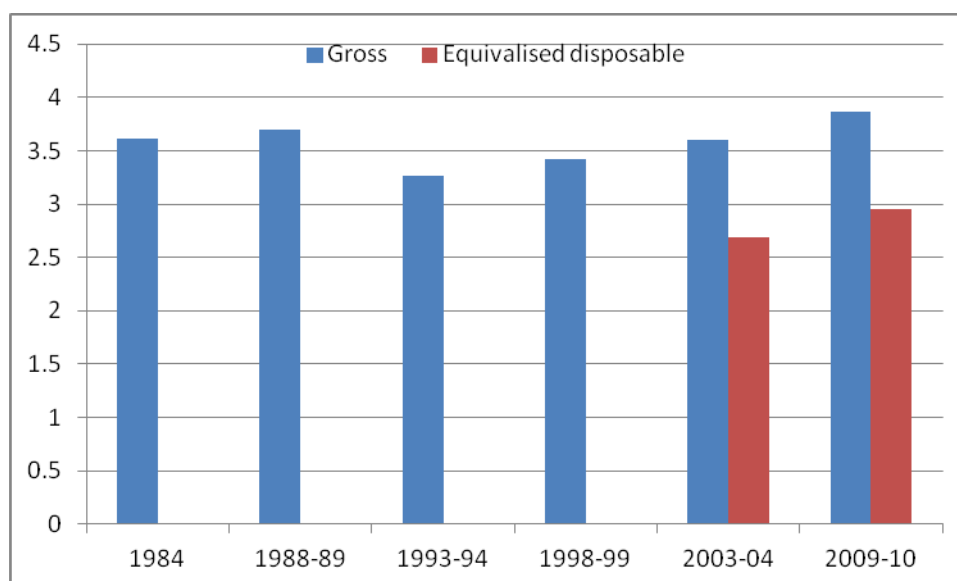
In all years, however, inequality of total expenditure was greater than for any other measure. Harding and Greenwell (2002) found that the Lorenz curves cross in the following cases: for disposable income between 1993-94 and 1998-99; for current expenditure for all cases except between 1984 and 1998-99; and for total expenditure between 1988-89 and 1993-94, between 1988-89 and 1998-99 and between 1993-94 and 1998-99. Consequently, no firm conclusion can be drawn about the change in inequality during these periods.²⁶

There are no recent studies that show what has happened to expenditure inequality since 2000. It is possible to calculate some measures from published ABS figures, and these are shown in Figure 23. The figure shows the Q5 to Q1 ratio for total expenditure, first where households are ranked by gross income, and for the two most recent years where households are ranked by equivalised disposable income.

²⁶ Harding and Greenwell (2002) also used data which was later revised by the ABS, with the estimated Gini coefficient falling from 0.311 to 0.302 with the corrected data.

Figure 23: Trends in expenditure inequality, 1984 to 2009-10

Ratio of Q5 to Q1



Source: Australian Bureau of Statistics, Household Expenditure Survey, various years.

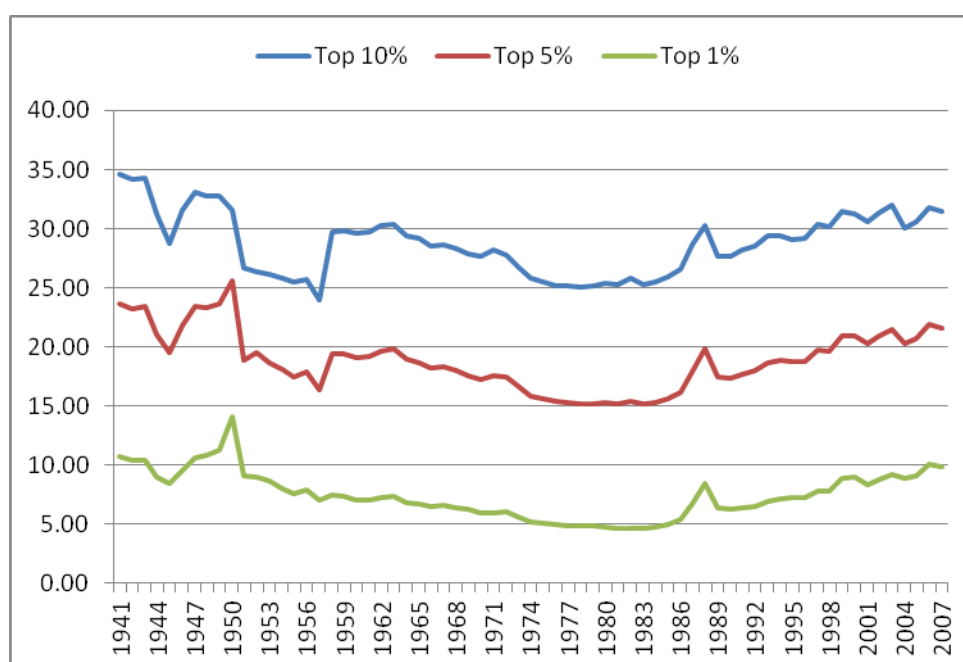
The longer term figures where households are ranked by gross income quintile are consistent with the earlier studies discussed. Expenditure inequality fell a little between 1988-89 and 1993-94 and then increased again. The figure suggests that the trend to increased expenditure inequality continued through 2003-04 and up to 2009-10, by which time the Q5 to Q1 ratio was higher than it had been in any earlier survey period. Expenditure inequality when households are ranked by equivalised disposable income is lower, but also shows an increase in the most recent period.

Overall, the picture given by these figures suggests that inequality in expenditures shows broadly similar trends to inequality in incomes, with some decline in inequality in specific periods, but an increase over time. Some measures of expenditure inequality show lower inequality than in relation to incomes, but this is not true for all measures of expenditure.

12 Top incomes

Figure 24 shows trends in top income shares in Australia from 1941 to 2007, showing the shares of the richest 10 per cent, the richest 5 per cent and the richest 1 per cent (Leigh, 2013).

Figure 24: Top income shares in Australia, 1941 to 2007



Source: Leigh, 2013, <http://people.anu.edu.au/andrew.leigh/>

In broad terms the trends are very similar. Top income shares reduced over the first half of this period and were at their lowest level around 1979 to 1981 (i.e. just before reliable household income surveys became available), after which they started to increase, and were back to their 1940s level by 2007. There are notable spikes in the series for the richest 1 per cent and the richest 5 per cent in 1950, when there was a boom in wool prices, and again in the late 1980s. It is also worth noting that even within the top income group, the largest gains have been right at the top of the distribution – about 76 per cent of the gains of the top 10 per cent between 1978 and 2007 were accrued by the richest 1 per cent and 65 per cent went to the richest 0.1 per cent,

In relative terms, the trend since the 1980s is very similar to the trend in other rich English-speaking countries. In particular, the share of the richest 1 per cent of taxpayers roughly doubled from 5 per cent to 10 per cent between 1980 and 2007. It is worth noting, however, that the share of the top 1 per cent was in comparative terms very low in 1979-80, so that the doubling of the income share puts Australia post-2000 in the same range as France and Japan, but significantly lower than Canada or the United Kingdom, and about half the share of the richest 1 per cent in the USA. Put another way, in 1979 when top income shares in Australia were at their lowest level, among 12 countries only Sweden had lower top shares, but after 2000, Japan, France and the Netherlands also had lower top shares, and in some years, New Zealand and possibly Switzerland (Leigh, 2013).

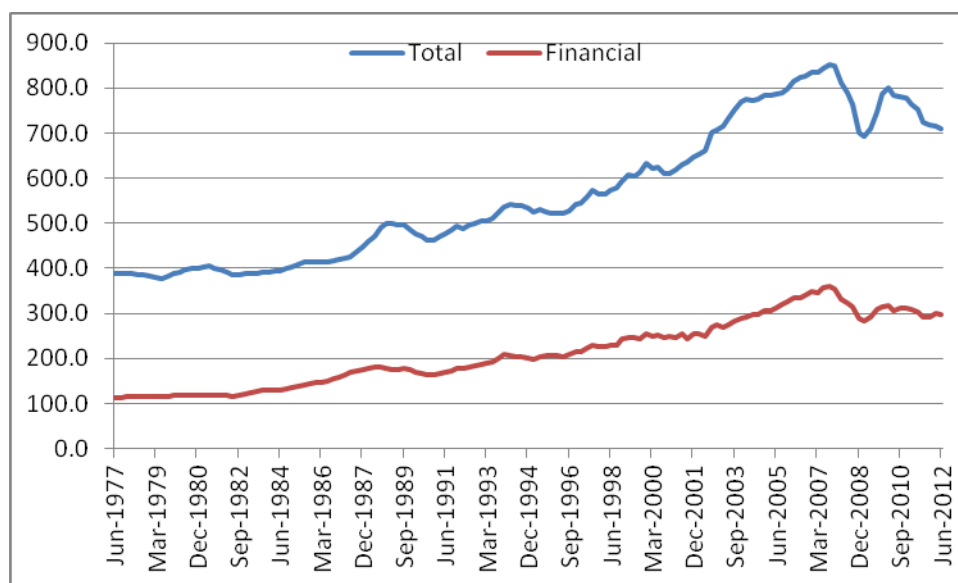
13 Debt and wealth inequalities

Over the last 35 years there has been a significant increase in the ratio of household debt to disposable income. Total debt rose from around 40 per cent of disposable income in the late 1970s to around 60 per cent in the mid-1990s, but then the rate of growth accelerated to reach 156 per cent of household disposable income in 2007. Debt has subsequently fallen slightly to around 150 per cent of household disposable income.

Most household debt is related to housing, with the share of household debt due to housing having increased from around 70 per cent in the 1970s and 1980s to over 80 per cent in the 1990s, and is currently at its highest share of around 90 per cent. Home-ownership rates in Australia have been high throughout most of the post-war period, climbing from 53.4 per cent in 1947 to around 70 per cent by 1960 and remaining around this rate for the past five decades.

While debt has grown, so have assets, as shown in Figure 25. Total assets grew from around 390 per cent of disposable income to peak at around 850 per cent in 2007, before falling back to around 710 per cent on the most recent figures. While housing remains the largest share of assets, financial assets have grown from around 30 per cent to 42 per cent of total assets.

Figure 25: Household Assets to Disposable Income (per cent) Australia, 1977 to 2012

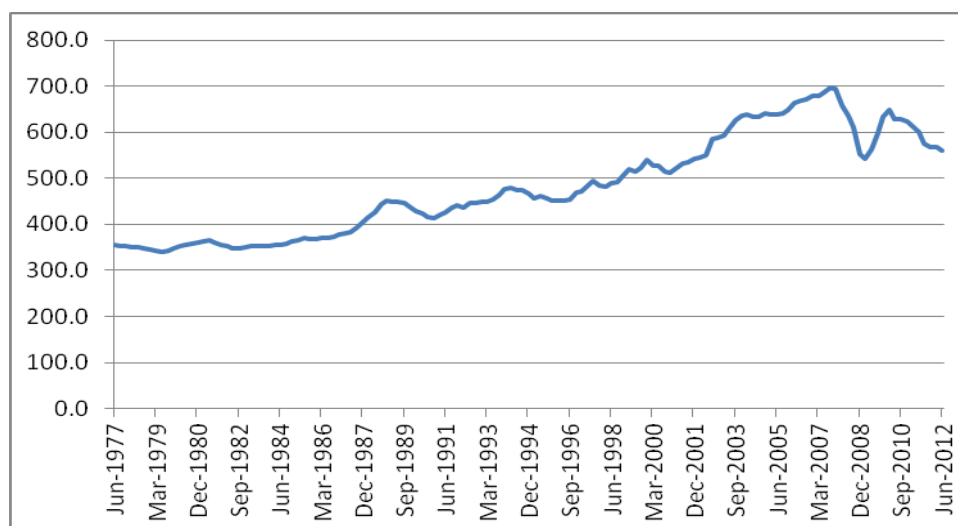


Source: Reserve Bank of Australia.

The rapid growth in assets has meant that household net worth (assets minus debt) has grown significantly. The ratio of household net worth to real household disposable income roughly doubled between 1977 and 2007, but then fell significantly at the time of the GFC; there was

then a sharp but brief increase, before the ratio of household net worth to income fell again (Figure 26).

Figure 26: Household Net Worth to Disposable Income (per cent) Australia, 1977 to 2012



Source: Reserve Bank of Australia.

From the mid-1980s to the mid-2000s, the household saving ratio declined significantly. Since 2005 this decline has been reversed, and the household saving ratio is now where it was in the mid-1980s. As nominal interest rates declined and the availability of credit increased, household spending grew more quickly than income for around a decade or so. Before the financial crisis households were returning to more traditional norms of saving and borrowing, and it seems likely that the crisis accelerated this return.

According to the 2012 Credit Suisse Global Wealth Report, in US dollar terms, Australia experienced very rapid growth in net worth between 2000 and 2011, with a short interruption in 2008. The average annual growth rate was 13 per cent, but half of the increase was due to exchange rate appreciation. Since 2007, wealth has grown at 1.2 per cent per annum, based on constant exchange rates. Australian wealth per adult in 2012, at USD 355,000, was the second highest in the world – after Switzerland and ahead of Norway. Its median wealth of USD 194,000 is the highest in the world.

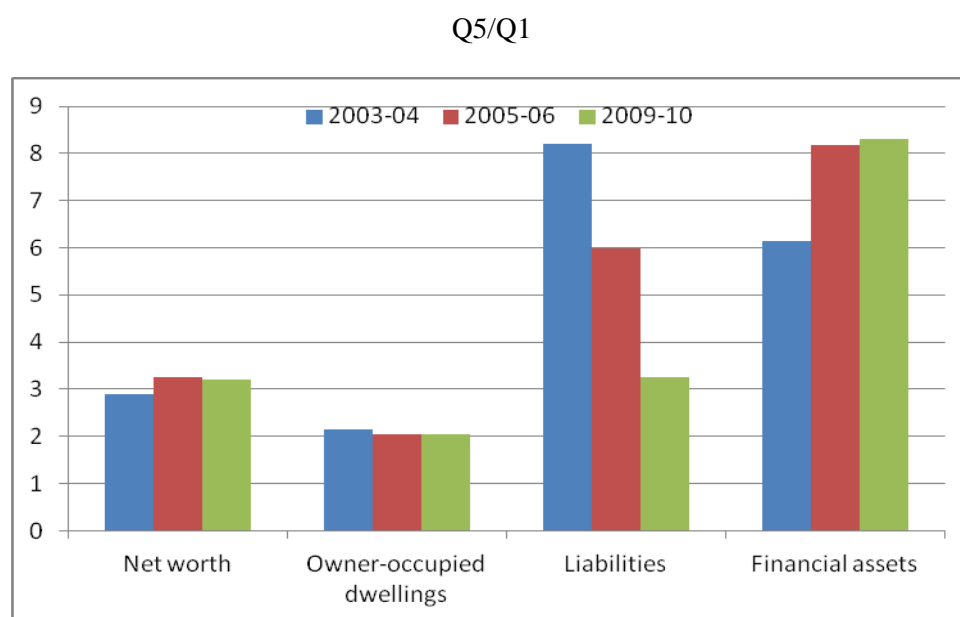
The composition of wealth is heavily skewed towards real assets, which form 64 per cent of the total. The level of real assets per adult in Australia is now the second highest in the world after Norway, in part reflecting high urban real estate prices. Compared to the rest of the world, very few Australians have a net worth that is less than US\$10,000. This reflects factors such as relatively low credit card and student loan debt. The proportion of those with wealth above USD 100,000 is the highest of any country – eight times the world average. With

1,571,000 people in the top 1 per cent of global wealth holders, Australia accounts for 3.4 per cent of this group, despite having just 0.4 per cent of the world's adult population.

When households are ranked by net worth, wealth is much more unequally distributed than disposable income, and net worth has become much more unequally distributed than income – the Q5 to Q1 ratio increasing from around 42 to 1 in 2003-04 to 62 to 1 in 2009-10.

A very different picture appears, however, when households are ranked by their disposable income – that is when the joint distribution of net worth and income is considered. Overall, when households are ranked by disposable income the Q5 to Q1 ratio for net worth is around 3.2 to 1; that is net worth is less unequally distributed than disposable income. The main reason for this is that owner-occupied housing accounts for about half of all net worth, and the Q5 to Q1 ratio for housing is only around 2 to 1. Other non-financial assets (e.g. vehicles and dwelling contents) are even less unequally distributed. Total liabilities tend to fall most heavily on the richest quintile. This pattern reflects the life-cycle accumulation of assets, so that older people tend to own their homes outright, while younger and higher income groups are still acquiring assets and thus have more substantial debts.

Figure 27: Trends in distribution of household net worth, Australia, 2003-04 to 2009-10



Source: Calculated from ABS, Household Wealth and Wealth Distribution, Australia, various years.

While the distribution of net worth ranked by disposable income is less unequal than the distribution of disposable income, there is evidence of growing inequality in its impact since 2003-04. Figure 27 shows that disparities in net worth have widened somewhat, even though disparities in owner-occupied dwelling wealth narrowed slightly. Two factors seem important – an increase in disparities of financial assets held by different income groups and reduced

disparities in liabilities, which therefore reduce the net worth of higher income groups less than in the past.

14 Patterns and trends in income poverty

In seeking to assess whether the benefits of income growth are widely shared, an obvious question is whether income poverty has risen or fallen. Australia has no official poverty line. However, from the early 1970s until the 1980s (and in some cases beyond) many poverty studies used what is known as the Henderson poverty line. These poverty lines are based on a benchmark income for the December quarter of 1973 established by the Commission of Inquiry into Poverty chaired by Professor Ronald Henderson. The benchmark income was the disposable income required to support the basic needs of a family of two adults and two dependent children, and was related to the poverty benchmark set by an earlier study in 1966, based on the 1964 minimum wage plus child endowment, the then universal payment for families with children. Poverty lines for other types of family were derived from the benchmark using a set of equivalence scales, based on a budget standards study from New York in 1954. The poverty lines were initially updated using average weekly earnings, and subsequently using an index of per capita household disposable income.

Apart from the mix of sources for the poverty line that were not necessarily relevant to Australian conditions (Stanton, 1973, 1980), it became evident over time that the updating method was problematic, as the index was derived from the National Accounts measure of household disposable income, which included components that were not included in household income surveys such as imputed income from owner-occupied housing and the earnings of superannuation funds, with the result that over time the Henderson poverty line tended to rise relative to median survey income. Since the 1980s, Australian poverty studies have therefore tended to use a 50 per cent of median equivalent income relative poverty line.

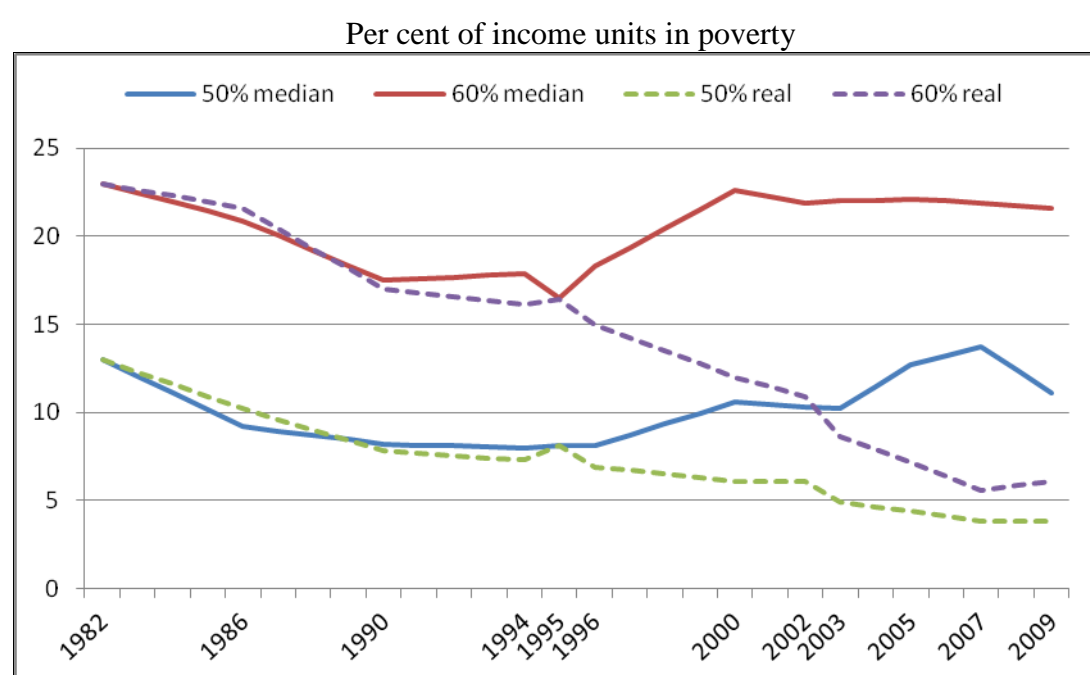
The results of selected major poverty studies are shown in Annex Table 2. It is evident that studies have used a wide range of methods and the results tend to depend on the poverty concept used and the method of updating over time. Around eight studies show rising poverty rates, three show stable poverty, and eight show falls in poverty. Not unexpectedly, poverty lines held constant in real terms (i.e. adjusted by the CPI) tend to show falling poverty rates over time, while poverty lines adjusted by household disposable income per capita (HDIPC) or median equivalised incomes tend to show rising poverty rates – although this varies by the period of study.

Figure 28 shows estimates of trends in poverty headcounts between 1981-82 and 2009-10 (Redmond, Patulny and Whiteford, 2013), using a 50 per cent and a 60 per cent of median

income poverty line, and the same lines in 1981-82 held constant in real terms (adjusted by the CPI).²⁷

Figure 28 shows that relative poverty fell over the 1980s, was fairly stable in the early 1990s, but then started to rise, before falling at the end of the period, with both the rise and the subsequent fall being greater at the 50 per cent of median income level than at the 60 per cent level. Since 2000, the at risk of poverty rate using the 60 per cent of median income line has remained stable at around 22 per cent, while the poverty rate using the 50 per cent line has varied between 10 per cent and 14 per cent. Poverty rates using the 50 per cent line were lowest in the mid-1990s at around 8 per cent and highest in 2007-08 at around 14 per cent.

Figure 28: Trends in income poverty rates in Australia, 1981-82 to 2009-10



Source: Calculated from ABS Household Income and Income Distribution Surveys, various years.

Poverty levels where the poverty line is held constant in real term initially show a similar trend, falling up to 1990, then flattening out, but continuing to fall from 1996, so that by the end of the period the proportion of the population estimated to be in poverty ranges from 4 per cent to 6 per cent depending on the line used. It is worth noting that holding the poverty line constant in real terms reduces the 2009-10 poverty line by around 36 per cent; for example, the actual 50 per cent of median income poverty line for a single person was around

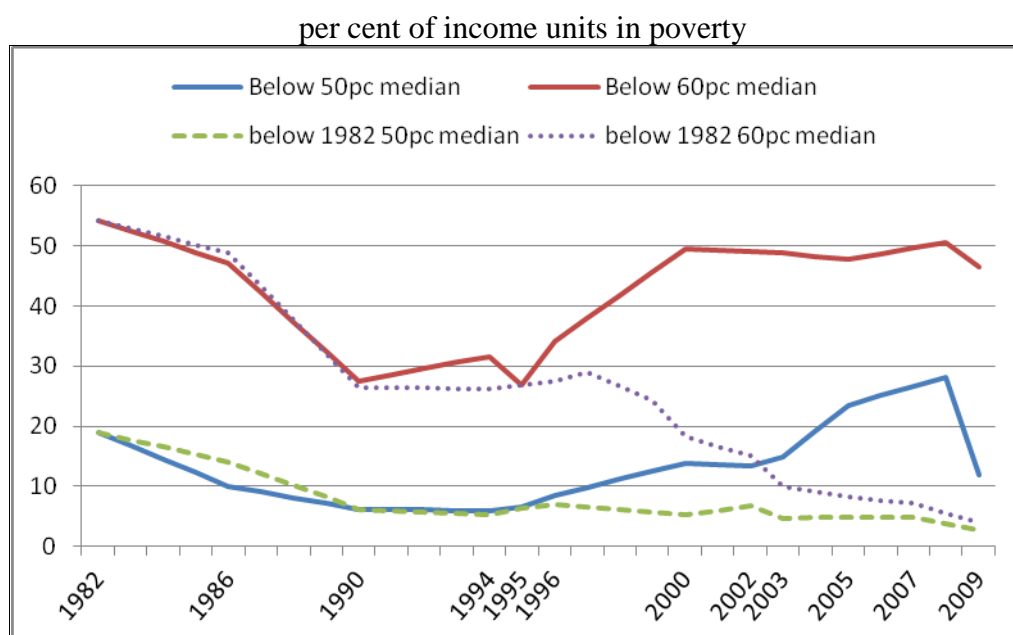
²⁷ Incomes are equivalised using the modified OECD equivalence scale; the income measure is current income of income units, and using a consistent measure over time, i.e. stripping out the effects of the ABS improvements to income measures, as discussed in the text.

\$357 per week in 2009-10, while the 1982 standard was around \$227 per week in 2009-10 values. While the use of a poverty line held constant in real terms is informative in showing rising real living standards, people in 2009-10 do not live in 1982 circumstances.

The main explanation for these trends flows from the earlier picture of trends in median incomes. Real median income increased very little between the 1980s and the mid-1990s, so reductions in relative poverty reflect the fact that the poverty line did not increase in real terms. In contrast, after 1996 real median incomes rose very strongly – by around 50 per cent in real terms, so that progress against poverty became much more difficult.

Figure 29 shows trends in poverty among older households, where the reference person is 65 years of age or older. There are broad similarities in trends between the poverty rates for older people and the overall population, but the fluctuations are more marked, and poverty rates tend to be higher except in the mid-1990s. The at-risk of poverty rate (60 per cent of median income) is extremely high at around 55 per cent of the older population in the early 1980s, falling to around 30 per cent in the mid-1990s, before rising to around 50 per cent since 2000. At the 50 per cent of median income poverty line, there was a fall from around 20 per cent of the older population in the early 1980s to a low of around 6 per cent in the mid-1990s, before poverty rates started to rise to 27 per cent in 2007-08, and fell to under 12 per cent in the most recent year.

Figure 29: Trends in income poverty rates among older people in Australia, 1981-82 to 2009-10

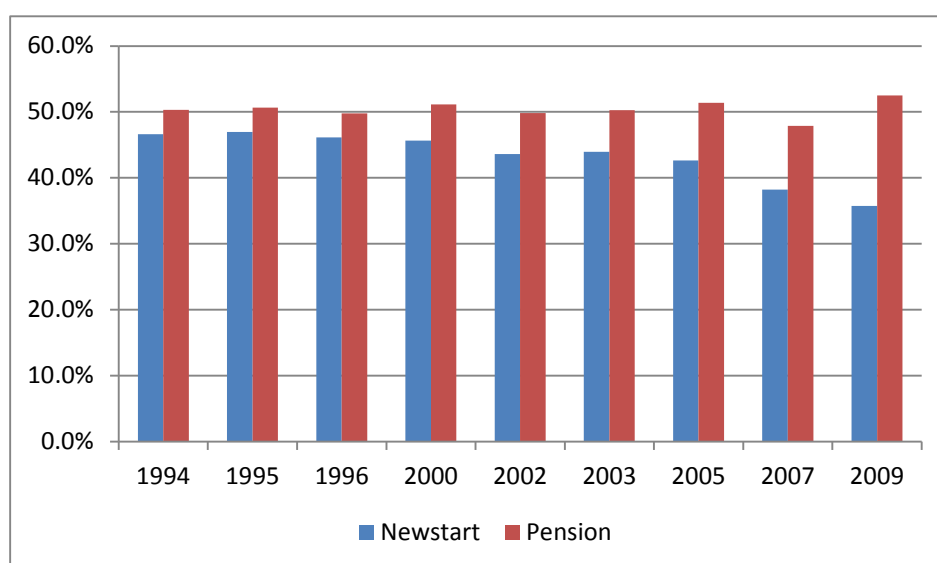


Source: Calculated from ABS Household Income and Income Distribution Surveys, various years.

These striking variations reflect the fact that Australia has a flat-rate, income-tested public pension system, with a significant proportion (around 40 per cent) of the older population being wholly reliant on pensions or with relatively low levels of additional income. For much of this period the basic age pension level has fluctuated close to 50 per cent of median income, sometimes being just above this relative poverty line and sometimes being a little below. This makes trends in poverty rates very sensitive to relatively small changes in pension levels. The rise in relative poverty amongst older people after the mid-1990s reflects the fact that the base rate of age pension for a single person moved from around 50-51 per cent of median equivalised income in the mid-1990s to around 47 per cent in 2007-08, as shown in Figure 30 below. The dramatic decrease in relative poverty at the end of the period partly reflects a small decline in median income in this period, but more importantly in 2009 there was a very large discretionary increase in pension rates, particularly for single people, so that the base rate of pension was increased from around 47 per cent of median income to close to 53 per cent. The result was that poverty among older income units was cut from 27 per cent to less than 12 per cent.

Figure 30: Payment levels, 1994 to 2009-10

Payments for single person as per cent of median equivalent income



Source: Calculated from ABS Household Income and Income Distribution Surveys, various years and FaHCSIA, Guide to Social Security Law, Historical Rates, http://guidesacts.fahcsia.gov.au/guides_acts/ssg/ssguide-5/ssguide-5.2.html

It is also worth noting in this context that after Israel, among OECD countries Australia has the highest proportion of its population between 40 per cent and 50 per cent of median income, reflecting the concentration of welfare recipients around pension and benefit levels.

This also suggests that poverty gaps in Australia are likely to be relatively low for age and disability pensioners. However, as shown in Figure 29 they are much greater for the unemployed receiving Newstart benefits, and the poverty gap has widened considerably over time, with payment rates falling from 47 per cent of median income in 1995 to around 36 per cent in 2009-10.²⁸

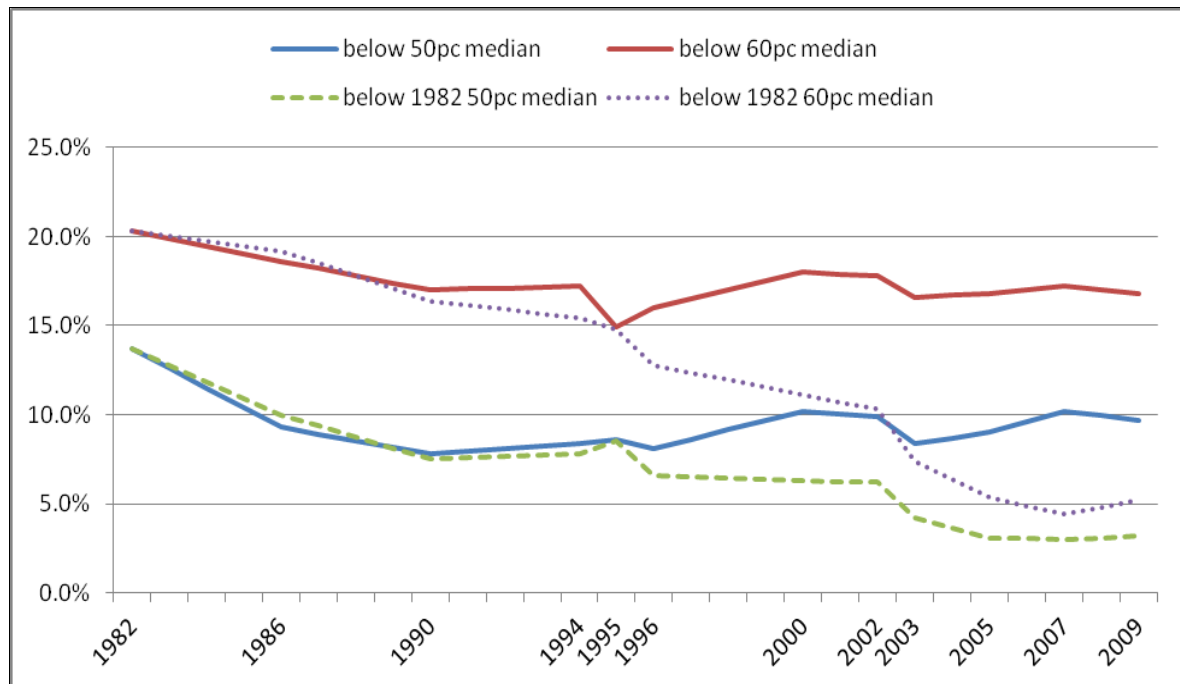
Using poverty lines held constant in real terms shows broadly similar trends to those for the population as a whole. 'Absolute' poverty initially fell in line with trends in relative poverty, but then continued to fall from around 2000, so that by the end of the period the poverty rate on either measure was only around 3 per cent.

As discussed earlier Australians over 65 also have considerable wealth, particularly in the form of housing. People over 65 years of age are about three times as likely to be in the highest quintile of net worth as in the lowest quintile and the third and fourth net worth quintiles receive more than twice as much in age pensions as the lowest two quintiles of net worth (ABS Cat. No 6537.0). Taking account of imputed income from wealth plus the benefits of government non-cash benefits has a considerable impact on estimates of the level of poverty among older people in Australia. For example, Whiteford and Kennedy (1995) show that in the mid-1980s around 30 per cent of people over 65 in Australia were in relative poverty on the basis of cash disposable income, compared to around 11 per cent in West Germany, for example, but on a broader measure of resources, poverty rates were very similar - 6.8 per cent in Australia compared to 5.1 per cent in West Germany. Using a slightly different methodology and data from the mid-1990s, Ritakallio (2003) compares poverty before and after housing costs in Australia and Finland and finds that the higher poverty rate in Australia shrinks from 24 percentage points to four percentage points. Moreover, on a poverty gap measure after-housing poverty in Australia was lower than in Finland.

Figure 31 shows trends in poverty rates among families with children. The broad trends are similar – falls in relative poverty over the 1980s, a flattening out in the early 1990s, followed by an increase. However, the increase is not large at either the 50 per cent or 60 per cent level. Given that real median incomes rose rapidly over this period, the stability in relative poverty is a consequence of large increases in family payments over this period.

²⁸ Note that if a single Newstart recipient lives in households with other members, they may not necessarily be below the poverty line.

Figure 31: Trends in income poverty rates among families with children in Australia, 1981-82 to 2009-10



Source: Calculated from ABS Household Income and Income Distribution Surveys, various years.

In summary, relative income poverty rates fell during the 1980s, but in the context of close to stagnant median incomes. Relative poverty rates rose between the mid-1990s and 2007-08, but in the very different context of rapidly rising real median incomes. Using a poverty line held constant in real terms poverty rates fell significantly, but more rapidly in the first half of the period for the lower poverty line (50 per cent of the 1982 median), and more rapidly for the higher poverty line in the second half of the period.

As an aside, recent work by Redmond (2013) compares poverty rates for Australia and the USA replicating the approach taken in the Research Supplemental Measure by the Bureau of the Census (Short, 2011). Preliminary results suggest that using the same methodology on Australian household expenditure and income survey data that poverty rates in Australia are about half those in the United States (8 per cent and 16 per cent, respectively), with the difference being greatest for those 65 years and over (6.1 per cent in Australia and 15.9 per cent in the USA).

15 Mobility

An important issue in assessing trends in income inequality is the relationship between inequality and income mobility. For example, discussions of the widening income inequality in the United States sometimes note that to get a broader perspective on these trends, one

must look at the opportunity for upward mobility, which has sometimes been seen as a defining characteristic of that country's economy (United States Department of the Treasury, 2007).²⁹ Research shows that the distribution of lifetime incomes is more equal than a one-time snapshot implies because a household's relative position in the income distribution can change over time. Concerns about income inequality at a particular point in time may be lessened if low incomes are temporary and income mobility provides individuals with the opportunity to improve their economic situation over time. In addition, different policy prescriptions might be appropriate for assisting those who are persistently low-income as compared to those whose incomes are only temporarily low.

Until recently, there have been a limited number of studies of income mobility in Australia, but the introduction of the HILDA survey has changed this. Overall, the period covered by the HILDA survey shows large increases in real incomes across the income distribution. But individual incomes are more dynamic than group incomes – even if most people on average are better-off than similar groups in the past, individuals rise up and fall down the income ladder. Around 3 per cent of the population have a major worsening in finances each year .

Wilkins and Warren (2012) estimate that, on average, individuals moved 21.7 percentiles, or slightly more than two deciles, between 2001 and 2009. Just over 28 per cent of people moved up more than 20 percentiles, and 20 per cent moved down more than 20 percentiles. That is, over nine years, 52 per cent of people stayed within 20 percentiles of where they were in the income distribution, while 48 per cent moved more than 20 percentiles.

In considering income mobility by initial location in the income distribution, they found that 55.5 per cent of those in the bottom quintile in 2001 were also in the bottom quintile in 2009; 20.9 per cent were in the second quintile, 11.9 per cent were in the third quintile, 6.2 per cent were in the fourth quintile and 5.5 per cent were in the top quintile. Most people do not move more than one quintile, but equally, relatively few remain in the same quintile. However, the proportions remaining in the top and bottom quintiles are relatively high, at 55.5 per cent for the bottom quintile and 46 per cent for the top quintile.

No strong pattern in changes in mobility over time is evident from the HILDA survey, but there are indications of a slight decrease in mobility up until 2008, with the mean absolute change in percentile rank decreasing from 14.2 to 12.4 and the percentage moving down more than 20 percentiles decreasing from 12.1 per cent to 9.8 per cent. This trend was arrested in

²⁹ It is worth noting, however, that research suggests that the USA is not a particularly high mobility country (Ayala and Sastre, 2002).

the last year-pair, with the mean change in rank increasing to 13.8 and the proportions moving more than 20 percentiles (up or down) increasing from 22.2 per cent to 25 per cent.

Sizeable differences in the extent and nature of mobility are evident across family types. Over all three time-frames, mobility is on average in a downward direction for elderly persons, with the mean decline in percentile ranks tending to be greater the longer the time-frame. Mobility also tends to be in a downward direction for nonelderly couples without children.³⁰ Mobility tends to be positive for families with children, with lone parents particularly likely to improve their ranking in the income distribution, on average moving up 8.9 percentiles between 2001 and 2009.

Leigh (2009c) calculates family income inequality based on one year income and then on two year and three year income for the period 2001-03. He finds that over this short period, Australia was 'significantly more mobile than Britain, Germany or the USA in terms of post-government income – in that three-year income inequality (post government) is lower than annual income inequality by a larger margin than in the other countries studied.

OECD (2008) analysed poverty dynamics over a three year period in the early 2000s, in the case of Australia using HILDA data for 2002-2004. In this period Australia had the highest level of entries into poverty (defined as 50 per cent of median income) of the 18 countries studied and as result also had the highest share of the population ever experiencing poverty (around 25 per cent).³¹ However, Australia had a higher than average rate of exits from poverty so the persistence of poverty – the share of those who ever experienced a spell of poverty who stayed poor for all three years – was just at the OECD average (28 per cent), which was significantly more than the least persistent countries (the Netherlands and Denmark at around 13-15 per cent), but less than the most persistent countries (Canada, Ireland and the United States at 36 per cent) (OECD, 2008). However, in terms of movements between quintiles Australia had the fourth lowest share of people who stayed in the bottom income quintile over a three year period and the second lowest share of those who stayed in the top quintile (OECD, 2008).

³⁰ This may in part be because some *became* couples with children between 2001 and 2009, which can lower gross income because of reduced labour force participation of one member (usually the mother) and can further lower *equivalised* income because of the extra mouth(s) to feed. Also likely to contribute to this pattern is the retirement of the older members of the 'non-elderly couples' group during the timeframe under study, since retirement is usually associated with a decline in income.

³¹ This may be influenced by the high rates of relative income poverty among older people in Australia.

Another way of considering mobility is the stability or rigidity index proposed by Shorrocks (1978). For any given inequality index the measure indicates the degree to which lengthening the accounting period tends to reduce the level of inequality over a longer term period. The index compares long-run or 'permanent' inequality measured over several periods with a weighted sum of single-period income inequalities (where the weights are proportional to average incomes in each year). Using data from the HILDA survey between 2001 and 2009 it can be calculated that two year inequality in Australia is around 95 per cent of that of each year, four year inequality varies between 90 per cent and 92 per cent of the weighted average, while nine year inequality is around 86 per cent of average inequality. The stability of inequality measured over two or four years is very similar to that found in Great Britain in the early 1990s by Jarvis and Jenkins (1998). There is also some indication that rigidity increased marginally in Australia over the first decade of the new Millennium, with the stability index for a four year period increasing from 0.90 at the first four year period to 0.92 in the latest four year period.

16 Material deprivation

The discussion of relative income poverty and income mobility suggests that some caution should be used in drawing conclusions about trends in wellbeing from trends in headcount poverty rates. As noted, the real level of the poverty line changes at significantly different rates in different periods; moreover, the concentration of social security recipients at income levels close to the poverty line, and the small gap between pension payments and the 50 per cent of median income poverty line suggests that changes in headcount rates – either up or down – may give an exaggerated impression of changes in wellbeing among the low income population.

In addition, there are strong reasons for concluding that not all aspects of economic wellbeing are captured in the standards measures of household income. As discussed above, in Australia a significant proportion of people with low income tend to have relatively high levels of wealth, reflecting the life-cycle pattern of wealth accumulation. For some time the Australian Bureau of Statistics has pointed out that some households report extremely low and even negative income in income surveys, which places them well below the level of income support provided by government pensions and allowances. Households may under report their incomes in the survey at all income levels, including low income households. However, households can correctly report low levels of income if they incur losses in their unincorporated business or have negative returns from their other investments.

Studies of income and expenditure reported in HES surveys have shown that such households in the bottom income decile and with negative gross incomes tend to have expenditure levels that are comparable to those of households with higher income levels (and slightly above the average expenditures recorded for the fifth income decile). The ABS has noted that this suggests that these households have access to economic resources such as wealth, or that the instance of low or negative income is temporary, perhaps reflecting business or investment start up. Other households in the lowest income decile in past surveys had average incomes at about the level of the single pension rate, were predominantly single person households, and their main source of income was largely government pensions and allowances. However, on average, these households also had expenditures above the average of the households in the second income decile, which is not inconsistent with the use of assets to maintain a higher standard of living than implied by their incomes alone.

The ABS therefore argues that many of the households included in the lowest income decile are unlikely to be suffering extremely low levels of economic wellbeing. Income distribution analysis may lead to inappropriate conclusions if such households are used as the basis for assessing low levels of economic wellbeing. For this reason, official ABS statistics showing statistics classified by income quintiles include a supplementary category comprising the second and third income deciles, which can be used as an alternative to the lowest income quintile. It is worth noting that these arguments have been criticised by Saunders and Bradbury (2006) who argue that the problems identified by the ABS may apply only to the bottom three or four percentiles rather than the whole decile.³²

A supplementary measure of low economic resources is to look at households who have both low incomes and low net worth. In 2009-10, nearly one in four people (23 per cent or 4.9 million people) lived in households that were in the lowest two quintiles of both equivalised adjusted disposable household income (including imputed rent from owner-occupied housing) and the lowest two quintiles of equivalised household net worth. These low economic resource households have, on average, more household members (2.9 people) than other households (2.5 people). Children (38 per cent) were twice as likely as adults (19 per cent) to live in low economic resource households.

A further approach to assessing the trends in household wellbeing is to look at direct measures of hardship or social exclusion. In the 1998-99 Household Expenditure Survey, the

³² Saunders and Bradbury (2006) confirm, however, that the bottom one per cent have negative disposable incomes, but their expenditures are greater than everyone else in the bottom three deciles.

ABS included for the first time questions about whether households were experiencing some degree of deprivation or financial stress. The questions encompassed the items of expenditure some households may not be able to afford, as well as cash flow problems, lack of access to financial resources and accessing support outside the household.

In 2009-10, only 17 per cent of households with low economic resources reported being able to save money most weeks, compared with 46 per cent of other households. Around a quarter of low resource households reported spending more money than they received most weeks, twice the rate of other households (12 per cent). In 2009-10, 43 per cent of low economic resource households reported that they would not be able to raise \$2,000 in a week for something important. In contrast, only 7 per cent of other households were in this position.

A range of other indicators of financial stress were more prevalent among low economic resource households: 10 per cent reported that they had gone without meals in the past 12 months due to cash flow problems, while 8 per cent had resorted to pawning or selling possessions. By contrast, only 1 per cent of other households had been forced to either of these lengths. Close to a third (31 per cent) of low economic resource households reported that they had been unable to pay a utility bill on time in the past 12 months, and 20 per cent had sought financial help from friends or family due to cash flow problems. This compares with 8 per cent and 5 per cent, respectively, among other households. One in ten low economic resource households were forced to seek assistance from welfare or community organisations, compared with 1 per cent of other households.

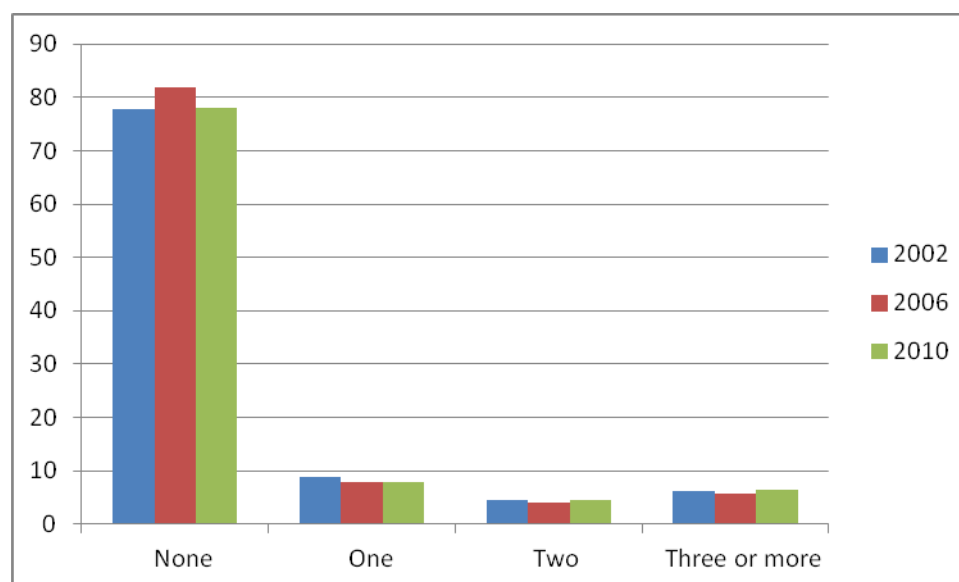
High levels of financial stress – four or more indicators – are experienced by those with social security benefits as their main source of income, who account for more than half of this group or more than twice their share of the total population. Tenants of public housing authorities are more than three times over-represented in the high stressed group, as are lone parent families.

Figure 32 shows trends in the experience of financial stress between 2002 and 2010 from the General Social Survey. This suggests a small reduction in the experience of financial stress between 2002 and 2006, and a small increase thereafter, so that in 2010 it was about at the same level as in 2002.

Between 2002 and 2010 some indicators of financial stress show falls over the entire period, for example, seeking help from family or friends or being unable to pay the mortgage or rent on time. Others show falls in the first half of the period, followed by rises (being unable to pay utility bills on time, being unable to pay car registration or insurance on time, and pawning/selling something for cash). Other forms of financial stress show continuous

increases over this period – being unable to make minimum payments on credit cards and going without meals and being unable to heat one’s home, although in the last two cases only a very small proportion of the population are affected.

Figure 32: Trends in experience of financial stress, Australia, 2002 to 2010



Source: ABS General Social Survey, various years.

Other analyses of household living standards have been undertaken by the Brotherhood of St Laurence and the Melbourne Institute using data from the HILDA survey (Azpitarte, 2012). This measure of social exclusion covers the domains of material resources, employment, education and skills, health and disability, social connection, community quality and personal safety, with individual scores varying between 0 and 7. Using a 60 per cent of median income poverty line Azpitarte (2012) finds that between 2001 and 2010 income poverty remained stable at around 20 per cent. In contrast, the level of marginal exclusion (a score between 1 and 2) fell from around 25 per cent in 2001 to 18.6 per cent in 2008, and rose to 20 per cent in 2010. The rate of deep exclusion (scores above 2) dropped from 7 per cent to 5 per cent in 2006, and remained stable thereafter. Rates of deep exclusion are higher for women (5.5 per cent) than for men (4 per cent). Around 10 per cent of Aboriginal Australians are deeply excluded, a rate which changed little over the decade. Deep exclusion is higher for those with a long-term health condition or disability but fell from around 20 per cent to 14 per cent over the period. Rates of deep exclusion are also high for those who have not completed year 12 and stayed above 10 per cent for most of the decade. Public housing tenants also show very high but variable levels of deep exclusion – dropping from 25 to 15 per cent between 2001 and 2008, and rising to 20 per cent thereafter.

The dynamics of social exclusion differ from those of income poverty. A spell of income poverty is about 50 per cent more likely than a spell of exclusion, and six times more common than a spell of deep exclusion. Around one quarter of those in income poverty at the beginning of the decade were still there in 2010, with the ratio being slightly lower for exclusion, but around one in ten for those with deep exclusion.

17 Indigenous disadvantage

An important component of the Australian population is indigenous. In 2011, there were nearly 550,000 people or around 2.5 per cent of the population who identified as being of Aboriginal and/or Torres Strait Islander origin and counted in the Census. Of the Aboriginal and Torres Strait Islander population, 90 per cent were Aboriginal people, 6 per cent were Torres Strait Islander people and the remaining 4 per cent were both Aboriginal and Torres Strait Islander people.

Around 30 per cent of the Aboriginal and Torres Strait Islander population live in New South Wales, 28 per cent in Queensland, 14 per cent in Western Australia and 12 per cent in the Northern Territory. The Northern Territory has the largest proportion of its population who are Aboriginal and Torres Strait Islander people (30 per cent), compared with 4 per cent or less for all other states and the Australian Capital Territory.

The Aboriginal and Torres Strait Islander population is a relatively young population with a median age of 21 years compared with 37 years for the non-Indigenous population. Around 38 per cent of Aboriginal and Torres Strait Islander people are aged less than 15 years compared with 19 per cent of non-Indigenous people. People aged 65 years and over comprise 3 per cent of the Aboriginal and Torres Strait Islander population and 13 per cent of the non-Indigenous population.

Indigenous disadvantage occurs in many dimensions of socio-economic circumstances. Between 1991 and 2001 the average equivalised gross income of indigenous households fell from 64 per cent to 62 per cent of that of non-indigenous households, but remained stable between 2001 and 2006 (ABS, Cat. No. 4713.0, various years). Indigenous people living in very remote areas are even worse off, with average income being only 43 per cent of those of non-indigenous households in the same area. Overall, indigenous households are over-represented by two to one in the lowest income quintile

The age structure of the Aboriginal and Torres Strait Islander population reflects higher rates of fertility and deaths occurring at younger ages. In 2010, the total fertility rate for Aboriginal and Torres Strait Islander women (2.57 babies per woman) was higher than that for all women (1.89 babies per woman). In the period 2005--2007, life expectancy at birth was estimated to

be 67.2 years and 72.9 years for Aboriginal and Torres Strait Islander males and females respectively. This is well below the estimates of 78.5 years and 82.4 years for total males and females respectively for the same period, and the gap is wider in the Northern Territory and Western Australia. Sixty-two per cent of Indigenous Australians live in areas in the bottom two quintiles of socioeconomic disadvantage, and those living there are 1.4 times more likely to report their health as fair or poor compared with non-Indigenous Australians living in these areas.

Aboriginal and Torres Strait Islander Australians have far lower rates of Year 12 attainment than non-Indigenous Australians. In 2008, less than one-third of young Indigenous people had attained Year 12 compared with three-quarters of non-Indigenous 20-24 year olds. Between 2002 and 2008, there was a small, but not statistically significant, increase in the proportions of Indigenous people aged 20-24 years with Year 12 (from 28 per cent to 31 per cent).

The imprisonment of Indigenous Australians is a major issue of concern. In June 2009, the age standardised imprisonment rate for Indigenous prisoners was 1,891 per 100,000 adult Indigenous population compared to 136 non-Indigenous prisoners per 100,000 adult non-Indigenous population. Twenty-five per cent of all prisoners in Australia in 2009 were Indigenous (ABS, 2012c).

The level of crime experienced by Aboriginal and Torres Strait Islander peoples is also very high in comparison to the rest of the Australian population. In 2008, around one-quarter (23 per cent) of Indigenous people aged 15 years and over reported being a victim of physical or threatened violence in the last 12 months, and one in seven (15 per cent) had experienced at least one episode of physical violence in the previous year (ABS 2012a).

Reflecting long-standing concern with these and other socio-economic problems, the Council of Australian Governments (COAG, 2009) agreed to a National Indigenous Reform Agreement to close the gap between indigenous outcomes and those for the rest of the population. Agreement was also reached on the establishment of a new national Indigenous representative body, to be known as the National Congress of Australia's First Peoples.

COAG is committed to: Closing the life expectancy gap within a generation (by 2031); halving the gap in mortality rates for Indigenous children under five within a decade (by 2018); ensuring all Indigenous four-year olds in remote communities have access to early childhood education within five years (by 2013); halving the gap for Indigenous students in reading, writing and numeracy within a decade (by 2018); halving the gap for Indigenous people aged 20–24 in Year 12 attainment or equivalent attainment rates (by 2020); halving the

gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018).

The most recent Prime Minister's report (FaHCSIA, 2013) states that the target for early childhood education will be met in 2013, with 91 per cent of Indigenous children living in remote areas being enrolled in preschool programs in the year before full-time school in 2011, indicating that the target of a 95 per cent enrolment rate will be met on time. The target for under-five mortality is also on track to be met, while progress to meet the Year 12 attainment target is ahead of schedule. Some progress has been made on the target to halve the gap in reading, writing and numeracy between Indigenous and non-Indigenous students within a decade although overall progress is mixed. A statistically significant decline in the Indigenous mortality rate of 5 per cent was recorded between 2006 and 2011, but the mortality rate will need to fall even faster than it currently is if the life expectancy target is to be met by 2031.

For the target to halve the gap in employment between Indigenous and non-Indigenous Australians, the latest data shows that the proportion of Indigenous people of workforce age who are employed in non-CDEP³³ jobs rose by 2.3 percentage points between 2006 and 2011. Looking at the longer term, Gray and Hunter (2011) found that over the period 1994 to 2008 the non-CDEP employment rate of the Indigenous population increased from 31.1 per cent to 50.5 per cent. There were increases for both Indigenous men and women. The non-CDEP employment rate increased by 21 percentage points from 37.9 per cent to 58.8 per cent for Indigenous men and by 18 percentage points from 25.0 per cent to 42.9 per cent for Indigenous women. These increases were very substantial: to put them in context, the increase in the employment rate for the working age Australian population as a whole for men during this period increased by 5 percentage points, and for women it increased by 10 percentage points. Gray and Hunter (2011) note that while it is not possible to determine definitively the exact reasons for the increases in the rate of employment of Indigenous Australians, a strong macro-economy combined with policies which encourage employment and provide support to Indigenous people who find employment have been important factors. In addition, they argue that the sustained growth in Indigenous employment highlights the importance of governments doing whatever they can to avoid economic recessions, since those who are more vulnerable in labour markets are most adversely affected by economic downturns—and it can take many years for the long-term jobless to find work.

³³ The Community Development Employment Projects (CDEP) scheme is a program whereby Aboriginal community councils receive grants roughly equivalent to the social security entitlements of community members which are used as wages for the creation of jobs. It has been operating since 1977.

18 Conclusions

Australian experience with inequality trends shows complex patterns over time and between groups. There is a tendency in discussing inequality to treat it as if it is a single phenomenon, but Australian experience shows that developments in inequality are the consequence of a wide range of causal factors varying over time. This suggests that apparently similar trends in inequality in different periods may actually be associated with different outcomes, so that in attempting to understand the impacts of rising inequality it is important to focus on the causal factors in different periods

Australian experience in the 1980s and 1990s suggests that inequality rose significantly during a period of entry to and early recovery from a recession, which was accompanied by falling or stagnant real incomes. Inequality also grew significantly from the mid-2000s to the Global Recession, but this was accompanied by large rises in real incomes across most of the income distribution.

Many of the most negative aspects of the social impacts of inequality may in fact be symptoms of other underlying trends – the decline in labour force participation after the recessions of the 1980s and the 1990s and the apparent entrenchment of family joblessness. In this sense, disentangling what is an impact of rising inequality from what is a cause of inequality is not straightforward.

There is also an important policy lesson to be drawn – one of the major causes of increases in inequality over the last 30 years has been periods of recession, both in terms of the immediate loss of jobs among lower paid workers and the patterns of employment growth in recovery which have tended not to favour those who lost employment in the early stages of recession.³⁴ It took nearly 15 years of sustained economic growth and growing employment to get the level of family joblessness in Australia by 2008 back approaching the level it had been in the early 1980s. The costs of recessions are profound and long-lasting, and Australia has been extremely fortunate to have avoided a deep downturn after 2008. Effective policy has also been important.

One factor that seems to have operated continuously to increase inequality in Australia since the early 1980s is increases in wage disparities. While the rate of increase has varied over time, the increase in wage disparities has been steady. This is likely to be partly explained by

³⁴ For example, recent experience in the USA has found mid-level jobs made up most of the job losses between 2008 and 2010, most of the job gains since 2010 have been in low wage occupations (National Employment Law Project, 2012).

changes to Australia's wage fixing institutions, although other factors are also involved, since the trend is observed in other countries with different institutional settings.

It is also important to note that in the Australian context inequality is much more influenced by access to employment rather than wage disparities for those employed. Earnings are by far the largest source of household income. The earnings gap between households is partly a function of disparities in wage rates, but much more importantly of differences in hours of work and whether households have any paid work at all.

It is also significant that in the 1980s and early 1990s, the effectiveness of government redistribution policy increased and moderated the rise in market income inequality, and also compensated for losses in real market incomes. In contrast from the mid-1990s to 2008 government policies became less effective, partly because there was less need during a period of strong employment and income growth, but also due to deliberate government policy decisions, particularly in regard to tax cuts that favoured higher income groups (Whiteford and Redmond, forthcoming).

The social security system also became less effective at reducing inequality. As noted earlier, in part this was a reflection of positive trends – as reliance on welfare payments fell after 1997 the transfer system automatically contracted. However, an important factor in this contraction among people of working age is that payments for the unemployed are indexed to prices and therefore did not keep pace with rising wages and household incomes. Unless policy changes, this effect can only worsen over time as wages and community incomes rise in real terms, with the inevitable result that working-age social security recipients will fall further and further behind community living standards. The impact of falling relative standards for Newstart recipients is also likely to be accentuated by policy decisions by successive governments to move parents from Parenting Payment to Newstart once their youngest child turns six if partnered or eight if single. Moreover, Family Tax Benefits are now indexed to prices where once they were effectively indexed to wages; this has only been in effect for a short period but as with the indexation of Newstart the inevitable effect of this over the longer term will be to reduce the effectiveness of family payments in reducing poverty and inequality.

At a broader level, these and related trends pose the risk of residualising social security recipients and changing the nature of the Australian social security system. As discussed earlier, Australia has been characterised in the past by overseas commentators as a 'residual welfare state', whereas in terms of its redistributive profile it has been argued that it is more appropriate to view Australia as a 'radical welfare state' (Castles and Mitchell, 1990, 1993; Whiteford, 2010). Castles (2001) has further argued that

‘Australian means-tested benefits were not focused on the very poor, but were designed to exclude only the well-off middle classes and the prosperous. Around 70 per cent get the age pension and few people see it as degrading to be a welfare beneficiary. The same principle applied to Labor’s new child benefit, where the income test only kicked in at a combined family income around twice the average weekly wage. Second, the Australian system of benefits was designed to be as non-discretionary as was humanly possible. ... There was no issue of whether one was ‘deserving’ or otherwise. To prove one’s eligibility one had to demonstrate that one fell into a particular category ... and provide evidence that one’s income and/or assets fell below certain stipulated levels. Having done that, there was no major element of administrative discretion, seen by European social commentators as the key weakness of selective social policy systems in social justice terms. In Australia, no-one asked for a demonstration of need beyond the mere fact of a lack of income (except in the case of emergency payments) and the amount received was a simple function of a legally established formula ...’ (2001, pp. 30-31).

As this quotation suggests, Castles (2001) saw this lack of discretion as being under threat, referring in particular to the extension of mutual obligations after 1996. However, the introduction of the liquid assets test for Newstart in 1991 could be seen as an earlier stage in this process of residualisation, reinforced more recently by the introduction and extension of income management for some recipient groups. Each of these policies has important goals that can be argued for and some policies may well have positive results for some of those affected; but in combination with the downward drift in payment levels for less favoured categories they suggest that working-age welfare recipients are increasingly in danger of being seen as the undeserving poor.

The changes in the effectiveness of social security payments also go to the heart of whether income growth in Australia has been inclusive. It is clear from earlier discussion that income growth has occurred at all income levels even if the growth in incomes has been highest at the top of the income scale – the rich have got richer but the poor have become less poor. The decline in poverty rates estimated with a line held constant in real terms also suggests that the poor have become less poor in terms of minimum income levels. Earlier results using the Sen Index of social welfare also show that while rising inequality has offset some of the gains of income growth, it can be argued that overall social welfare has improved.

Even so, while all income groups have benefited from increases in real incomes, the benefits have gone mainly to the better-off. It can be calculated that the richest 20 per cent of the

Australian population gained 44 per cent of all the income growth between 1994-95 and 2009-10, while the poorest 20 per cent gained 6.4 per cent³⁵. Western Australia saw both the highest increases in average incomes and the highest increase in income inequality over this period, with the result that the richest 20 per cent of West Australians enjoyed 52 per cent of all the income growth in that state, while the poorest 20 per cent gained 5 per cent.

The results in relation to income mobility also suggest that for some of the most disadvantaged the picture may be less positive. The rising tide of employment has lifted many but not all boats – a small minority have remained jobless and as welfare recipients for much of the last decade. While the size of the group in this position appears to have shrunk their distance from the median has widened; it can be calculated for example that a single Newstart recipient would have been about \$10 per week (in 2009-10 terms) below the tenth percentile of the income distribution in 1996-97, but by 2009-10 they were nearly \$140 per week below the tenth percentile. Growth in real incomes across the income distribution is not inconsistent with the impoverishment of those left behind.

The evidence of the role of joblessness as a major contributor to inequality and the main contributor to poverty in Australia shows that for most people of working age encouraging participation in the paid labour market is of crucial importance. But not everyone can benefit from paid work. Moreover, widening wage disparities and high levels of underemployment – particularly for women – in combination with changes to family payments – raise the risk that in-work poverty could become more salient in future.

The Australian experience is also of interest in terms of considering responses to adverse economic circumstances, such as those that face North Atlantic economies currently. After the recessions of the early 1980s, the United States for example responded through its flexible labour market with falling real wages for males below the median. Australia did this to some extent, but overall it seems appropriate to characterise the Australian response to economic shocks as adjustment through higher unemployment and lower participation of men, but compensating for income losses through tax and transfer policies, both in terms of the indefinite availability of benefits and through targeted increases in payment levels in the 1980s. It is striking that inequality of earnings among those employed is much lower in Australia than in the United States, but that inequality of earnings including those with zero earnings is actually higher in Australia. In a sense, Australia adopted a European approach to the ending of *les trente glorieuses*. Rather than adjusting through lower real wages, low

³⁵ The second, third and fourth quintiles gained 11.6 per cent, 15.7 per cent and 21.8 per cent, respectively (Calculated from ABS Cat. No. 6523.0).

income Australian men experienced much higher unemployment, partly compensated for through higher welfare benefits. The negative consequences of this are seen in the growth of receipt of social security benefits among people of working age as well as in concentrated household joblessness and its associated risk of social exclusion. For a long period it might be argued that the USA's response was superior – widening wage disparities but high employment, offering the likelihood of lower social exclusion (not taking into account differences in the size of the prison population). However, that conclusion would need to be heavily modified if not discarded by the experiences of the United States in the early 2000s and now in the period of the Great Recession. Australia now has both higher employment rates than the USA and more comprehensive and generous welfare provisions for people of working age.

But can this last? The prospects for future inequality trends are unclear. Wage disparities have continued to widen for most of the last 30 years, and there is little reason to think that this trend will halt or reverse itself. Underemployment continues to exacerbate earnings disparities, and was slow to improve during the period of very strong employment growth after 2000. Even though there are some signs of positive change, indigenous disadvantage remains profound.

Other trends have been positive, for example, the growth in employment among lower income groups since 2000. There is still considerable scope to improve this further. Although this is a current government priority, many of the long-term jobless are likely to suffer from complex combinations of disadvantage which may slow further progress. On the other hand, the growth in educational attainment may continue to have positive impacts for some time to come, and further reducing educational inequalities is also high on the policy agenda.

The prospects for income growth and future prosperity are also unclear. Considering Figure 1 which showed that Australian GDP per capita increased from 81 per cent to 106 per cent of the US level in the decade from 2000, it seems highly unlikely that this trend can continue on the same trajectory. The issue will be whether this new found relative prosperity reverses itself or stabilises whether at its current peak or somewhere lower – and how much lower. To date, Australia has largely escaped the consequences of the Great Recession and has largely maintained the enormous increase in economic prosperity enjoyed since 2000, but uncertainty about the global economy remains widespread. A major challenge for Australian social policy in coming decades will be to seek to ensure that the benefits of prosperity are widely shared if economic growth continues, but act to offset the negative consequences if there is a downturn.

Appendix

Table 1: Results of selected studies of inequality in Australia

Study	Income Concept	Period	Data Source	Main Results
Bradbury and Doyle 1992	Cash disposable income, equivalised	1983–84 to 1989–90	Microsimulation, IDS	Gini increased from .367 to .370
Gregory 1993	Individual gross earnings, not equivalised	1976 to 1990	Weekly Earnings of Employees (WEED)	Growth in low paid and high-paid jobs - the 'disappearing middle'
Saunders 1993	Cash disposable income, equivalised	1981–82 to 1989–90	IDS	Gini increased from .27 to .29
Harding 1994	Gross income, equivalised	1981–82 to 1989–90	IDS	No change in Gini
Raskall and Urquhart 1994	Social wage income (health, schooling), equivalised	1982–83 to 1989–90	Microsimulation, IDS	Gini increased from .272 to .276
Whiteford 1994	Cash disposable income, equivalised	1982–83 to 1989–90	Microsimulation, IDS	Gini fell from .328 to .319
Gregory and Hunter 1995	Gross household income of areas, not equivalised	1976 to 1991	Census	Gini increased from .14 to .18; incomes fell for low-income areas between 1976 and 1981 and rose for rich between 1981 and 1991
Harding 1995	Social wage income (health, education, housing, childcare), equivalised after housing	1994	Microsimulation, IDS	Gini for cash disposable income of .308, for final income of .289
Johnson et al. 1995	A. Cash disposable income, equivalised B. Social wage income (health, education, housing, childcare, concessions), equivalised	1981–82 to 1993–94	Microsimulation, HES	A. Gini fell from .308 to .296 B. Gini fell from .255 to .226
OECD Atkinson et al. 1995	Cash disposable income, equivalised	1981–82 to 1985–86	IDS	Gini increased from .287 to .295; P90–P10 fell from 4.05 to 4.01
ABS 1996	Final income (social wage plus indirect taxes), not equivalised	1984 to 1993–94	Household Expenditure Survey (HES)	Q5–Q1 increased from 4.5 to 4.7
Borland and Wilkins 1996	Individual gross earnings, not equivalised	1975 to 1994	WEED; Income Distribution Survey (IDS)	Real weekly earnings of males fell at 10th percentile and rose at 90th percentile
ABS 1999	Gini - gross income of income units	1994–95 to 1997–98	IDS	Income distribution of all income units almost unchanged. Gini of .446 not significantly different from that of previous years
Barrett et al. 1999	Consumption inequality	1975 to 1993	HES	Income and consumption inequality both rose, income inequality grew much more than consumption inequality
Lloyd et al. 2000	Mean income by location	1986 to 1996	Census	Income of metropolitan residents increased double the rate of those in major urban centres and regional towns. Between 1991 and 1996, rural towns had the largest increase
Saunders 2001	Wage and salary, market income, gross income, disposable income and equivalent disposable	1990 to 1999–2000	IDS, and Survey of Income and Housing Costs	Wage and salary Gini increased from 0.224 in 1990 to 0.275 in 1999–00. Market Gini rose from 0.543 to 0.572. Gross Gini rose from 0.427 to 0.445. Disposable Gini rose from 0.375 to 0.391.

				Equivalent disposable Gini rose from 0.330 to 0.346. Australia 6 th most unequal country out of 20 in 1995
Harding and Greenwell, 2002	Disposable income and household expenditure	1984 to 1998-99	IDS, and Survey of Income and Housing Costs and HES	Income inequality has been increasing ,but current expenditure inequality has remained stable
Leigh, 2004	Taxable and disposable income	1942 to 2000	Taxation statistics	Inequality fell in the 1950s and the 1970s, and rose during the 1980s and 1990s – a pattern similar to the United Kingdom.
Johnson and Wilkins, 2006	Private income, gross income, disposable income and equivalent disposable and household expenditure	1982 to 1977-78	IDS and HES	Modest increase in inequality over 1980s and 1990s, with most of the increase being in early 1990s. Expenditure inequality is lower but also increased.
Atkinson and Leigh, 2006	Taxable and disposable income	1921 to 2002	Taxation statistics	The income share of the richest fell from the 1920s until the mid-1940s, rose briefly in the post-war decade, and then declined until the early-1980s. During the 1980s and 1990s, top income shares rose rapidly. At the start of the twenty-first century, the income share of the richest was higher than it had been at any point in the previous fifty years.
Austen and Redmond, 2010	Earnings inequality and household income inequality	1982 to 2007	IDS	Male earnings inequality increased substantially across this period, but change in family income inequality was less significant. Women's earnings played a role in moderating the effects of rising male earnings inequality.
Doiron, 2011	Household disposable income	2000 to 2008	IDS	After a decade of stable even slightly improving income inequality, Australia suffered a sharp widening of its income distribution in the late 2000's. Although this U-turn is not unique to Australia, the change has seemed more extreme with Australia's rank in 30 OECD countries falling from 15 in 2004 to 24 in 2008 in terms of income equality.

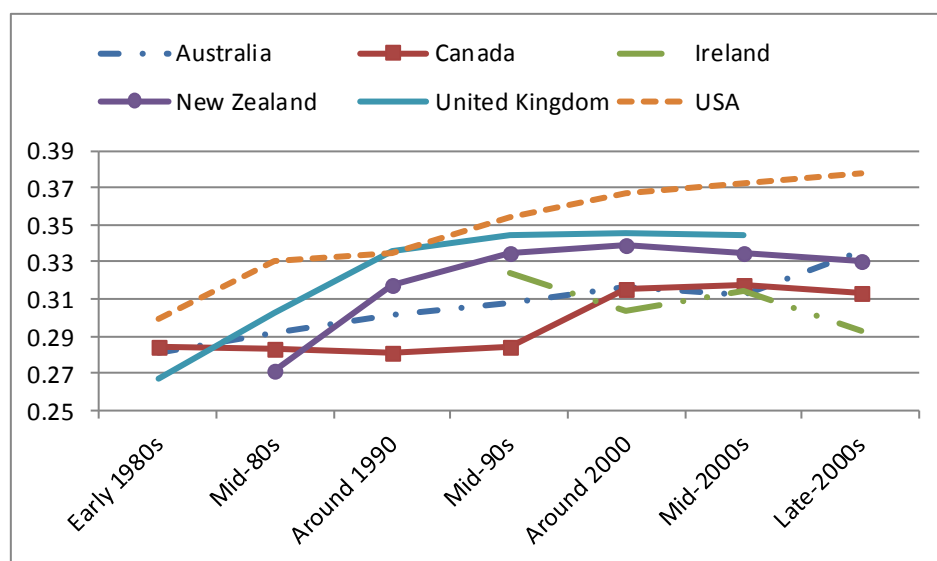
Note: The Gini coefficient ranges between 0 and 1 with a higher Gini implying greater inequality. The P90/P10 ratio is the income of the unit at the 90th percentile relative to that at the 10th percentile, with a higher ratio implying greater inequality. The Q5/Q1 ratio is the ratio of the income share of the richest 20 per cent to that of the poorest 20 per cent, with a higher ratio implying greater inequality.

Table 2: Results of selected studies of poverty in Australia

Study	Poverty Concept	Period	Data Source	Main Results
Saunders 1990	A. Henderson, CPI B. Henderson, HDIPC	1982–83 to 1989–90	Microsimulation, IDS	A. Poverty rate fell from 8.9 per cent to 6.5 per cent B. Poverty rate rose from 8.9 per cent to 11.6 per cent
Saunders and Matheson 1991	Henderson, HDIPC	1981–82 to 1989–90	Income Distribution Survey (IDS)	Poverty rate rose from 9.2 to 12.8 per cent
Bradbury and Doyle 1992	A. Henderson, CPI B. Henderson, average survey income	1983–84 to 1989–90	Microsimulation, IDS	A. Poverty rate fell from 11.3 per cent to 9.4 per cent B. Poverty rate rose from 11.3 per cent to 11.4 per cent
Harding and Mitchell 1992	50 per cent of median income	1981–82 to 1989–90	IDS	Poverty fell from 11.0 per cent to 9.5 per cent
Mitchell and Harding 1993	60 per cent of median income, poverty gap	1981–82 to 1989–90	IDS	Poverty gaps stable or falling slightly
Saunders and Matheson 1993	50 per cent of median income	1981–82 to 1989–90	IDS	Poverty rose from 9.3 per cent to 9.4 per cent
Saunders 1994	Henderson, HDIPC	1981–82 to 1989–90	IDS	Poverty rose from 10.7 per cent to 16.7 per cent
Harding 1995	50 per cent of median income, before and after the 'social wage'	1994	Microsimulation, IDS	Poverty substantially reduced by 'social wage' (from 12 per cent to 4 per cent for couples with children)
King and Landt 1996	A. Henderson, all costs B. Henderson, after housing costs	1995	Microsimulation, IDS	A. Poverty at 11.8 per cent B. Poverty at 9.2 per cent
OECD 1996	50 per cent of median income	1981–82 to 1989–90	LIS, IDS	Poverty rose from 14.4 per cent to 16.1 per cent
ABS 1998	A. Henderson B. Half median	1995–96	Income survey - income units	A. 20.5 per cent income unit, 21.5 per cent children B. 10.2 per cent income unit, 12.2 per cent children
King 1998	Henderson, HDIPC	1972–73 to March 1996	Income survey and microsimulation	1. Very poor rose from 12.5 per cent to 16.7 per cent 2. Rather poor rose from 20.6 per cent to 30.4 per cent 3. Extremely poor fell from 3.9 per cent to 3.3 per cent
OECD 1998	50 per cent of median income	1975 to 1994	HES	Poverty fell from 11.9 per cent to 9.5 per cent
Bradbury and Janti 1999 (UNICEF/Innocenti)	A. 50 per cent median income B. US poverty line	1994	HES, LIS	A. Child poverty rate 17.1 per cent - 5th highest for industrialised countries B. Child poverty 20.7 per cent - 11th highest
Harding Szukalska 1999	Henderson, half mean, half median	1982 to 1995–96	Income survey and microsimulation	Child poverty (half median) fell from 13.6 per cent in 1982 to 8.0 per cent in 1995–96
Forster and Pellizari 2000	50 per cent and 60 per cent median income	1975 to 1994	HES	Poverty and Gini rose between mid-70s and mid-80s and fell to mid-90s
Harding and Szukalska 2000 (The Smith Family)	Range of measures before and after housing poverty	May 1999	Income survey with limited updating	Total poverty rates between 9.6 per cent and 20.5 per cent, child poverty 9.3 per cent to 26.8 per cent. Half mean poverty fell from 14.6 per cent in 1982 to 13.3 per cent in 1999
Harding Szukalska 2000	Henderson, half mean, half median	1982 to 1997–98	Income survey and microsimulation	Child poverty fell by 1/3 from 1982 (13.1 per cent half median) to 1996–97 (7.3 per cent but then increased in 1997–98 (8.8

				per cent) - HPL showed rise over period
Saunders and Bradbury 2006	50 per cent median equivalent income and 1994-95 line adjusted by prices; modified OECD equivalence scale	1993-94 to 2003-04	Survey of Income and Housing	Relative poverty fell in early 1990s and then rose back to starting level (12-13 per cent). Absolute poverty fell from 10 to 7 per cent. Expenditure poverty higher than income poverty, but little overlap between two.
Saunders and Naidoo 2009	50 per cent median income; Multiple deprivation; consistent poverty	2006	Community Understandings of Poverty and Social Exclusion Survey	Thirty five to 50 per cent overlap between relative poverty and deprivation, e.g. 14 per cent below 50 per cent of median income, 15 per cent of sample deprived, but 5 per cent both poor and deprived.
Rodgers, Siminski and Bishop 2009	30 to 70 per cent of median and absolute poverty lines between \$6,000 and \$18,000; modified OECD equivalence scale	1995-96 to 2004-05	Survey of Income and Housing	Relative poverty rose between 1 percentage points and 3 percentage points; absolute poverty rose marginally for lowest poverty line, but fell by between 5 percentage points and 10 percentage points at poverty lines from \$12,000 to \$18,000
Wilkins and Warren 2012	50 per cent of median income; modified OECD equivalence scale	2001 to 2009	HILDA survey	Relative poverty fluctuated between 11.5 and 14.5 per cent; 'absolute' poverty fell from 13.5 to 6.5 per cent between 2001 and 2009.

Figure A.1: Trends in income inequality in English-speaking countries, early 1980s to late 2000s, LIS and OECD estimates



Source: <http://www.lisdatacenter.org/data-access/key-figures/inequality-and-poverty/> and <http://www.oecd.org/els/socialpoliciesanddata/incomedistributionandpoverty.htm>

For purposes of comparison, Figure A.1 shows estimates of income inequality trends in the English-speaking OECD countries, from the early 1980s up to the period just before the financial crisis. The increase in inequality in New Zealand and the United Kingdom was particularly strong in the 1980s, with both countries appearing to show a flattening of the trend since the mid-1990s. In contrast, Canada shows little increase in inequality between the early 1980s and the mid-1990s, followed by a large increase in the late 1990s and flattening afterwards. The USA started and finished with the highest level of inequality, although briefly matched by the United Kingdom around 1990. The Australian pattern tends to resemble the USA in showing a steady increase, albeit at a lower rate of change up until 2000, some flattening for a brief period and a rapid increase between the mid and late 2000s (with the proviso that this is influenced by the survey changes discussed above).

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