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TRENDS IN AUSTRALIA’S DISTRIBUTION OF INCOME AND WEALTH

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Introduction

In a 2013 speech sponsored by the Center for American Progress, former President Obama described rising income inequality as the “defining challenge of our time.” Public and political concerns about the distribution of income have grown in prominence since the Global Financial Crisis in 2008, although concerns go back to the 1970s. The English translation of Thomas Piketty’s Capital in the Twenty-First Century in 2014 reached Number 1 both on the New York Times nonfiction list and on Amazon. International organisation such as the International Monetary Fund (IMF) (Berg, Tsangarides and Ostry, 2014) and the Organisation for Economic Cooperation and Development (OECD, 2008, 2011, 2013) have also undertaken an increasing volume of research on economic inequality and its causes as well as policy responses.

There has also been increasing attention paid to inequality within Australia, with studies conducted by the Treasury (Fletcher and Guttermann, 2013) and by the Productivity Commission (Greenville, Pobke and Rogers, 2013). In December 2014, the Australian Senate Standing Committee on Community Affairs released its Report on The Extent of Inequality in Australia, which recommended a wide range of policy changes to deal with increasing inequality. More recently, the Opposition has declared that reducing inequality would be their “defining mission in government”, while in contrast the Treasurer argued that income inequality in Australia has actually been reducing. (Chan, 2017)

Inequalities: concepts, measures and data sources

What is inequality?

Inequalities occur in many areas of society and can be measured in a number of ways. The simplest way of thinking about inequality is that it is differences between people in terms of the characteristic looked at, and there are inequalities in height, weight and health, for example, as well as in income and wealth.

Economist Jan Pen devised one of the most striking metaphors for the distribution of income in 1971 when he asked readers to picture the distribution of income in Great Britain at the time as “a parade of dwarves and giants”. Imagine that the parade takes exactly an hour to pass, with the marchers arranged in order of income, with the lowest incomes at the front and the highest at the back. The heights of the people in the parade are proportional to their incomes: those earning the average income will be of average height, those earning twice the average income will be twice the average height, and so on. The observer is the average height.

For the first five or more minutes, for those in the parade heights will be tiny (inches at the time); the first full-time workers ten minutes in will be waist high to the observers, while halfway through the parade those marching will be only 1.5 metres tall. It will be about 45 minutes before observers and marchers are the same height.

In the final six minutes, when people with earnings in the top 10 percent begin to arrive, heights begin to surge upward at an accelerating rate. Doctors, lawyers, and senior civil servants 6 metres tall speed by, followed by corporate executives, bankers, and stockbrokers—peering down from 15, 30 and 150 metres. In the last few seconds are pop stars, movie stars, the most successful entrepreneurs. At the very end of the 1971 parade was John Paul Getty, heir to the Getty Oil fortune (and one of the central characters in the recent movie “All the Money in the World”). The sole of his shoe would have been more than 30 metres high.

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The evidence suggests that Pen’s parade would not have been quite so extreme in Australia at this time. In 1971, according to the World Wealth and Income database the richest 1% of Australians had about 5.6% of all pre-tax income, compared to 7% in Great Britain, and 11% in the
United States - or about twice as great a share as the richest Australians. Since then income inequality has increased in all three (and many other) countries.

The wealthiest person in Australia now, Gina Rinehart, was about as wealthy in 2012 as John Paul Getty was when he died in 1976, with a net worth of close to US$18 billion in current values, although she has since become less wealthy, due to changes in mineral prices. Currently, the wealthiest person in the world, Jeff Bezos of Amazon, is said to be worth close to $91 billion.

The income share of the richest 1% of Australians had grown by 2013 to about 9%, but the richest 1% of people in Great Britain had 14.5% of all pre-tax income, and the richest 1% of Americans had about 20% of all pre-tax income. In turn, this share pales against the richest 1% of Brazilians, who held just under 28% of all their country’s income (World Wealth and Income database, 2018).

Inequality of income and wealth is therefore about the share of economic resources held by different groups in the population. Inequality increases when these differences grow larger and falls when the differences grow smaller. When income inequality grows, this means that the incomes of the rich grow faster than the incomes of lower income groups, and correspondingly for income inequality to fall requires the incomes of the lowest income groups to grow more rapidly than the incomes of the rich.

Economic resources come in a number of forms and are measured by different data sources. Income and wealth are generally thought of as the two most important dimensions of economic resources. Income is the flow of resources to a person over a specific time-period – a week or fortnight, or a year or over a period of years or their entire life. Wealth is the stock of resources that an individual accumulates over time, either through saving from income not spent or through inheritances from parents or other family members.

Table 1 shows the basic components of the methods used for estimating income inequality. All individuals can have a combination of potential income sources. Wages and salaries, self-employment income and income from investments and properties comprise “market income”. The addition of private and occupational pensions and private transfers (for example, child maintenance payments or gifts from one person to another), when added to market income give “private income”. The addition of government social security cash benefits – Age Pensions, Disability Support Pension, Newstart for the unemployed or Family Tax Benefit among other payments – gives gross income. Out of this gross income people pay income taxes (and social security contributions in other countries), which when deducted give “cash disposable income”.

Table 1: Income Components

<table>
<thead>
<tr>
<th>Income Component</th>
<th>Description</th>
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<tr>
<td>Wages and salaries + Self-employment + Income from investment and property</td>
<td>1. Market income</td>
</tr>
<tr>
<td>Factor income + occupational and private pensions + private transfers</td>
<td>2. Private income</td>
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<tr>
<td>Private income + social security cash benefits</td>
<td>3. Gross income</td>
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<tr>
<td>Gross income – Direct taxes (income tax, employee social security contributions)</td>
<td>4. Cash disposable income</td>
</tr>
<tr>
<td>Cash disposable income + imputed value of public services (health, education, etc.) – indirect taxes</td>
<td>5. Final income</td>
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Cash disposable income is the most common measure used in studies of income inequality, as it is a measure of the amount of money that people have on hand to meet their needs. However, it is possible to measure a more comprehensive concept of economic well-being by taking account of the indirect taxes that people pay, including the Goods and Services Tax on many consumer items, as well as taxes on petrol, alcohol and tobacco. In addition, individuals benefit from the provision of government services that are not provided in cash, such as the health care system, school and university education and services for people with a disability or elderly people. Because these services are not provided as cash benefits, and individuals are unlikely to know their precise value, the value of these non-cash benefits is usually estimated using statistical models.

Data sources

Over time, various sources of data on economic resources have been developed. Table 2 shows the main official data sources in Australia, which include statistics from tax records which record the taxable incomes of individuals, surveys conducted by the Australian Bureau of Statistics as well from university surveys (funded by government). The table also shows a number of sources of international data on income and wealth, which are assembled on a consistent basis by organisations such as the OECD and the Luxembourg Income Study. While the income and wealth data are analysed in different ways in these data sources, the original data are the official surveys conducted by the ABS.

Source:

ABS, Australian Bureau of Statistics.

<table>
<thead>
<tr>
<th>Measure of resources</th>
<th>Source</th>
<th>Links</th>
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<th>International Databases</th>
<th>Source</th>
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<td><strong>Household incomes and inequality measures</strong></td>
<td>UNU-WIDER World Income Inequality Database (WIID)</td>
<td><a href="https://www.wider.unu.edu/project/wiid-world-income-inequality-database">https://www.wider.unu.edu/project/wiid-world-income-inequality-database</a></td>
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Trends in inequality measures

Many early economic studies focused on the distribution of income between factors of production – land, capital and labour, pointing to changes in labour’s share of income as a contributor to inequality (Parham, 2013).

With the introduction of income tax in Australia in 1915, a new source of data on the distribution of income potentially became available. Figure 1 shows estimates using income tax data of income shares for high-income groups for Australia between 1941 and 2014 from the World Wealth and Income database, http://wid.world/. This is a development of the source used by Piketty (2013).

Figure 1 shows the share of incomes before tax of the richest 10% of Australians and the richest 1%. It can be seen that the share of income held by these high-income groups generally declined from the 1940s to the late 1970s, with the share held by the richest 1% being as low as 4.4% of gross income in 1981 and the share of the richest 10% being just under 24% in 1978.

This trend towards lower inequality then reversed with the share of the richest 10% being close to one-third in 2014 and the share of the richest 1% being 9.5%. These levels of income shares are not as high as they were in the 1940s but are approaching that level. As discussed earlier, analysis of comparative data from the World Wealth and Income database shows that this broad reversal of earlier trends also occurred in many other – but not all - high-income countries.

The World Wealth and Income database (WID) is an extremely valuable source of information, particularly in the case of Australia as it provides annual income shares for a period of close to 80 years. However, the taxation data that are the source of this series has limitations, notably that not all Australians are income taxpayers. The most recent taxation statistics cover about 13.2 million individuals compared to an adult population of close to 19 million. In addition, the measures used in the WID are proxies for inequality since they do not cover all taxpayers but are measures of inequality at the top of the income distribution.

In addition, the data shown in Figure 1 refer to the incomes declared before these individuals have paid income tax. Many of the individuals not captured by the tax data are low-income individuals who receive social security payments who will tend to have lower incomes. Inclusion of these groups could raise income inequality measures, although the social security system (funded by general government revenue) will itself reduce inequality in a way not captured in the income taxation statistics.

A final consideration is that individuals generally live in families or households and many have children who will depend on the incomes of their parents. The growth of two-earner families will also affect income inequality between households. Over time, more research has
focused on the distribution of income between families or households in which people live. Household incomes after social security benefits and taxes and adjusted for the number of people sharing resources are generally regarded as a more comprehensive measure of economic resources and living standards than income before taxes are paid.

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. 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, relatively recent changes are most significant. In 2007–08 the ABS revised its standards for household income statistics following the adoption of new international standards. 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.

The ABS also collects information on incomes and expenditures as part of its series of Household Expenditure Surveys since the 1970s. The expenditure data collected in these surveys can be used as the basis for estimating the effects of indirect taxes, as well as the benefits that households receive from spending on health, education, housing and child care.

A further source of data is the Household Incomes and Labour Dynamics in Australia (HILDA) survey, which is a longitudinal survey funded by the Department of Social services and conducted by the Melbourne Institute and which has followed some 17,000 individuals every year since 2001. In a sense, the HILDA survey is like a video where the same people are interviewed every year, whereas the ABS surveys are like a snapshot of the Australian population taken every two years. It is possible to compare estimates of income inequality from HILDA for each year with the comparable ABS data for the same year, although the greatest strength if the HILDA data are what they show of changes for the same households over time.

**Trends in income inequality**

Figure 2 shows two long series of estimates from the ABS surveys – those prepared by Johnson and Wilkins (2006) from 1981-82 to 1996-97, and official figures prepared by the ABS, from 1994-95 to 2013-14. The chart also shows the distribution of income from the HILDA survey from 2001 to 2014.

The chart uses the most common measure of inequality, which is the Gini coefficient, and which varies between zero and one. If everyone had exactly the same income then it would be zero (perfect equality). If one household had all the income then it would be one (complete inequality). The Gini coefficient also has the advantage that it is calculated for all households in the population rather than a sub-set.

Despite the differences in income measures and equivalence scales, the long run trend from the ABS figures is clear. There are periods in which inequality fell – 1986 to 1990, 1994-95 to 1996-97, and 1999-2000 to 2002-03, and again after the GFC from 2007-08 to 2009-10, and again to 2011-12, but overall inequality rose over the whole period.

In contrast, the HILDA surveys show a somewhat lower level of inequality than the ABS figures, and one in which inequality is not very different at the end of the period than it was at the beginning, although with greater fluctuation between years.

Some of the differences between these estimates will reflect the broader definition of income used by the ABS, and the significant changes in this definition over time. In addition, the definition of income in the ABS surveys is the income that households received in the week that they were surveyed, while the definition in HILDA is income for the entire year. Weekly incomes are subject to more variability than annual incomes because people

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1. It is also possible to analyse the distribution of income between regions (States, regions or electorates or smaller areas) or the distribution of earnings within and between firms.
2. The most recent ABS Income Survey final sample consists of 14,162 households, comprising 27,339 persons aged 15 years old and over.
3. 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”.

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**Figure 2: Trends in household income inequality, Australia 1981-82 to 2015-16. Gini coefficient for equivalised household disposable income**

can experience a period out of work because of illness or a period of unemployment.

There are also problems with longitudinal surveys in that because they impose heavier requirements on the sample, participants drop out of the survey over time. While the survey refreshes the sample, this attrition may reduce the representativeness of the sample. In addition, the sample size of the ABS surveys is about 50% greater than HILDA, which will reduce sampling errors.

How does Australia compare?

As discussed earlier, there is a range of international sources of data on the distribution of incomes. The OECD includes 34 high-income countries with developed market economies. Figure 3 shows the Gini coefficients for OECD countries around 2014. Income inequality measured using the Gini coefficient ranges from around 0.25 in Iceland to 0.46 in Mexico. Generally speaking, the countries with the lowest levels of inequality are the Nordic countries and some of the countries in Central Europe. A range of countries in Latin America, Asia and Africa appear to have the highest levels of inequality in the world, including Brazil (Gini of 0.49), China (Gini of 0.51) and South Africa (Gini of 0.62).

At close to 0.34, inequality in Australia is above the OECD average, and it has generally been around or a little above the average for high-income countries since the early 1980s.

The distribution of wealth

Wealth is much more unequally distributed than income. High-income households are generally more able to save some of their income rather than spend it on the necessities of life, giving them an advantage that accumulates over time. This also means that the children of high income and high wealth parents are more likely to receive inheritances from their parents, and they are also more likely to benefit from greater parental investments in education, including the social networks that come from private education and universities.

As a result, according to the HILDA survey, the Gini coefficient for net wealth (assets minus debts) in Australia in 2014 was 0.626 (compared to a Gini coefficient for household income of 0.300 in 2014). Put another way, a household at the 90th percentile of the income distribution – 10% of households have higher incomes – had an income about 3.8 times that of a household at the 10th percentile of the income distribution. In contrast, a household at the 90th percentile of the wealth distribution with a net wealth of $1.78 million was 165 times as wealthy as a household at the 10th percentile of the wealth distribution – which had $10,800 in net wealth. At the 99th percentile – where only 1% of households are better-off - net worth in 2014 was around $8.5 million.

While the distribution of wealth is very unequal, Australia actually has a lower level of wealth inequality than many other high-income countries. The Credit Suisse Global Wealth Report (2016), using the ABS survey rather than the HILDA survey.

Student activities

9. Using Figure 1, describe how income inequality varied throughout the period from the 1941 until 2013.

10. Briefly describe how the trend to greater equality reversed in the period from 1982 until 2014. List some of the limitations of the data used to reach this conclusion.

11. Why are household income surveys a good tool for measuring income inequality.

12. Examine Figure 2 and, using the ABS data, identify the main trends in Gini coefficient over the period from 1981-82 to 2015-16. Why might the trend in the HILDA data differ?

13. Examine Figure 3 and discuss income inequality in Australia relative to other countries or groups of countries in the OECD.
than HILDA, estimates that in 2016 among high-income countries the level of wealth inequality was the 6th lowest among 28 OECD countries, refer Figure 4. Inequality was highest in the United States with a Gini coefficient for wealth of 0.862, but also in the Nordic countries – where income inequality was relatively low.

![Figure 4: Level of household wealth inequality, OECD countries, 2016](source: Credit Suisse Global Wealth Report, 2016, Table 6.8, p. 151.)

The main factor behind Australia’s relatively low level of wealth inequality appears to be our high level of home ownership – and the high prices of housing. Australia is also a very wealthy country, with the second highest level of average wealth per person in the world behind Switzerland and a median net worth that was nearly 4 times as great as the median for American households – US$195,000 in Australia compared to US$ 56,000 in the USA.

The HILDA survey finds that wealth inequality in 2014 was about the same as in 2002, although real mean and median net worth had grown by around 36-37% over the period. In contrast, the ABS surveys find that wealth inequality increased between 2003-04 and 2015-16, with the Gini coefficient increasing from 0.573 to 0.604, with real median net worth growing by 32% and real average net worth by 46%.

### Causal factors

It is important to consider potential causal factors underlying trends in inequality, as these are likely to require different policy responses. There is a tendency in discussing inequality to treat it as if it were a single phenomenon, when in fact, it is the product of a large number of influences, and the direction of change in these causal factors also varies over time.

The causes of increasing inequality in household incomes are complex. The components of income that were shown in Table 1 all have experienced differing trends over time and a single figure like the Gini coefficient reduces these differing trends to a single figure. For example, the overall level of income inequality will be the product of changes in the distribution of earnings, including differences in wage rates, how many full-time earners there are, how many part-time earners, the level of unemployment and the number of people not participating in the labour force at all (because they are students, or are retired, or are caring for children or people with a disability of the frail elderly). Incomes from capital will reflect what is happening in the stock market, the interest rates earned by those with savings, and the rents that property owners can charge their tenants.

Trends in wealth inequality will reflect long-term changes in all these factors, but in the short run it will be trends in housing costs and in the stock market that will tend to be most important.

The taxation and social security systems both reduce income inequality, but the extent to which this changes over time will be the result of how much tax is collected and how progressive the tax scale is, and how much is spent on social security benefits and how much it is targeted to the poor.

The most important source of income inequality in Australia is related to access to earnings, since earnings are the largest single component of household incomes. Joblessness (unemployment and being outside the labour force) has a major impact on the level of overall inequality and disadvantage, particularly because Australia has very high level of concentrated joblessness – the situation in which a high proportion of those not in paid work live in households where nobody is in paid work (Whiteford, 2009).

A related factor is inequality in wage rates for full-time workers, which have tended to increase almost continuously since the 1970s, because of modest real wage increases at the bottom of the earnings distribution and much greater increases at the top of the distribution. This is broadly consistent with international experience (though some countries such as the US have seen little if any real increase recently in wages at the lower end of the scale), perhaps reflecting technological change and globalisation.

### Student activities

14. Why does wealth tend to be more unevenly distributed than income.

15. How unequal is the distribution of wealth in Australia?

16. Examine Figure 4 and explain how Australia performs relative to the rest of the OECD in terms of inequality in the distribution of wealth.

17. What factors contribute to lower levels of wealth inequality in Australia relative to other countries?
Over the longer run and particularly in terms of household income distributions, these disparities were partly offset in Australia by rising real wages for women (although gender wage gaps have increased since around 2004, so that overall little progress has been made to reduce these gaps since the mid-1990s). In some periods rising employment for women tended to increase family income inequality as the growth was concentrated amongst families with a relatively high male income earner, 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 (Johnson and Wilkins, 2006).

One of the more striking features of recent Australian experience is that after 2000 inequality in market incomes decreased (Whiteford, 2013; Azpitarte and Herault, 2014). This positive trend appears to reflect the equalising effect of growth in employment for lower income groups in this period. But this also means that increased inequality in disposable incomes over the period up to the Global Financial Crisis was a consequence of government policies becoming less effective in reducing inequality.

The tax and transfer systems are mechanisms by which Australian governments have acted to moderate inequality in market incomes particularly to alleviate poverty, and also to offset rising inequality. The effectiveness of taxation and social security systems (and social spending more broadly) in reducing inequality reflects two factors – the distribution of taxes and benefits (i.e. how progressive are the tax and welfare systems) and how large they are as a share of household income. In this context, it should be noted that while levels of social spending in Australia are towards the lower end of OECD countries, the social security system is the most progressive in the OECD (Whiteford, 2010).

The effectiveness of the tax and transfer systems in reducing inequality reached its peak in the mid-1990s and subsequently declined (although some initiatives after 2008 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 such as Newstart not keeping pace with rising community incomes (this being particularly important for alleviating poverty), but it also reflects the fact that the Australian social security system is very targeted to lower income groups, so as the earnings of lower income households increased due to higher employment levels the social security benefits they received reduced.

Another important reason for the decline in the effectiveness of government policy is the falling redistributive impact of direct taxes mainly because of reductions in total revenues as a proportion of household income rather than changes in the progressivity of tax rates (Whiteford, 2013).

Most of these factors – trends in wages, employment and unemployment, trends in capital incomes and in the role of the tax and social security systems – are the result of short-term changes. In addition, there are a range of longer-term factors that are relevant to trends in inequality. Skill-biased technical change has been viewed as a major cause of increasing wage inequality. Here the argument is that technological change has resulted in an increase in the demand for skilled labour (people able to work with machines or computers), and this has meant that the income of high-skilled workers has increased more rapidly than wages for workers at a lower skill level (Goldin and Katz, 1998).

Another major force affecting income inequality within and between countries is globalisation, which is argued to have brought tough competition to manufacturing workers in high income countries, who have seen jobs move overseas, wages stagnate, and unions decline.

Conclusions

Australian experience with inequality trends shows complex patterns over time and between groups and the direction of causality is unclear. Trends in inequality in Australia are the consequence of a wide range of causal factors, and it is likely that different factors will have different impacts in different periods.

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. Indigenous disadvantage remains profound.

In considering policies to address inequality, it would seem most appropriate to identify the specific factors associated with rising inequality and attempt to address these directly.

The taxation and social security systems are powerful tools for reducing income inequality when market income inequalities increase, due to either higher unemployment or widening wage disparities. It is also important, however, to address inequalities “before” they arise through increasing educational participation and achievement, increasing the employment levels of disadvantaged groups and areas, and maintaining institutions that seek to provide equitable wages and employment conditions.
Student activities

18. Examine the causes of changing levels of income inequality in Australia.
19. Outline the main government policies that can be used to reduce income inequality in Australia.
20. Essay: Evaluate Australia’s ability to manage inequality in the distribution of income and wealth since the mid 1990s.

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