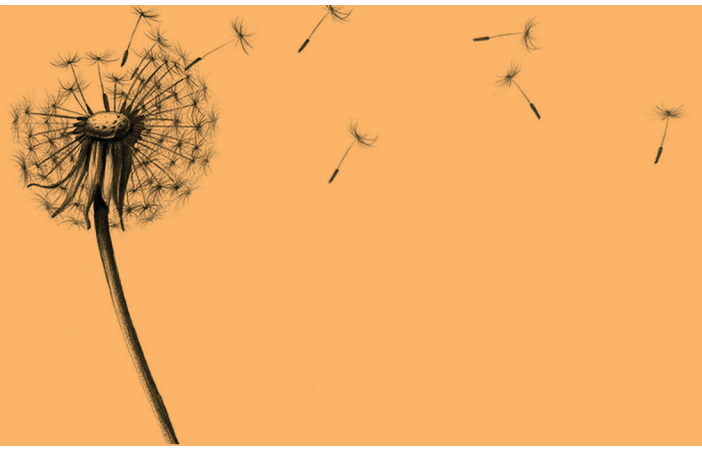
MORE PENSIONERS, LESS INCOME INEQUALITY?



An Executive Summary

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INTRODUCTION

Inequality
is reduced by aging of
our population.

The population of New Zealand is getting older. Population ageing can have important effects on the distribution of personal income throughout an individual's lifetime, but also across time and over age groups within the overall population.

New Zealand stands out among the developed countries as having seen the relatively fastest growth in inequality, particularly during the structural and economic reforms of the late 1980s and early 1990s. This research focuses explicitly on differences in inequality between metropolitan and non-metropolitan urban areas across age groups.

This is an important topic because the ageing of the population is expected to accelerate in the decades to come.

METHODS

Data are from the six New Zealand Censuses of Population and Dwelling from 1986 to 2013. The population is limited to people aged 15 and above who are earning positive incomes. To capture the broad trend of structural population ageing, we consider four age groups:

- 15-24
- 25-44
- 45-64
- 65 and over.

The income data represent total personal income before tax of people earning positive income in the 12 months before the census night. It consists of income from all sources such as wages and salaries, self-employment income, investment income, and superannuation. Instead of recording actual incomes, total personal incomes are captured in income bands in each census with the top and bottom income bands open ended.

We use the Mean Log Deviation index as our measure of inequality because it weights the inequality measure for a group by the group's population share, allowing overall inequality change to be decomposed into contributions from different subgroups.

The contribution that an age group makes to overall income inequality depends on the group's share of the population, how unequal the group's own income distribution is, and whether the average income of the group is higher or lower than average income generally. For each age group, we examine how changes in each of these factors has contributed to changing income inequality. Our main focus is on the impact of the changing age structure, and whether this impact differs between metropolitan and non-metropolitan areas.

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AGING POPULATION

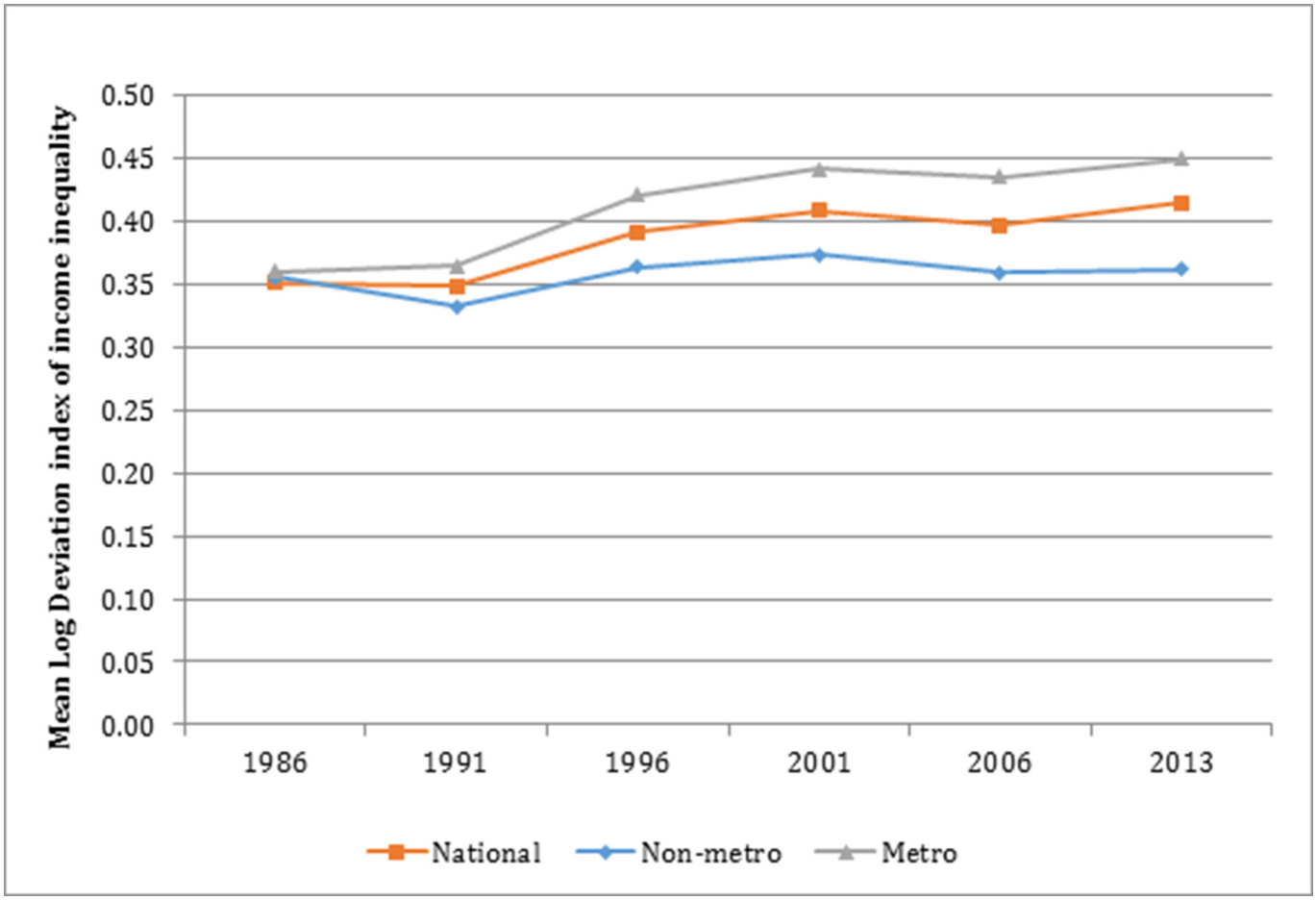
The ageing of the population between 1986 and 2013 is very clear. For all urban areas combined across New Zealand, the proportion of the population in the 15-24 age group declined from 22 percent in 1986 to 14 percent in 2013. For those 65+, the proportion increased from 15 percent to 18 percent. By 2013, the proportion of the population in the oldest age group exceeded that in the youngest age group.

Non-metropolitan areas have aged more rapidly. In 1986, metro and non-metro areas had almost the same proportion of people in the 15-24 age group, (around 22 percent) but by 2013 the proportion in non-metropolitan areas had fallen by about 9 percentage points while in metropolitan areas it had fallen by only 7 percentage points. The disparity is even starker when comparing the changes in the oldest age group: the proportion in this group increased by about 2 percentage points in metropolitan areas compared to a 6 percentage point increase in non-metropolitan areas. It is evident that non-metropolitan areas have undergone more rapid structural ageing and were older on average than metropolitan areas by 2013.

INEQUALITY

Across all urban areas, inequality grew by about 18 percent between 1986 and 2013 (MLD rose from 0.351 to 0.415). It did not increase between 1986 and 1991, or between 2001 and 2006 (see Figure 1). Like the changes in age structure, the changes in income inequality are not the same everywhere. As in other countries, inequality increased more rapidly in metropolitan areas.

Figure 1: Mean Log Deviation index of income inequality, New Zealand 1986-2013



DISCLAIMER: Access to the anonymised data used in this study was provided by Statistics New Zealand in accordance with security and confidentiality provisions of the Statistics Act 1975, and secrecy provisions of the Tax Administration Act 1994. The results in this paper are the work of the authors, not Statistics NZ, and have been confidentialised to protect individuals and businesses from identification. See the paper at motu.nz for the full disclaimer.

Within-group inequality makes the largest contribution to total inequality, varying between 83.7 percent in 2006 and 91.5 percent in 1986. However, between-age-group inequality is becoming a bigger share of total inequality: its contribution increased from around 8.5 percent in 1986 to 15.7 per cent in 2013. This is primarily due to the increased divergence in relative mean incomes across age groups.

Within-group inequality growth occurred for both young (15-24) and old (45-64 and 65 and over) The proportion of the 65+ age group participating in the labour force full-time in urban areas rose from 3 percent in 1986 to 11 percent in 2013. This change led to an increase in the dispersion of income between those mostly relying on superannuation (plus perhaps some income from investments or private pensions) and those still in paid work. The opposite effect happened at the other end of the scale where those in the 15-24 age group experienced a reduction in labour force participation. This is due to an increasing proportion of this group spending more time in education and formal training. Both trends increased within-group inequality.

With respect to relative mean income, the 15-24 group have seen the biggest drop, irrespective of urban location. Across all urban areas, the relative income of this age group dropped from 71 percent of average income in 1986 to around 42 percent of 2013 average income. In contrast, the 45-64 and 65+ groups increased their relative incomes by 10 and 2 percentage points respectively.

The changing population shares of different age groups interact with changes in within-group inequality and relative incomes to affect overall inequality change. The trends for those aged 15-24 and those aged 65+ provide an interesting contrast. In the 15-24 age group, within-group inequality rose very fast (by about 35 percent) but the diminishing population share of this group reduced their contribution to aggregate inequality over time. For the 65+ group, within-group inequality increased (by around 68 percent) as did their share of the population, thereby increasing this group's impact on rising overall inequality. The 25-44 group was the only age group to experience a decline in within-group inequality, at around 10 percent.

The results revealed a thinning of the density in the middle of the overall distribution, for which the 15-24 and 25-44 age groups were mostly responsible. At the same time, the age group 45-64 added more density to the upper end of the distribution, while those aged 15-24 contributed to an increase in density at the lower end.

SPATIAL VARIATION

While ageing has had an inequality-reducing effect overall, the magnitude of this effect varies spatially. Against an overall increase in inequality of 18 percent, metropolitan areas saw a 25 percent increase in inequality, as compared with only 2 percent growth in non-metropolitan areas. It is clear that most of the growth in inequality that happened in New Zealand between 1986 and 2013 was driven by the changes in the metropolitan areas. Relatively strong growth in the share of older people in non-metropolitan areas contributed to this difference, but the contribution was small, accounting for only 2.4 of the 23 percentage point difference in inequality growth. Changing age shares lowered metropolitan inequality growth by 0.0191 (-5.3 percentage points), compared with 0.0275 (-7.7) in non-metropolitan areas.

CONCLUSIONS

The main finding of this research is that the ageing of the population in New Zealand has slowed down overall inequality growth, largely due to a declining share of younger workers, who have lower average incomes and high within-group income inequality. At the subnational level, rapid inequality growth in the two largest metropolitan areas of Auckland and Wellington stands out.

Metropolitan areas have experienced rapid growth in inequality but slower rates of ageing (mostly due to net inward migration of younger people rather than greater fertility), while non-metropolitan areas have had slow growth in inequality and faster ageing. Most of the difference in inequality growth between the big cities and other urban areas is due to relatively faster growing inequality within specific age groups in metropolitan areas. The slower ageing of the population in these large cities has made only a small contribution to the faster growing inequality in metropolitan areas as compared with smaller towns and minor cities.

This paper will also appear as a chapter in: U. Blien, K. Kourtit, P. Nijkamp & R. Stough (eds.) *Modelling Aging and Migration Effects on Spatial Labor Markets*. New York & Berlin: Springer.

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