

# THE INEQUALITY PARADOX

**WHY INEQUALITY MATTERS  
EVEN THOUGH IT HAS BARELY CHANGED**

**BRYCE WILKINSON**

**JENESA JERAM**



**THE  
NEW ZEALAND  
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INITIATIVE**

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## ABOUT THE AUTHORS



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# FOREWORD

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Income inequality is rocketing up in New Zealand. Right?

Not so fast. In this well researched report, Bryce Wilkinson and Jenesa Jeram show how income inequality did rise in the late 1980s and early 1990s, but has since flattened out. Meanwhile consumer spending inequality has returned to mid-1980s levels. Even so, higher housing costs have probably exacerbated wealth inequality.

Okay, thanks for the nuanced answer. But opportunity is disappearing. Right?

Not so fast, again. There is considerable income mobility in New Zealand, but it's hard to tell whether it's rising or falling, based on the available data.

But isn't the real issue that the gap between 'the haves' and the 'have-nots' is unfair?

The report addresses this issue too: a striking 72% of Kiwis believe that wealth is deserved and perceived to be legitimate in the sense of coming from individual talent and efforts.

Wilkinson and Jeram do, however, find one inequality statistic that is skyrocketing. What's that one? Articles in the New Zealand media discussing the problem of inequality.

The New Zealand Initiative and every decent person should care deeply about eliminating all forms of injustice in our society. This report tries to sort out some of the facts to help us better identify where that injustice lies.

It's a treasure trove of information. I thoroughly recommend reading it.

Professor Robert MacCulloch  
Matthew S. Abel Chair in Macroeconomics  
University of Auckland Business School



## KEY FINDINGS

- It is a myth that income inequality, as most commonly measured, is progressively rising in New Zealand. On the Gini measure for household disposable income, adjusted for differences in household composition, income inequality rose markedly from the late 1980s to the early 1990s, but it has not trended up since the mid-1990s. Moreover, some of the earlier rise may be illusory, reflecting a changing balance between taxable and non-taxable incomes. Income inequality in New Zealand prior to the mid-1980s was understated to this extent.
- On the Gini measure, consumer spending in 2013 was as equal as in the mid-1980s.
- It is a myth that economic growth must increase economic inequality everywhere. While globalisation has markedly reduced global income inequality, it has also increased income inequality within many of the world's most prosperous countries.
- Globalisation and technological changes have increased the labour income of top income earners, particularly in Anglo-Saxon countries, including those in New Zealand.<sup>1</sup> Nevertheless, top salary and wage incomes in New Zealand are modest relative to international norms. Broadly speaking, globalisation has put downwards pressure on the relative incomes of those in the bottom half of the population in prosperous countries. This is a threat to social cohesion.
- It is a myth that the increased income share for top income earners in New Zealand is due to a growing share of investment income in national income due to accumulating concentrated wealth. Increased labour income has been the main driver.
- The rise in the ratio of private wealth to GDP in New Zealand is not evidence in support of Piketty's thesis that the real capital stock will rise faster than real Gross Domestic Product (GDP). The real stock of capital in New Zealand has not grown faster than GDP. The private wealth ratio has instead risen because of the alarming increase in house prices.
- In general, incomes peak in middle age and wealth peaks at retirement. These sources of inequality are natural.
- On the limited evidence available, income mobility in New Zealand is comparable to that in other prosperous countries.
- The funding of government spending, in particular of benefits for the bottom six deciles of the household income distribution, currently depends critically on getting a high net tax take from those in the top four deciles.

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1 Australia and New Zealand have also benefited beyond these groups through higher prices from exporting raw materials, milk, etc. to China.

- Current research indicates that the taxable income of top income earners is very responsive to the top income tax rate. Higher tax rates on top incomes may produce disappointing outcomes if greater tax revenue is the goal.
- The sources of income inequality matter. A degree of income inequality is inevitable given inequalities in educational attainment, the proportion of the adult population without paid work, the number of paid hours worked, and employment experience (age).
- Household formation and structure matters. On the evidence, perhaps half the increase in household disposable income inequality from the mid-1980s to the mid-1990s reflects this.
- Higher housing costs hit those on lowest incomes hardest. In current circumstances, public policies relating to housing are important whether the concern is inequality or deprivation.
- Corporate welfare and regulations that appear to protect incumbents are a potential threat to public confidence that high market incomes are justifiable. There should be a presumption against such policies.

# EXECUTIVE SUMMARY

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Economic inequality is an important issue, but not for the reasons some might think.

While it is often said in New Zealand that income inequality is increasing, on the evidence this is not so.

Chapter 1 reviews that evidence. On a household disposable income basis, inequality has not trended up since the mid-1990s on the most cited measure. Consumer spending is a better indicator of actual living standards. It has become more equal since the mid-1990s, and is as equal as in the mid-1980s on the latest available figures.

There is some evidence of greater wealth inequality since the early 2000s, but a trend rise is unclear and house price inflation is playing a major role in changes in estimated wealth. More robust wealth statistics are needed. Current estimates exclude human capital and the value of social security entitlements, but deduct for student loans.

Market income inequality in New Zealand is not out of line internationally. Our top salary and wage incomes are much lower than in Australia, the United States or the United Kingdom.

Yet, the number of newspaper headlines featuring inequality has risen eight-fold since 2009. Given the unexceptional facts, this is paradoxical – and hence the need for continued discussion.

Income inequality in New Zealand rose between the late 1980s and the early 1990s on most if not all measures. Almost everyone blames the fourth Labour government, which cut the top personal tax rate from 66% to 33% between 1986 and 1988. There is much more to the story.

For a start, pre-tax market income inequality rose during this tax reform period. One reason is a rise in professional and chief executive salaries, partially due to competition with Australia and other countries. Second, eliminating the double taxation of company dividends in 1989 artificially increased reported pre-tax incomes. A third

factor was a major increase in those declaring incomes in the top tax bracket. The number almost quadrupled between the 1986 and 1990 tax years. Lower top tax rates reduce the incentive to shelter income from tax. Measures that broadened the tax base were a likely fourth factor. In short, the measured rise in pre-tax market income inequality from the mid-1980s to the mid-1990s exaggerates the real change. Actual income inequality prior to the late 1980s was higher than the available measures show.

But didn't the tax cuts deprive the government of money to fund welfare benefits, aggravating inequality? The tax liability of those in the top income tax bracket more than doubled in real terms between the years ended March 1987 and 1990. Its share rose from 7.2% to 12.9% of the total tax liability of 3.6 million taxpayers. Government spending on welfare rose from 4.9% of GDP to 7.4%.

It is sometimes said those earning high incomes should pay more in taxes. But they do pay more, much more. Treasury research indicates that by 2010, only the top 40% were net taxpayers. In total, the other 60% receive more in benefits in cash and in kind than they pay in income tax and GST.

Changes in household structure also influence household income inequality. On the evidence, these changes have been material.

Chapter 2 reviews evidence on income mobility in New Zealand. The available limited evidence shows income mobility is broadly in line with other comparable rich countries. Income mobility, though considerable for the population as a whole, is low for a significant proportion.

Chapter 3 reviews statistics on factors that contribute to income inequality. There are marked differences in educational attainment, hours worked, years of work experience, and household structure. There is also evidence that rising housing costs have increased economic inequality.

The skyrocketing media headlines about inequality in New Zealand may reflect overseas concerns of a future dominated by inherited wealth. Separately, major international economic organisations now believe current economic inequality is bad for economic growth.

But how applicable are these concerns to New Zealand?

Chapter 4 does not find grounds for concern about growing inherited wealth. Tax statistics show that salary and wages dominate top bracket incomes. The real capital stock is not growing faster than real GDP. Housing wealth has risen faster than GDP because of house price inflation.

Chapter 4 also investigates the relationship between economic growth and inequality. Research findings are mixed. Global economic growth has reduced global inequality in recent decades. But it has also increased income inequality in prosperous countries. In these countries, top incomes have increased but those on middle and low incomes are struggling. Competition from China and other relatively poor countries is one factor. Technological change that replaces less skilled jobs is another.

For New Zealand the discussion is somewhat hypothetical. Economic inequality is not spiralling

upwards. Even the extent of the rise between the mid-1980s and mid-1990s is in doubt.

Facts are one thing, perceptions are another. Chapter 5 looks at international surveys that find widespread public ignorance about the extent of economic inequality. New Zealand is no exception. One survey asked New Zealanders how much wealth the top 1% of the population own. The average response was 50%. The correct answer at the time was 18%.

The public policy preferences of those surveyed better reflect their perceptions than facts. This is natural if perceptions are misplaced. Such public perceptions could lead to 'soak the rich' policies that reduce productive effort and may not lift tax revenue much.

Chapter 6 concludes the report. It emphasises the need to challenge misperceptions and focus debate on measures that might lift incomes overall and at the bottom.

This report is the second of three reports. The first report was *Poorly Understood: The State of Poverty in New Zealand*. It argued that issues of hardship were more important than issues of inequality, or low relative income. The third report, to be released in 2017, will examine welfare policy issues.

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# INTRODUCTION

Economic inequality – as distinct from absolute poverty – has become a political issue domestically and globally. As absolute poverty has decreased in developed countries, attention has shifted to inequalities in wealth, income or consumption as matters of social concern.

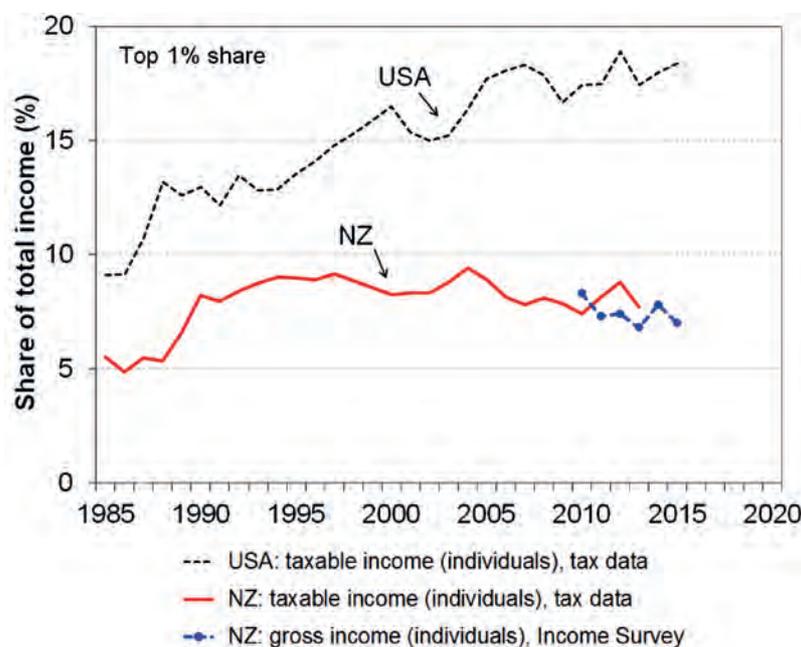
“Widening income inequality is the defining challenge of our time”, proclaimed a 2015 International Monetary Fund (IMF) discussion paper.<sup>2</sup> Certainly, it is a focus of much public attention and research activity.

Concerns may focus either on absolute income inequality – the magnitude of the gap in incomes

– or relative income inequality. The statistics reviewed in this report largely focus on the latter.

In the United States, inequality is blamed on the extremely high salaries for top CEOs, with a strong performance pay element. The income share of the top 1% has more than doubled in the last 30 years.<sup>3</sup> The prime reason is a sharp rise in top chief executive, managerial and technical salaries. The rise in top salary and wage earnings has not been as marked elsewhere. It has been more marked in Anglo-Saxon countries but the increase in New Zealand has been a one-off jump rather than an ongoing rise (see Figure 1).<sup>4</sup>

Figure 1: Comparing the rise in top income share in the United States and New Zealand



Source: Bryan Perry, “The Material Wellbeing of NZ Households: Overview and Key Findings from the 2016 Household Incomes Report and the Companion Report Using Non-income Measures” (2016), 12.

2 Era Dabla-Norris, Kalpana Kochhar, Nujin Suphaphiphat, Frantisek Ricka, and Evridiki Tsounta, “Causes and Consequences of Income Inequality: A Global Perspective,” Staff Discussion Notes No. 15/13 (International Monetary Fund, 2015).

3 Facundo Alvaredo, Anthony Atkinson, Thomas Piketty, and Emmanuel Saez, “The Top 1 Percent in International and Historical Perspective,” NBER Working Paper No. 19075 (2013), Abstract.

4 Bryan Perry, “The Material Wellbeing of NZ Households: Overview and Key Findings from the 2016 Household Incomes Report and the Companion Report Using Non-income Measures” (2016), 12.

In Europe, the concern is more with the growth in income from inherited wealth.

Other international explanations for increased income inequality include the effects of a globalised workforce, and improvements in technology that threaten unskilled or low-skilled jobs.

Concerns about inequality are not limited to income differences. An influential argument in New Zealand came from Richard Wilkinson and Kate Pickett's *The Spirit Level: Why More Equal Societies Almost Always Do Better* (2009).<sup>5</sup> Wilkinson and Pickett present a range of correlations (though they argue the relationship is causal) between inequality and a range of negative social and health outcomes. The authors include New Zealand in their cross-country comparisons, and visited the country in 2014 to promote their book.<sup>6</sup> Though their thesis of strong causation has since been widely debunked under peer review, their work continues to strike a popular chord.<sup>7</sup>

For many, perhaps most of us, the issue with economic inequality is its fairness or unfairness. Assessing that does not need an algebraic understanding of the Gini coefficient. One does not even need to open a philosophy textbook to formulate a view on the subject.<sup>8</sup>

That is because for most, attitudes towards inequality are deeply instinctive.<sup>9</sup> Who opposes the principle of equal pay for equal work?

Translating concerns about inequality and an instinct for what is fair into public policy is not easy. After all, how does one judge what is equal work? Should those who work harder or are naturally skilled earn more than others? Some people believe children deserve an 'equal start' in life – but equal in what aspects? Should income gained by taking risks in investments be treated differently from income gained from employment?

Yet inequality is a concern for both good and bad reasons. Actual inequality may indicate a 'system that isn't working'. Or it may not. Genetic differences will always be a factor. Even so, a lack of social mobility over generations could indicate a hierarchical society, while high mobility could indicate a meritocracy. Meanwhile, policies that disproportionately protect corporate interests – such as instances of corporate welfare – put meritocratic principles at risk and invite corruption.

Concerns about inequality in New Zealand largely mirror international concerns. Whether imported international concerns are applicable in New Zealand is discussed in this report.

Attitudes towards inequality reflect perceptions of its causes. Inequality due to talent and skill should be of less concern than inequality due to corruption or political privilege. Some argue that wealth earned through labour is more commendable than wealth earned through investment. Some are more concerned with inequality due to market earnings, while others are interested in the remaining inequality after government redistribution effects.

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5 Richard G. Wilkinson and Kate Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better* (Allen Lane: 2009).

6 Richard G. Wilkinson and Kate Pickett spoke at the University of Auckland's Sir Douglas Robb lecture series on 19 May 2014. Video recordings are available at <https://www.auckland.ac.nz/en/about/perspectives/public-lectures/robb-lectures-2014-professors-kate-pickett-and-richard-wilkins.html>.

7 The major critique of *The Spirit Level* is that it fails to establish causality, and many of the correlations are statistically weak. For a more detailed critique, see Christopher Snowden, *The Spirit Level Delusion* (Ripon: Little Dice, 2010); Andrew Leigh, "Why Inequality Matters and What We Should Do About It," Speech to the Sydney Institute (2012); Peter Saunders, *Beware False Prophets: Equality, the Good Society and The Spirit Level* (London: Policy Exchange, 2010).

8 Although delving into philosophy rarely does any harm.

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9 Paul H. Rubin, for example, theorises that an aversion to inequality and feelings of envy towards the rich can be explained by evolutionary economics. Although acknowledging the basis for such evolutionary traits, Rubin is quick to point out that such traits could be counter-productive in a modern society. See Paul H. Rubin, *Darwinian Politics* (New Brunswick, New Jersey and London: Rutgers University Press, 2002).

Chapter 1 collects the statistics and trends for inequality in New Zealand using a range of measures. The focus is on inequality at points in time across the population as a whole, independent of issues of justice or injustice. Though income inequality is the most commonly cited measure, the chapter also considers consumption inequality. This is likely a better indication of inequality in living standards and expected lifetime income. Tax burden inequality is also examined since the government's ability to fund its activities currently depends on great inequality in tax liabilities. Finally, the chapter looks at the statistics on wealth inequality to investigate the significance of assets and liabilities.

Inequality statistics that do not track the same individuals through time do not tell us whether *individuals* are getting progressively richer or poorer. Chapter 2 looks at income mobility to track people's income changes over time and across generations.

Much commentary on inequality looks at unequal outcomes: how wealth or income is distributed across a population. Yet many factors lead to these outcomes – some out of the control of the individual, some based on conscious life decisions. Chapter 3 focuses on inequalities in education, hours worked, the age structure of the population,

and family formation. The chapter also looks at the effects of unaffordable housing on both wealth and disposable income inequality.

Next the report assesses the extent to which New Zealand's inequality trajectory fits the international narrative – in particular, the findings by Thomas Piketty on wealth inequality and claims that inequality is bad for economic growth.

The final chapter addresses the importance of public perceptions of inequality for public policy. Whether or not they are justified, such concerns may affect voter preferences for policies that may or may not alleviate inequality but clearly reduce overall wellbeing in the long run.

The inequality paradox in New Zealand is that despite rising headlines on inequality and expert commentary on the subject, there is little evidence to suggest current inequality levels and trends are of serious concern. It is hard to make a case there is a real problem at the high income end, and issues at the lower income end are a problem regardless of the wealth and prosperity of others. Hardship is a separate matter and it is undeniable there are some in society struggling to make ends meet. A real risk is that focusing attention and resources on inequality may detract us from those suffering real hardship.

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# CHAPTER ONE

## THE STATE OF ECONOMIC INEQUALITY IN NEW ZEALAND

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An examination of the state of economic inequality in New Zealand naturally starts with the statistical facts. Has measured economic inequality gone up or down? What were the effects of major economic events such as the reforms in the 1980s and 1990s? Are the rich getting richer and the poor getting poorer?

The many different ways of measuring inequality further complicate matters.<sup>10</sup> Inequality might rise on some measures and fall on others.

So which measure is best? Inevitably, if unhelpfully, the best measure is the one that best answers the question you want answered.

Those who are most concerned about the gap between the rich and poor will prefer measures specific to that gap. For example, the Palma ratio expresses the share of the top 10% as a multiple of the share of the bottom 40%, ignoring the distribution of everyone else's shares.

Other measures take into account everyone's share. The Gini coefficient is the most widely cited of such measures. It takes a value between 0 and 1, where 0 is perfect equality (e.g. everyone has an equal share

of the national income) and 1 is extreme inequality (e.g. if one person has all the income).

All economic inequality statistics raise the question of what degree of inequality is either too high or too low. Often in public discussion, more equal is presented as better than less equal, regardless of any other considerations. Often without explicitly saying so, the country with the lowest Gini score is considered more egalitarian and therefore more laudable. But this yardstick implicitly rejects meritocracy. In a meritocracy, differences in income and wealth are inevitable, owing to differences in skill, effort and responsibility. Judging whether the Gini coefficient for a country is too high or too low requires deciding how equally shared a nation's income ought to be.<sup>11</sup> The zero inequality yardstick also rejects unequal outcomes due to chance. Yet people take risks in the hope of unequal outcomes. That is why so many buy Lotto tickets.

This is how one of the eminent philosophers of our age, John Rawls, then at Harvard University, summed up his view on the issue of the justice of (unequal) outcomes:

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10 For the technically minded, the list includes the standard deviation, variance, coefficient of variation, ratio of mean to median, multiple options for ratios of shares (e.g. top x%/bottom y%), Pareto coefficient, Gini coefficient, generalised Gini coefficient, Atkinson measures, and more generalised entropy measures.

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11 John Creedy, "Policy Evaluation, Welfare Weights and Value Judgements: A Reminder," *Australian Journal of Labour Economics* 10:1 (2007), 1–15, and John Creedy and Jesse Eedrah, "Income Redistribution and Changes in Inequality in New Zealand from 2007 to 2011: Alternative Distributions and Value Judgements," *New Zealand Economic Papers* 50:2 (2015), 1–25, emphasise the importance of explaining to the public that different measures of inequality implicitly incorporate different value judgments. It is not for researchers to impose hidden value judgments on an unwitting public.

The natural distribution is neither just nor unjust; nor is it unjust that persons are born into society at some particular position. These are simply natural facts. What is just and unjust is the way that institutions deal with these facts. Aristocratic and caste societies are unjust because they make these contingencies the ascriptive basis for belonging to more or less enclosed and privileged social classes. The basic structure of these societies incorporates the arbitrariness found in nature. But there is no necessity for men to resign themselves to these contingencies. The social system is not an unchangeable order beyond human control but a pattern of human action.<sup>12</sup>

As we read it, the important point is not the inevitability of unequal starting points in life, but the degree to which social and institutional arrangements conspire to prevent people from upward mobility on merit.<sup>13</sup>

This chapter considers four types of inequality: income, consumption, tax burden, and wealth. Inequality in market incomes is different from inequality in disposable incomes (i.e. market income after taxes and benefits). Inequality in individual incomes is different from inequality in family or household income. The length of

the accounting period also makes a difference. Measured income inequality in one year is likely to be greater than over many years. Much the same applies to measures of consumption and wealth inequality.

Add to this the multiplicity of statistical measures of inequality and there is scope for much disagreement and confusion.

In New Zealand, the Ministry of Social Development (MSD) is a major official source of information on inequality trends. The OECD is another major official source. The most cited statistical measure for the income inequality is the Gini coefficient. But both organisations also publish statistics based on the Palma ratio, along with other measures (see section 1.1). The accounting period is usually one year.<sup>14</sup> A common focus is household disposable income, adjusted for differences in household composition.<sup>15</sup> The resulting statistics may be interpreted as household adult equivalents. The OECD also measures market income inequality. A major study for the New Zealand Treasury by Christopher Ball and John Creedy looks at market income, disposable income, and consumption inequality on an adult equivalent basis. Inland Revenue provides taxable income statistics at the individual level. This report uses both sources.

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12 John Rawls, *A Theory of Justice* (Harvard University Press, 1971), 87. Rawls was concerned with minimising absolute poverty, as opposed to simply minimising the gap between rich and poor.

13 There is also the point that one measure of a society is how well it provides for those not capable of providing adequately for themselves. Rawls' work brought this aspect to the fore.

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14 MSD reports on a year ended March basis prior to 2001 and a year ended June basis starting in 2001. The OECD reports on a calendar year basis. So it might report a statistic for the year ended March 1988 as a 1987 result. Inland Revenue statistics are on a year ended March basis.

15 There are several ways of adjusting for differences in household composition. MSD primarily uses a 1988 revised Jensen scale. (See Bryan Perry "Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015" (Wellington: Ministry of Social Development, 2016)," Appendix 3.) The OECD commonly uses a rough and ready "square root of the number of members of the household" method. Christopher Ball and John Creedy use more general and adaptable methods. Their Appendix B compares the Gini coefficients for disposable income arising from the two approaches. Christopher Ball and John Creedy, "Inequality in New Zealand 1983/84 to 2013/14," Working Paper 15/06 (Wellington: New Zealand Treasury, 2015).

This report thereby mainly uses an accounting period of one year. For reasons of simplicity and common practice, it mainly uses the Gini coefficient as the statistical measure. The entity being measured for disposable income and consumption inequality is the household.

## 1.1 GINI COEFFICIENT AND PALMA RATIO: MIDDLES, TOPS AND TAILS

### Gini coefficient and Lorenz curve

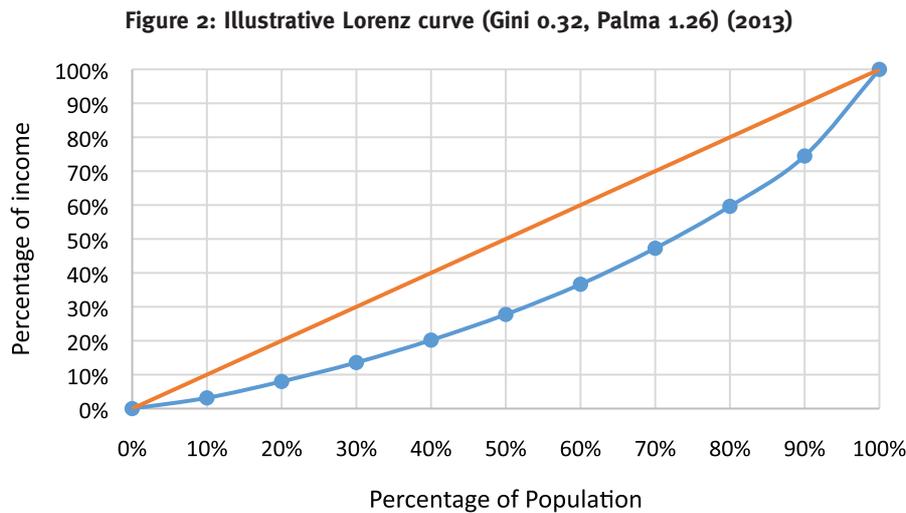
An advantage of the Gini coefficient is that it can be represented visually. The Gini is the area between the line of complete equality and a Lorenz curve.

A Lorenz curve plots a rising proportion of a population against a rising proportion of some variable (for example income) that is distributed among that population. The population is always ranked from the lowest to the highest share.

Figure 2 illustrates a Lorenz curve derived from mean disposable household income estimates for each decile in New Zealand in 2013.<sup>16</sup> The Gini coefficient was 0.32 and the Palma ratio 1.26 (see below). The bottom 20% of households by income own 8% of total household disposable income and the top 50% own 72%. Naturally, 100% of the population own 100% of total personal income.

The Gini coefficient could be interpreted as a welfare function that weights entities inversely to their possessions. For example, the person with the highest income gets the least weight and the person with the lowest income gets the largest weight. Shifting a dollar from the top extreme to the bottom extreme of the income distribution would increase Gini’s welfare function more than any other dollar shift.

One disadvantage of the Gini coefficient is it does not identify which parts of the income distribution are most responsible for the measured inequality. Another is that markedly different income distributions can have the same Gini value.



Source: Authors’ calculations using data from Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2014” (Wellington: Ministry of Social Development, 2015), Table 9.2.

16 See Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2014” (Wellington: Ministry of Social Development, 2015), Table 9.2. The estimates adjust for differences in household composition. Negative incomes in the bottom decile are set to zero in calculating the mean. Perry warns that the estimate for the first decile is particularly problematic.

The Gini coefficient does not focus exclusively on the gap between the top and the bottom because it takes the entire distribution into account. Some other measures, such as the Palma ratio, focus exclusively on the gap between the top and the bottom.

### Palma ratio

The Palma ratio calculates the share of top 10% of the population as a multiple of the share of the bottom 40%. One rationale for its use is that those in the middle of the distribution are politically dominant. They use this power to keep their own share of national income relatively stable, and there is evidence it is relatively stable. So the battle for the remaining share is really between those at the top and those at the bottom, with the outcome being strongly influenced by middle income voters and their preference for tax, welfare and regulatory policies.

## 1.2 INCOME INEQUALITY

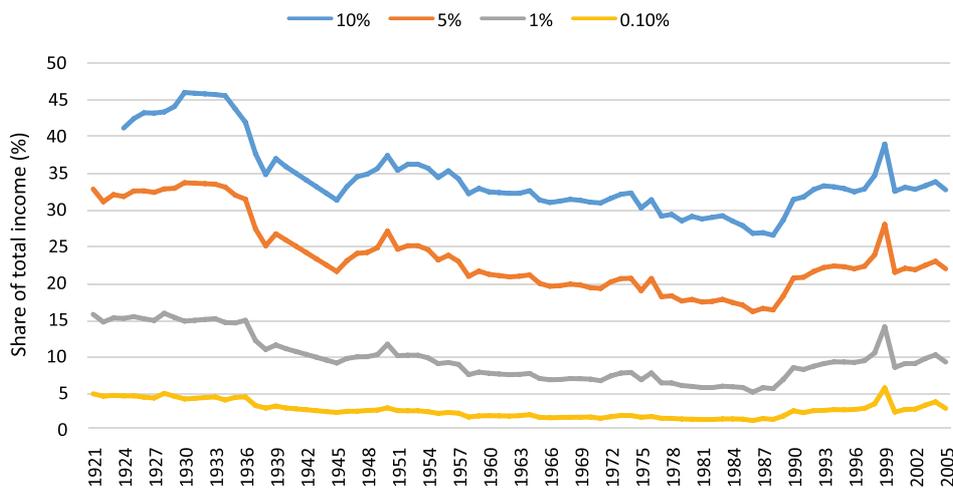
As already mentioned, income can be measured at the individual, family or household level. It may be measured as pre-tax market income, post-tax market income, or as disposable income (i.e. net of taxes and including government cash benefits).

Robust statistics on long-term trends in income inequality in New Zealand are hard to find.

The following sections review the available statistics on trends in market income, i.e. income before taxes and transfers, therefore excluding income from government welfare benefits.<sup>17</sup> The extent of inequalities in factors contributing to inequality in market incomes are documented in Chapter Three.

Disposable income – or income after taxes and transfers – is also examined. From a hardship perspective, this is best assessed at the family or household level. Households can pool the resources of individual members.

Figure 3: Top income shares in New Zealand (1921–2005)



Source: Anthony Atkinson and Andrew Leigh, “Top Incomes In New Zealand 1921–2005: Understanding the Effects of Marginal Tax Rates, Migration Threat, and the Macroeconomy,” *Review of Income and Wealth* 54:2 (2008).

17 The Treasury defines *market income* as “the income that households receive from wages and salaries, from investments and from people running their own businesses as sole traders or partnerships.” Ron Crawford and Grant Johnston, “Household Incomes in New Zealand,” Working Paper 04/20 (Wellington: New Zealand Treasury, 2004), 2.

The comparison between market income inequality and disposable income inequality reflects the static redistributive effects of the tax/benefit system. Inequality in the distribution of taxes across individuals provides another limited perspective.

## Market Income Inequality

### A long view – top income shares since 1921

Researchers Anthony B. Atkinson and Andrew Leigh used tax return statistics to calculate income shares for the top 10%, 5%, 1% and 0.1% of the population aged 15 years and over from 1921 to 2005.<sup>18</sup> Income shares were measured as reported taxable incomes divided by their estimate of pre-tax household taxable income plus tax-exempt income.

Atkinson and Leigh's estimates show the top pre-tax income shares falling progressively at least from the early 1950s until the mid-1980s before lifting sharply at the end of the 1980s.<sup>19</sup> A 2015 paper by Brian Easton reports that the rise in pre-tax market income inequality at the end of the 1980s is an artefact of the introduction of dividend imputation.<sup>20</sup>

Dividend imputation is a tax system aimed at reducing the double taxation of having to pay income tax and company tax. Corporate tax is imputed (passed on) to shareholders to reduce the amount of income tax they are required to pay. The spike in 2000 in Figure 3 reflects the one-off timing effects of a tax rate change.

Within the top 10% of earners, Easton found that inequality has been lower not higher since the mid-1980s, with no obvious trend.

Perry (2016) reports that income share of the top 1% of taxpayers has been “reasonably steady in the 7–9% range since the early 1990s”, putting New Zealand in the lower middle of the OECD on this measure.<sup>21</sup>

### CEO pay

CEO pay in New Zealand is low by international standards. University of Otago researcher Helen Roberts reports that mean cash CEO compensation for New Zealand for non-finance sector NZX listed firms for balance date years ended in 2013 was NZ\$934,000,<sup>22</sup> or US\$765,400 at current exchange rates. Table 1 suggests this could be around one-fifth of average CEO pay for major listed companies in Australia and the United Kingdom, and only about 6% of the US average.

The median full-time salary and wage income in New Zealand in June 2012 was around NZ\$48,950. CEO pay of NZ\$934,400 is 19 times higher. The multiples the AFL-CIO cites for Australia and the United Kingdom are 84 and 93, respectively. The multiple for the United States is an astronomical 354. It is not clear to what degree these figures are strictly comparable, but the conclusion of a much lower multiple for New Zealand looks robust.

Would it make a big difference if total CEO compensation were used in New Zealand rather than cash compensation? Apparently not. Roberts compares the two for a subsample of CEOs. The difference in 2013 is only 12%. That would only lift the New Zealand pay multiple to 22.

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18 Anthony Atkinson and Andrew Leigh, “Top Incomes In New Zealand 1921–2005: Understanding the Effects of Marginal Tax Rates, Migration Threat, and the Macroeconomy,” *Review of Income and Wealth* 54:2 (2008), 154–156.

19 Brian Easton gives reasons for doubting the reliability of the statistics in earlier decades. Brian Easton, “Inequality in New Zealand: A User’s Guide,” *The New Zealand Journal of Sociology* 28:3 (2013), 9–66, 47.

20 Brian Easton, “Distribution of Pre-tax Top Personal Incomes,” *Policy Quarterly* 11:1 (2015), 47–51.

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21 Bryan Perry, “The Material Wellbeing of NZ Households: Overview and Key Findings,” *op. cit.* 35.

22 Helen Roberts, “Power, Rigging and the New Zealand CEOs 1997–2013” (University of Otago, Winter Lecture Series, June 2016).

**Table 1: CEO pay**

Country	Period	Average CEO pay US\$ (Median for NZ)
New Zealand	2013 NZX, excluding finance sector	\$765,400
Australia	2011 or 2012, ASX 100 companies	\$4,183,419
UK	2011 or 2012, FTSE 100 companies	\$3,758,412
US	2012	\$12,259,894

Sources: For New Zealand, Helen Roberts, “Power, Rigging and the New Zealand CEOs 1997–2013” (University of Otago, Winter Lecture Series, June 2016). NZD values have been converted to USD at an average exchange rate for the year ended June 2013 of 1\$NZ=\$US0.8195. For the other countries, AFL-CIO, “CEO-to-Worker Pay Ratios Around the World,” Website.

What about top end of New Zealand CEOs? *The New Zealand Herald* executive pay survey puts the mean top pay in 2013 at \$1.495 million.<sup>23</sup> At US\$1.2 million, that is still less than a third of the top 100 company averages in Australia and the United States. What about the very top end?

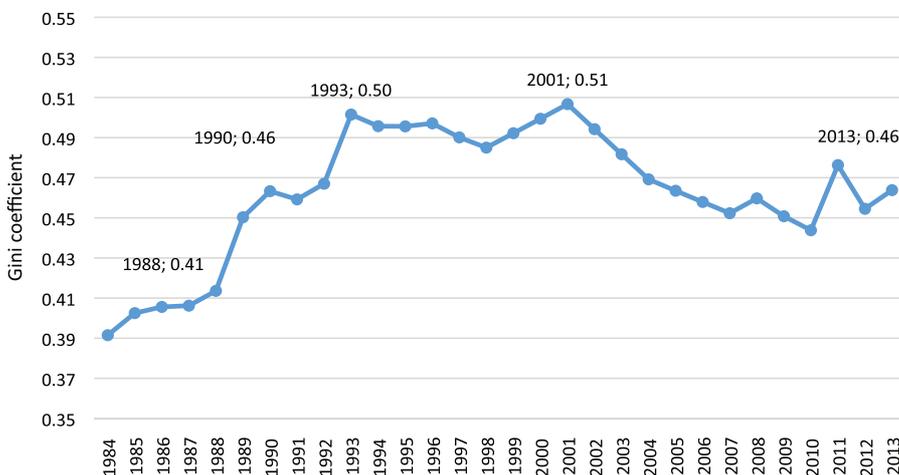
*The Herald* reports the chief executive of ANZ was the highest paid CEO in New Zealand in 2013, at \$4 million. Converted to US dollars, that would be lower than the top 100 company mean CEO pay in Australia and the United Kingdom. (New Zealand’s major banks are largely Australian owned. CEOs of Australian parent banks get paid a multiple of their New Zealand counterparts for obvious reasons.)

#### Inequality in market income from 1984

Ball and Creedy used Household Economic Survey statistics to estimate Gini coefficients for individual market incomes (see Figure 4). Their estimated coefficient values rose from around 0.40 in the mid-1980s to 0.46 by 1990, with a further lift to 0.50 by 1993.<sup>24</sup> The database for this series is a household survey of declared household income, but the income measure is per adult equivalent, attributed to each individual in the household.

On this measure, market income inequality rose markedly from the late-1980s to the early 1990s.<sup>25</sup> It has

**Figure 4: Rise in Gini coefficient for market income inequality (1984–2013)**



Source: Figures 1 and 2 in Christopher Ball and John Creedy, “Inequality in New Zealand 1983/84 to 2013/14,” Working Paper 15/06 (Wellington: New Zealand Treasury, 2015). Note the scale does not start at zero.

23 It is not clear how many CEOs this represents, but it could be of the order of 40. See Hamish Fletcher, “Salaries interactive: What CEOs of top NZ companies earn,” *The New Zealand Herald* (16 June 2015).

24 Christopher Ball and John Creedy present two sets of Gini calculations, one using what they call calibrated weights, the other Statistics New Zealand weights. The series are so similar that only the former are included in Figure 4. Christopher Ball and John Creedy, “Inequality in New Zealand 1983/84 to 2013/14,” op. cit.

25 Ibid. 25.

since fallen rather than risen overall, albeit with some variability.

Market income earnings dispersion is much lower between full-time workers. Department of Labour researcher Sylvia Dixon noted that inequality in annual earnings reflects inequality in the number of weeks worked per year.<sup>26</sup> The Gini coefficient for weekly earnings of full-time employees increased from 0.23 in 1984 to 0.26 in 1990 and 0.28 in 1997. This rise was “largely due to increased inequality within groups of workers with similar observed levels of education, age and potential work experience”. The sharpest relative rise was in the weekly earnings of the highest-paid males.

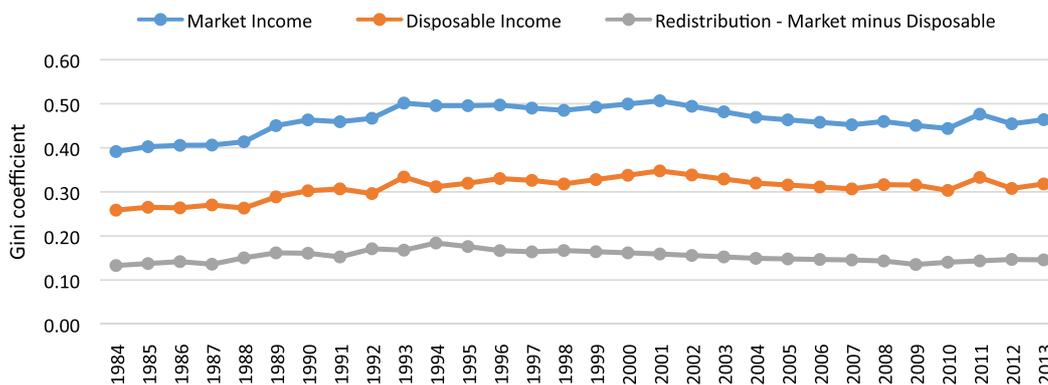
Motu researchers Steven Stillman, et al. examined changes in hourly and weekly wage inequality between 1983 and 2003 for employed adults aged 25–59.<sup>27</sup> Hourly wage inequality did not change

much between 1983 and 1993, but it increased in the top half of the income distribution between 1993 and 2003. Weekly wage inequality overall did not rise materially in either period. For the 1993 to 2003 period this was because lower-paid workers increased their hours worked relative to higher-paid workers.<sup>28</sup> Overall, individual income inequality did not rise between 1983 and 1993. It fell between 1993 and 2003.<sup>29</sup>

## Disposable income inequality

Disposable income is market income after taxes and transfers (e.g. welfare benefits). Gini coefficients for disposable incomes are uniformly smaller than those for pre-tax market incomes. This reflects static redistributive features of taxes and benefits.<sup>30</sup>

**Figure 5: Gini coefficients for market income inequality, disposable income inequality, and redistribution (1984–2013)**



Source: Figures 1 and 2 in Christopher Ball and John Creedy. “Inequality in New Zealand 1983/84 to 2013/14”, New Zealand Treasury Working Paper 15/06 June 2015.

- 26 Sylvia Dixon, “The Growth of Earnings Inequality, 1984–1997: Trends and Sources of Change,” Paper presented at the Eight Conference on Labour, Employment and Work in New Zealand (Victoria University, Wellington: 1998), 74–84. Her input data also came from the Household Earnings Survey.
- 27 Steven Stillman, Trinh Le, John Gibson, Dean Hyslop, and David C. Maré, “The Relationship Between Individual Labour Market Outcomes, Household Income and Expenditure, and Inequality and Poverty in New Zealand from 1983 to 2003,” Working Paper 12–02 (Wellington: Motu Economic and Public Policy Research, 2012). The income measure is equivalised hourly and weekly income per household individual.

- 28 Such findings appear to be time period and coverage specific. For example, Sylvia Dixon found that between 1984 and 1997, weekly hours worked by higher-paid full-time workers increased more than for lower-paid full-time workers. Steven Stillman, et al. include part-time workers.
- 29 Steven Stillman, et al. “The Relationship Between Individual Labour Market Outcomes, Household Income and Expenditure, and Inequality and Poverty in New Zealand from 1983 to 2003,” op. cit. 15–16.
- 30 We do not know how much lower pre-tax incomes would be at different parts of the income distribution if tax rates were lower. The actual degree of redistribution is likely to be lower than the measured degree.

**Figure 6: Income Gini coefficient for OECD countries in 2013 or closest year**



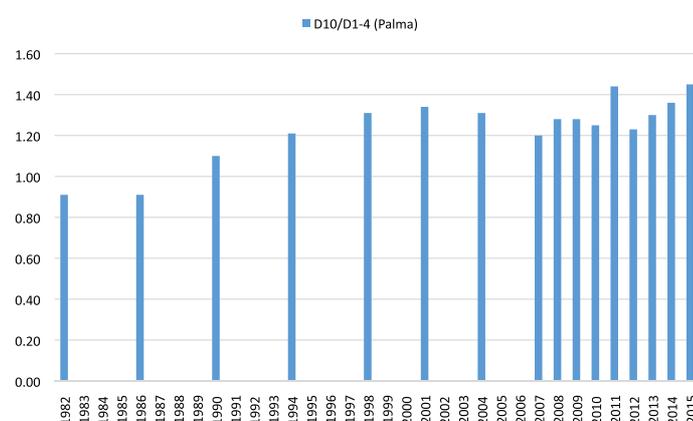
Source: OECD, “Income Distribution Database (IDD): Gini, Poverty, Income, Methods and Concepts” (2016).

As with market income, the Gini measure for disposable income rose materially from the late 1980s to the early 1990s. Albeit with some variability, it has since largely remained constant or fallen slightly. The coefficient spiked upwards in 2001, but this was a one-off effect related to a tax rate change.

Figure 5 compares Ball and Creedy’s estimated Gini coefficients for equivalised market and disposable income per individual from 1984 to 2013.

MSD analyst Bryan Perry has charted New Zealand’s Gini coefficient for equivalised disposable income per adult equivalent before housing costs against the OECD average.<sup>31</sup> Before 1990, New Zealand’s coefficient was smaller than the OECD average. Since 1990 it has been higher. The gap was largest in the second half of the 1990s, but has since narrowed substantially. This is because the OECD average continued to rise until the mid-2000s while New Zealand’s coefficient did not. Perry sums up this time series as follows: “There is no conclusive evidence yet of any sustained rise or fall in [disposable] income

**Figure 7: Palma ratio, before housing costs (1982–2015)**



Source: Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015” (Wellington: Ministry of Social Development, 2016), Table D.9, 85

inequality using the Gini measure since the mid-1990s. The trend-line is almost flat.”<sup>32</sup>

OECD statistics indicate that around 2013, New Zealand’s Gini coefficient inequality measures were similar to Australia’s (see Figure 6). The difference between the two measures for New Zealand at 0.125 is similar to the differences for Australia and the United States.

<sup>31</sup> See Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015” (Wellington: Ministry of Social Development, 2016),” op. cit. Figure J.5, 179. For this New Zealand comparison, he adopted the OECD’s square root method to adjust for differences in household composition.

<sup>32</sup> Ibid. Section D, 179.

Perry has also calculated the Palma ratio for New Zealand on a before-housing-cost (BHC) disposable income basis.<sup>33</sup>

Figure 7 charts his estimates for the period from 1982 to 2016. Note that no estimates are available for many of those years. Once again, there is a sharp rise from the mid-1980s to the early 1990s. But on this measure, the rise did not flatten out before the turn of the century.

In his 2016 incomes report, Perry identifies a concern that annual changes in the share of the top 1% of incomes spiked in 2011 (and rose sharply again in 2015) to a degree that may reflect the small number of such households in the survey. Inland Revenue statistics show less volatility.<sup>34</sup> He shows that this 2011 spike is evident in both the Gini and Palma statistics in that year. He concludes that a trend analysis should focus on income shares for the top 1% that are based on more reliable sources and on trends in Gini measures that cover the bottom 99% of incomes. As an additional measure he also assessed the trend in the 90:10 percentile

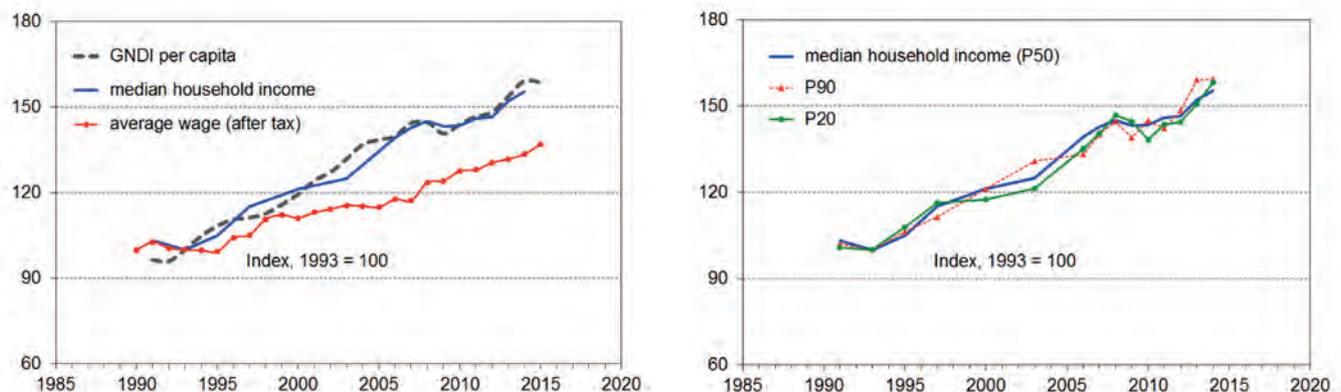
ratio.<sup>35</sup> Here is his summary of the trends in these three statistics to 2015:

There is no evidence of any sustained rise or fall in [Before Housing Cost] household income inequality in the last 10–15 years (90:10 ratio) or the last 20 years (Gini for 99% plus top 1% share) or the last 25 years (top 1% share) from tax records.<sup>36</sup>

Perry reports that New Zealand’s Palma ratio “around 2011” of 1.22 is slightly higher than the OECD median of 1.12. It is below the ratios for Australia (1.23), the United Kingdom (1.40), and the United States (1.74). Denmark had the lowest ratio (0.87) and Mexico the highest (3.27).<sup>37</sup>

Perry also shows that real disposable income growth per household adult equivalent level at the top of the (bottom) 20<sup>th</sup> percentile and the near top 90<sup>th</sup> percentile has tracked the growth in the medium income quite closely since the early 1990s (see Figure 8). Moreover, the growth in the median has tracked the growth in real gross

Figure 8: “Inclusive growth”



Source: Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015” (Wellington: Ministry of Social Development, 2016), 88.

33 See Figure 29 for the differences before and after housing costs.

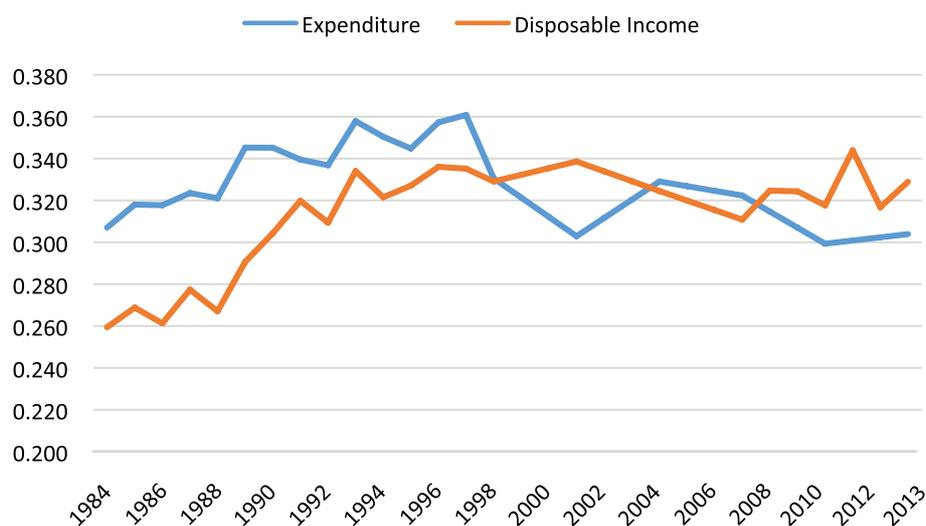
34 See Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015,” op. cit. section D, 80-83.

35 Ibid. section D, 83.

36 Bryan Perry, “The Material Wellbeing of NZ Households: Overview and Key Findings from the 2016 Household Incomes Report and the Companion Report Using Non-income Measures,” op. cit. 15.

37 Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015” op. cit. Table J.9. It is not clear what the OECD’s income measure is, but it may be equivalised household disposable income. The OECD typically publishes statistics on a calendar year basis, so its figure for New Zealand is likely to relate to the year ended March 2012.

Figure 9: Gini coefficients for household disposable income inequality and expenditure inequality (1984–2013)



Source: Christopher Ball and John Creedy. “Inequality in New Zealand 1983/84 to 2013/14”, New Zealand Treasury Working Paper 15/06 June 2015, Figure 2: Gini Inequality 1984 to 2013: Disposable Income per Adult Equivalent, Figure 3: Gini Inequality 1984 to 2013: Expenditure

national disposable income per capita quite closely during the same period.<sup>38</sup> The average wage rate has grown more slowly since the early 1990s. This difference reflects the rise in hours worked per household member.

This analysis, albeit limited, challenges the view that national income per capita growth in New Zealand has not benefited those on low incomes.

### 1.3 CONSUMPTION INEQUALITY

Consumption inequality refers to inequality in spending. It was no higher in 2013 than in 1984, according to estimates by Creedy and Ball (see Figure 9). The overall trend has been down rather than up.

This result also puts in doubt the degree to which the measured rise in income inequality from the

mid-1980s to the mid-1990s represents greater inequality in what people could afford.

A related issue is that reported income is an unreliable indicator of ability to spend for many households in the bottom income decile, being implausibly low in some cases.<sup>39</sup> Balancing this, at the top end of the distribution, reported taxable income may be appreciably smaller than actual income, but less so after the tax reforms of the late 1980s. These are just some of the reasons consumption inequality might give a better representation of differences in people’s living standards than income.

There has been a debate in the literature as to why consumption spending inequality has apparently not tracked income inequality in the United States. One analysis found that it has if systematic measurement errors are corrected.<sup>40</sup> We are not aware of a similar analysis for New Zealand.

38 Gross national disposable income is gross national income plus net transfer income received from the rest of the world.

39 See Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015,” op. cit. Appendix 8.

40 Mark Aguiar and Mark Bils, “Has Consumption Inequality Mirrored Income Inequality?” *American Economic Review* 105:9 (2015), 2725–2756.

## 1.4 FISCAL BURDEN INEQUALITY

### Income tax burdens

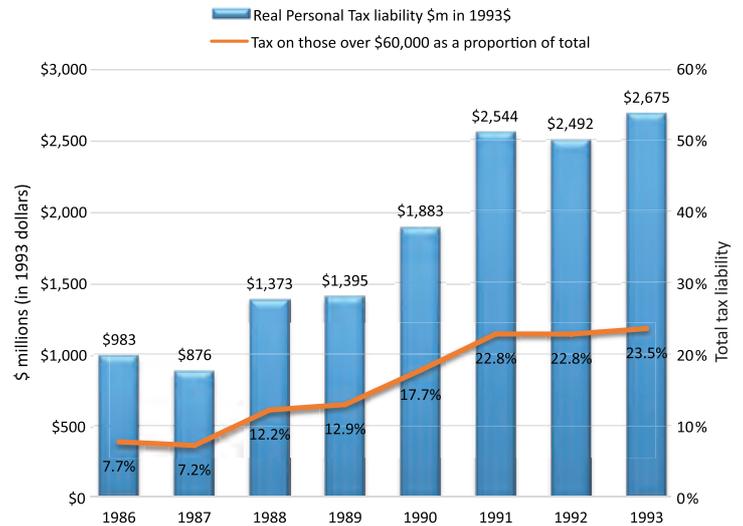
The distribution of income tax liabilities across taxpayers in any given year is extremely unequal. Treasury forecasts for the year ended March 2017 anticipate getting more than half of all individual income tax collected from just 12% of the 3.6 million people expected to pay individual income tax. Just 2.7% of the 3.6 million are expected to pay 24% of all individual income tax collected.<sup>41</sup>

Income tax burdens are much more unequal than the distributions of either pre-tax or post-tax plus benefit income. We calculate Gini coefficients of 0.488, 0.458, and 0.635 respectively for the pre-tax, net-of-tax taxable incomes, and tax liability for individual incomes for the year ended March 2014. These differentials reflect the progressivity in the tax structure.

The burden of a tax on labour is shared in the first instance between the worker and the consumers of the worker's product. When the rate of income tax is increased, both pre-tax wage rates and the price of the product are likely to rise, but in differing degrees. The degree of sharing is an 'it depends' matter. The more internationally mobile is labour, the more the pre-tax wage rate will rise. A related point is that tax rate cuts for higher income earnings do not necessarily reduce the taxes collected from high income earners as a group, particularly if accompanied by tax base broadening measures. New Zealand's experience from 1986 to the early 1990s illustrates this point.

On 1 October 1986, the government introduced a comprehensive 10% goods and services tax (GST), and reduced the top personal tax rate from 66% to 48% and further to 33% in 1988. In both cases, the top rate applied to incomes over \$60,000. Material base broadening measures were also introduced.

Figure 10: Personal income tax liability for people earning more than \$60,000 annually (1986–93)



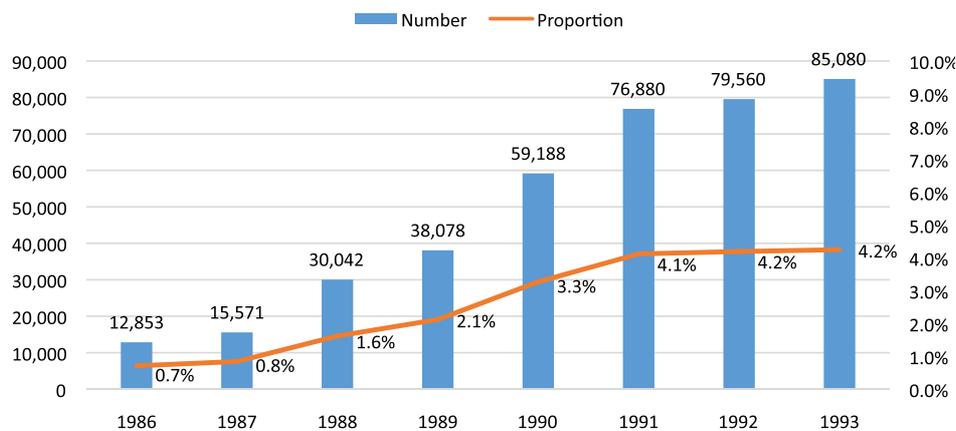
Source: Author's calculations using data from Inland Revenue statistics based on a survey of IR3 and IR5 income tax returns, years ended March. Website.

Instead of falling, the personal income tax liability of those earning at least \$60,001 rose very sharply both absolutely in real terms and relative to the total liability on taxable income (see Figure 10). The share rose from 7.7% in 1986 to 22.8% in 1991, and the amount in 1993 dollars rose from \$876 million to \$2,544 million. This rise was sustained.

The main reason is that a much larger number of people commenced to declare taxable incomes above \$60,000. The number of Inland Revenue returns reporting taxable income from \$60,001 upwards more than doubled between 1986 and 1988, and almost doubled again between 1988 and 1990 (see Figure 11). By 1991, it was more than six times higher than in 1986. As a proportion of all income tax returns filed, it rose more than five-fold from 0.7% to 4.1% between 1986 and 1991. Higher pre-tax salaries in the public sector and state agencies and among top private sector managers

41 New Zealand Treasury, "Key Facts for Taxpayers, Budget 2016" (Wellington: New Zealand Government, 2016). Keep in mind that these totals will not add up to 100%.

**Figure 11: Number of filings with an annual income more than \$60,000 (1986–93)**



Source: Author’s calculations using data from Inland Revenue statistics based on a survey of IR3 and IR5 income tax returns, years ended March. Website.

and professionals likely contribute to these figures.<sup>42</sup>

Atkinson and Leigh also examined the relationship between tax rates and the income share of the top 10% in five Anglo-Saxon countries, including New Zealand. This percentile’s (pre-tax) income share increased when its marginal tax rate on wage income or investment income was lowered.<sup>43</sup>

High top tax rates incentivise high income people to organise their affairs so as to reduce the proportions of their taxable incomes. This is at a cost to themselves and the wider community.

42 Inflation is only part of the story. For example, between 1988 and 1990 prices and wages lifted by the order of 11–12%. The number reporting taxable incomes below \$60,000 by no more than 12% in 1988 was around 16,500. If all those had moved up into the \$60,000+ bracket by 1990 and none had dropped below it, that 16,500 would still fall well short of the actual increase in the number of filers in that top tax rate bracket between 1988 and 1990 of a bit over 29,000. An alternative approach is to see if the number of returns filed in 1990 that exceeded the 1988 \$60,000 threshold by 12% was much greater than the 30,042 of returns filed in the top taxable income bracket in 1988. The number of such returns in 1990 was 42,039. That represents a marked increase of 12,000 returns (40%). Moreover, the overall number of filed tax returns in 1990 was lower than in 1988, reflecting the global recession.

43 Anthony Atkinson and Andrew Leigh, “The Distribution of Top Incomes in Five Anglo-Saxon Countries over the Twentieth Century,” IZA Discussion Paper No. 4937 (2010).

The retention of earnings in company or family trust structures to avoid high rates of personal income tax is just one of the myriad ways people use to reduce their taxable income. Treasury research estimates that the welfare cost of raising an extra dollar of income tax revenue is well in excess of a dollar in New Zealand.<sup>44</sup>

Victoria University of Wellington economists John Creedy and Norman Gemmill have calculated the tax rates that might be imposed on those earning top incomes in New Zealand beyond which tax revenues from a further tax rate hike would likely fall rather than rise. Their estimates of the revenue-maximising tax rates for those earning more than \$48,000 in 2010 were “certainly within the range” of existing tax rates. The implication was that increases in those top tax rates could plausibly reduce revenue.<sup>45</sup>

44 Iris Claus, John Creedy, and Josh Teng, “The Elasticity of Taxable Income in New Zealand,” *Fiscal Studies* 33:3 (2012), 287–303. Note that the top personal income tax rate at this time was 39%.

45 John Creedy and Norman Gemmill, “Revenue-Maximising Elasticities of Taxable Income in Multi-Rate Income Tax Structures,” Working Paper Series 13/27 (Wellington: New Zealand Treasury, 2013). More technically, Creedy and Gemmill estimated revenue maximising elasticities for taxable income and compared them to estimated actual elasticities. The top statutory personal income tax rate in 2010 was 38%.

US economists Allan Meltzer and Scott Richard have modelled another reason higher tax rates used to fund additional welfare spending might increase income inequality.<sup>46</sup> Higher tax rates reduce the paid hours worked of everyone who is in paid work, but the effect is greater at lower incomes where welfare makes dropping out of the workforce more attractive.<sup>47</sup> The labour income of the median person in the community drops further than the average income from labour – making labour income more unequally distributed.<sup>48</sup>

In summary, Meltzer and Richard show that in principle, a rise in the income tax rate can increase pre-tax market income inequality in a world where the *only* form of income is taxable income. However, in practice tax systems allow citizens to invest from both taxed and untaxed sources of income. Therefore, lower tax rates can lead to higher reported pre-tax incomes as people shelter less of their income from tax. As a result, the quantum of tax paid may rise or fall with lower tax rates. It appears that personal income tax revenues from the top income earners rose sharply during 1988–91 despite the enormous reduction in the top rate of income tax. Even on the best available estimates currently, it is not clear a higher top statutory personal income tax rate would increase tax revenue from top income earners.

From an inequality perspective, if the aim is to increase the tax revenue from top income earners in order to redistribute the additional revenue to those on lower incomes, it may be moot whether the top statutory rate should be raised or lowered. The distribution of tax burdens across individuals in their lifetime is a different matter. Of course,

those earning the highest incomes and paying the most taxes are probably at the peak of their lifetime annual incomes. Spread over their entire working lives, the distribution of tax liabilities should be more even. But clearly the government and many households, including the median household, are relying heavily in any given year on the top 40% of households to pay heavy tax liabilities (as distinct from heavy tax rates).

## Distribution of the net tax burden

Income tax is not the only tax individuals pay. We also pay indirect taxes on purchased goods and services. The two types of tax are bound to be distributed across households and individual differently. The distribution of social services and welfare benefits, including health and education, across households and individuals is likely to be different again.

Disposable income is pre-tax income minus personal income taxes. Final income is “disposable income plus the cost of subsidised or free health and education services, but less [minus] indirect tax payments”.

Figures 12, 13 and 14 show the distribution across income deciles of personal direct tax, indirect tax, and final income, respectively. Figure 12 shows the government’s heavy dependency on the top decile for revenue from personal income tax.

Indirect taxes per household are, on average, much less than income tax per household (see Figure 12). They are very similar per household for the lowest three income deciles. From there, the average amount paid per household per decile rises in a visually smooth progression.

The bottom four deciles receive a lot more from government than they pay in taxes (see Figure 14). The next three deciles look like they might be neutral. Clearly, the government looks to the top three deciles (8–10) for net revenue to help cover the fiscal deficit with respect to the bottom deciles. Here is how the authors sum up the situation:

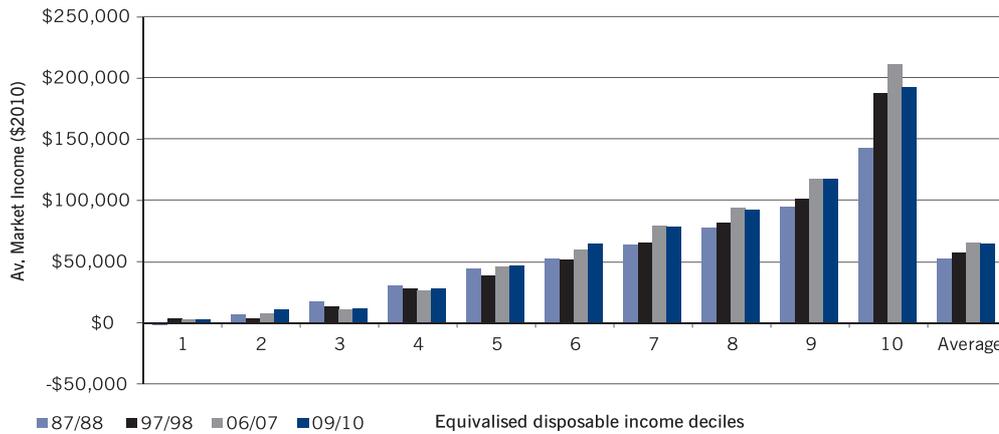
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46 Allan H. Meltzer and Scott F. Richard, “A Rational Theory of the Size of Government,” *The Journal of Political Economy* 89:5 (1981), 914–927.

47 For the technically minded, they assume that preferences between consumption funded by work and leisure time are logarithmic.

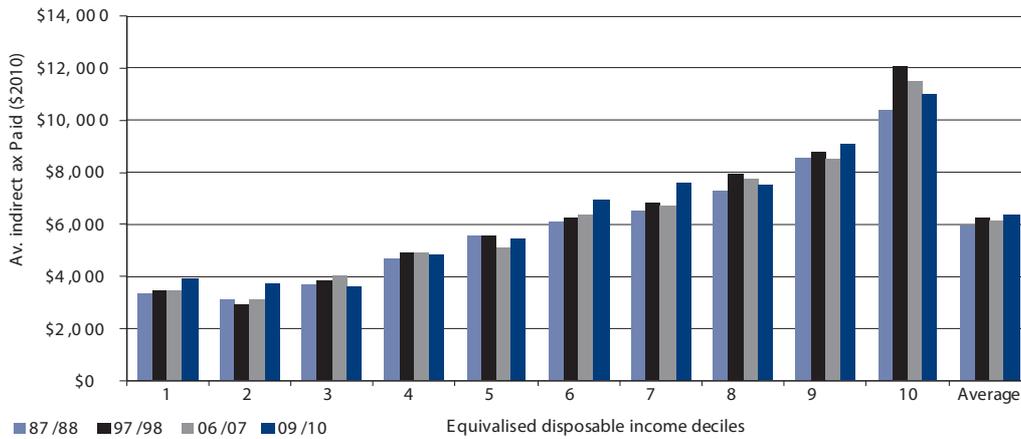
48 The inequality measure they use is the average income divided by the median income.

**Figure 12: Average personal income (direct) tax per household (1987–2010)**



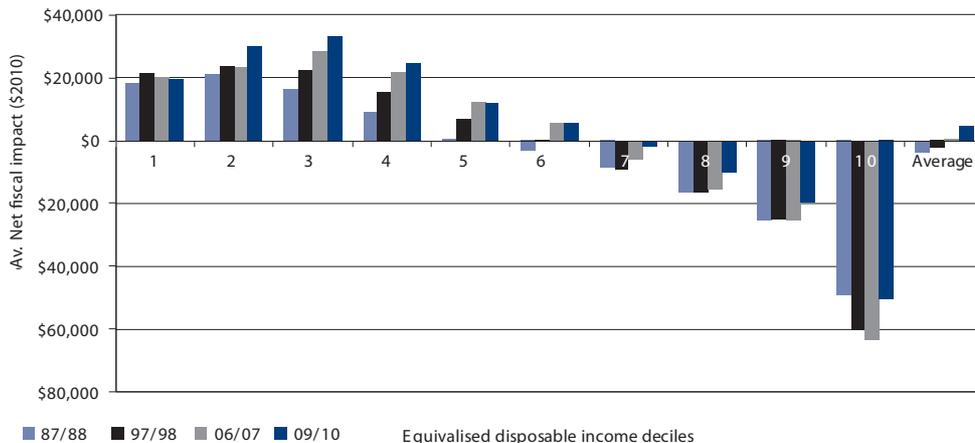
Source: Omar Aziz, Matthew Gibbons, Christopher Ball and Emma Gorman, “The Effect on Household Income of Government Taxation and Expenditure in 1988, 1998, 2007 and 2010,” *Policy Quarterly* 8:1 (2012), 33.

**Figure 13: Average indirect tax paid per household (1987–2010)**



Source: Omar Aziz, Matthew Gibbons, Christopher Ball, and Emma Gorman, “The Effect on Household Income of Government Taxation and Expenditure in 1988, 1998, 2007 and 2010,” *Policy Quarterly* 8:1 (2012), 35.

**Figure 14: Final income (1987–2010)**



Source: Omar Aziz, Matthew Gibbons, Christopher Ball, and Emma Gorman, “The Effect on Household Income of Government Taxation and Expenditure in 1988, 1998, 2007 and 2010,” *Policy Quarterly* 8:1 (2012), 35.

In all four time periods, deciles 1 to 5 received more government spending on the social services included in this study [includes education and health<sup>49</sup>] than they paid in [net] taxes. Decile 6 has also been a net fiscal recipient since 1998. In contrast, households in deciles 7 to 10 consistently paid more in tax, on average, than they received in social services.<sup>50</sup>

Overall, estimated government spending on cash welfare payments and education and health services attributed to households exceeded the estimated income tax and GST paid by households by \$7 billion in 2010. Based on Aziz et al.'s statistics, in 2010, the top 4 deciles paid \$25 billion in taxes and received \$12 billion back in the form of social services.<sup>51</sup>

A more recent paper by Omar Aziz, et al. included housing support in its estimates of benefits in kind. Government payments to households in benefits in cash and kind in 2010 exceeded household direct and indirect tax payments by \$8 billion.<sup>52</sup>

Of course, these statistics do not show the ultimate distribution of the burden of funding government-provided services because they do not show how prices and wages have adjusted in response to the current tax and benefit structures.

## 1.5 WEALTH INEQUALITY

Private wealth or net worth<sup>53</sup> is more unequally distributed than income.<sup>54</sup> Wealth inequality has been a subject of rising international concern, particularly since the publication of Thomas Piketty's *Capital in the Twenty-First Century* focusing on inherited wealth. Max Rashbrooke and Geoff Bertram echo this concern in New Zealand (See Chapter Four).

Statistics New Zealand's latest release of New Zealand's net worth statistics (year ended June 2015) assessed that the top 20% of New Zealand households own about 70% of all household net worth (assets minus liabilities) – the top 10% around 50%, and the top 1% around 18%.<sup>55</sup>

How does New Zealand compare internationally? Trinh Le, John Gibson, and Steven Stillman compared an estimated Gini coefficient for household net worth in New Zealand in 2004 and 2006 of 0.73 with estimates for seven other OECD member countries. They concluded that wealth inequality in New Zealand was “broadly similar to that in most other countries for which data is available”.<sup>56</sup>

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49 Omar Aziz, Matthew Gibbons, Christopher Ball, and Emma Gorman, “The Effect on Household Income of Government Taxation and Expenditure in 1988, 1998, 2007 and 2010,” *Policy Quarterly* 8:1 (2012). The authors explain what is included in education and health expenditure on p. 31. In a nutshell, education expenditure refers to use of early childhood and tertiary education services based on Household Economic Survey data, and compulsory education (primary and secondary school) was attributed to those who were age-eligible. Health spending data came from the funding of health boards broken down by age, gender, ethnicity and deprivation index of their population.

50 Ibid. 35–36.

51 Government also derives revenue from other sources, including company tax, user charges, and investments.

52 Omar Aziz, Christopher Ball, John Creedy, and Jesse Eedrah, “The Distributional Impact of Population Ageing in New Zealand,” *New Zealand Economic Papers* 49:3 (2015), 207–226.

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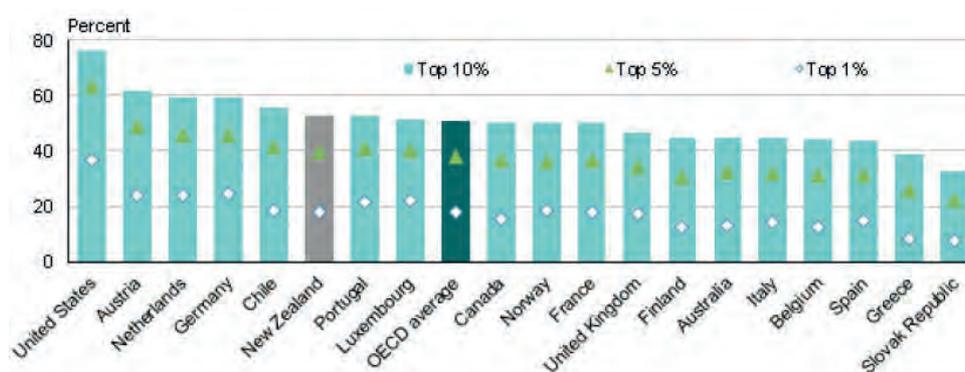
53 In this section, we use net worth and wealth synonymously. Note that in other contexts, wealth could be more broadly defined to include human capital, welfare entitlements, and intangible assets.

54 Gini coefficients for individual wealth in 2004 and 2006 are 0.68 and 0.69, respectively. Trinh Le, John Gibson, and Steven Stillman, “Wealth and Saving in New Zealand: Evidence from the Longitudinal Survey of Family Income and Employment,” *New Zealand Economic Papers* 49:2 (2015), 97. The authors found that 30% of the population had almost no wealth. The top 20% of individuals by household income owned around 70% of total wealth and earned over half the income of all New Zealanders.

55 Statistics New Zealand, “Household Net Worth Statistics. Year ended June 2015” (Wellington: New Zealand Government, 2016).

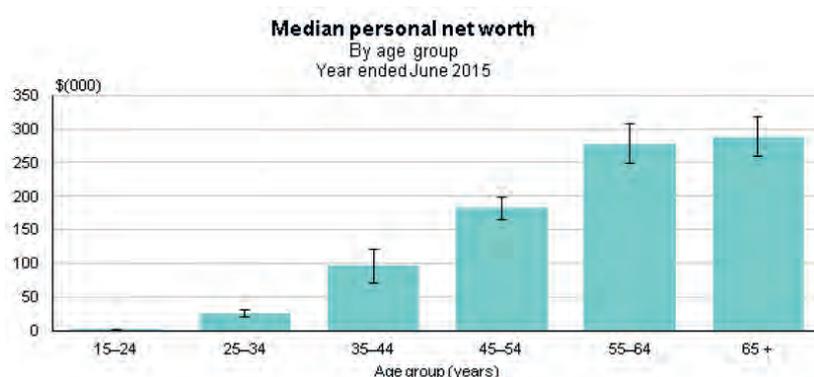
56 Trinh Le, et al. “Wealth and Saving in New Zealand,” op. cit.

Figure 15: Household wealth shares in selected OECD countries – top percentiles (2010 or latest available year)



Source: Statistics New Zealand, “Household Net Worth Statistics. Year ended June 2015” (Wellington: Statistics New Zealand, 2016).

Figure 16 Median personal net worth by age group (2015)



Source: Statistics New Zealand, “Household Net Worth Statistics. Year ended June 2015” (Wellington: Statistics New Zealand, 2016).

A 2009 NBER working paper gives a very different impression. It calculated Gini coefficients for household wealth for 150 countries around 2000.<sup>57</sup> Japan’s coefficient was lowest, at 0.547 (New Zealand’s was only 0.651). Only 19 countries were more equal, including Norway, Australia (0.622), Finland, Italy, Ireland, Spain and China.<sup>58</sup> Both papers found that wealth was much more unequally distributed in Sweden and the United States than in New Zealand. Wealth was also more unequally distributed in Denmark than in the United States on this measure.

Statistics New Zealand’s latest report says the proportion owned by the top 10% of households is “consistent” with a 19-country OECD average, and the proportion owned by the top 1% is the same as the OECD average (see Figure 15). The wealth shares of the top percentiles in the United States are exceptionally high. Sweden and Denmark are not included.

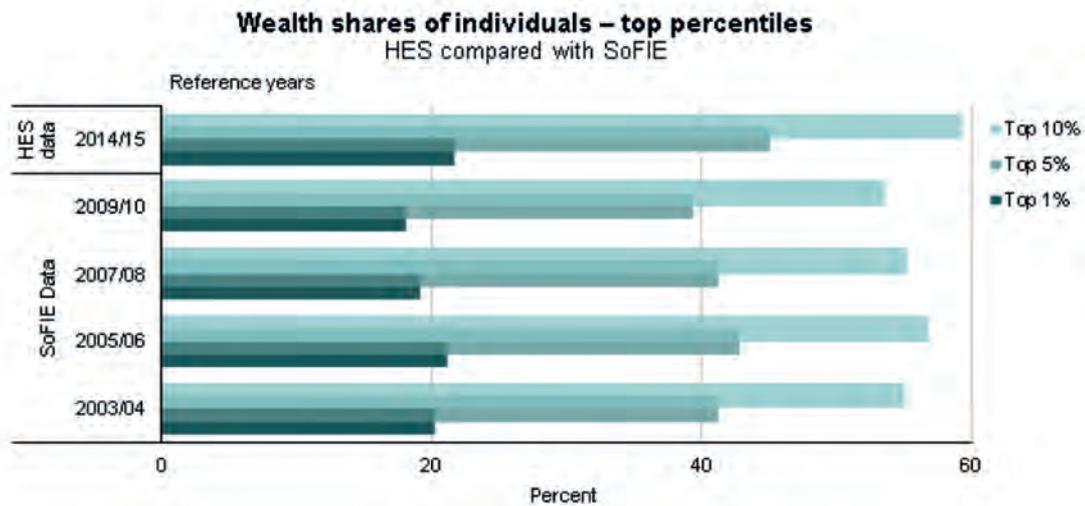
Statistics New Zealand also reported that individual net worth is more unequally distributed than is household net worth. The wealthiest 10% of individuals in New Zealand own around 60% of total household net worth, compared to 55% for the top 10% of households.

Wealth is (unsurprisingly) unequally distributed across age groups. Those nearing retirement are richer than 15- to 24-year-olds (see Figure 16).

57 James B. Davies, Susanna Sandström, Anthony Shorrocks, and Edward N. Wolff, “The Level and Distribution of Global Household Wealth,” NBER Working Paper No. 15508 (2009).

58 Listed in order of progressively lower Gini coefficients.

Figure 17: Top wealth shares (2004–15)



Source: Statistics New Zealand, “Net Worth in New Zealand. Year ended June 2015” (Wellington: New Zealand Government, 2016).

Student debt not offset by an estimate of increased earnings capacity will be part of the reason.

Wealth is also unevenly distributed within each age group. One measure of inequality within each age group is the ratio of mean wealth to median wealth. The ratio would be 1 for an equal distribution. On Statistics New Zealand’s statistics, the distribution becomes more equal with increasing age. The ratio for the year ended June 2015 declined progressively from 3.3 (25–44 years) to 2.1 (45–64 years) and 1.9 (65+ years).<sup>59</sup>

Le, et al. found that on average:

- those with partners had twice the net worth of single individuals
- single females had marginally more wealth than single males
- the wealth of those with university degrees was more than three times higher than the wealth of those with no educational qualification; and

59 Statistics New Zealand’s latest release does not allow this ratio to be calculated for the 15–14 age group.

- Pacific Islanders had the least wealth of any ethnic group, followed by Maori.<sup>60</sup>

Is the distribution of wealth becoming more unequal? Le, et al. found that it did between 2004 and 2006 across a wide range of inequality measures. In a chart reproduced below as Figure 17, Statistics New Zealand compared its 60% share for the top 10% of individuals with an “average of around 55 percent from the Survey of Family, Income and Employment (SoFIE) collections between 2003 and 2010”.

This comparison was immediately heralded as evidence of a growing class divide in New Zealand.<sup>61</sup> However, its robustness has yet to be determined.

Statistics New Zealand itself cautions that the constituent surveys in this comparison are not

60 Trinh Le, et al. “Wealth and Saving in New Zealand,” op. cit. Table 3, 98. But note the difference in time periods. Trinh Le et al. are looking at 2004 and 2006 SoFIE statistics.

61 See, for example, Shamubeel Eaqub quoted in Belinda McCammon, “10% richest Kiwis own 60% of NZ’s wealth,” *Radio New Zealand* (28 June 2016).

directly comparable and should be treated with caution.<sup>62</sup>

In particular, Statistics New Zealand's latest estimates incorporate more information on assets and liability in trusts and (positive and negative) equity in own unincorporated business than in the earlier SoFIE statistics. The incorporation of this additional information in 2014/15 disproportionately reduces estimated net worth in the bottom quintile for net worth.

The advent of interest-free student loans in 2005 has also affected the distribution of net worth. It has seen a marked increase in the number of people taking out loans, and the value of those loans.<sup>63</sup>

Asset values can also be volatile and temporarily alter the distribution of wealth.

The estimated values for housing and mortgages in the latest release also raise doubts. As Eric Crampton explains in the *National Business Review*,<sup>64</sup> house values appear to be understated in the assets calculation. Given the ongoing house price inflation in Auckland and elsewhere, the effect could be substantial. Higher house values could make the wealth distribution more equal, at least across home-owning households.

This is because owner-occupied housing represents a smaller proportion of household assets for the wealthiest quintile. This may have disproportionately reduced the estimated net worth for the least wealthy quintile of the individual wealth distribution. Statistics New Zealand's latest release for this quintile values its housing assets at \$3.99 billion and its home loans and mortgages on owner-occupied homes at \$4.899 billion. This seems implausible.

A final point is that estimated assets exclude the present value of human capital, government welfare benefits, or superannuation. This omission surely makes the wealth distribution look more unequal than it actually is. The current post-tax payment of New Zealand Superannuation (NZS) to a single person living alone on an 'M' tax code is \$769.52 per fortnight, or \$20,000 per annum. It is indexed to wages and government guaranteed. For someone aged 65 with a remaining life expectancy of 25 years, a ballpark figure for the value of that entitlement could be around \$500,000. That would make it the dominant source of wealth for the median household aged 65–69.

How much wealth mobility is there in New Zealand? Le, et al. found evidence of considerable wealth mobility for individuals between 2004 and 2006. For example, only 54% of those whose wealth put them in the lowest wealth quintile in 2004 were still in that quintile in 2006.<sup>65</sup>

## 1.6 CONCLUDING COMMENTS

The pre-tax income shares of top income earners declined substantially from the 1950s at least until the late 1980s. Nevertheless, incomes of top managers and professionals did rise absolutely and relatively following the end of the wage and price freeze of the early 1980s.

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62 "Methodological differences between HSS, SoFIE, and HES (Net worth), [sic] mean the three surveys are not directly comparable. Differences include questionnaire structure, subject population, and breadth and depth of questions. We advise caution in any comparison customers make between the surveys. Keep this caution in mind as we compare estimates of net worth between the SoFIE and HES (Net worth) surveys." Statistics New Zealand, "Net Worth in New Zealand. Year ended June 2015" (Wellington: New Zealand Government, 2016), 23. In email correspondence, an Statistics New Zealand staff member has advised that given likely errors in scaling from sample size to the overall population, the 2014/15 proportions are not considered to be statistically significant for the 1 and 5 percentiles or for the 10<sup>th</sup> percentile for years other than 2009/2010.

63 Khyaati Acharya and Eric Crampton, "Decade of Debt: The cost of interest-free student loans" (Wellington: The New Zealand Initiative, 2016).

64 Eric Crampton, "Hot takes and inequality data," *The National Business Review* (15 July 2016).

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65 Trinh Le, et al. "Wealth and Saving in New Zealand," op. cit.

The post-tax income shares of the top percentiles were further increased by cuts to the top statutory income tax rates during the second half of the 1980s. These effects also show up in measures of household disposable income. The sharp lift from 1988 to 1990, which attracted international attention, appears to be primarily an artefact of dividend imputation. Consumption inequality did not rise nearly as abruptly.

The argument that the income tax cuts aggravated inequality by making it harder for government to fund welfare assistance does not stack up. Government increased its income tax revenue substantially from those paying the top rate of income tax. Between fiscal years ended 1987 and 1991, government tax revenue rose from 30% of GDP to 34%. Government spending on welfare rose from 4.9% of GDP to 7.4%.

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# CHAPTER TWO

## INCOME MOBILITY

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Chapter 1 looked at measures of income inequality at points in time – but not how the positions of individuals were changing between those points. Yet most people expect to start their working careers on a relatively low income and get promoted as they gain experience and take on greater responsibilities. There are no obvious grounds for concern with such a pattern.

The more likely grounds relate to people who start on low (or high) incomes and stay there. The former group are likely to experience hardship; the latter may reflect the inherited wealth of the idle rich.

So to what degree are low or high starting incomes a temporary or permanent condition? Are those who start at the bottom trapped there? This chapter reviews research into the degree to which low (or high) incomes are temporary: intra-generationally and inter-generationally.

### 2.1 INTRA-GENERATIONAL INCOME MOBILITY

Creedy studied lifetime inequality using Inland Revenue statistics on taxable (market) income for the years ended March 1991, 1992 and 1993. He found that on average males and females had different lifetime earnings profiles.<sup>66</sup>

The average income for men starting their careers initially rose with age but peaked well before retirement. Those on relatively high incomes in their age cohort tended to lose ground in the next year, and conversely for those on low incomes. Also, those whose relative income rose in 1991–92 were more likely than not to experience a lower

relative movement in 1992–93, and conversely. The spread of earnings for young men rose rapidly initially, reduced subsequently with age, but then rose again towards retirement age. Creedy extrapolated these observed dynamics over the length of normal working life using a simulation model. He found the inequality of simulated lifetime income was lower than the static income inequality in any one year. This set New Zealand apart from other countries where simulated lifetime income inequality is somewhere between the highest and lowest static annual values.

Women have, on average, a more complex profile for lifetime earnings. But Creedy also found a tendency for women on relatively high incomes in their age cohort to lose ground in the next year, and conversely for those on low incomes.

More recent research by Treasury and University of Otago researchers has used Statistics New Zealand’s SoFIE surveys.<sup>67</sup>

In 2012, a University of Otago study assessed the degree of earned income mobility in New Zealand.<sup>68</sup> It tracked the income movements of a group of individuals for seven successive years from 2002 to 2009. It found that around 50% of those who started out in the top or bottom

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66 John Creedy, “Earnings Dynamics Over the Life Cycle: New Evidence for New Zealand,” *New Zealand Economic Papers* 30:2 (1996), 131–153.

67 See Kristie Carter and Fiona Imlach Gunasekara, “Dynamics of Income and Deprivation in New Zealand, 2002–2009: A Descriptive Analysis of the Survey of Family, Income and Employment,” SoFIE Public Health Monograph Series No. 24 (2012); New Zealand Treasury, “A Descriptive Analysis of Income and Deprivation in New Zealand,” T 2012/866 (Wellington: New Zealand Government, 2012); Kristie Carter, Penny Mok, and Trinh Le, “Income Mobility in New Zealand: A Descriptive Analysis,” Working Paper 14/15 (Wellington: New Zealand Treasury, 2014).

68 Kristie Carter and Fiona Imlach Gunasekara, “Dynamics of Income and Deprivation in New Zealand, 2002–2009,” *Ibid.*

deciles in 2002 were also there in 2009. Periods of prolonged low income were associated with deprivation, but lower income is often temporary and not usually associated with deprivation.<sup>69</sup>

A subsequent Treasury ministerial report in May 2012 usefully summarised this information.<sup>70</sup> Figure 18 from that report uses coloured bars to represent the degree to which people move from one income decile to another from one period to another. In the first diagram, the coloured bars from top to bottom represent the initial income decile. The third diagram shows that if there is complete mobility, those in the top and bottom deciles initially will be spread evenly across all the deciles by the end of the next chosen period. The same is true for every other initial decile position.

The second diagram shows the actual seven-year movement, which was considerable. To some degree, this mobility reflects transitions from students into jobs and retirees making the opposite transition.

Yet Figure 19, also copied directly from the same Treasury report, shows considerable mobility if those age groups are excluded from the analysis. Of

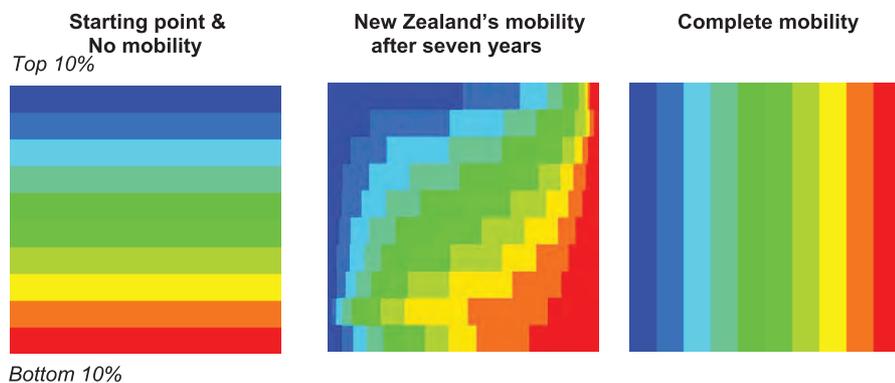
course, mobility of women with children in and out of the workforce will be playing a role.

Figure 20, again copied from the same report, indicates that income mobility in New Zealand tends to reduce inequality through time. The incomes of those on high incomes one year are more likely to fall than rise and vice versa.<sup>71</sup>

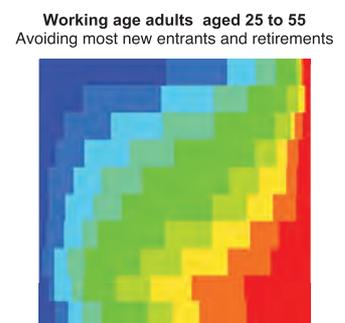
A subsequent 2014 Treasury working paper further assessed the degree of earned income mobility in New Zealand from that dataset, but this time for eight successive years from 2002 to 2010.<sup>72</sup> Over 60% of people moved from one income decile to another in the first two years of this period. There were also substantial changes during longer intervals. Large increases in income occurred among those who started out in the lowest income groups with much less downwards mobility from the top income group. After eight years, only 22% were in the same income decile as the one they started in.

Income inequality is consistently lower the longer the accounting period for measuring income. The reduction even from moving from 12 to 24 months dwarfs any changes between 1996 and 2012 in

**Figure 18: Income mobility for all ages in New Zealand (2002–09)**



**Figure 19: Working age adult income mobility**



Source: New Zealand Treasury, “A Descriptive Analysis of Income and Deprivation in New Zealand,” T 2012/866 (Wellington: New Zealand Government, 2012).

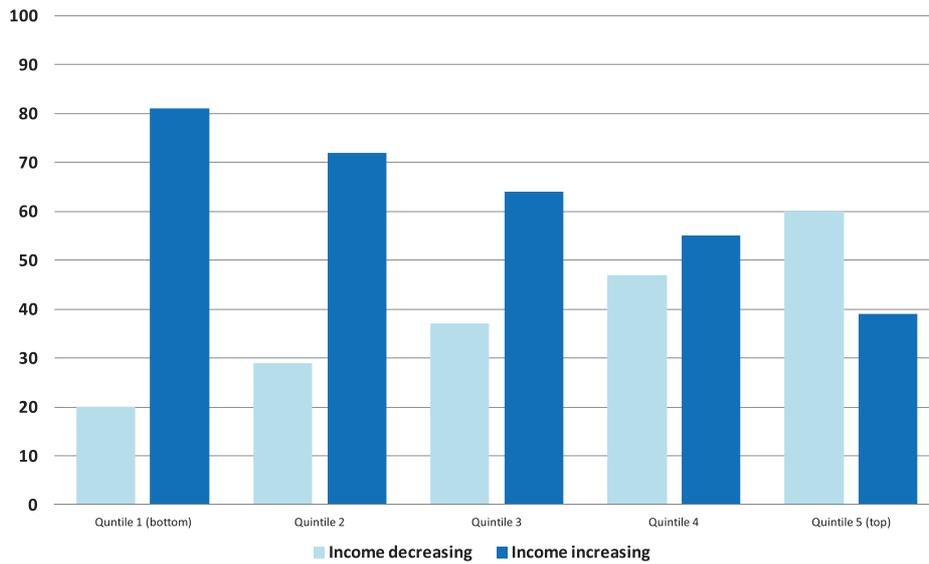
69 Tony Burton, “Income Mobility in New Zealand: What Was Going on Between 2002 and 2009” (Wellington: New Zealand Treasury), <http://sspa.org.nz/images/stories/conference2012/IncomemobilityinNewZealand.PPTX>.

70 New Zealand Treasury, “A Descriptive Analysis of Income and Deprivation in New Zealand,” op. cit.

71 This chart represents the change between the average real income in the last two years of the 2002–09 data period and the average in the first two years. Note that this equalising effect through time does not mean snapshot measures of income inequality across the entire population must fall through time.

72 Kristie Carter, et al. “Income Mobility in New Zealand: A Descriptive Analysis,” op. cit.

**Figure 20: Income mobility by quintile**



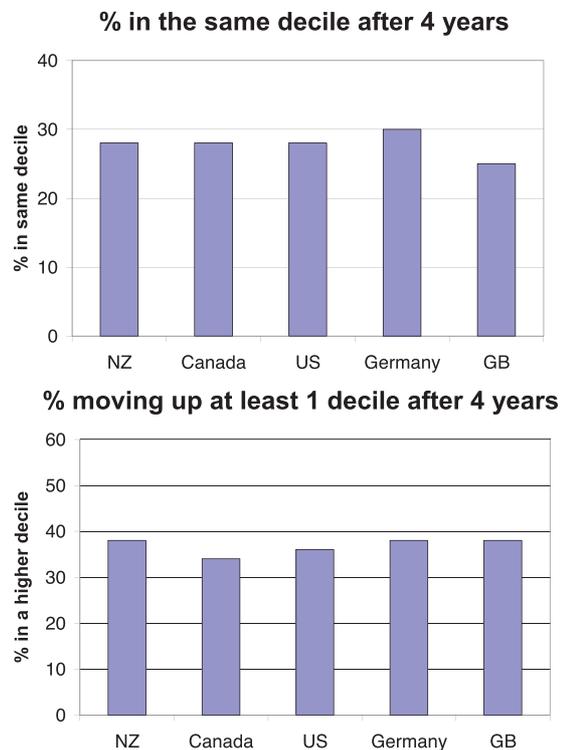
Source: New Zealand Treasury, “A Descriptive Analysis of Income and Deprivation in New Zealand,” T 2012/866 (Wellington: New Zealand Government, 2012).

inequality based on 12-month measures of income. “The inequality measures decay as they approach ‘lifetime income inequality’”.<sup>73</sup>

People with volatile incomes naturally smooth their spending decisions to avoid disruptive changes in their living standards. They tend to build up assets in high income years and run them down (dis-save) in low income years. Many studies have found that lifetime income and consumption are more equal than snapshot inequality.<sup>74</sup>

Finally, how do these estimates of income mobility for New Zealand compare internationally? Income mobility in New Zealand was similar to that in Great Britain, the United States, and Germany on the measure indicated (see Figure 21). Kristie Carter, et al. similarly report that income mobility in New Zealand is in line with findings from similar studies in other countries.<sup>75</sup>

**Figure 21: International comparison of income mobility**



Source: New Zealand Treasury, “A Descriptive Analysis of Income and Deprivation in New Zealand,” T 2012/866 (Wellington: New Zealand Government, 2012).

73 Athene Laws, Norman Gemmill, and John Creedy, “Income Mobility and Income Inequality in New Zealand: Trends, Patterns and Relationships,” Paper presented to the annual conference of the New Zealand Association of Economists (Wellington: NZAE, 2 July 2015).

74 See, for example, International Monetary Fund, “Fiscal Policy and Income Inequality,” Staff Report (IMF, 2014).

75 Kristie Carter, et al. “Income Mobility in New Zealand: A Descriptive Analysis,” op. cit. 18.

## 2.2 INTER-GENERATIONAL MOBILITY

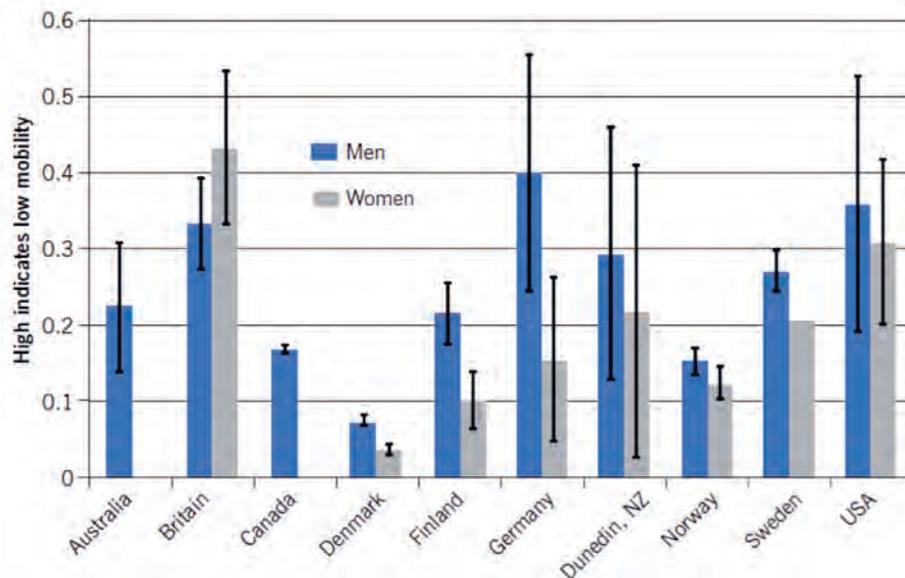
To what degree do we owe our lifetime earnings to our genes and childhood family circumstances rather than to our own efforts and merit? Is the (American) dream of mobility from log cabin to president based on merit and effort merely a myth?

Matthew Gibbons has investigated the degree of inter-generational economic mobility in New Zealand both absolutely and relative to other countries.<sup>76</sup> He used income statistics covering people born in Dunedin in 1972–73, and 1996 occupational statistics. He found parental income accounted for only a small proportion of the income variation or socioeconomic status of the cohort studied.

Gibbons expressed the relationship between the logarithmic income of a Dunedin father and his son as an income elasticity. His estimated value was 0.26. As an example, if a father’s income was 69% higher than the Dunedin average, the son’s income would be 17% higher at age 32.

In Figure 3 of his *Policy Quarterly* paper, reproduced as Figure 22 below, Gibbons compares his estimate of this relationship with estimates for other countries. The thin black vertical lines show an uncertainty range for each estimate. They are particularly long for the Dunedin estimate because of the small sample size and the weakness of the relationship. His overall conclusion is “rates of inter-generational income mobility for people from Dunedin appear to be in a similar range for people born in other developed countries”.<sup>77</sup>

Figure 22: Inter-generational income mobility



Source: Matthew Gibbons, “Income and Occupational Intergenerational Mobility in New Zealand,” Working Paper 10/06 (Wellington: New Zealand Treasury, 2010).

76 Matthew Gibbons, “Income and Occupational Intergenerational Mobility in New Zealand,” Working Paper 10/06 (Wellington: New Zealand Treasury, 2010). The published version is in *Policy Quarterly* 7:2 (2011), 53–60. Gibbons emphasises these results are “very preliminary”. The participants of the study, aged 32, have not yet hit the peak of their earning years (which normally occurs around their late 30s and 40s).

77 Ibid. 57.

## 2.3 CONCLUDING OBSERVATIONS

There is considerable income mobility in New Zealand. On the research evidence reviewed in this chapter, income mobility appears to be broadly in line with that in other prosperous countries. More research is needed to give a more definitive conclusion.

The strong conclusion that income inequality is lower the longer the income measurement period is consistent with the evidence that consumption inequality in any given year is likely to be smaller than income inequality in the same year. People with volatile incomes naturally tend to smooth out their spending decisions.

The flip side is there is a sizeable group whose starting income is relatively low, and stays that way.<sup>78</sup>

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<sup>78</sup> For more details, see Bryce Wilkinson and Jenesa Jeram, “Poorly Understood: The State of Poverty in New Zealand” (Wellington: The New Zealand Initiative, 2016).



# CHAPTER THREE

## UNEQUAL IN MANY WAYS

What factors contribute to economic inequality? People differ in many ways. They learn different skills, work different hours in the same or different jobs, earn different wages, and accumulate different assets. To a considerable extent this is natural.

The age structure of the population also affects measured economic inequality. Wage rates increase with work experience and responsibility. Assets build up progressively prior to retirement, and diminish in retirement.

Changes in family formation and household structure also affect measured economic inequality across households. Households with two working adults and no children will commonly have more income than a one adult household with dependent children.

Finally, low income people spend a greater proportion of their income on housing than do high income people. Higher housing costs hit those on low incomes harder.

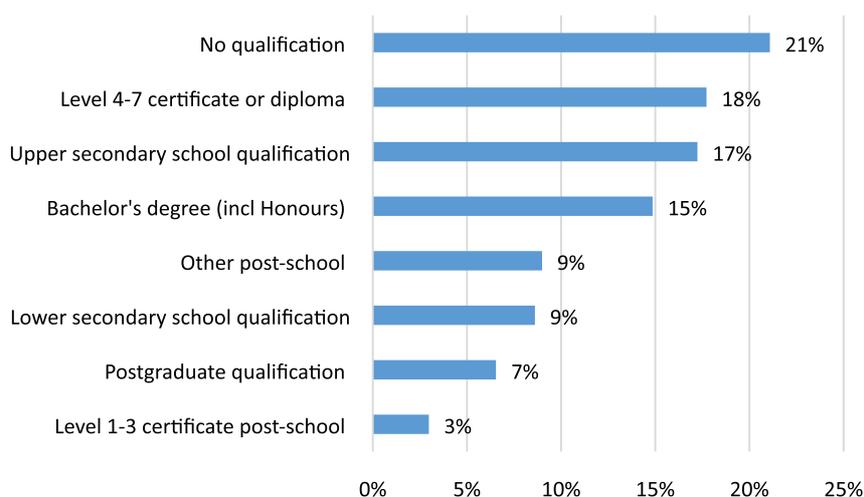
Sections 3.1–3.4 review the statistical extent of inequality across such metrics. The observed inequalities reflect some combination of genetic and environmental differences. The latter include public policy settings. Section 3.6 comments briefly on some policy aspects.

### 3.1 EDUCATION, EARNINGS AND PARTICIPATION IN WORK

Educational attainment is markedly unequal across the adult population. Low levels of achievement are correlated with lower workforce participation and less earnings.

In June 2015, 21% of those aged 15 years or more<sup>79</sup> did not even have a secondary school qualification (see Figure 23). At the top end, 7% had a postgraduate qualification. Note that some of the categories also overlap, some will still be in the education system, and some will be retired.

Figure 23: Proportions of population aged 15 years+ by highest educational qualification (2015)



Source: Statistics New Zealand, “New Zealand Income Survey” (June 2015 Quarter), Table 8.

79 Out of this population, at the age of 15+, it is likely that some will still be working towards a qualification.

Those with higher levels of educational achievement are more likely to be in paid employment (see Figure 24). In June 2015, 58% of those with no educational achievement did not have paid employment.<sup>80</sup> For the population as a whole it was 36%; for those with a postgraduate qualification it was 17%.

Average weekly income is highly correlated with the level of educational attainment (see Figure 25). In June 2015, the average weekly income of those with a postgraduate qualification was almost four times higher than the average for someone with no education qualifications.

Even so, lack of a formal education qualification is not a total barrier to a high income. In June 2015, 7% of those with no educational qualification were in the top quintile of earnings (see Figure 26). On a rough calculation, 95% of the people in that quintile would have some educational qualification.

### 3.2 HOURS WORKED

Work effort varies considerably across the population, leading to differences in salary and wage incomes.

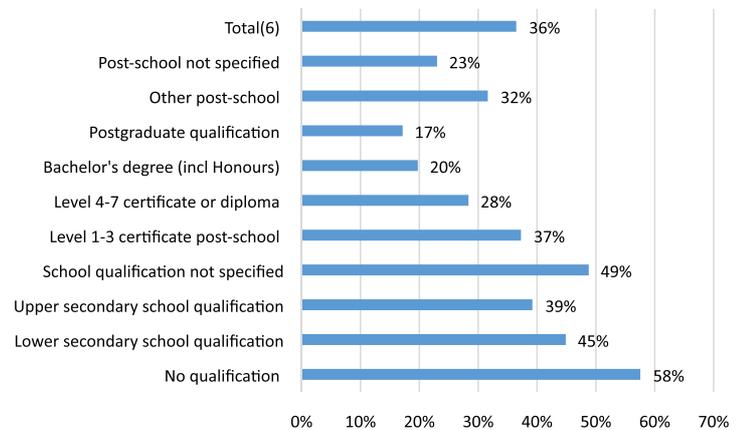
The variation is greater for women than for men given the greater proportion of part-time working women. In the surveyed week in December 2015, 61% of employed women worked fewer than 40 hours as against 33% of men. Together these part-timers accounted for 46% of those employed.<sup>81</sup>

The difference in the degree of part-time employment as between men and women is illustrated by the differences in the Gini coefficients for weekly hours worked: 0.21 for men and 0.31 for women (and 0.27 overall).

80 Of course some of these will still be at school or in further study and some (in all categories) will be retired.

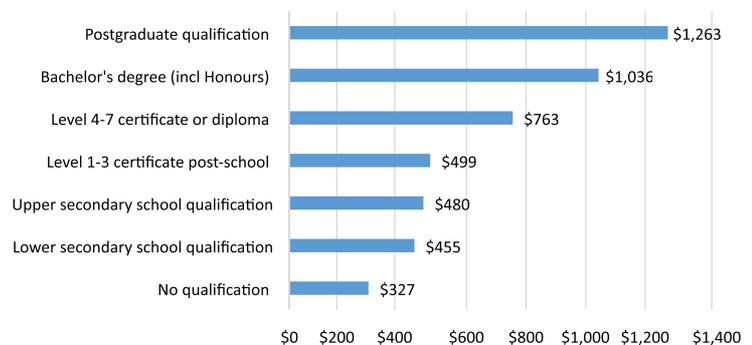
81 Author's calculations based on Statistics New Zealand (2015) Household Labour Force Survey. Statistics were provided at our request.

**Figure 24: Proportions of population aged 15 years+ not in paid employment by highest educational qualification (2015)**



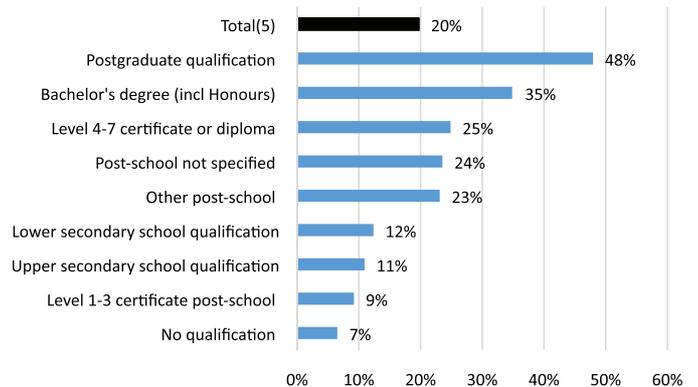
Source: Statistics New Zealand, "New Zealand Income Survey" (June 2015 Quarter), Table 8.

**Figure 25: Average weekly income from wages and salaries and self-employment by educational qualification (2015)**



Source: Statistics New Zealand, "New Zealand Income Survey" (June 2015 Quarter), Table 1.

**Figure 26: Proportions of total people in the top quintile of earnings by education qualification (2015)**



Source: Statistics New Zealand, "New Zealand Income Survey" (June 2015 Quarter), Table 8.

In December 2015, 6% of employed women and 21% of employed men were employed for at least 50 hours in the surveyed week. Together they accounted for 25% of all hours worked. Those working more than 40 hours a week accounted for 27% of those employed and 43% of all hours worked.

Other things being equal, fewer weekly hours will mean less weekly income. This effect would be exacerbated to the degree that those working part-time tend to be in less well-paid jobs. This is commonly the case. In the June quarter of 2015, the median hourly wage for part-time workers was only 70% of the median hourly wage for full-time workers.

### 3.3 AGE PROFILE OF EARNINGS

Young people typically start their working careers at the bottom of their income ladder and work up. Median hourly earnings from full-time salary and wage jobs typically peak around ages 40–44 (see Figure 27). Median hourly earnings for this age group were approaching double the median hourly earnings for 15- to 19-year-olds.

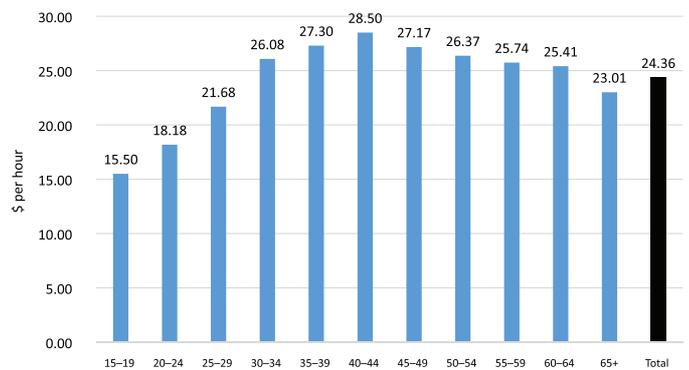
Note that few 15- to 19-year-olds are in full-time employment, so these statistics do not indicate the median income of the full population of each age group.

### 3.4 FAMILY FORMATION AND HOUSEHOLD STRUCTURE

In a 2001 Treasury working paper, Dean Hyslop and David Mare assessed the degree to which the increase in household income inequality in New Zealand between 1983–86 and 1995–1998 could be attributed to changes in household structure, employment outcomes, socio-demographic attributes, and economic returns to those attributes.<sup>82</sup>

82 Dean Hyslop and David Mare, “Understanding Changes in the Distribution of Household Incomes in New Zealand Between 1983–86 and 1995–98,” Working Paper 01/21 (Wellington: New Zealand Treasury, 2001).

Figure 27: Median hourly earnings by age (2015)



Source: Statistics New Zealand, “New Zealand Income Survey” (June 2015 Quarter), Table 11.

They found that in combination these factors were material. They could account for about half of the observed increase in inequality, depending on the measure.<sup>83</sup> The declining proportion of two-parent families was a particularly important aspect. Lindsay Mitchell found in a 2014 report for Family First that the proportion of children born to married couples fell from 95% to 53% between 1961 and 2015. For Maori in 2015 it was 21%.<sup>84</sup>

Statistics New Zealand, at our request, examined its survey information for evidence of an increasing tendency for high income earning women to marry high income earning men, thereby increasing household income inequality. There was no evidence of a material effect.<sup>85</sup>

### 3.5 THE EFFECT OF HOUSING COSTS

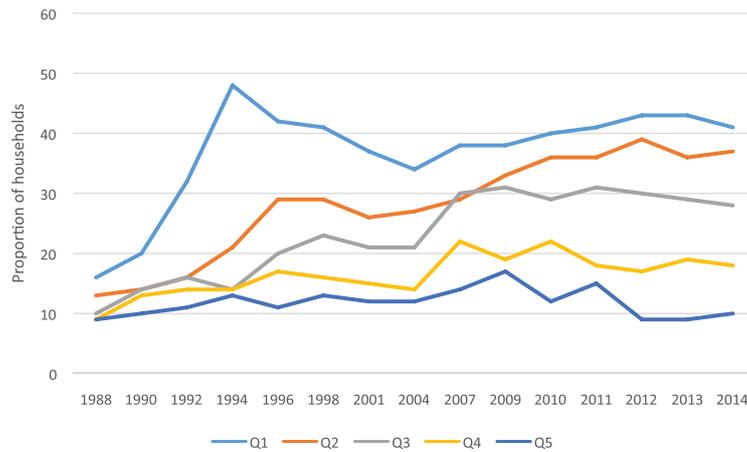
A rise in housing costs will hit low income earners hardest if housing costs take a greater proportion of their budgets. Since 1996, low income working

83 Ball and Creedy also found that changes in population structure contributed materially to increased measured market income inequality in the 1980s and 1990s. See Christopher Ball and John Creedy, “Inequality in New Zealand 1983/84 to 2013/14”, New Zealand Treasury Working Paper 15/06 June 2015, p22.

84 Lindsay Mitchell, “Child Poverty and Family Structure: What is the Evidence Telling Us?” (Family First: 2016), 5.

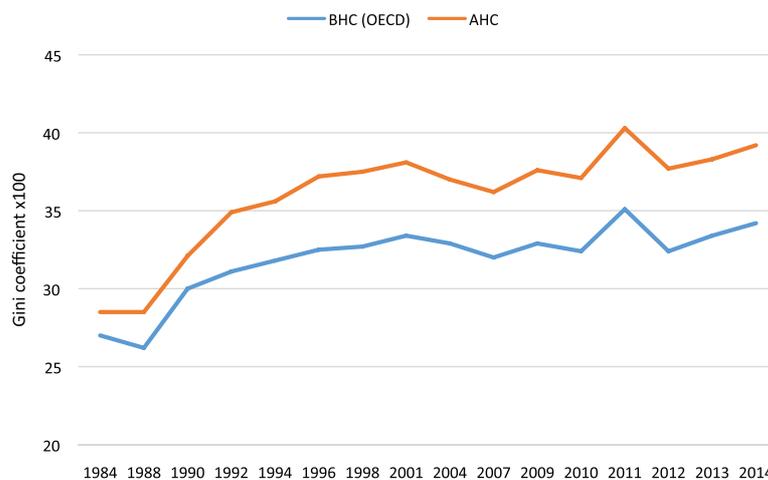
85 There is some evidence internationally of such an “assortative mating” effect.

**Figure 28: Proportion of households with housing cost OTIs greater than 30% by income quintile (1998–2015)**



Source: Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015,” (Wellington: Ministry of Social Development, 2016), Table C.3, 55: Proportion of households with housing cost OTIs greater than 30%, by income quintile.

**Figure 29: Income inequality before and after housing costs (1984–2014)**



Source: Bryan Perry, “Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015” (Wellington: Ministry of Social Development, 2016), Table D.8: Income inequality in New Zealand: the Gini coefficient (x100).

age households have spent around 25% of their budgets on rents, mortgages and rates. For middle income households the average was 20%.<sup>86</sup>

Figure 28 shows the differential effect of rising housing outgoing-to-income ratios (OTIs) across quintiles (where quintile 1 is poorest and 5 is richest).<sup>87</sup> The proportion of households with OTIs greater than 30% rose markedly between 1988 and 2015 for each of the bottom three quintiles. In

contrast, it was about the same in 2015 as in 1988 for the top quintile.

The effect has been to increase disposable income inequality on an AHC basis relative to inequality on a BHC basis (see Figure 29).<sup>88</sup>

Our earlier New Zealand Initiative report, *Poorly Understood*, cited Perry’s 2015 reports showing

86 Bryan Perry, “Household Incomes in New Zealand,” op. cit. Appendix 6, 202.

87 The income measure includes the accommodation allowance.

88 Bryan Perry, “Household Incomes in New Zealand,” op. cit. 64. These inequality trends differ from those in Chapter One (mainly derived from Christopher Ball and John Creedy, “Inequality in New Zealand 1983/84 to 2013/14,” op. cit.). That is because Perry uses a different adult equivalence scale and calibration methods.

that high housing costs in New Zealand have contributed to hardship in New Zealand. Perry's 2016 report shows that the differential effects of housing costs on lower income households show up even more dramatically when the 90:10 percentile ratios are compared on an AHC and BHC basis. He sums up this comparison as follows:

AHC incomes are more dispersed than BHC incomes as housing costs make up a higher proportion of the household budget for lower income households than they do for higher income households. The rise in AHC inequality from the late 1980s to the mid 1990s was a [sic] much larger than the BHC rise, and in contrast to the fairly flat BHC trend in the last ten years the AHC trend was consistently higher from 2011 to 2015 than it was in the mid 2000s.<sup>89</sup>

### 3.6 DIRECTLY RELATED PUBLIC POLICY ASPECTS

Differential outcomes for education, housing and labour force participation must reflect government arrangements and policies to some degree. Many – if not all – economic outcomes come with a 'made by government' label, particularly education, health, housing, access to jobs, taxes and pension, and welfare benefits. Government sets the laws that define legal rights and exchanges.

Where inequality is a concern, so is the degree to which existing government-related institutions and policies might unduly disadvantage those with the worst prospects. There is a sound basis for this concern. If governments are selected by self-interested median voters, a policy and institutional bias against those at the top and bottom of the socioeconomic distributions may result.

Previous New Zealand Initiative reports have highlighted the importance of educational and housing policies in their own right.

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89 Bryan Perry, "The Material Wellbeing of NZ Households: Overview and Key Findings" op. cit. 14.

## Education

The education system has seen a long tail of under-achievement. The New Zealand Initiative believes our education system can be improved at the teacher, leadership and school levels.<sup>90</sup>

Of course there are limits to what government can achieve through state education. Learning is a lifelong process. Rasmus Landersø and James Heckman found that disadvantaged children in Denmark who started with higher cognitive skills than their US counterparts did not necessarily sustain that advantage in adult life.<sup>91</sup> The authors suggested that the greater role of the welfare state in Denmark might be reducing incentives for adult learning compared to the United States. They did not express a view as to which system was better. One conclusion was that:

... the U.S. excels in incentivizing educational attainment [and] the Danish welfare state promotes cognitive skills for the disadvantaged children. Policies that combine the best features of each system would appear to have the greatest benefit for promoting intergenerational mobility in terms of both income and educational attainment.<sup>92</sup>

The bottom line is that government could help upward mobility by improving school performance with under-achievers. It hardly needs to be said that major differences in educational outcome will always exist for genetic and environmental reasons.

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90 John Morris and Rose Patterson, "World Class Education? Why New Zealand Must Strengthen its Teaching Profession" (Wellington: The New Zealand Initiative, 2013); John Morris and Rose Patterson, "Around the World: The Evolution of Teaching as a Profession" (Wellington: The New Zealand Initiative, 2013); John Morris and Rose Patterson, "Teaching Stars: Transforming the Education Profession" (Wellington: The New Zealand Initiative, 2014); Martine Udahemuka, "Signal Loss: What We Know About School Performance" (Wellington: The New Zealand Initiative, 2016).

91 Rasmus Landersø and James J. Heckman, "The Scandinavian Fantasy: The Sources of Intergenerational Mobility in Denmark and the U.S." (Bonn: The Institute for the Study of Labor (IZA), 2016).

92 Ibid. 56.

## Housing policies

Policies aimed at reducing housing costs could also reduce income inequality.

The New Zealand Initiative's report *Priced Out: How New Zealand Lost its Housing Affordability*<sup>93</sup> attributed the problem of rapidly rising house prices problem to government failure, arguing:

... there is nothing approaching a free market in housing: it is a market largely created and manipulated by government – whether from Wellington or by local councils.<sup>94</sup>

Housing supply is constrained by a number of factors. The New Zealand Productivity Commission has highlighted the importance of increasing the supply of land and adopting a more liberal approach to urban planning rules.<sup>95</sup> The commission took particular aim at zoning and council regulations:

An immediate release of land for residential development would ease supply constraints and reduce the pressure on prices. This could be achieved by bringing significant tracts of new residential land on the urban fringe (greenfield) and urban land that could be redeveloped for housing (brownfield) land to the market.<sup>96</sup>

...

... councils should ensure that their planning policies, such as height controls, boundary setbacks and minimum lot sizes, are not frustrating more efficient land use. Such policies put a handbrake on greater density and therefore housing supply.<sup>97</sup>

More recently, the Productivity Commission released a draft report on the planning system, which recognised the complexity and extent of the system as an impediment to affordable housing.<sup>98</sup> We see this report as a timely reminder that system-wide change is needed.<sup>99</sup>

At the central government level, a major culprit is the bias against new housing (subdivision) in the *Resource Management Act 1991*. Issues of consent, development fees, and zoning restrictions confound development. The Act undermines private property rights by allowing people who object to a new subdivision to stop it without having to buy the property at an unimpaired price. Nor does it confront them in any other way with the full cost to the community of having to forgo the benefits the subdivision would have created for the public at large. The same applies to high-rise developments. The upshot is unduly high housing prices because of a shortage of accommodation.

Economists call such an underdevelopment problem a 'tragedy of the anti-commons'. If objectors can block subdivisions without being confronted with the lost benefit to the community, there will be too little subdivision. Such a system can lead to rampant NIMBYism (Not-In-My-Backyard).

The Initiative's reports on local government point to the weak incentives for councils to welcome new housing. New developments inflict infrastructure costs on councils and troublesome NIMBY complaints. But council revenues from rates only increase incrementally to offset these costs. The New Zealand Initiative is working on policy options to incentivise local housing supply and development more generally.<sup>100</sup>

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93 Michael Bassett and Luke Malpass, "Priced Out: How New Zealand Lost Its Housing Affordability" (Wellington: The New Zealand Initiative, 2013).

94 Ibid. 4–5.

95 New Zealand Productivity Commission, "Final Report: Housing Affordability Inquiry" (Wellington: New Zealand Government, 2012), 19.

96 Ibid. Cut to the Chase 4-page summary.

97 Ibid. Cut to the Chase 4-page summary.

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98 New Zealand Productivity Commission, "Better Urban Planning: Draft Report" (Wellington: New Zealand Government, 2016).

99 The New Zealand Initiative, "Prod Comm builds case for change," Media Release (Wellington: 2016).

100 Jason Krupp and Bryce Wilkinson, "The Local Formula: Myths, Facts and Challenges" (Wellington: The New Zealand Initiative, 2015).

## Policies affecting labour force participation

Government regulation of access to jobs is another potential source of inequality. Mandated high minimum wage rates increase production costs and potentially product prices paid by all, including those without jobs. Along with other restrictions, such as occupational licensing, they can also make it harder for the least productive workers to find jobs. Between 2000 and 2008, the government increased the youth minimum wage rate from 60% of the adult rate to 100%. The unemployment rate for 15- to 19-year-olds rose markedly relative to that for 20- to 24-year-olds.<sup>101</sup>

### 3.7 CONCLUDING COMMENTS

Inequality in market incomes goes hand in hand with inequalities in educational attainment, having paid work, occupation, and age. Inequalities arising from these factors are inevitable.

Independently of government arrangements and policies, people have different aptitudes and priorities. They also make different choices.

Ravi Kanbur and Joseph Stiglitz<sup>102</sup> propose that labour income has become increasingly unequally distributed in part because of unequal returns to “increasingly unequally distributed” human capital. They see this as a self-reinforcing chain rising from unequal:

- prenatal development
- early childhood development and parenting
- subsequent educational investments by parents and society; and
- wage rates due to discrimination at the bottom end and unfair use of parental connections at the other end.

These propositions appear to emphasise ‘nurture’ considerations over genes. Of course, the relationship between environment (nurture) and IQ variances is nuanced. While experts tend to agree that both nature and nurture matter, they disagree on the relative importance of these factors.<sup>103</sup>

It is beyond the scope of this report to delve further into the nature vs nurture debate. Suffice to say that the quality of nurture and government arrangements and policies affect inequality outcomes.

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102 Ravi Kanbur and Joseph Stiglitz, “Wealth and Income Distribution: New Theories Needed for a New Era,” CEPR VOX (18 August 2015).

103 William T. Dickens and James R. Flynn have sought to resolve the paradox with IQ where environment “explains so little of the IQ variance between individuals” but “changes in environment produce the huge IQ gains that have been observed.” They also observe that genetic IQ and talents are enhanced when people seek out environments that amplify their natural talents. For example, those who are tall are more likely to train in basketball, which then amplifies their genetic advantage in this activity. See William T. Dickens and James R. Flynn, “Heritability Estimates Versus Large Environmental Effects: The IQ Paradox Resolved,” *Psychological Review* 108:2 (2001), 346–369.

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101 Author’s calculations based on Statistics New Zealand, Household Labour Force Survey.



# CHAPTER FOUR

## CONCERNS FROM INTERNATIONAL DEBATES

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Economic inequality is not just a New Zealand concern. In Europe, there are greater concerns of social unrest and evidence of influence on important political outcomes like Brexit. But just because New Zealanders are concerned about economic inequality does not mean we share the same causes that occur overseas. It is thus important to ensure any concern imported from international narrative really does apply to the New Zealand context.

Major aspects of the international debate concerning inequality include:

- Piketty's proposition that there will be a return to a world dominated by rich, likely idle, inherited gentry
- the concern that globalisation aggravates inequality; and
- the fear that inequality reduces economic growth.

This chapter reviews some of the literature that critically evaluates the international evidence for these propositions and examines the applicability of concerns to New Zealand. We find that though the narratives have been influential, there is little evidence they apply to New Zealand.

### 4.1 INHERITED WEALTH - THE PIKETTY THESIS

Victoria University of Wellington economist Geoff Bertram argues that Piketty's thesis applies to New Zealand.<sup>104</sup>

Piketty has achieved world fame by conjuring up fears of a return to a world dominated by rich, likely idle, inherited gentry. He thinks this tendency is a fundamental flaw of capitalism:

When the rate of return on capital exceeds the rate of growth of output and income, as it did in the nineteenth century and seems quite likely to do again in the twenty-first, capitalism automatically generates arbitrary and unsustainable inequalities that radically undermine the meritocratic values on which democratic societies are based.<sup>105</sup>

Whenever the rate of return on capital is significantly and durably higher than the growth rate of the economy, it is all but inevitable that inheritance (of fortunes accumulated in the past) predominates over saving (wealth accumulated in the present).<sup>106</sup>

Yet that proposition rests on flimsy grounds, historically and theoretically.

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104 Geoff Bertram, "A New Zealand Perspective on Thomas Piketty's Capital in the Twenty-First Century," *Policy Quarterly* 11:1 (2015), 39–46.

105 Thomas Piketty, *Capital in the Twenty-First Century* (Harvard University Press, 2014), 1.

106 *Ibid.* 377.

Critical to Piketty's case is a technical proposition based on several elements. First, he assumes that the rich continually reinvest their wealth successfully in productive investments. They pass this wealth on to subsequent generations who do not dissipate it. Second, they save at such a rate that the productive capital stock rises much faster than output, perhaps without limit, but likely at least until it is six times national income.<sup>107</sup> Third, and this is the most technical bit, he argues that the return on capital will not fall (implying that worker productivity and real wage rates will not rise sufficiently to maintain labour's share in national income).

Stringing these assumptions together, Piketty sees a strong likelihood of a "potentially terrifying" society dominated by dynastic wealth.<sup>108</sup>

### Do subsequent generations dissipate wealth?

Piketty posits that those who get rich through entrepreneurial incomes will get progressively richer through passive investment, as will their children and the generations that follow. Super-rich families will become ever richer.

However, a study of movements in and out of the Forbes 400 lists of the super-rich from 1918 found much truth in the proverb "wealth does not pass three generations".

... among [the] top 30 hyper-wealthy, if they are first-generation creators of the wealth, their share of Forbes 400 wealth erodes very slowly in subsequent years, falling by barely one fourth in a quarter century. For the second generation, wealth halved in 24 years and in just 11 years for the third generation.<sup>109</sup>

Of course, the story of a general trend is not the story of everyone. But it appears to be a challenge to find a family that has sustained a dominant position of wealth and power for many centuries.<sup>110</sup>

### Does dynastic inequality rise with the gap between return and growth?

Piketty's dynastic concerns postulate a historical link between changes in wealth inequality and in the gap between the return on wealth and the rate of economic growth. Yet, a study by MIT economist Daron Acemoglu and Harvard University political scientist James Robinson failed to find such an empirical link.<sup>111</sup>

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107 During this period, national income would grow faster than the labour force given positive labour. Hence, capital per worker would be increasing. Economists would generally expect that to increase real wage rates and reduce the return on capital.

108 Thomas Piketty, *Capital in the Twenty-First Century*, op. cit. 571.

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109 Robert Arnott, William Bernstein, and Lillian Wu, "The Myth of Dynastic Wealth: The Rich Get Poorer," *Cato Journal* 35:3 (2015), 447–487, 479. The authors list from first-hand advisory experience 10 factors that lie behind the general progressive dissipation of dynastic wealth (pp. 458–460). Of course, some are better than others at finding ways of preserving the disciplines and intuitions necessary for successful investing.

110 Wikipedia has a list of current wealthy families based on the Forbes 500 series. Of the nine wealthiest non-royal, non-land-owning aristocratic families it lists from the 14<sup>th</sup> century to 1912, only one still appears on the list (the Rothschild family). But the Rothschild wealth, undoubtedly imperfectly estimated at \$1.5 billion and spread over more than 10 family members, represents a shadow of its former eminence. Gregory Clark makes a strong case that social position is largely determined by innate inherited abilities. But it does not follow that nothing can be done to reduce inequality due to unnecessary and avoidable impediments to upwards mobility. Gregory Clark, *The Son Also Rises: Surnames and the History of Social Mobility* (Princeton University Press, 2014).

111 Daron Acemoglu and James A. Robinson, "The Rise and Decline of General Laws of Capitalism," *Journal of Economic Perspectives* 29:1 (2015), 3–38.

## Is investment in productive capital driving up the capital/income ratio?

Piketty argues that rising private wealth in Germany, France and Britain supports his fear that the rich are getting richer by reinvesting their income from capital.<sup>112</sup> Yet, when examining Piketty's detailed data, MIT doctoral student Matthew Rognlie found that rising house values provided a better explanation for the rising capital to income ratio of the rich. Specifically, between 1960 and 2010:

Across all eight countries in the sample, the average increase in housing capital/income was 186pp, while the average increase in other capital/income was only 44pp—making housing responsible for roughly 80% of the overall increase.<sup>113</sup>

Rognlie says a better title for Piketty's book would have been *Housing in the Twenty-First Century*.

Economist Robert Rosebkrantz reported in the *Wall Street Journal* in March 2015 that since writing his book, Piketty has clarified he does not think the rise in dynastic wealth is “the only or even the primary tool for considering changes in income and wealth in the 20<sup>th</sup> century, or for forecasting the path of inequality in the 21<sup>st</sup> century”.<sup>114</sup> Moreover, he reports Piketty saying political shocks, institutional changes, and economic development have played a major role in evolving inequality in the past and will likely continue to do so. Piketty acknowledges mechanisms such as the “supply and demand of skills and education” are relevant to examining rising labour income inequality.<sup>115</sup>

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112 Thomas Piketty, *Capital in the Twenty-First Century*, op. cit. 25–26.

113 Matthew Rognlie, “A Note on Piketty and Diminishing Returns to Capital” (2014), 16, [http://www.conta-conta.ro/economisti/Thomas\\_Piketty\\_file%2030\\_.pdf](http://www.conta-conta.ro/economisti/Thomas_Piketty_file%2030_.pdf).

114 Robert Rosebkrantz, “Piketty corrects the inequality crowd,” *The Wall Street Journal* (8 March 2015).

115 Ibid.

## More capital per worker should lift wage rates and reduce return to capital

Piketty cites empirical work on the responsiveness of capital's share to a rising capital to output ratio in support of his proposition that rising capital per worker would not raise real wages per worker and reduce the return to capital to a material degree. However, Acemoglu and Robinson say the “vast majority of existing estimates” of the degree of responsiveness do not support Piketty's proposition.<sup>116</sup> Former World Bank economist Ravi Kanbur and Noble laureate Joseph Stiglitz acknowledge that Piketty's proposition of both a rising capital to output ratio and a rising share of capital in income is inconsistent with mainstream estimates of the degree of substitutability between labour and capital in production.<sup>117</sup>

More technically, Rognlie argues that Piketty has wrongly focused on an estimate of the responsiveness of the return on capital to a rising capital to income ratio based on gross returns rather than returns to capital net of tax and depreciation. The rich can only reinvest net returns. Rognlie finds that the difference in these responsiveness measures largely negates Piketty's thesis.

## Rising labour income, not capital income, is increasing income inequality

The rise in measured income inequality in many OECD member countries between the mid-1980s and mid-2000s owes much to the sharp rise in top labour incomes, particularly in the United States. It is not a story of a rising share for income

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116 Daren Acemoglu and James A. Robinson, “The Rise and Decline of General Laws of Capitalism,” op. cit. 10. The technical term for the parameter being estimated is the elasticity of substitution between capital and labour. Piketty's thesis relies on its value being greater than one. The vast majority of estimates put it as being less than one. Furthermore, the authors observe that even a value “significantly greater than one would not be sufficient to yield the conclusions that Piketty reaches.”

117 Ravi Kanbur and Joseph Stiglitz, “Wealth and Income Distribution,” op. cit.

from capital. For example, the OECD found that increases in income inequality among its member countries in recent decades “have been largely driven by changes in the distribution of salaries and wages”; with few exceptions, the wages of the top 10% have risen relative to the bottom 10%.<sup>118</sup> Robert Arnott, William Bernstein, and Lillian Wu report that in the United States, company executives make up nearly 60% of those in the top 0.1% of income earners.<sup>119</sup> Furthermore, the increased share of company executives account for 70% of the rise from 2% to 8% of national income in the top 0.1%’s collective income share.

Piketty acknowledged in his book that the marked rise in income inequality in the United States “largely reflects an unprecedented explosion of very elevated incomes from labour, a veritable separation of the top managers of large firms from the rest of the population”.<sup>120</sup> Those high incomes are not a reward for idleness. Rather, the debate concerns the degree to which they are merited.

### Suggested modifications to Piketty’s theory

Kanbur and Stiglitz propose that Piketty’s proposition might be revitalised by a ‘yet to be developed’ theory that postulates ever-rising relative values for land and other sources of wealth that do not directly add to the capital used in the production of goods and services (such as houses on the French Riviera).<sup>121</sup> They tentatively suggest a ‘ratchet’ rent-seeking model where those who get wealthy through rents conferred by government privileges thereby have the wherewithal to successfully lobby government for ever-increasing rent-enhancing privileges. This hypothesis appears to abandon Piketty’s proposition about

unfettered market processes. Kanbur and Stiglitz also distance themselves from Piketty’s implicit proposition that workers don’t directly share in the proceeds of capital. They note that ownership of wealth through pension funds and the like is more dispersed than in the past. Also, some innovations can raise the productivity of labour and thereby real wage rates.

### Application to New Zealand: Our housing story

Bertram argues that Piketty’s thesis has some applicability to New Zealand because the sharp rise in measured post-tax income inequality in the late 1980s to early 1990s raised the ability of top income groups to save while reducing it at the bottom (as in a zero sum game). Consequently, when a boom in private wealth occurred, from around 2000, the wealthiest groups got the lion’s share of the benefits.<sup>122</sup>

His inference is that New Zealand is subject to the same forces as other “capitalist core countries” with respect to the “aggregate capital income ratio and the distribution of income”.<sup>123</sup>

In a subsequent paper, Bertram used revised Reserve Bank of New Zealand wealth statistics to show an increase in household wealth from 2.48 times GDP in 2000 to 3.21 times in 2015.<sup>124</sup>

However, increased housing wealth more than accounted for all this increase (up from 1.47 times to 2.23 times). Moreover, this rise is a house price story. It is not a house building story.

Piketty’s proposition is that the real value of the capital stock will rise faster than real income because of the reinvested savings of the rich. In fact, house building has been so limited that the real value of New Zealand’s housing stock grew more slowly than real GDP between 2000 and 2015

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118 OECD, “An Overview of Growing Income Inequalities in OECD Countries: Main Findings (2011), 22.

119 Robert Arnott, et al. “The Myth of Dynastic Wealth,” op. cit. 482.

120 Thomas Piketty, *Capital in the Twenty-First Century*, op. cit. 24.

121 Ravi Kanbur and Joseph Stiglitz, “Wealth and Income Distribution,” op. cit.

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122 Geoff Bertram, “A New Zealand Perspective on Thomas Piketty’s Capital in the Twenty-first Century,” op. cit.

123 Ibid. 15.

124 Geoff Bertram, “Research Note: A Revised Set of New Zealand Wealth Estimates,” *Policy Quarterly* 11:3 (2015), 73–75.

(from 1.37 times GDP to 1.26 times) (see Figure 30). Meanwhile, house price inflation rather than reinvested savings increased the market value of this stock relative to GDP.

In addition, contrary to the ‘Piketty’ proposition that a higher market value for housing is not at the expense of a lower rental yield, OECD statistics for New Zealand indicate house prices have more than doubled relative to rent since 2000 (see Figure 31).

More generally, the real value of the net stock of all categories of the market sector capital was no higher relative to real GDP in 2015 than in 2000, notwithstanding appreciable fluctuations along the way. This is not consistent with the Piketty proposition of a near inevitable rise in the share of market capital due to reinvested savings.

Of course, Piketty’s propositions are longer term ones, taking generations rather than decades to manifest themselves. It seems highly unlikely he would argue a sharp rise in house prices resulting from supply-side constraints on housing and zoning restrictions would vindicate his thesis.

### Application to New Zealand: The rise of labour income

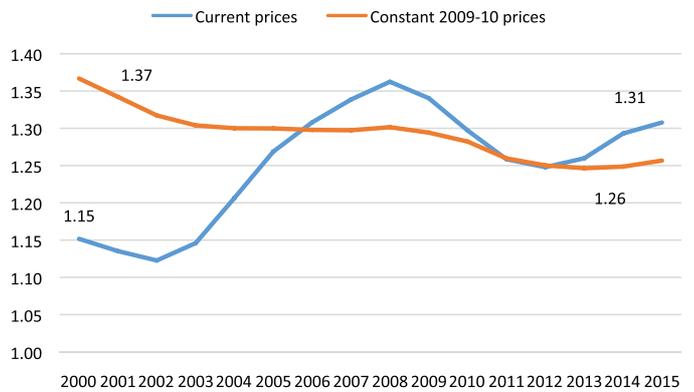
In his book, Piketty was concerned with rising income and wealth inequality due to increasingly dominant inherited wealth.

For New Zealand, Bertram points to the long fall in labour’s share of national disposable income<sup>125</sup> as supportive evidence for the application of Piketty’s hypothesis to New Zealand. But this fall seemed to have bottomed out around the year ended March 2003 both for the measured sector and the economy. Again, it is too big a stretch to argue the earlier decline makes Piketty’s thesis applicable to New Zealand.

Moreover, salary and wage earners have markedly increased their presence in Inland Revenue’s top band for individual incomes. Specifically, in 2014 the number of salary and wage returns

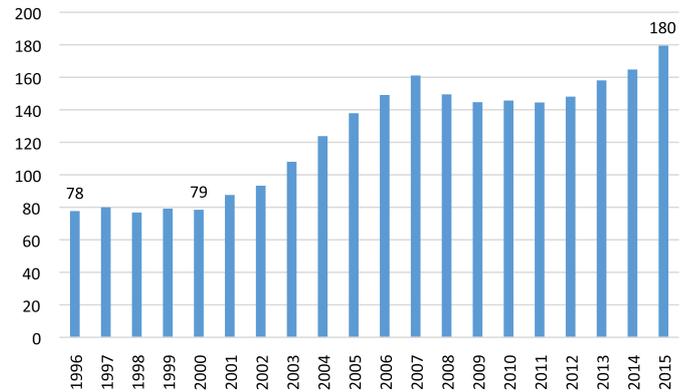
125 In the measured sector, which excludes some industries because they are statistically difficult to measure.

Figure 30: Housing stock relative to GDP (2000–15)



Source: Statistics New Zealand, “Net Capital Stock Series” (Wellington: New Zealand Government).

Figure 31: House prices rise relative to rents (1996–2015)



Source: OECD, “Analytical house prices indicators,” Website, <https://stats.oecd.org/>.

showing a taxable income greater than \$150,000 was five times greater than in 2001, whereas the number of all such returns was fewer than three times greater.<sup>126</sup> The increases in the total taxable incomes of those whose taxable incomes exceeded \$150,000 rose by multiples of 4.9 and 3.0 respectively. In 2014, 64% of all those with taxable incomes above \$150,000 were in the salary and wage earner category. This is up from 50% in 2001.

Bertram also argues that larger after-tax incomes at the top make life harder for low income people.

126 These figures are provisional. The total of all returns includes all IRS returns plus those who filed a personal tax summary, those who paid PAYE, and those who were recipients of taxable welfare benefits, including ACC.

It is hard to make sense of this in the general case. In general, someone who gets rich by providing customers with better-priced goods and services is raising their standard of living, and likely that of employees and investors as well. The wealth of a Bill Gates, a Mark Zuckerberg, or a Beyonce arises from the voluntary patronage of their customers or fans. Low income people should find it easier, not harder, to save as a result of their efforts.<sup>127</sup>

In conclusion, fears about the application of Piketty's theories to New Zealand are unwarranted. The theoretical basis is not robust and the empirical evidence for New Zealand is at odds with the theory. The real capital stock is not growing much faster than output because of high savings by the rich (or anyone else). Moreover, high incomes at the top of the range are dominated by salary and wage earnings rather than investment income.

## 4.2 ECONOMIC GROWTH AND GLOBALISATION

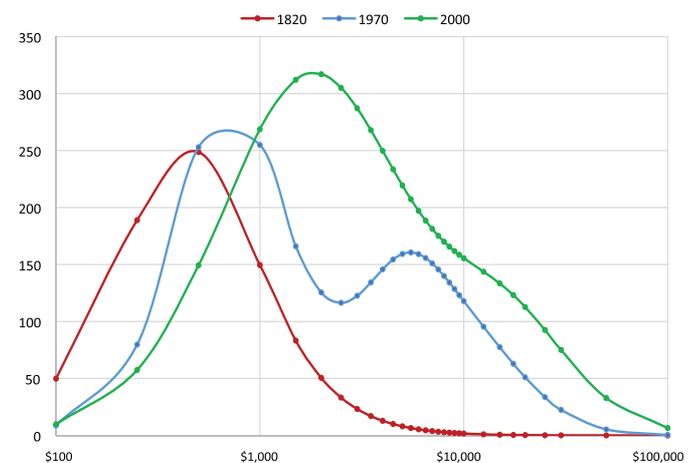
### The world is becoming more equal

Is economic inequality good or bad for economic growth and does economic growth increase or decrease economic inequality? The answer depends on the circumstances.

Economic growth (or its absence) cannot be expected to affect all people equally. Prices are changing continually in active markets, growth or no growth, and each price change will hurt some and benefit others.

Even so, there is little doubt the global economic growth since, say, 1970 has lifted many hundreds of millions of people out of \$1/day poverty and reduced global income inequality. The global income distribution has moved to the right (i.e. to

**Figure 32: The world income distribution (1820–2000)**



Source: Max Roser, “Global Economic Inequality,” Our World in Data, Website.

higher average incomes) and is also more equally distributed (see Figure 32).<sup>128</sup>

At the same time, income inequality has increased in many of the countries that were already prosperous since 1820 following the Industrial Revolution.

Those around the median of the world income distribution on average doubled their incomes between 1998 and 2008 (see Figure 33).<sup>129</sup> Nine out of 10 persons in this group were from Asia. The average person in the Chinese urban population tripled their income, the average Indonesian doubled their income, and the average Indian by 40%.

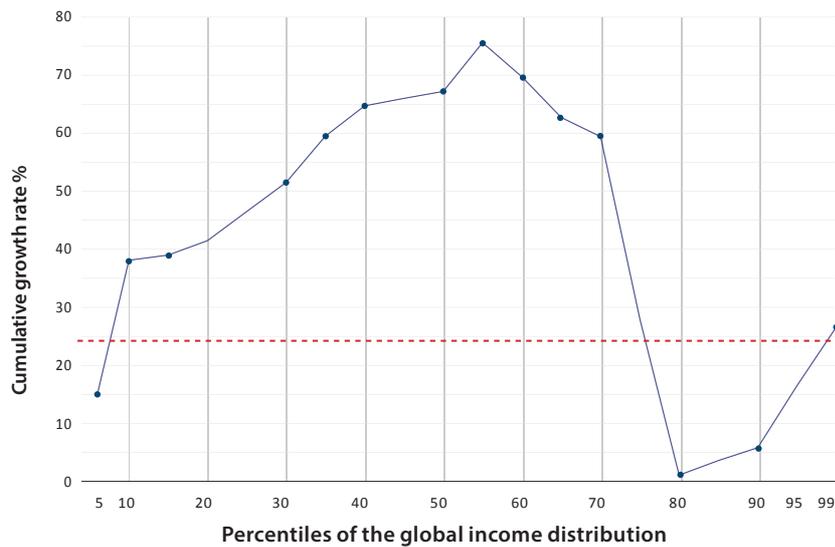
A discomfoting aspect of the analysis is the evidence of relatively little growth (under 10%) in

127 This is not to deny psychic issues such as “keeping up with the Joneses.”

128 The source is <https://ourworldindata.org/global-economic-inequality>, along with other interesting charts. A full analysis of the reduction in poverty rates and in global income inequality on a wide range of measures is in the paper by Maxim Pinkovsky and Xavier Sala-i-Martin, “Parametric Estimations of the World Distribution of Income,” NBER Working Paper No. 15433 (2009).

129 Christopher Lakner and Branko Milanovic, “Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession,” The World Bank Development Research Group, Policy and Inequality Team, Policy Research Working Paper 6719 (2013). Xavier Sala-i-Martin, “The Disturbing ‘Rise’ of Global Income Inequality,” NBER Working Paper No. 8904 (2002) also reported major reductions in global income inequality between the 1970s and 1998.

**Figure 33: Uneven distribution of rise in global incomes (1988–2008)**



Y-axis displays the growth rate of the fractile average income (in 2005 nPPP USD). Weighted by population. Growth incidence evaluated at ventile groups (e.g. bottom 5%); top ventile is split into top 1% and 4% between P95 and P99. The horizontal line shows the growth rate in the mean of 24.34% (1.1% p.a.).

Source: Christopher Lakner and Branko Milanovic, “Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession,” The World Bank Development Research Group, Policy and Inequality Team, Policy Research Working Paper 6719 (2013).

the 80<sup>th</sup>–95<sup>th</sup> percentiles. These deciles encompass many of those in the bottom half of national income distributions of the prosperous members of the OECD. However, a recent analysis by Adam Corlett at the Resolution Foundation in the United Kingdom finds that the indicated “hollowing out” of middle and lower income earners in prosperous countries is more apparent than real, Japan excepted.<sup>130</sup> The big winners for the unequal distribution of income gains during this period were those in the top 1% of the global national income distribution. The United States stands out in this respect.<sup>131</sup>

A 2015 OECD paper, *In It Together, Why Less Inequality Benefits All*, reported that the key factors lifting income inequality within member countries were “globalisation, technological change and regulatory reforms that have seen people with high skills in demand, reduced marginal tax rates and

less redistribution of taxes and benefits”.<sup>132</sup> These findings were consistent with an earlier OECD report that found:

... the evolution of earnings inequality across OECD countries over the past decades could be viewed mainly as the difference between the demand for and supply of skills or, as neatly summarised by Tinbergen (1975), the outcome of a “race between education and technology.”<sup>133</sup>

So who are the top income earners in the prosperous countries who benefited most from globalisation? An OECD working paper by Oliver Dent<sup>134</sup> found that across 18 European countries the top 1% of earners tend to be male senior managers aged 40–50 years with tertiary qualifications.

For the record, the growth rates in New Zealand for mean real disposable household incomes, adjusted for household composition between 1988 and

130 Adam Corlett, “Examining an Elephant: Globalisation and the Lower Middle Class of the Rich World,” Resolution Foundation (2016).

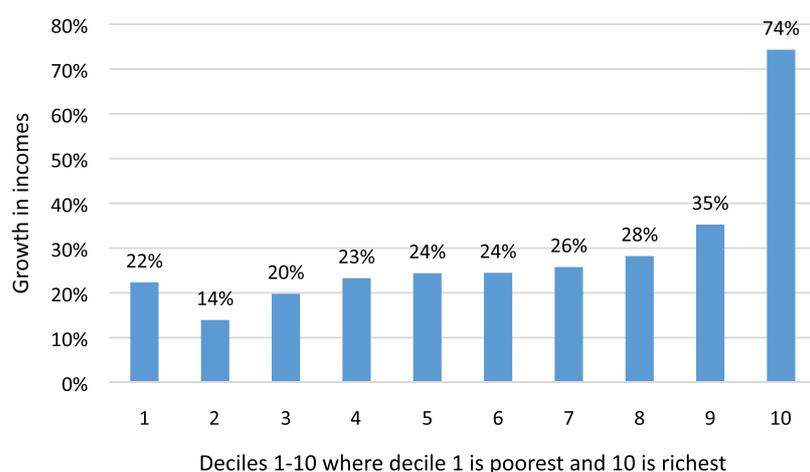
131 See Nicholas Buffie, “Increase in Top 1% Income Share Greatest in the U.S.” (Center for Economic and Policy Research). See also the discussion of CEO pay in section 1.2 above.

132 OECD, “In it Together, Why Less Inequality Benefits All” (2015), 23.

133 OECD, “Divided We Stand: Why Inequality Keeps Rising” (2011), 31.

134 Oliver Dent, “Who Are the Top 1% Earners in Europe,” Working Paper No. 1274 (OECD, 2015).

**Figure 34: Growth in real household incomes by decile (1988–2009)**



Source: Authors' calculations; Bryan Perry, "Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2015" (Wellington: Ministry of Social Development, 2016), Table 9.2, 239, Appendix 9.

2009, were considerably faster than those indicated for the 80<sup>th</sup>–95<sup>th</sup> percentiles in Figure 33 (see Figure 34).<sup>135</sup> As has been mentioned earlier, decile 1 data is unreliable. The 14% growth for decile 2 is a more reliable indicator of lower income trends.

### Divided literature on inequality and economic growth

The OECD, IMF and World Bank have all reported that some aspects of the income inequality experienced in recent decades among prosperous countries have been bad for economic growth. The OECD found that:

... income inequality has a negative and statistically significant impact on medium-term growth. Rising inequality by 3 Gini points, that is the average increase recorded in the OECD over the past two decades, would drag down economic growth by 0.35 percentage point per year for 25 years: a cumulated loss in GDP at the end of the period of 8.5 per cent.<sup>136</sup>

<sup>135</sup> The source table does not include data for 2008, hence the recourse to 2009 statistics. To make it comparable to Figure 33, Figure 34 does not show what happened during the intervening years. As is well-known, New Zealand experienced a severe recession after the year ended March 1988. The median income in every decile except decile 10 was lower in real times in 1994 than in 1988. Negative incomes were set to zero in calculating decile 1 means.

<sup>136</sup> OECD, "Focus on Inequality and Growth," Directorate for Employment, Labour and Social Affairs (2014).

It also reported that the biggest growth-reducing aspect of inequality was the income gap between the top 10% and the bottom 40%.

The jury is still out on the robustness of these findings. Crampton investigated the OECD's 2014 research and found it unconvincing on multiple grounds.<sup>137</sup> The time period is relatively short. Although the OECD found that inequality hurt growth by depressing educational achievement, its regressions also implausibly found that higher education levels did not increase growth. Nor did greater pre-tax income inequality reduce growth. Moreover, the negative growth effect did not come from a rise in the top incomes but from the gap between the 4<sup>th</sup> decile and the mean income.

Somewhat similarly, an IMF staff discussion note in 2015 found that an increase in the income share of the top 20% was followed by a decline in GDP growth, whereas a rise in the share of the bottom 20% was followed by an increase in GDP growth.<sup>138</sup> In addition, the World Bank found that a 1% increase in the Gini coefficient reduces GDP per capita by around 4.5% in the longer run.<sup>139</sup>

<sup>137</sup> Eric Crampton, "OECD on Inequality," *Offsetting Behaviour* Blog Post (11 December 2014).

<sup>138</sup> Era Dabla-Norris, et al. "Causes and Consequences of Income Inequality," op. cit. 4.

<sup>139</sup> Daniel Lederman, "How Does Income Inequality Affect Growth," World Economic Forum (2015).

Correlation is not causation, and to construct a plausible economic causative explanation for the finding of a negative correlation between economic inequality and economic growth is not easy. The IMF paper cited above proposes that inequality means the poor are less healthy and less able to get educated. This conflates income inequality with absolute poverty.<sup>140</sup> The two are not the same.

It would be unwise to draw any general conclusion about the relationship between economic growth and inequality from the one episode in human history that Figure 33 illustrates. Other periods of history have seen changes in growth and inequality for different reasons. A longer term point of view is necessary to generalise about the relationship between inequality and growth; even then, it is impossible to isolate the specific effect of factors like growth.

Researchers Dan Andrews, Christopher Jencks, and Andrew Leigh used pooled income tax statistics from 1905 to 2000 for 12 countries, including New Zealand. For the period as a whole, they could find no systematic relationship between economic growth and the income share of top income earners. They did, however, find evidence from 1960 onwards that a rise in the top income share was associated with *higher* economic growth.<sup>141</sup>

In addition, the recent OECD/IMF and World Bank findings of a causative negative relationship between income inequality and growth appear to be at odds with longer-standing research, as the OECD itself acknowledged:

The large empirical literature attempting to summarize the direction in which inequality affects growth is summarised in the literature review in Cingano (2014, Annex II). That survey highlights that there is no consensus on the sign and strength of the relationship; furthermore, few works seek to identify which of the possible theoretical effects is at work. This is partly traceable to the multiple empirical challenges facing this literature.<sup>142</sup>

Whether a change in inequality is a good or bad thing surely depends on what has caused it. Growing inequality due to unpunished corruption or criminal behaviour is bad for honest members of the community and the community overall.<sup>143</sup>

Empirical research has found evidence of negative growth effects from inherited wealth inequality and wealth created from political connections, but not otherwise.<sup>144</sup> The nuances in such findings seem plausible.

A recent meta-analysis of empirical studies of the effect of inequality on growth published between 1994 and 2014 confirms the lack of agreement between findings.<sup>145</sup> Evidence of a negative effect is stronger for less developed countries. This may reflect their less well-developed markets.

A reasonable conclusion is that disruptive economic growth will benefit some and harm others in the short term, but sustained strong economic growth makes a previously poor community prosperous, such as as Japan,

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140 Era Dabla-Norris, et al. "Causes and Consequences of Income Inequality," op. cit. 8.

141 Dan Andrews, Christopher Jencks, and Andrew Leigh, "Do Rising Top Incomes Lift All Boats?" *The B.E. Journal of Economic Analysis & Policy* 11:1 (Contributions) (2011), Article 6.

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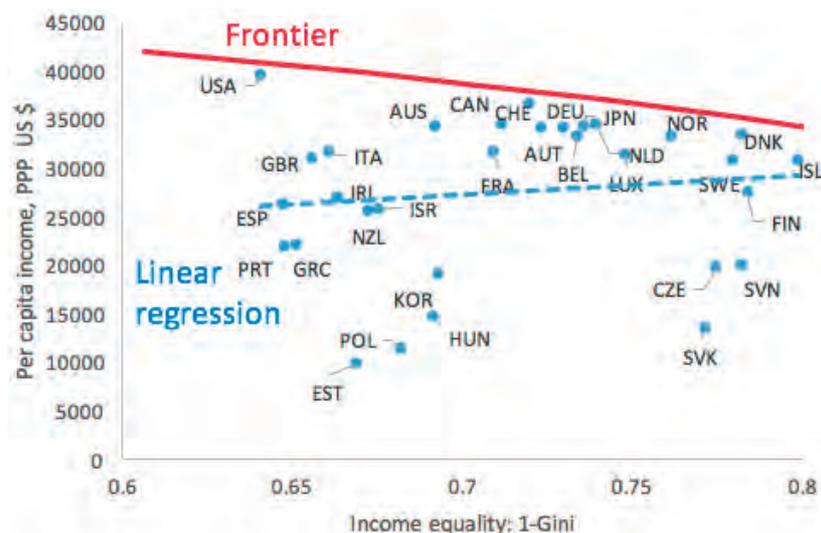
142 OECD, "In it Together, Why Less Inequality Benefits Us All" (2015), 61–62.

143 Harvard University labour market economist Richard Freeman makes this point more forcefully in a review of economists' views about inequality. See Richard Freeman, "Just right inequality," *The New York Times* (4 March 2014).

144 Sutirtha Bagchi and Jan Svejnar, "Does Wealth Distribution and the Source of Wealth Matter for Economic Growth? Inherited v. Uninherited Billionaire Wealth and Billionaires' Political Connections" (2014).

145 Pedro Cunha Neves, Óscar Afonso, and Sandra Tavares Silva, "A Meta-Analytic Reassessment of the Effects of Inequality on Growth," *World Development* 78 (2016), 386–400.

Figure 35: Growth vs inequality



Note: data applies to 2010, for details on data and estimation methods and results see Andersen and Maiborn (2016).

Source: Torben M. Andersen and Jonas Maiborn, “The Trade-off Between Efficiency and Equity,” CEPR Vox (29 May 2016).

Singapore and other Asian tigers. Whether inequality along the way is good or bad for growth depends on its causes. A general proposition would be that inequalities arising from differences in merit, effort, risk-taking and luck are not obviously bad for growth. In contrast, inequalities arising from crime, fraud, bailouts or political connections are likely to hamper growth.

With respect to New Zealand, the discussion is somewhat hypothetical given the lack of evidence that economic inequality is relentlessly spiralling upwards.

### Policy implications for inequality and economic growth

Naturally, the IMF and the OECD see scope for policies likely to both increase national income per capita and reduce income inequality. So do we.

An analysis by Danish economists Torben Andersen and Jonas Maibom indicates this potential.<sup>146</sup> Their key chart is reproduced below as Figure 35. It compares the income per capita

of prosperous nations with the degree of income inequality, as measured by how much less than 1 is their Gini coefficient. The upward sloping blue line captures the essence of the finding that countries with greater income equality also tend to have higher incomes per capita. The red line estimates the potential for countries to maximise a combination of income per capita and income equality.

One interesting point is that both the United States and Nordic countries are close to the red line – the potential frontier<sup>147</sup> – but at very different positions along it. Such countries potentially face a trade-off between income per capita and income inequality.<sup>148</sup> But most countries are well below the frontier. This means given the political will, they should have scope to move up and to the right towards the frontier, increasing both mean income and income equality. New Zealand is one of those countries – it is even under the blue line.

<sup>146</sup> Torben M. Andersen and Jonas Maiborn, “The Trade-off Between Efficiency and Equity,” CEPR Vox (29 May 2016).

<sup>147</sup> The frontier is too low to the degree that the countries closest to the line are missing opportunities to both increase per capita income and reduce income inequality.

<sup>148</sup> A trade-off has to be faced when there is no way of both increasing per capita income and reducing income inequality.

### 4.3 CONCLUDING COMMENTS

The international concerns about the rise of oppressing inherited wealth are certainly not pressing for New Zealand. Nor does there seem to be a case that the rise in the top labour incomes has been excessive given the links between this country, Australia and other like nations. Indeed, an argument could be made that overall, New Zealand's top managers and professionals have not been able to match the best of their international counterparts.

However, there are much greater and more immediate grounds for concern about the ongoing impact of globalisation on those on middle and lower incomes in prosperous nations, including New Zealand. It is a bad time to be in 'the West' and to be relatively unskilled.

The argument that there is a trade-off between inequality and economic growth for New Zealand is unconvincing on the literature surveyed so far. There should be ample opportunities for policy moves that would both increase income per capita and reduce income inequality in New Zealand.

THE  
NEW ZEALAND  
INITIATIVE



# CHAPTER FIVE

## PUBLIC PERCEPTIONS

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### 5.1 MISGUIDED POLICY IDEAS AND BELIEFS ABOUT THE DEGREE OF INEQUALITY

It is often said perception is more important than reality in politics. For politicians in a democracy, public perceptions are reality if they influence how people vote. That is why getting the facts right matters. It matters whether people are right to think high incomes largely reflect exceptional productive effort or fraud, bribery or corruption. People with misguided beliefs could well vote for misguided or ineffective policies. Worse still, bad policies can lead to misguided beliefs, which can also influence bad policies.

Take, for example, the thesis of Oxfam: “Power and privilege is being used to skew the economic system to increase the gap between the richest and the rest”.<sup>149</sup> It is not just the magnitude of inequality that matters but also the means by which it is acquired. The Oxfam report made strident assertions: “Inequality is not inevitable. The current system did not come about by accident; it is the result of deliberate policy choices, of our leaders listening to the 1% and their supporters rather than acting in the interests of the majority. It is time to reject this broken economic model”.<sup>150</sup> This is a populist call to action that does not explain why the rest of us, being the vast majority, do not vote such politicians out of office.

George Mason University economist Bryan Caplan has modelled the relationship between ideas or

beliefs and policies. Ideas and policies can either work in vicious or virtuous circles.<sup>151</sup>

A vicious circle can arise even when people through misguided ideas vote for policies that discourage productivity, foster corruption, or limit economic growth.<sup>152</sup> When these policies result in undesirable outcomes, being in a vicious circle means instead of demanding pro-growth policies, voters demand more of the same growth-reducing policies. Caplan calls this an “idea trap”:

A society can get stuck in an “idea trap,” where bad ideas lead to bad policy, bad policy leads to bad growth, and bad growth cements bad ideas. Once you fall into this trap, all it often takes is common sense to get out. But when people are desperate, common sense gets even less common than usual.<sup>153</sup>

Caplan’s theory gives a plausible explanation for why economies with strong institutions (to protect property rights and guard against corruption) often grow faster than economies with poor institutions. The good news is the possibility of an alternative virtuous circle where ideas and policies that foster productive effort produce good outcomes that increase the support for such policies.

On the other hand, a vicious cycle could occur, where the demand for redistribution can be influenced by (accurate) perceptions of inequality and expectations of economic growth. Voters may vote for redistribution that reduces national income out of self-interest.

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149 Oxfam, “An Economy for the 1%,” *210 Briefing Paper* (2016).

150 Ibid. 6.

151 Bryan Caplan, “The Idea Trap: The Political Economy of Growth Divergence,” *European Journal of Political Economy* 19 (2003), 183–203.

152 The trigger may be an adverse internal or external event.

153 Bryan Caplan, “The Idea Trap,” op. cit.

Allan Meltzer and Scott Richard at Carnegie Mellon University have put forward a voter model for redistribution, positing that government will increase the rate of income tax if the gap between average income and the median income rises.<sup>154</sup> The government will do so because it acts in the interests of the median voter. The median voter reacts to a rise in income inequality by seeking greater redistribution through the tax/benefit system. The limiting consideration is that the median voter will also be paying the higher rate of tax.

The self-interest of the median voter is certainly plausible in New Zealand. In a 2014 study surveying more than 1,000 people, Auckland University of Technology academic Peter Skilling tested voter preferences for addressing inequality. Of those surveyed, 53.9% believed a fairer society would “probably come at the expense of higher taxes on middle income New Zealanders, who are struggling already”. Nevertheless, the policies that did receive broad support (supported by around 65% of respondents) “were lifting the minimum wage and taxing those on ‘very high incomes’ which most people saw as being \$150,000 or more”.<sup>155</sup>

István György Tóth, Dániel Horn, and Márton Medgyesi built on this model to analyse the link between income inequality and political participation.<sup>156</sup> They found that rising inequality has direct and indirect effects on preferences for redistribution. The structure of inequality between the top, middle and bottom income groups also matters, where higher levels of poverty are associated with a stronger desire to redistribute income.

These models show there is a rational, self-interested demand for redistribution policies even if the degree of income inequality is perceived accurately and there are no mistaken ideas about the effects of public policy tax and spend options. The effect is to lower national income.

Even so, income-reducing ideas about policies and correct perceptions about income inequality are not the only source of pressure on politicians to redistribute income for better or for worse.

So how accurate are voter perceptions of economic inequality, and do their self-professed policy preferences better accord with their beliefs or the facts?

## 5.2 ARE VOTERS GOOD AT PREDICTING THE LEVEL OF INEQUALITY?

In 2015, Vladimir Gimpelson and Daniel Treisman reviewed the research to date on the accuracy of voter perceptions about the extent of economic inequality and whether their professed policy preferences better accord with their beliefs or the facts.<sup>157</sup> They also published some new findings of their own:

Widespread ignorance and misperceptions of inequality emerge robustly, regardless of the data source, operationalization and method of measurement. Moreover, the perceived level of inequality – and not the actual level – correlates strongly with demand for redistribution and reported conflict between the rich and the poor.<sup>158</sup>

Moreover, those surveyed in international cross-country surveys largely did not know:

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154 Allan H. Meltzer and Scott F. Richard, “A Rational Theory of the Size of Government,” op. cit.

155 Peter Skilling’s paper was not publicly available at the time of finalising this report. Rob Stock, “Wealth split worse than most realise,” *Stuff.co.nz* (24 August 2014).

156 István György Tóth, Dániel Horn, and Márton Medgyesi, “Rising Inequalities: Will Electorates Go for Higher Redistribution?” in Wiemer Salverda, et al. *Changing Inequalities in Rich Countries: Analytical and Comparative Perspectives* (Oxford Scholarship Online, 2014).

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157 Vladimir Gimpelson and Daniel Treisman, “Misperceiving Inequality,” NBER Working Paper No. 21174 (2015).

158 Ibid.

- the degree of economic inequality in their country
- how it has been changing; or
- their place in the national income distribution.

Indeed, the 2009 survey undertaken in 24 countries by the International Social Survey Project found respondents were wrong about the inequality facts in their home countries most of the time. Their picks were only slightly better than if they had chosen randomly. These countries included Australia and New Zealand, Sweden, Norway and Denmark.

Gimpelson and Treisman also examined the relationship between actual and perceived inequality and the respondents' views about the need for greater income redistribution.

... the levels of inequality and poverty that citizens imagined to exist did correlate strongly and robustly with such political demands and perceptions. We cannot make strong causal claims here about this relationship. But the patterns are consistent with the hypothesis and the intuition that it is beliefs about inequality rather than the actual phenomenon that influence political outcomes.<sup>159</sup>

Independently, a 2015 Ipsos Mori study included 33 countries on the “perils of perception”. When asked how much of total wealth the wealthiest 1% of the country owned, the average answer for New Zealand was that the top 1% own 50% of the wealth (see Figure 36). In actual fact, at the time of polling, they owned 18%. This share is the lowest of all countries New Zealand is compared to, yet the average guess remains highly overstated.<sup>160</sup>

Figure 36: Average responses to question: What proportion of the total household wealth do you think the wealthiest 1% own?

% point difference		too low   too high	Avg. guess	Actual
Great Britain	+36		59	23
France	+33		56	23
Australia	+33		54	21
Belgium	+32		50	18
New Zealand	+32		50	18
Canada	+30		55	25
Germany	+29		59	30
Spain	+29		56	27
Italy	+23		46	23
Japan	+22		41	19
Norway	+20		45	25
United States	+20		57	37
China	+17		56	39
Netherlands	+16		40	24
South Korea	+15		49	34
Sweden	+14		46	32
Ireland	+13		40	27
Chile	+11		54	43
Colombia	+9		43	34
South Africa	+6		49	43
Poland	+4		38	34
Argentina	+2		46	44
Mexico	0		36	36
Turkey	-1		53	54
Israel	-7		32	39
Brazil	-8		40	48
India	-13		40	53
Peru	-15		32	47
Russia	-17		53	70

Source: Image copied from Ipsos Mori, “Perils of Perception 2015,” <https://www.ipsos-mori.com/Assets/Docs/Polls/ipsos-perils-of-perception-charts-2015.pdf>.

159 Ibid. 25.

160 Ipsos Mori, “Perils of Perception 2015.”

### 5.3 THE GROWING PUBLIC AND ELITE INTEREST IN INEQUALITY

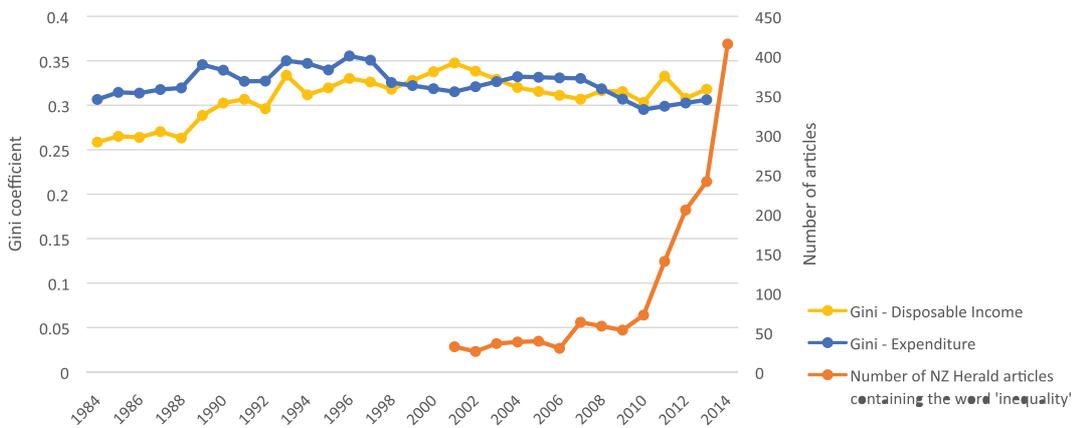
New Zealand media interest in inequality has increased since 2006 despite the lack of any evidence of a material increase in income inequality (see Figure 37).

Since 2014, there has been some increase in the proportion of respondents saying they agreed strongly or somewhat that income differences in New Zealand were too large (see Figure 38).

The much increased media interest doubtless reflects the rising international interest as reviewed in earlier sections. It is undeniable that even if income inequality has not been increasing in New Zealand in the last decade, academic and commentator interest in the subject has. Inequality was also a major topic in the 2014 general election debates.

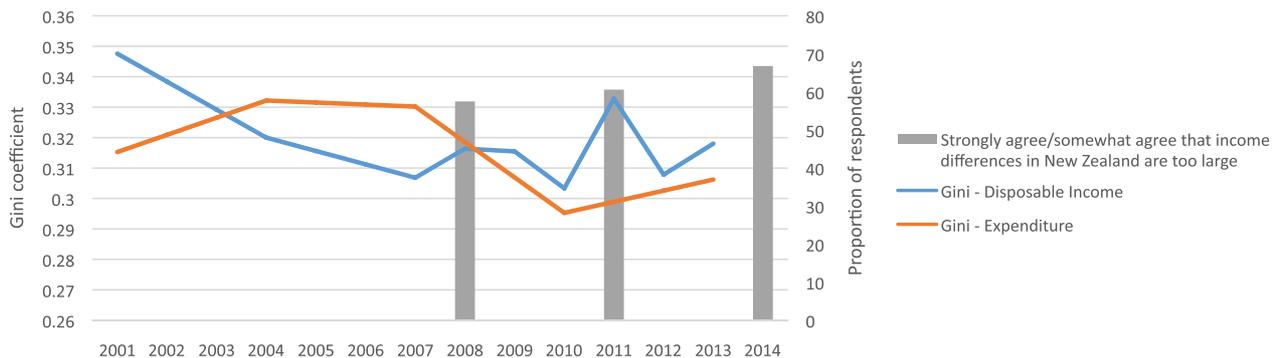
A roundup of news articles on inequality<sup>161</sup> shows a mix of related views and concerns. Thanks in part to the work of Piketty abroad and Rashbrooke in New Zealand, wealth inequality has been of recent major concern. Another concern is high CEO pay, including pay at the top of the public sector.<sup>162</sup> Unions and labour market issues received less

**Figure 37: Inequality trends and reporting on inequality (1984–2014)**



Sources: Newspaper reporting on inequality: Bryce Edwards, 2014, <http://liberation.typepad.com/>; Christopher Ball and John Creedy, “Inequality in New Zealand 1983/84 to 2013/14,” Working Paper 15/06 (Wellington: New Zealand Treasury, 2015).

**Figure 38: Inequality trends and perceptions that income differences are too large (2001–14)**



Source: New Zealand Election Study (2008, 2011, 2014); Christopher Ball and John Creedy, “Inequality in New Zealand 1983/84 to 2013/14,” Working Paper 15/06 (Wellington: New Zealand Treasury, 2015).

161 Bryce Edwards, “Political roundup: The political problems of wealth and inequality,” *The New Zealand Herald Online* (4 December 2015).

162 Ibid.

coverage, according to this roundup. Other issues of note include inequalities in housing (including homelessness and the quality of housing), education and health.

Polls are a more direct way of ascertaining public thinking. In a Roy Morgan poll<sup>163</sup> conducted three months before the 2014 election, 18% of those surveyed recognised “poverty, the gap between rich and poor, and the imbalance of wealth” as the most important issue facing the country.<sup>164</sup> This was in comparison to issues such as the economy, government spending and unemployment. Conversely, only 4% recognised housing shortage/affordability as the top issue facing the nation.

The New Zealand Election Study (NZES) database is another source for voter priorities.<sup>165</sup> While it is not known whether inequality concerns materially influenced voting on election day, the responses provide a useful snapshot of voter perceptions and preferences.

In the 2014 NZES survey, a majority of respondents (64%) ‘somewhat agreed’ or ‘strongly agreed’ government should take measures to reduce differences in income. While this does not necessarily indicate a preference for redistribution (government could certainly take other measures), it does reflect the belief that government should play some role in alleviating income inequality.

Survey respondents also noted that some level of inequality exists and is undesirable, with 67% either ‘somewhat agreeing’ or ‘strongly agreeing’ that differences in income are too large.

Other surveys show widely differing views within New Zealand on whether income inequality is a problem, and if so what should be done about it. An article in 2015 by Philip Morrison, professor of human geography, assessed inequality perceptions

between 1988 and 2011 from the World Values Survey (WVS) in 1998, 2004 and 2011.<sup>166</sup> Table 2 reproduces figures from his article. The proportion who think they should be more equal is similar to the proportion who think the opposite. But the balance apparently changed in favour of the former group between 1998 and 2011.

**Table 2: “Should incomes be made more or less equal?” (1998–2011)**

	Yes, incomes should be made more equal	Middling	No, larger income differences are needed	Not applicable or did not know	Total
Intensity measure	1–4	5–6	7–10		
1998	32.0	27.5	34.2	6.4	100
2004	32.7	23.2	38.4	5.6	100
2011	37.3	22.5	33.4	6.7	100

Source: Philip S. Morrison, “Who Cares About Income Inequality?” *Policy Quarterly* (February 2015), Figure 2, 58.

Morrison also compared the responses in 1996 and 2006 to a question in the International Social Science Programme (ISSP) survey asking whether government was responsible for reducing income differences. Table 3 reproduces figures from his article.

**Table 3: New Zealand opinions on government responsibility (1996 and 2006)**

	Strongly agree, or agree	Middling	Strongly disagree, or disagree	Total
Intensity measure	1–2	3	4–5	
1996	38.02	18.61	43.37	100
2006	49.79	x	50.21	100

Source: Philip S. Morrison, “Who Cares About Income Inequality?” *Policy Quarterly* (February 2015), Figure 2, 59.

The responses demonstrate wide disagreement among those surveyed in both years. In 2006, the split was 50:50. Morrison reported that the

163 Of 966 people.

164 Simon Collins, “Poll finds rich-poor gap is the big election issue,” *The New Zealand Herald Online* (29 August 2014).

165 Note that responses have been weighted to fit voter behaviour, but might not perfectly reflect the entire population.

166 Philip S. Morrison, “Who Cares About Income Inequality?” *Policy Quarterly* (February 2015).

proportion of New Zealanders thinking this role was definitely not a government responsibility in 2006 was, at 20.7%, higher than in any other country surveyed except the United States, where it was 21.1%.

A 2015 study by Peter Skilling and Jessica McLay looked at public perception of the “deservingness” of New Zealand’s rich using data the ISSP and NZES. The authors acknowledge the potential influence of the global financial crisis on these perceptions:

The public inclination to focus on the deservingness of the poor rather than the deservingness of the rich is, of course, only relative. In the wake of the Global Financial Crisis, a degree of popular disquiet and even outrage has been directed at the bonuses paid within the financial services sector, and at a perceived “culture of excess” among the very rich.<sup>167</sup>

Table 4 also indicates a widespread view that the rich are rich because of individual talent and the poor are poor because of lack of effort. However, opinions were reasonably split over whether beneficiaries were seen to be considerably responsible for their situation.

**Table 4: Are outcomes deserved?**

	Very often or often	Sometimes	Rarely or never
Rich because of individual talent	71.6%	23.4%	4.9%
Poor because of lack of effort	64.2%	32.1%	3.7%
Beneficiaries responsible for their own situation	48.7%	46.8%	4.5%

Source: NZJES, “Dataset of the New Zealand Justice and Equality Survey (2011), cited in Peter Skilling and Jessica McLay, “Getting Ahead Through Our Own Efforts: Public Attitudes Towards the Deservingness of the Rich in New Zealand,” *Journal of Social Policy* 44:1 (2015).

167 Peter Skilling and Jessica McLay, “Getting Ahead Through Our Own Efforts: Public Attitudes Towards the Deservingness of the Rich in New Zealand,” *Journal of Social Policy* 44:1 (2015), 149.

Only a small proportion think that wealth in New Zealand is rarely or never deserved. A very large majority thinks deprivation is unacceptable because it harms society (see Table 5).

**Table 5: Legitimacy of wealth and deprivation**

	Very often or often	Sometimes	Rarely or never
Wealth legitimate because it benefits society	28.8%	37.5%	29.6%
Wealth legitimate because it is deserved	53.9%	30.8%	11.3%
Deprivation unacceptable as it harms society	74.1%	13.4%	11.3%
Deprivation unacceptable as based on bad luck	14.8%	21.3%	61.5%

Source: NZJES, “Dataset of the New Zealand Justice and Equality Survey (2011), cited in Peter Skilling and Jessica McLay, “Getting Ahead Through Our Own Efforts: Public Attitudes Towards the Deservingness of the Rich in New Zealand,” *Journal of Social Policy* 44:1 (2015).

The degree to which people act on their perceptions of inequality is unclear. After all, multiple and sometimes conflicting interests affect voters’ decisions in the polling booth. Using data from the New Zealand Values Survey (2011), Penelope Carroll, et al. found no clear mandate for policies for or against addressing inequality. For example:

Less than half of respondents wanted a redistribution of wealth in favour of the less well off (although 30% were neutral, with only a quarter of respondents opposed). However, in a separate question, most people (62%) thought government *should* be responsible for reducing income differences.<sup>168</sup>

168 Penelope Carroll, Sally Casswell, John Huakau, Philippa Howden-Chapman, and Paul Perry, “The Widening Gap: Perceptions of Poverty and Income Inequalities and Implications for Health and Social Outcomes,” *Social Policy Journal of New Zealand* 37 (2011), 9.

The degree to which these two views might be in conflict is unclear. Some respondents who agree government should be responsible for reducing income differences might support the welfare safety net role and alleviating hardship. But they might not support helping the less well-off from personal choice who are not experiencing hardship.

## 5.4 CONCLUDING COMMENTS

The survey evidence indicates that by and large New Zealanders do not think high income or wealth is illegitimately obtained. This finding is consistent with New Zealand's high standing internationally in the corruption perceptions index.<sup>169</sup>

But this should not be taken as grounds for complacency. There is always a risk government will create privileged positions that favour those with economic clout and that perceptions will follow headlines. The strength of the Manufacturers' Federation in the days of import licensing illustrates the connection.

Corporate welfare needs to be watched in this respect.<sup>170</sup> It takes the form of special government assistance for particular businesses or industries whose economic justification does not stand up to professional scrutiny. Ill-justified assistance for particular firms naturally arouses suspicions that profits reflect privilege, not merit. Taken far

enough, confidence in the legitimacy of earned income could fall. It is better if those seeds of doubt are not sown.

Perhaps the most debilitating form of corporate welfare for the reputation of the business community internationally in recent years has been the bailouts for bankers. New Zealand escaped this problem, but was not immune to folly. The standout episode was the \$1 billion bailout of South Canterbury Finance creditors. No case has ever been made that this was necessary to protect the integrity of the banking and payments system. Nor was a convincing case made for providing a free government guarantee. Depositors in the company were seeking higher returns for higher risk. That sent a very poor signal to everyone. It does not seem to have caused a deterioration in perceptions about the legitimacy of business in New Zealand, but the precedent is disturbing.

Today, the long-standing artificial constraints on the supply of land for housing are greatly increasing wealth inequality in Auckland as between those who own homes and those who do not. The situation could be made worse not better by public pressure to implement well-meaning policies that effectively give more money to the latter group to bid prices up even higher. This risk illustrates Caplan's point that bad policies have spiral potential if the underlying problems are not diagnosed well and the public debate is insufficiently informed.

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169 New Zealand consistently ranks near the top of Transparency International's Corruption Perceptions Index results. <https://www.transparency.org/cpi2014/>.

170 For a useful monitoring of the situation, see Jim Rose, "The Cost of Corporate Welfare Since 2008" (Taxpayers' Union, 2014).



# CHAPTER SIX

## CONCLUSION

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Concerns about economic inequality have risen overseas. In conjunction with resentment of bailouts for bankers, high unemployment in parts of Europe, and fears of immigration, there is a risk of populist policy backlashes that impair prosperity. Witness the anti-trade sentiments expressed by presidential candidates in the United States, the voter disillusionment leading to Brexit,<sup>171</sup> and the social unrest in Europe.

Inequality might not be the real cause of these voters' woes, but perceptions of inequality have had a strong influence over political events nevertheless. New Zealand is not immune to similar events:

As the Labour Party's finance spokesman Grant Robertson argues:

The real fear that we have is that we've seen from Brexit and from the rise of people like Donald Trump is what can happen when inequality grows. People feel excluded from society, excluded from politics and people who are peddlers of fear and hate can capitalise on that ... So this is a problem from an economic point of view. It's a problem from a social point of view and ... the Government should be prioritising reducing inequality.<sup>172</sup>

Economics commentator Bernard Hickey also recognised that mass opinion and social unrest cannot be ignored:

John Key and Bill English brushed this off as "nothing out of the ordinary" and in line with what has happened for 30 years around the world. That may be true, but it doesn't provide an answer to the masses in the developed world who are revolting.<sup>173</sup>

Former New Zealand Prime Minister Sir Geoffrey Palmer also has a grave warning for New Zealand:

There exists in many countries an underlying alienation of a significant portion of the population concerning the exercise of power by what they see as economic and political elites that the voters cannot influence. In Britain this is called the political class. But this development is as much about social and economic power as political. The same appears to be happening in the US with the Trump ascendancy. I hope it doesn't happen in New Zealand. But growing economic inequality may lead it that way.<sup>174</sup>

All these comments were recent. Yet the facts reviewed in this report show that as commonly measured by the Gini coefficient, post-tax income inequality has not risen since the turn of the century, measured consumption inequality is no higher than in the mid-1980s, and the top New Zealand labour incomes are not high by overseas standards.

Much has been made of the measured rise in income inequality in New Zealand between the mid-1980s and the mid-1990s associated with the cuts to the top income tax rates. Yet, on a pre-tax basis the rise looks relatively modest once the effect of the change in the taxation of dividends

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171 A widely shared article appeared in *The Guardian* following the Brexit results. John Harris, "If you've got money, you vote in ... if you haven't got money, you vote out," *The Guardian* (24 June 2016).

172 Dan Sutherley and Simon Wong, "NZ's rich getting richer, new figures show," *Newshub* (28 June 2016).

173 Bernard Hickey, "The people are revolting," *The New Zealand Herald* (3 July 2016).

174 Geoffrey Palmer, "The political elites foisted a new system on ordinary Brits. Little wonder they're grabbing it back," *The Spinoff* (29 June 2016).

is allowed for. Certainly, average tax rates fell for those with incomes in the highest tax bracket, increasing disposable income inequality. But the increase in consumption taxes was effectively an offsetting wealth tax for many in that group (and retirees with independent income). Moreover, far from producing less tax revenue for redistribution from those in the top income tax bracket, the tax cuts in conjunction with base-broadening measures, appears to have been something of a revenue bonanza. There may be a complicated trade-off between a revenue goal for taxing those on high incomes and an income inequality goal.

Another point that needs reiteration is that none of the statistical measures of economic inequality for the entire population take merit into account. In reality, an implicit value judgment that less income inequality is always better effectively says ‘equal pay for unequal effort is better’. Yet surveyed public opinion reveals a widespread view that unequal outcomes for income or wealth that reflect merit are legitimate.

Those propagating myths and misperceptions in public debate need to be challenged more. Some of the New Zealand narratives on inequality have been

imported from overseas without sufficient critical consideration. Inequality trends here simply do not mirror what is happening abroad. What should be of concern is barriers to mobility: what is unduly stopping people from getting ahead in life?

Misperceptions about inequality in New Zealand could lead to growth-reducing policies that will make people worse off and may or may not reduce inequality on the desired measure. There should be ample scope for policies that lift earned incomes both on average (i.e. economic growth) and in the bottom quintile of the income distribution.

This report is the second of a three-part series examining issues on poverty, inequality and welfare. Our research points in many directions for policies to improve matters: improved educational outcomes, access to jobs, lower housing costs, stronger international linkages, and vigilance in resisting corporate welfare, to name a few. It will be of little surprise that these factors were also of great concern as drivers of poverty or material hardship in our first report, *Poorly Understood: The State of Poverty in New Zealand*. Our third report will focus on welfare and contain policy recommendations addressing these issues.

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