INCOME INEQUALITY

Introduction

Inequality and poverty are two different concepts. Perry describes them thus: “Inequality is essentially about the gap between the better off and those not so well off (on whatever measure)—it is about having ‘less than’ or ‘more than’. Poverty is about household resources being too low to meet basic needs—it is about ‘not having enough’ when assessed against a benchmark of ‘minimum acceptable standards’.” (Perry, 2014, p16.)

There has been much debate regarding the influence of income inequality on population health. The World Health Organization’s Commission on Social Determinants of Health noted that “the structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries” [24]. Research has shown that people with higher socioeconomic position in society have more chance of experiencing better health. For example, Wilkinson and Marmot [25] cite the Whitehall studies of British civil servants that found that mortality increased in a stepwise manner as relative socioeconomic status decreased, and that social gradients were evident even amongst those who were not poor [25]. In addition, they note that while health inequalities exist within societies, there is little association between average income (as measured by GDP per capita) and life expectancy across rich countries. Rather, there appears to be a strong correlation between income inequality and mortality.

More recently the authors of “Fair Society, Healthy Lives” identified health inequalities as arising from inequalities of income, education, employment and neighbourhood circumstances. The team argues that these inequalities are unfair but they are not inevitable [26]. The review does not present income inequalities as the only reason for health inequality but concurs with the view that income inequalities affect the lives people can lead [27]. For example, in England life expectancy in the poorest neighbourhoods is, on average, seven years less than in rich areas. In addition, people in the poorest areas are likely to have, on average, 17 fewer disability-free years than those in the richest neighbourhoods. Similar relationships can be found for indicators in education, occupation and housing conditions [26].

The following section explores income inequalities in New Zealand since 1982 using two different measures, the P80/P20 Ratio and the Gini Coefficient.

Data Source and Methods

Indicator

1. *Income Inequality as measured by the P80/P20 Ratio*
2. *Income Inequality as measured by the Gini Coefficient*

Data Source

Statistics New Zealand Household Economic Surveys (NZHES n=2,800–3,500 households per survey) via Perry 2014 [5]

Note 1: The P80/P20 Ratio and Gini coefficient are monitored by the Ministry of Social Development using NZHES data which was available 2-yearly from 1982 to 1998, and 3-yearly thereafter. Since 2007, income data has become available annually through the new NZHES Incomes Survey. The full NZHES (including expenditure data) however remains 3-yearly. For more detail on the methodology used see Perry 2014[5].

Notes on Interpretation

P80/P20 Ratio: The P80/P20 ratio is often used as a measure of income inequality. It is calculated by ranking individuals by equivalised household income and dividing into 100 equal groups. Each group is called a percentile. If ranking starts with the lowest income, the income at the top of the 20th percentile is denoted P20 and the income at the top of the 80th percentile is called P80. The relationship between income value at the 80th percentile and the income value of the 20th percentile is called the P80/20 ratio. In general, the higher the ratio, the greater is the level of inequality [5] so a P80/20 ratio of 3.0 indicates that those at the top of the 80th percentile have incomes three times higher than those at the top of the 20th percentile.

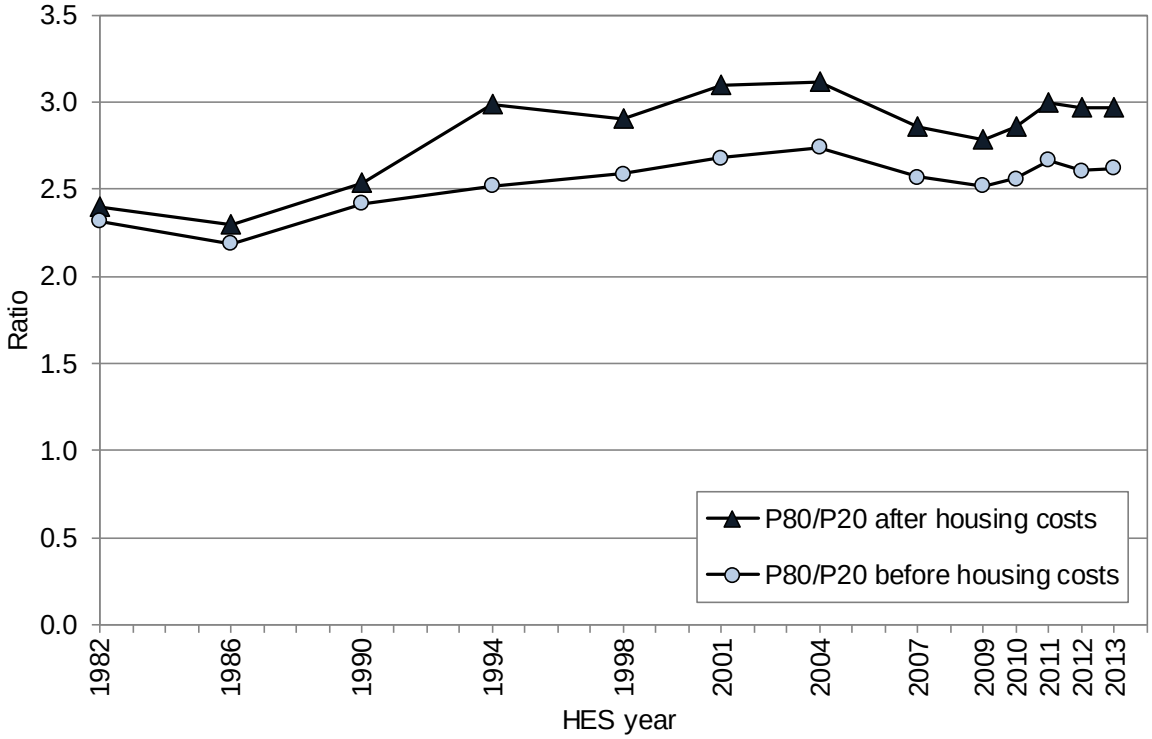
Gini Coefficient: The Gini coefficient is another common measure of inequality used internationally. It gives a summary of income differences between individuals in the population. When the Gini coefficient = 0, all people have the same level of income. When it approaches 1, one person receives all the income. It is an overall measure of income inequality as the higher the value, the greater the level of inequality. The Gini coefficient is often reported as a percentage so scores range between 0 and 100. [28]. When comparing changes in income distributions over time, the Gini coefficient is more sensitive to changes in the more dense low-to-middle parts of the distribution, than it is to changes towards the ends of the distribution [5]. For more detail on calculating the Gini coefficient see The World Bank [29].

New Zealand Trends

Income Inequality: P80/P20 Ratio

In New Zealand during 1982–2013 income inequality, as measured by the P80/P20 ratio, was higher after adjusting for housing costs than before housing costs. Housing costs generally make up a greater proportion of household income for households on lower incomes than those on higher incomes. The most rapid rises in income inequality occurred during 1988–1992. While income inequality also rose during 1994–2004, the overall rate of increase was slower. During 2004–2007, income inequality fell, a decline that Perry attributes to the Working for Families package. The impact of the economic downturn and global financial crisis during 2009–2011 led to an increase in inequality, although Perry notes that it may take one or two further surveys before the post-crisis inequality level becomes clear [5] (**Figure 1**).

Figure 1. Income inequality in New Zealand as assessed by the P80/P20 ratio for the 1982–2013 HES years

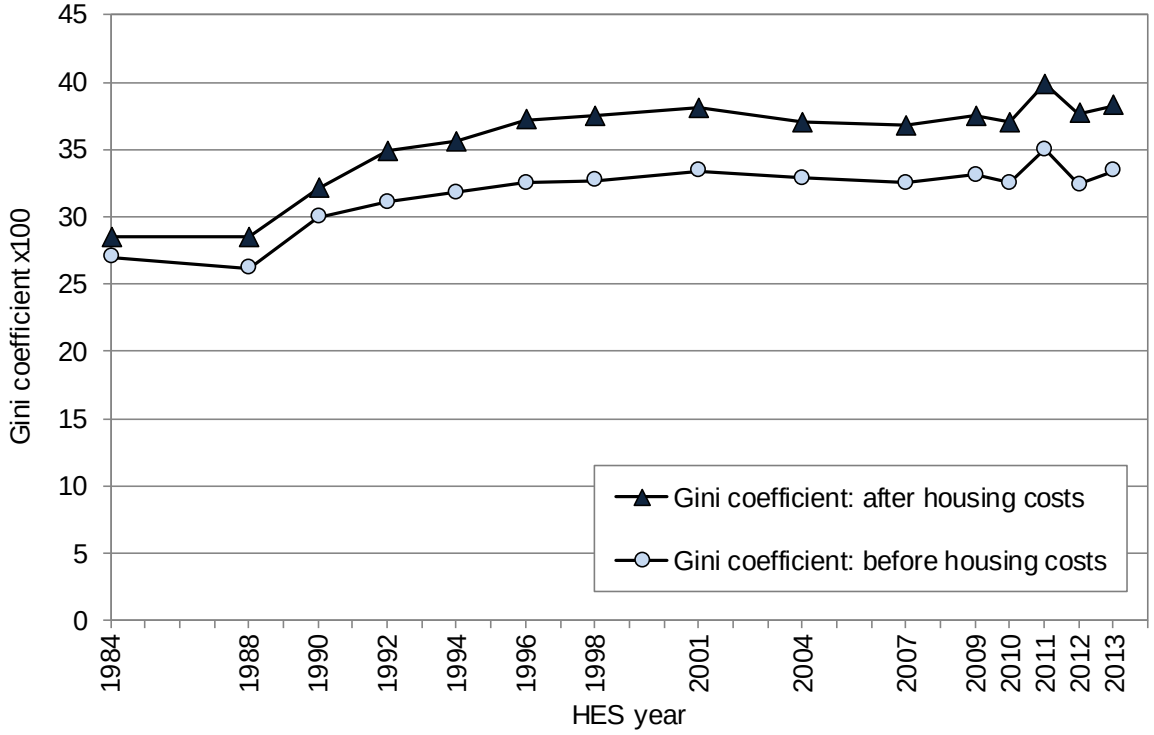


Source: Perry 2014 [5], derived from Statistics NZ Household Economic Survey (HES) 1982–2013

Income Inequality: Gini Coefficient

In New Zealand during 1984–2013 income inequality, as measured by the Gini coefficient, was higher after adjusting for housing costs, for the same reasons as given above. The most rapid rises in income inequality also occurred between the late 1980s and early 1990s. Using both the before and after housing cost measures, the Gini Coefficient declined slightly between 2001 and 2007, a decline which Perry attributes to improving employment and the impact of the Working for Families package. During 2009–2013, however, there was considerable volatility in the Gini coefficient, which Perry attributes to the differing size and timing of the impact of the global financial crisis, Christchurch earthquakes and the associated economic downturn and recovery on different parts of the income distribution. While Perry notes it may take one or two more surveys to see where the inequality trend will settle, he also notes that the overall trend line for this period was flat [5] (**Figure 2**).

Figure 2. Income inequality in New Zealand as assessed by the Gini Coefficient for the 1984–2013 HES years



Source: Perry 2014 [5] derived from Statistics NZ Household Economic Survey (HES) 1984–2013