# INEQUALITY IN AUSTRALIA: NEW ESTIMATES AND RECENT TRENDS RESEARCH METHODOLOGY FOR 2014 REPORT

Peter Saunders, Melissa Wong and Bruce Bradbury Social Policy Research Centre University of New South Wales

FEBRUARY 2015

This paper provides details of the definitions and technical methods that were used to generate the updated income and wealth estimates for 2011-12 and the trend earlier years commissioned by ACOSS. Any queries should be directed in the first instance to Peter Saunders at P.Saunders@unsw.edu.au

#### Introduction and Overview

This document describes key features of the data and provides details of the methodology that have been used to produce the estimates of income and wealth inequality provided to ACOSS in December 2014.

The document follows the outline developed in previous research on poverty in Australia using the same data source (see Saunders, Bradbury and Wong, 2012; 2014) and explains how the estimates were derived and provides details of key definitions.

It is thus useful to read this document in conjunction with the recent poverty research methods paper (Saunders, Bradbury and Wong, 2014) since the methods employed in the inequality analysis (particularly in relation to income inequality) closely follow those used in the poverty analysis.

The wealth inequality analysis is new and the methods used to generate these estimates are described in detail below.

#### **Data Sources**

The latest estimates (for 2011-12) have been derived from the confidentialised unit record file (CURF) data based on the *Survey of Income and Housing* (SIH) conducted by the Australian Bureau of Statistics (ABS). Summary results from those surveys are published in ABS Household Income and Income Distribution reports (ABS Catalogue No. 6523.0).

It is helpful to refer to the latest ABS income distribution report when reading this document as the definitional and other details are all contained in the ABS report. Our basic approach has been to follow the approach adopted by the ABS unless we have a specific reason not to (e.g. as indicated in the Project Specification – see <u>Appendix A</u> – which was negotiated with ACOSS).

The SIH is currently conducted every two years, with the most recent survey referring to income data for the financial year 2011-12. This analysis draws on the latest data, but the trend analysis also makes comparisons with the previous SIHs, covering the years 1994-95 and 2003-04 as well as 2011-12 (for income inequality) and 2003-04, 2005-06, 2009-10 and 2011-12 (for wealth inequality).

Note that no attempt has been made in the trend analysis to adjust for the definitional and coverage changes that have been introduced by ABS in recent years, as this is beyond the scope of this study.

The analyses that examine the impact of government indirect taxes to income inequality in section 4 are based on data for 2009-10, since this is the most recent survey in which the SIH was combined with the *Household Expenditure Survey* (HES) which contains information on the (estimated) incidence of indirect taxes.

Income is collected in these surveys in current form (i.e. in the week before the survey) and in annual form (i.e. over the previous financial year). The estimates in this study are all based on current income. The definitions of gross and net wealth are explained in detail below.

For clarity of exposition, the inequality results tables have been organised into 6 sections that correspond to the different topics that were included in the Project Specification. Tables have been numbered so that the first number in each case refers to the relevant section of the specification, followed by a second number for each separate piece of analysis.

Section 1 describes the basic approach used throughout the income inequality analysis to produce the overall summary information contained in Tables 1.1 to 1.6. Sections 2-5 then present any specific assumptions that were made to produce the relevant tables and provide a brief summary of the content of each table.

#### Section 1: Basic Income Distribution Descriptive Statistics

It is useful to start with defining the key variable that is used in the inequality analysis that follows – disposable income. The following is taken form the latest ABS SIH report:

'The estimates of disposable income in this publication are derived by deducting estimates of income tax liability, the Medicare levy and the Medicate levy surcharge from the gross income data collected in the Survey of Income and Housing (SIH). Gross income is defined as income available for, or intended to support, current consumption, and are (sic) collected in respect of employment income (including non-cash benefits, bonuses, termination payments and irregular overtime), plus profit/loss from own unincorporated business, investment income (including interest, rent and dividends), lump sum workers' compensation receipts, private transfers (including superannuation, child support), other transfers from households and cash transfers from government pensions and allowances. Some limits have been placed on items included as income, where the magnitude of individual amounts received exceeds that likely to be used to support current consumption (e.g. termination payments, workers compensation payments). (ABS, 2013: 4)

The SIH is conducted continuously throughout the year, with households interviewed in one of four quarters. Following the procedure adopted in the earlier poverty reports, the incomes reported in the different quarters have been adjusted for changes in the Consumer Price Index (CPI) that took place over the course of the year in order to make them more comparable.

This involved inflating the incomes reported in quarters 1 and 2 by quarterly movements in the CPI to re-base them at the end of quarter 2, and deflating the incomes reported in quarters 3 and 4 by quarterly CPI movements to re-base them at the same point. This involves adjusting the reported quarterly values of income by the ratio of the average CPI value for the whole year to the CPI value in that quarter.

The above modified estimates of household disposable (i.e. after-tax) income have been adjusted for differences in need using the modified OECD equivalence scale.

The OECD scale assigns a value of 1.0 to the first adult in the household, 0.5 to each subsequent adult in the household and 0.3 to each dependent child (where dependent children are defined as being under 15 years of age). Disposable income is divided by this scale to derive equivalised disposable income.

The resulting concept of equivalised household disposable income captures the ability of income available for spending to meet the consumption needs of the household, and is now widely used to estimate poverty and inequality in studies conducted in Australia and by international bodies like the OECD.

Households reporting zero or negative values of disposable income were excluded from the analysis, but not self-employed households who were excluded from the poverty analysis conducted earlier. After making the exclusion, income quintiles were derived by splitting the resulting sample into five equal groups after weighting the income data by persons. This has the effect of creating income quintiles that each contain one-fifth of all individuals, who are ranked by the equivalised disposable income of their households.

Although the ABS provides estimates of imputed rent in its latest income distribution analysis (see ABS, 2013: Table 18), these estimates have not been included in the definition of income used in this analysis.

The estimates shown in Tables 1.1 to 1.6 are designed to show what difference some of our methods make to the basic results and are provided for information only. They present basic information on income inequality before (Unequivalised) and after (equivalised) applying the equivalence scale adjustment, before and after applying the within-year CPI adjustment and before and after excluding households reporting zero or negative disposable income.

The focus should be on Table 1.6 which looks at equivalised disposable household adjusted for CPI movements within the year as explained above and after excluding all zero and negative disposable incomes.

This table forms the basis of the cross-sectional analysis of the income distribution quintiles by demographic groups presented in Tables 1.7 - 1.16.

#### Section 2: Analysis of Contributing Factors

The tables in this section are designed to help identify the factors contributing (in a statistical sense) to inequality by showing how they vary across the income quintiles.

The quintiles for this purpose are defined for person-weighted equivalised disposable household income, after applying the CPI adjustments and excluding zero and negative incomes (i.e. as shown in Table 1.6).

Government benefits have been categorised (following advice from ACOSS) in Tables 2.1 and 2.2 as follows:

- *Pension payments*, which include current weekly income from war widows pension (DVA), disability pension (DVA), age pension, service pension (DVA), wife pension, disability support pension, pension supplement, overseas pensions and benefits, carer payment and carer allowance.
- Allowance payments, which include current weekly income from youth allowance, newstart allowance, widow allowance, partner allowance, sickness allowance, Special Benefit, Austudy/Abstudy and parenting payment.
- And *all other government benefits*, which include current weekly income from baby bonus payment, seniors supplement, carer supplement, paid parental leave payment, clean energy advance, education tax refund, parenting payment, family tax benefits (modelled), utilities allowance and other government pensions and allowances.

Panel 5 in Tables 2.1 and 2.2 show the dollar value of total income for each income component and for each income quintile (weighted by persons). This was calculated by multiplying the average income in each cell shown in Panel 1 by the number of persons in each quintile shown in Panel 4. Because of this, the estimates of total income are not representative of national estimates and should be treated with care.

The results in Table 2.3 need to be treated with particular caution for several reasons. These include the fact that the wage income and hours worked variables are not entirely consistent with each other, and because no attempt has been made to derive an hourly wage estimate for individuals because of the complexities involved in doing this. The SIH data are not really intended for this purpose and most researchers use alternative sources (ABS labour force data on earnings) when examining this issue. The figures shown are aggregate averages (i.e. the ratio of total wage income to total hours worked in each section of the income distribution) and are thus indicative only.

#### Section 3: Income Distribution Decomposition Analysis

Table 3.1 and Figure 3.1 show the decomposition of the Gini index of inequality (on the basis of both unequivalised and equivalised disposable income) by broad contributing factors (private income, government cash benefits and income taxes (including the Medicare levy and surcharge). The Gini coefficient is the most commonly used measure of inequality. This decomposition approach was used by The Productivity Commission (Greenville, et al., 2013).

The Gini coefficient of disposable income can be decomposed into the components arising from different sources as follows:

$$G = \sum_{k} s_{k} C_{k} = \sum_{k} Contribution_{k}$$

Where G is the Gini coefficient of disposable income,  $s_k$  is the average share of income from income source k and  $C_k$  is the concentration coefficient of income source k (van Kerm, 2010).

The concentration coefficient shows the extent to which receipt of a given income source is concentrated among higher income households. It is calculated in the same way as the Gini coefficient for the source component, except that units are ranked by their overall disposable income rather than their income from that source.

Income sources that contribute negatively to disposable income (e.g. income tax) have negative shares (but positive concentration coefficients if higher income households pay a greater share of tax). Income sources that are mainly received by low-income households (e.g. government cash transfer payments) have negative concentration coefficients. Consequently, both taxes and transfers usually have negative contributions to (i.e. they reduce) overall inequality.

The concentration coefficient is sometimes further disaggregated in terms of the Gini coefficient of the source as  $(G_k)$  and a residual term  $(R_k)$ , described as the 'Gini correlation'.

$$C_k = G_k R_k$$

This decomposition is shown in Table 3.1 and the values of the  $C_k$  components in Figure 3.1. The results for equivalised and unequivalised income are similar. The main component of inequality is private income, with income tax the main offsetting factor. However, though this 'natural' decomposition of the Gini coefficient shows how different components add up to overall inequality, it does not have a simple interpretation in terms of counter-factual changes in income distributions. The effect of removing one income component, for example, cannot be read from this decomposition because removing one component will change the disposable income ranking of all people and hence will simultaneously change the contributions of all the other components.

However, it is possible to derive the marginal impact of small changes in income components.<sup>1</sup> Stark, Taylor and Yitzhaki (1986) show that the elasticity of the Gini coefficient with respect to income component j is given by

$$e_j = \frac{s_j C_j}{G} - s_j = \frac{s_j G_j R_j}{G} - s_j$$

This is the percentage increase in the Gini per one per cent increase in source *j* for every person and is reported in the last line of each panel in Table 3.1 and in Figure 3.2. A one per cent increase in government benefits would have a larger impact on reducing inequality than would a one per cent increase in taxation. The impacts of all components are also somewhat larger for equivalised than unequivalised income.

Since government benefits have a smaller absolute share than taxes, this hypothetical 1 per cent increase in benefits must mean a smaller total dollar increase in benefits than the corresponding 1 per cent increase in taxes. So a hypothetical dollar increase in benefits must mean a larger percentage increase than a dollar increase in taxes, and hence also lead to a greater decrease in inequality than a dollar increase in taxes.

<sup>&</sup>lt;sup>1</sup> These results are approximations which ignore the impact of tied income rankings.

#### References

- Greenville, J., Pobke, C. and Rogers, N. (2013), 'Trends in the Distribution of Income in Australia', *Productivity Commission Staff Working Paper*, Canberra: Productivity Commission.
- Stark, O. J., Taylor, E. and YHitzhaki, S. (1986), 'Remittances and inequality' *The Economic Journal, Vol.* 96, No. 383, pp. 722-740.
- Van Kerm, Philippe (2010), sgini: Generalized Gini and Concentration coefficients (with factor decomposition) in Stata. [Software documentation downloaded from <a href="http://medim.ceps.lu/stata/sgini.pdf">http://medim.ceps.lu/stata/sgini.pdf</a> 26 November 2014]

#### Section 4: Tax Impact Analysis

The categories of taxes on production on goods and services used in the analysis reported in Table 4.1 have been taken directly from those provided on the *Household Expenditure Survey* (HES) CURF for 2009-10. The incidence of taxes on production (or indirect taxes) is estimated (by ABS) using data from the HES using the methods described below:

'Taxes on production are those indirect taxes passed on to households in the prices paid for goods and services. The underlying assumption for allocating taxes on production to households is that industries will pass on the taxes on production they pay to the purchasing industries and/or final consumers through higher prices. The tax will be passed from one industry to another until it is fully passed on to a final demand sector, one of which is the household sector. For example, suppose the textile industry pays a total of \$100 in payroll tax. If half of the textile products are purchased by the clothing industry, and the other half by the footwear industry, the \$100 payroll tax is assumed to cause a cost increase of \$50 to each industry. These \$50 amounts will be either passed on again to other purchasing industries, or added to the cost of clothes and shoes purchased by households' (ABS, 2012: 86).

The results shown in Table 4.1 are based on tax components calculated at the household level and weighted by persons.

Panel 5 in Table 4.1 shows the dollar value of total taxes paid for each tax component and for each income quintile (weighted by persons). These estimates were calculated by multiplying the average tax level in each cell (shown in Panel 1) by the number of persons in each quintile (shown in Panel 4). The estimates for total income should not be interpreted as representative of national estimates (i.e. taxes as shown in the national accounts, for example).

#### Reference

ABS, (2012), *Government Benefits, Taxes and Household Income, 2009-10*, Catalogue No. 6537.0, Canberra: ABS.

#### Section 5: Income Distribution Trends

As indicated earlier, the trend analysis results reported in Section 5 take no account of adjusting for the definitional and other changes that have been introduced by the ABS in recent years. These changes have had a marked impact on the estimated levels of inequality in recent years and have affected the estimated trend, as Wilkins (2014) has demonstrated. This should be borne in mind when interpreting the results presented here.

In relation to Table 5.1, Incomes have been CPI-adjusted *within* the respective years as explained earlier, with the exception of 1994-95 when this is not possible as information on the interview quarter is not available.

The CPI adjustment *between* years has involved, for example, taking the ratio of the average CPI value for 2011-12 over the average CPI value for 1994-95 in order to generate a CPI multiplier. The same method is used to adjust the 2003-04 estimates to reflect 2011-12 dollars.

The categories of principal source of household income used in Table 5.2 have been defined by the ABS in the SIH 2011-12 CURF and consist of the following:

- 0. Zero or negative income (excluded from analysis)
- 1. Wage and salary
- 2. Own unincorporated business income
- 3. Government pensions and allowances
- 4. Other income

Under government pensions and allowances, the main payment type for the Household Reference Person (HRP) has been used as a proxy for the principal source of income of the household as a whole. It is possible to conduct a more sophisticated approach by looking at the income sources for each person in the household and basing estimates for the household on this information, but this would require considerable more work and would still involve making assumptions where the principal source was not evident from the individual data

Table 5.3 applies the same decomposition method as described above in Section 3.

# Section 6: The Distribution of Wealth

	Summary measure	Components
1	Own home (less mortgage)	Estimated sale price of the dwelling (for home-owners) – principal outstanding on loans for the selected dwelling
2	Other real estate (net)	Value of residential property excluding selected dwelling + Value of non-residential property –
		Principal outstanding on loans for other property (excl business and investment loans) –
		Principal outstanding on rental property loans
3	Other non-financial assets (net)	Value of contents of selected dwelling + Value of vehicles + Value of assets nec –
		Principal outstanding on loans for vehicle purchases (excluding business and investment loans) –
		Principal outstanding on loans for other purposes (excluding business and investment loans)
4	Superannuation account	Balance of accounts with non-government superannuation funds + Balance of accounts with government superannuation funds
5	Shares, business, financial (net)	Value of offset accounts + Value of accounts held with financial institutions (excluding offset accounts) + Value of children's assets + Value of debentures and bonds + Value of loans to persons not in the same household + Value of other financial investments + Value of own incorporated business (net of liabilities) + Value of own unincorporated business (net of liabilities) + Value of private trusts + Value of public unit trusts + Value of shares + Value of silent partnerships – Principal outstanding on investment loans (excluding business
		and rental property loans)
6	Other debts	Amount of credit card debt + Amount of HECS/HELP liability + Amount of Student Financial Supplement liability
	Net wealth	= 1 + 2 + 3 + 4 + 5 - 6

The following wealth summary variables have been defined from the 2011-12 SIH.

Similar definitions are applied to the earlier years, although there is less disaggregation of investment wealth and liabilities (which might imply an underestimation in earlier years if these components were not included elsewhere).

We define a *net wealth* variable as the sum of the first five of these constructed variables, minus the last. These do not add up to the Total Net Wealth variable provided by ABS. ABS staff have advised us that the total wealth variable provided on the CURF is in error, and that summing these components provides the best estimate of net wealth. In the tables, the term 'wealth' without further qualifiers refers to this constructed net wealth variable.

Compared to income distribution research, there is less of a consensus in the literature about the most useful way to report wealth distributions. From one perspective, wealth represents potential for future consumption. This suggests that it should be pooled within the household, equivalised and counted in the same way as income.

However, in many circumstances, wealth held by a household will be used to finance consumption in future circumstances when the household composition is quite different to that at the time of observation. For example, when people retire or when wealth is passed on to descendants. In this case, equivalising for current household circumstances is not likely to be appropriate and a more straightforward accounting of wealth might be more informative.

Finally, wealth might be seen as representing social power, in which case adults in the household might be considered differently from children. Three examples of recent research follow these different approaches. Jantti, Sierminska and Van Kerm (2013), examine the equivalent wealth of persons, Sierminska, Smeeding and Allegrezza (2013) examine household wealth without equivalisation (though it is not clear whether they count households or persons), and Credit Suisse Research Institute (2014) describe the distribution of per-adult wealth across the adult population.

Here, we report wealth at the household level without equivalisation (following Sierminska, Smeeding and Allegrezza, 2013). To ensure that our implied total wealth estimates (mean wealth times population size) are equal to the survey estimate of total wealth we count (i.e. weight by) households rather than individuals.

Similarly, in this Section income quintile groups are defined so that they also contain the same number of households in each group (as opposed to the same number of people, as used in the income distribution analysis sections of this report). The placement of households into income quintile groups, however, uses the same definition of equivalent income (based on the modified OECD scale and after excluding those with zero or negative disposable income) – as is done in the remainder of the report.

As noted elsewhere, the ABS income definitions have changed over time. For the tables which contain results for 2011-12 only, income quintiles are defined using the ABS income definition that applied from 2007-08 onwards. This is the same approach as used in the income distribution sections of this report. For the wealth tables showing trends since 2003-04, it is possible to make an adjustment that ensures approximate consistency over time. This uses the ABS '2005-06 basis' income definition to calculate income quintiles for all years except 2003-04 (where the similar 2003-04 definition is used).

As in the case of the income inequality analysis, all values are reported in 2011-12 dollars, using the quarterly CPI as the deflator.

Because the Gini coefficient is not necessarily bounded between zero and one if some households have negative wealth, negative wealth values have been set to zero in some tables prior to the Gini calculation (e.g. in Tables 6.10 and 6.12, but not Table 6.15). This, however, has a negligible impact, with identical estimates (to two decimal places) in Tables 6.12 and 6.15.

Tables 6.1 to 6.8 report distributional patterns in 2011-12, while Tables 6.9 to 6.16 describe trends over the period from 2003-04 using the latest and earlier ABS SIH data. Table 6.15 decomposes the net wealth Gini into its components using the decomposition method applied to income in Section 3.

Some of the key results are noted below.

### Selected comments for 2011-12

- In 2011-12, 60.8 per cent of net household wealth was held by the richest 20 per cent of households (Table 6.1). Note that, like all the estimates here, this is based on responses to a household survey questionnaire. Given likely non-response and under-reporting, this is almost certainly an under-estimate. Shorrocks, Davies and Lluberas (2014, Table 4-4) report synthetic estimates which take into account national 'rich lists' of the wealth held by the richest individuals. On this basis, the top 10 per cent of Australian adults (not households) are estimated to hold 51 per cent of the wealth.
- Shorrocks et al. also include selected cross-national comparisons. The share of wealth held by the richest 10 per cent is relatively low in Australia, mainly because of the high level of home ownership.
- Wealth is more equally distributed across income groups (Table 6.2), with the top income quintile holding 36.7 per cent of all net wealth. This reflects the less than perfect correlation between wealth and income.
- The top fifth has a greater share of wealth among the under 65 population than among the retirement-age population (Table 6.3). (Households are categorised into older and younger groups based on the age of the Household Reference Person.) However, this pattern is reversed when households are sorted by income (Table 6.4). Note that among older households, the bottom fifth on an income basis has slightly more wealth than the second bottom fifth (Table 6.4). This probably reflects people excluded from the age pension because of the assets test.
- In 2011-12, 40.6 per cent of net wealth was held in the form of owner-occupied housing (Table 6.5). Financial investments (which include investments in both incorporated and non-incorporated businesses) were the next most important wealth category (18.7 per cent), followed by superannuation (18.2 per cent).
- The bottom wealth quintile group had, on average, negative net wealth in both own housing and investment properties.
- Classifying by equivalent income is a more accurate way to reflect current living standards. With this classification (Table 6.6), the bottom group has the highest wealth share in home ownership.
- Tables 6.7 and 6.8 further disaggregate by the age of the household reference person. Among the one-fifth of older households with the lowest incomes, for example, home ownership wealth amounts to 63.4 per cent of overall wealth.

# Selected comments - trends since 2003-04

- The share of wealth held by the top fifth was lowest in 2003-04, but increased up to 2009-10, then decreased slightly in 2011-12 (Table 6.8). The overall mean wealth also decreased after 2009-10. This reflected a fall in the mean value of most categories of wealth after the GFC. (Other non-financial net assets were the only exception, see Table 6.16). The only group to experience an increase in mean wealth after 2009-10 were the second-richest fifth.
- The Gini coefficient of wealth shows a similar pattern to that of the top fifth share (i.e. peaking in 2009-10) (Table 6.10).
- The trend over time is different for the young and old (Tables 6.11 and 6.12). The peak in the share of the top (or the Gini) is in 2009-10 for households with reference people under 65, but the peak was in 2005-06 for the 65-plus population. A similar pattern applies when grouping by equivalent income quintile (Table 6.13 and 6.14).

- Table 6.15 presents decompositions of the Gini coefficient of wealth inequality, within each age group, and across the four years.
- For the younger age group, the Gini increased by four points (from 0.58 to 0.62) between 2003-04 and 2009-10 before declining marginally over the following two years. The 'Contribution to Gini' panel shows that this was made up of an increase in the contribution of three points in other real estate, 1 point in superannuation and three points in investment wealth (offset by an equalising trend in home ownership inequality). These contributions to the Gini are calculated as the product of the Concentration coefficient of the measure (an indicator of the association between the component and overall wealth) and the share of wealth in each component.
- For the older population, the Gini coefficient for wealth peaked in 2005-06, and declined by three points thereafter. This was driven by a large fall in the contribution of investment wealth inequality, in turn driven by both falls in the share of wealth held in investments and the association of this with overall wealth.

#### References

- Jantti, M., Sierminska, E. and Van Kerm, P. (2013), 'The joint distribution of income and wealth' in Janet C. Gornick and Markus Jantti (eds), *Economic disparities and the middle class in affluent countries*, Stanford: Stanford University Press, pp. 312-33.
- Shorrocks, A., Davies, J. B. and Lluberas, R. (2014), *Global Wealth Databook 2014* Zurich: Credit Suisse Group AG.
- Sierminska, E., Smeeding, T. M. and Allegrezza, S. (2013), 'The distribution of assets and debt' in Janet C. Gornick and Markus Jantti (eds.), *Economic disparities and the middle class in affluent countries* Stanford: Stanford University Press, pp. 285-311.

#### Appendix A

#### Income and Wealth Inequality Report

#### Specifications

#### A. Income inequality

Note: In addition to the quintile analysis, please provide the data below for the bottom 10% and top 10% (alternative option: bottom 10% and top 5%)

#### Cross sectional analysis for 2011-12 income survey

I. Brief overview of income distribution using unequivalised household disposable income quintiles:

Income cut-offs, average income and shares of all income

- II. Demographic profile of equivalised household disposable income quintiles
- (a) Income cut-offs, average incomes and shares of all income
- (b) Cross sectional profile of each quintile by age, family type, labour force status, gender, disability status, Indigenous status; CALD status, State, primary income source of household; reference person received social security payment by payment type, for the major payment categories Aged Pension, Disability Support Pension, New Start Allowance, Parenting Payment Single, Carers Payment; and primary income source HH head, labour force status HH head.
- (c) Distribution of each of these demographic groups across the quintiles (e.g. of single parents across the quintiles).
- III. Analysis of inequality by contributing factors, ranked by equivalised household disposable income quintiles from 2011 ABS survey
- (a) Employment (as employees)

Incidence (no. of earners in households) and average income from this source for each quintile

Share of all (household disposable) income from this source by quintile

(b) Hourly wages

Average hourly wages for those employed within each quintile

(c) Self-employment

Incidence and average income from this source for each quintile

Share of all income from this source by quintile

(d) Investment and other income

Incidence and average income from this source for each quintile

Share of all income from this source by quintile

(e) Private Income

Incidence and average income from this source for each quintile

Share of all income from this source by quintile

(e) Governmentt benefits: pension payments

Incidence and average income from this source for each quintile

Share of all income from this source by quintile

(f) Government benefits: Allowance payments

Incidence and average income from this source for each quintile

Share of all income from this source by quintile

(g) All Government benefits (incl. family payments)

Incidence and average income from this source for each quintile

Share of all income from this source by quintile

(h) Gross Income

Incidence and average income from this source for each quintile

Share of all gross income by quintile

(i) Income taxes (using 2011 survey)

Incidence and average tax levels for each quintile

Share of all taxes paid by quintile

(j) Impact of income taxes and transfers (using 2011 survey)

Incidence and average income tax/transfer levels for each quintile

Share of all income taxes/transfers paid by quintile

- IV. Decomposition analysis of inequality by contributing factors (including private income, direct benefits and direct taxes), using Gini coefficients (equivalised household disposable income from 2011 ABS survey)
- V. Tax impact analysis (using 2009-10 surveys):
- (k) Income taxes

Incidence and average tax levels for each quintile

Share of all taxes paid by quintile

(I) Indirect taxes

Incidence and average tax levels for each quintile

Share of all taxes paid by quintile

(m) All taxes

Incidence and average tax levels for each quintile

Share of all taxes paid by quintile

Average overall impact on incomes for each quintile

# Trend analysis, from 1994-95, 2003-4, and 2011-12 HIS surveys, subject to comparability and based on original definitions where there is substantial conflict.

Trend analysis using equivalised household disposable income quintiles

- (a) Overall trends in average incomes and income shares by quintile, and in median equivalised household disposable income.
- (b) Trends in real average equivalent disposable incomes of households whose primary income source is: Newstart Allowance, DSP, PP, age/veterans pensions, wages, investment income, compared with trends in overall average equivalent household income.
- VI. (b) Gini co-efficient of each of private, gross and disposable income for each of the three (above) years of the SIH (weekly incomes) from 1994 to 2011.

#### **Key questions**

• Overall measures of income inequality in the latest available year, including Gini coefficients and the average disposable incomes and income 'shares' of each 20% of the household equivalent disposable income distribution;

- Basic profiles of those households within each of the income groups, including by household type (family type and a separate category for seniors) and primary income source;
- Trends in income inequality, including growth in average real disposable incomes for each quintile, over the last 2 decades;
- A decomposition of inequality into private (broken down into earnings and investments), gross, and disposable income inequality to show the main contributing factors including impact of social security payments and income tax (i.e. public policies) on income inequality; and trends in these statistics over the above period; Trends in average real disposable incomes of a limited number of specific groups.
- Use weekly income survey data and exclude zero and negative incomes.

#### B. Wealth inequality

#### Cross sectional analysis for 11-12 (ABS income survey)

I. Brief overview of wealth distribution by net wealth quintile

Wealth cut-offs, average wealth and shares of all wealth

Same analysis split into wealth quintiles of households headed by (a) people under 65 years; and (b) people 65 years and over

II. Brief overview of net wealth distribution by equivalent disposable income quintile (using income equivalence scale):

Average wealth and shares of all wealth

- Same analysis split into income quintiles of households headed by (a) people under 65 years; and (b) people 65 years and over
- III. Analysis of net wealth inequality by net wealth quintile by asset class
- (a) Principal Residence

Incidence and average wealth from this source for each quintile Share of all wealth from this source by quintile

(b) Superannuation – total value of superannuation assets (benefits paid out)

Incidence and average wealth from this source for each quintile Share of all wealth from this source by quintile

(c) Investment property (residential)Incidence and average wealth from this source for each quintileShare of all wealth from this source by quintile

(d) Shares

Incidence and average wealth from this source for each quintile Share of all wealth from this source by quintile

# Trend analysis, from 1993-2010 ABS income data (2003-4, 2011-12)

- I. Trend analysis using wealth quintiles
- (a) Overall trends in incidence, average wealth and wealth shares by quintile
- (b) Trends in Gini coefficient of wealth distribution
- (c) Trends in value of average wealth in each of the above asset classes

# Key questions:

- Overall measures of wealth inequality in the latest available year, including Gini coefficients and the average household wealth and wealth 'shares' of each 20% of the household equivalent disposable income distribution;
- Wealth distribution by age of household head;
- Composition of household wealth overall and by decile (home, super, etc);
- Trends in wealth inequality, including growth in average wealth levels by quintile, over the last two decades, and overall growth in wealth by asset type (e.g. own home);