

# **The New Zealand Longitudinal Study of Ageing**

**Summary Report**

## **- Income, Assets, Poverty and Housing Tenure in the First Two Waves of NZLSA -**

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## **ABSTRACT**

This paper explores the income, asset accumulation, housing tenure and wellbeing data in the first two waves of the New Zealand Longitudinal Study of Ageing (NZLSA). This study began wave 1 with a national random sample of 3,317 New Zealanders aged between 50 and 84 years in 2010 and retained 3,015 participants for the second wave in 2012. The analysis focusses on the patterns of income and asset accumulation, the extent of poverty, the types of housing tenure and the relationship of all these to older people's experience of wellbeing and quality of life. The hypothesis that those on lower incomes, with fewer assets and renting accommodation would score lower on wellbeing and quality of life scales than those on higher incomes with greater asset accumulation and who lived in homes they owned was confirmed. The results on all scores were statistically significant. Interestingly, asset accumulation demonstrated a stronger relationship with wellbeing than income, though both were significant. The findings suggest policies that contribute to or promote saving will contribute to greater wellbeing in later life. Encouraging citizens, including low income people, to plan for the future, even in a small way, can enhance wellbeing. Likewise an adequate income and affordable homeownership contribute to positive wellbeing. Deficits in any of these three areas are significantly associated with lower levels of wellbeing.

## Introduction

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In New Zealand as in most developed societies, income begins to decline in later midlife and reduces in retirement. The most prosperous period in the life cycle tends to be for those in midlife because most households have at least one, and often two, persons who have established their careers and receive their highest incomes well into their early fifties. Asset wealth, however, tends to continue to increase throughout the midlife period and then declines. Mortgages owing on houses gradually reduce during midlife and contributions to other types of assets tend to accumulate.

In an analysis of the New Zealand Household Economic Survey database, Perry (2013) showed that in 2012 those aged 45–64 years made up the largest portion (29%) of the top quintile (the top 20%) of equivalised disposable household income.<sup>1</sup> Further, they also have the largest portion (24%) in the second highest quintile. However, although the midlife cohort had a greater proportion living in households on higher incomes, there was still a substantial proportion living in households on lower incomes (14% in the lowest quintile and 14% again in the quintile above that).

Data from the 2006 Census<sup>2</sup> (Statistics New Zealand, 2008a), grouped in five year income bands, show the 40–49 year-old age group having the highest median personal income of \$35,200, with next highest being the 50–54 year-olds, on \$34,600. However, there was a marked drop in median income from the 55–59 year-old group on \$31,500 to the 60–64 year-old group on \$23,700, an income which was just below the national median (2006 - \$24,400) at the time.

When non-income indicators of material living standards are used in surveys, a picture of New Zealanders material circumstances emerge alongside the income circumstances. These surveys include questions about: ownership of household durables and their quality; the ability to keep the house warm, pay the bills, afford fruit and vegetables, adequate clothing, pay for a night out, and so on.

Interestingly older New Zealanders (65+) have the most favourable distribution of living standards of all age groups. They have the highest mean score and the lowest hardship rate (Perry: MSD 2009). This probably reflects the combined effect of New Zealand superannuation (the universal NZ pension) and their asset accumulation, including their home and other savings. The positive impact of the universal New Zealand superannuation payments is demonstrated by the hardship figure of the 45 to 64

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<sup>1</sup> Equivalised income refers to income after applying equivalence scales. Equivalence scales enable a calculation of the income required for households of different sizes and ages to achieve an "equivalent" standard of living. They are often used in poverty measurement where it is recognised, for example, that the same standard of living for a one parent and one child family will require a different amount of income than a two parent and three children family. Disposable income is income after the payment of taxation. Household income refers to the sum of income received by household members.

<sup>2</sup> 2006 data is used because there is no more recent census data available with income by age analysis. This is due to the postponement of the 2011 census to 2013 because of the earthquakes in Christchurch which damaged Statistics New Zealand offices where the census is primarily managed from. The 2013 data will become available later in 2014.

year olds (23%) when compared with that of the 65+ group (4%). This despite the fact the 45 to 64 year olds had the highest overall incomes.

The Survey of Family Income and Employment (SoFIE) shows family net worth accumulation (the difference between total assets and total liabilities) accelerates through the working ages and peaks between the ages of 55 and 64. Median net worth reduces gradually after retirement (Statistics New Zealand, 2008b). The authors also note a relationship between annual family income and family net worth, but it varies during different stages of the life cycle. It is weak in the group under 45 years but becomes strong after that. For example couples aged under 45 had a very weak relationship between high income and high net worth. Only 17% of couples in the top income quintile were also in the top net worth quintile. However for the 45 to 64 year old group, the figure was 64% and 75% of couples 65 and over. A similar pattern was shown in an earlier analysis of the 2001 Household Savings Survey (Statistics New Zealand & Retirement Commission, 2002). This was summarised: “As net worth is accumulated over a lifetime, the distribution of net worth in New Zealand is closely related to age” (p. 2).

An Australian government report on families (Department of the Prime Minister and Cabinet, 2008) identified trends in household income and net worth over the life course. The report noted that, “Income rises more rapidly again for people in their 40s and 50s before declining in retirement. Wealth follows a different pattern, gradually accumulating as people age and then declining as it is used in retirement” (p. 49). The 45-64 year-old age groups fell right into the crossover area where average gross household income peaks at ages 45-54 and then declines, while net worth peaks at ages 55-64 before declining. Similar trends in income and asset accumulation across the life cycle have been observed for the United Kingdom, United States, and several other OECD countries (Casey & Yamada, 2002).

Poverty studies have demonstrated a similar relationship between life cycle stage and being above or below various poverty thresholds. Those 65 years and over are much less likely to experience poverty in New Zealand whereas a family with children is much more likely (Waldegrave et al., 2003; Perry, 2013). Applying the most commonly accepted poverty threshold used by the New Zealand Government, in 2012 only 9% of those 65+ years were below, whereas 23% of households with children were below the threshold (Perry, 2013). These same poverty studies (ibid) have also demonstrated the impact of housing tenure. When housing costs are taken into account the numbers of households in poverty with persons 65+ drops considerably, largely due to the lower housing costs for the vast majority with mortgage free households, and the universal pension payment New Zealand superannuation. Renters were much more likely to be in poverty than home owners for all age groups.

A number of researchers have found a relationship between wealth, income and wellbeing among older adults (Waldegrave & Cameron, 2007; Berg et al., 2009; Pinquart & Sorensen, 2000; Hsu, 2010; Headley & Wooden, 2004). Higher levels of income, financial satisfaction and wealth among older people is associated with better quality of life and has been identified by older people in some studies as an important factor in quality of life in old age (Gabriel & Bowling, 2004; Borg et al., 2006).

Netuveli et al., (2006) identified health, functioning, and financial satisfaction as factors of subjective wellbeing in old age. They found that income and financial satisfaction influence wellbeing in old age, “perceiving financial circumstances to be poor had a very high effect on lowering quality of life scores [...] while owning cars and being on the high end of income distribution improved quality of life scores” (p. 360). However they also found that this association changed over time and was less significant in older age.

Financial resources are important for wellbeing among elderly. Gabriel and Bowling (2004) noted that older respondents identified financial sufficiency as important for quality of life for multiple reasons including security, ability to enjoy and participate in life, and empowerment. Worrying about finances may reduce quality of life among older people, as can financial restrictions on activities or access to basic resources and necessities such as medication or medical appointments (Gabriel & Bowling, 2004; Pinquart & Sorensen, 2000).

Other researchers have found a less clear relationship between quality of life and financial security, satisfaction or income. Wilhelmson et al. (2005) found that finances and worrying about finances were the least mentioned factors in a quality of life survey among older adults and were cited by only 5% of men and 10% of women in response to an open ended question “what is quality of life?”. Similarly Depp and Jeste (2006) found that income and education were not consistently associated with successful ageing across studies.

The purpose of this paper is to explore the income, asset accumulation, housing tenure and wellbeing data in the first two waves of the New Zealand Longitudinal Study of Ageing (NZLSA) to identify the living standards and experience of wellbeing for those 50 years and over. Specifically we wanted to see: if the same patterns of income and asset accumulation noted above, occurred in the NZLSA database; how extensive poverty is among those 50 years and over; the extent of housing tenure differences; and the relationship of all these to older people’s experience of wellbeing and quality of life.

## Methodology

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NZLSA began wave 1 with a national random sample of 3,311 New Zealanders aged between 50 and 84 years in 2010 and retained 2,984 participants for the second wave in 2012. A comprehensive postal questionnaire containing scales and questions on general health, social support, care-giving roles, financial wellbeing, neighbourhood characteristics and demographic information was sent to all participants. Among the sets of questions two wellbeing (quality of life) scales were used.

- WHOQoL-8 is a World Health Organisation quality of life instrument that assesses subjective wellbeing. Eight questions inquire into participants’ satisfaction with various aspects of their health, physical and social lives. A five point scale is used ranging from very satisfied to very dissatisfied.
- CASP-12 is a quality of life measure of well-being developed for older people which spans four domains of control, autonomy, self-realisation and pleasure



(hence CASP). Twelve questions inquire into the four domains using a four point scale ranging from often to never.

Questions concerning income, asset accumulation and housing tenure were asked. Care was taken to separate pre and post-tax incomes, and individual and household incomes. A question on the composition of each household was asked enabling equivalence scales to be used. The scale applied to the household income data was the Jensen Revised Equivalence Scales (Jensen, 1988) which are the most commonly used in New Zealand.

The values of assets were asked for in thirteen bands ranging from a loss to \$2 million or more. A question on housing tenure offered three ownership options (owned without a mortgage, owned with a mortgage and owned by a family trust) and three non-ownership options (renters, boarders and other).

Three poverty measures were used: 50% of median, equivalent, disposable, household income measure (OECD measure); 60% of median, equivalent, disposable, household income (European Union income indicator of social exclusion); the most used method in New Zealand, a constant value threshold benchmarked to the 2007 median, but adding the cost of living for each year thereafter - 60% of constant value threshold, equivalent, disposable, household income after housing costs estimated at 25% of household income.

## Findings

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### Personal and Household Income

Personal income for the total sample aged 50 to 87 years reduced between 2010 and 2012 as Table 1 shows. The median (the income of the person at the half way point between the lowest and highest incomes) personal income fell 15% from \$40,232 to \$34,183, while mean (the average) personal income fell 10% from \$60,394 to \$54,586. The response rate was 86% (2010 n=2865, 2012 n=2582) in both years.

Household income demonstrated a similar pattern. Median household income reduced 7% from \$67,600 in 2010 to \$62,980 in 2012. Mean household income reduced 12% from \$107,066 to \$94,685. The response rate in 2010 was 89% (n=2952) and fell to 81% (n=2441) in 2012.

A different picture emerges however, when those 65 to 87 years are separated from the total sample demonstrating the lower incomes of older people when compared with those in midlife. Table 1 shows their personal incomes were substantially more modest with median income 40% lower than the total sample in 2010 and 24% lower in 2012. Median household incomes demonstrated a similar pattern being 41% lower in 2010 and 27% in 2012.

The same theme emerged in the mean income results for the older 65 to 87 years sub-sample. Mean personal income was 18% less than the mean for the total sample in 2010 and 22% less in 2012. Mean household income was 28% lower in 2010 and 17% lower in 2012.

Table 1.  
*Gross personal and household income by age bracket waves 1 & 2.*

<i>Income</i>	Median		Mean	
	<i>2010</i>	<i>2012</i>	<i>2010</i>	<i>2012</i>
50-87 Personal	\$40,232	\$34,183	\$60,394	\$54,586
65-87 Personal	\$24,025	\$26,000	\$49,257	\$42,632
50-87 Household	\$67,600	\$62,980	\$107,066	\$94,658
65-87 Household	\$39,634	\$46,000	\$77,614	\$78,678

Source: New Zealand Longitudinal Study of Ageing (NZLSA)

Although both median and mean personal and household income reduced for the total sample, a different pattern emerged for the older sub-sample. Median personal and household income increased between the two waves with the median for personal income increasing from \$24,025 in 2010 to \$26,000 in 2012 as Figure 1 shows. Median household income increased from \$39,634 to \$46,000 over the same period. This probably demonstrates the protective value of New Zealand superannuation for those on low and modest incomes during the global financial crisis.

The same theme was not apparent with the mean income results for the older sub-sample. Mean personal income reduced over the two waves and mean household income changed little as Figure 1 shows. Again this probably reflects the greater influence of the market for older people on higher incomes.

## Poverty

Three income poverty thresholds were applied to the data in order to determine how many households were below them and experiencing hardship. These were:

- the OECD 50% of median, equivalent, disposable, household income measure
- the European Union 60% of median, equivalent, disposable, household income as applied in the EU as the income indicator of social exclusion
- the most used method in New Zealand, a constant value threshold benchmarked to the 2007 median, but adding the cost of living for each year thereafter - 60% of constant value threshold, equivalent, disposable, household income after housing costs estimated at 25%.

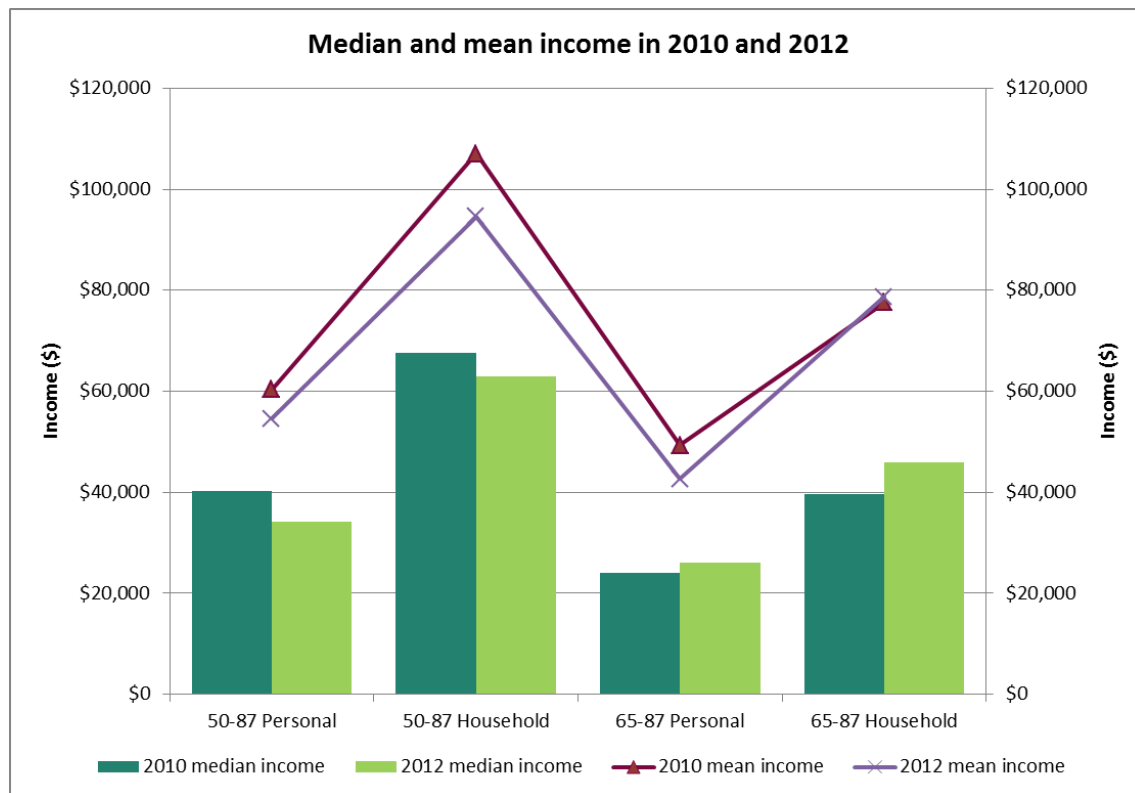


Figure 1. Median and mean personal and household income waves 1 & 2.

Source: New Zealand Longitudinal Study of Ageing (NZLSA)

For those 65 years and over, the data shows a decrease in poverty between 2010 and 2012 on the two totally relative measures and an increase in the constant value after housing costs measure. Table 2 shows that for the 50% of median household disposable income threshold, poverty decreased from 14.5% to 11.8% and for the 60% measure from 36.7% to 30.1% over the two year period. Whereas the constant value measure that takes housing costs into account, demonstrated an increase over the same period from 17.5% to 21.1%.

These results can be compared with the Ministry of Social Development's (Perry, 2013) who also found a similar decrease from 2010 to 2012 for the relative poverty measures in their analysis of household incomes for this age group. However, their percentage count was much lower at the 50% mark (6% and 4% respectively). Whereas at the 60% mark he was much closer (37% and 34% respectively) to the results in the present study. Perry's third measure showed a decrease between the two years (11% to 9%), and a lower rate below the threshold in contrast to both the higher rate and increase between the two waves in this study (17.5% to 21.1%).

Perry notes that large changes in poverty rates for this group using the 50% and 60% of median thresholds can give a misleading impression that significant changes are occurring when in fact they are not (2013, p. 144). A small movement in the value of the universal superannuation payment to older citizens in relation to median income can affect the figures for example, as can changes in the price of housing.

For the total sample 50 to 87 years, households below the 50% of median poverty threshold decreased between 2010 and 2012 from 12.5% to 11.2% as Table 2 shows. However for the 60% mark they increased (22.6% to 26.2%), and for the third measure they also increased from 16.3% to 19.7%.

The poverty rates of the older sub-sample 65+ years were higher than for the total sample on every measure, although in some instances the differences were small.

Table 2.

*Percentage of 50 to 84 year olds below different poverty threshold.*

<i>Equivalent, disposable, household income</i>	2010		2012	
	<i>50-87</i>	<i>65-87</i>	<i>50-87</i>	<i>65-87</i>
50% of median	12.5	14.5	11.2	11.8
60% of median	22.6	36.7	26.2	30.1
60% of constant value threshold after housing costs estimated at 25% of income	16.3	17.6	19.7	21.1

Source: New Zealand Longitudinal Study of Ageing (NZLSA)

## Assets

Participants were asked about the value of their assets. These included estate and trust funds, motor vehicles, holiday homes, businesses, farms, bank deposits and savings, managed funds, shares, their own home, rental properties and any other major assets. They were then asked to estimate the value of these assets in income bands, not including the family home, after subtracting mortgages owing, loans and unpaid bills. Figure 2 sets out the results for both the 2010 and 2012 waves.

There was an 83% response rate to the question in 2010 and an 87% response rate in 2012. The results are remarkably similar for both years with median asset value a little over \$250,000 and the mean below it within the \$100,001 to \$250,000 band. This reverses the trend in the income results where the mean was considerably higher than the median. Around 10% had assets of \$10,000 or less. The results for those 65 years and over demonstrated the same pattern of distribution as the total sample.

The most common assets were motor vehicles and bank deposits or savings as Figure 3 shows. The proportions in the different asset categories remained similar for both waves of data with the exception of business assets which reduced from 12.5% in 2010 to 8.8% in 2012. This probably reflects the impact of the on-going global financial crisis. Home ownership is addressed separately in the next section.

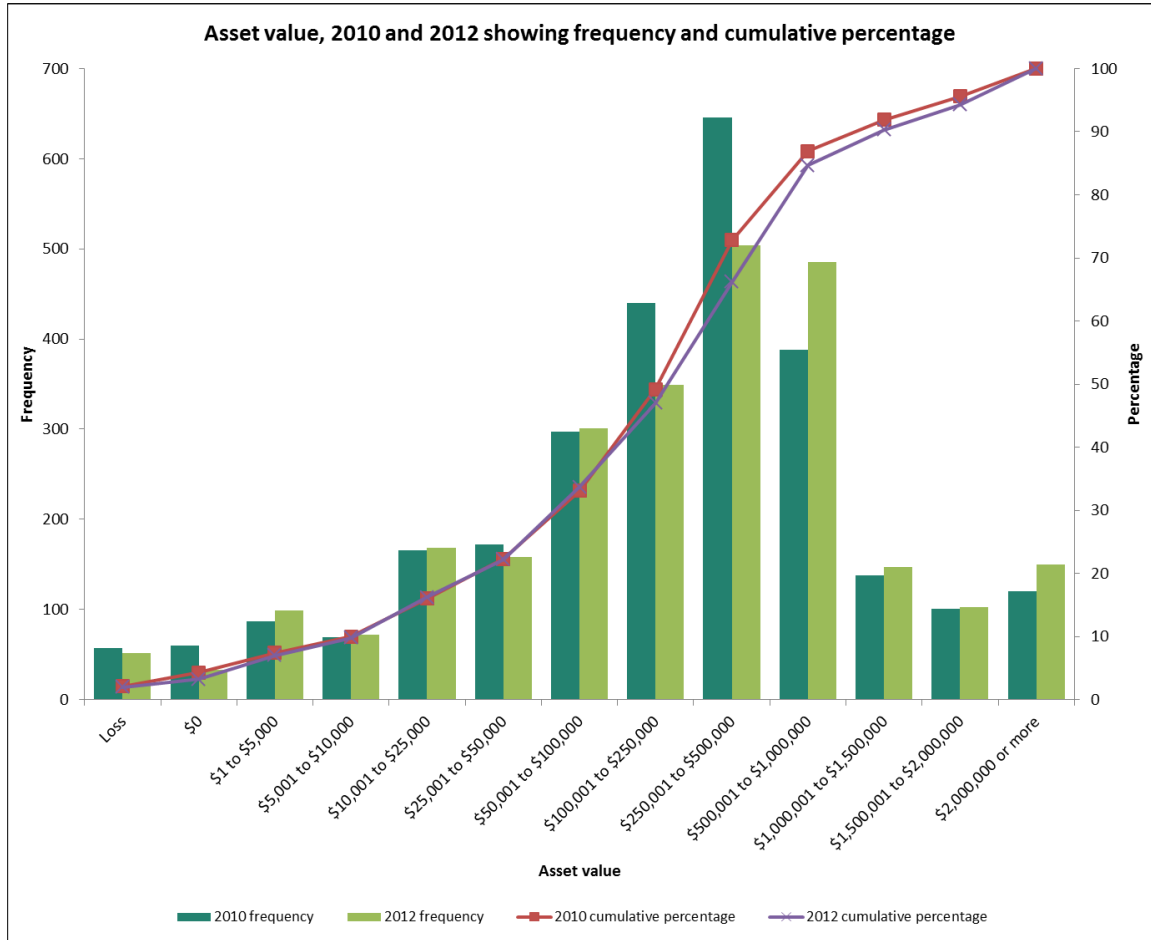


Figure 2: Total worth of assets not including family home in 2010 and 2012. Source: New Zealand Longitudinal Study of Ageing (NZLSA)

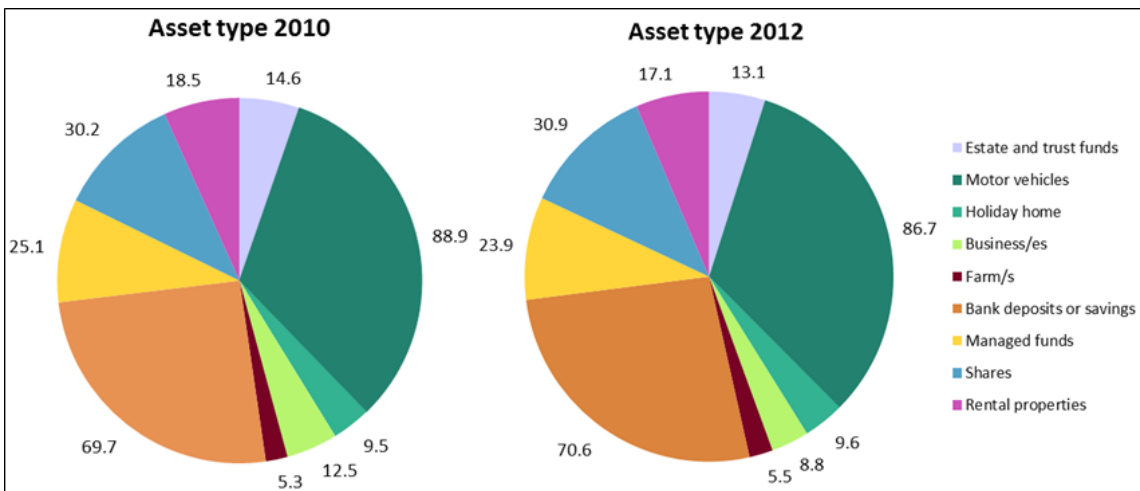


Figure 3. Ownership of types of assets not including family home in 2010 and 2012. Source: New Zealand Longitudinal Study of Ageing (NZLSA)

## Housing Tenure

Home ownership was very high in both waves. Only 8.5% were renting or boarding in 2010 and 7.7% in 2012 as Figure 4 shows. Whereas 90% lived in a house which they either owned with or without a mortgage or their dwelling was owned by a family trust. In 2012, 91% were in one of these forms of home ownership.

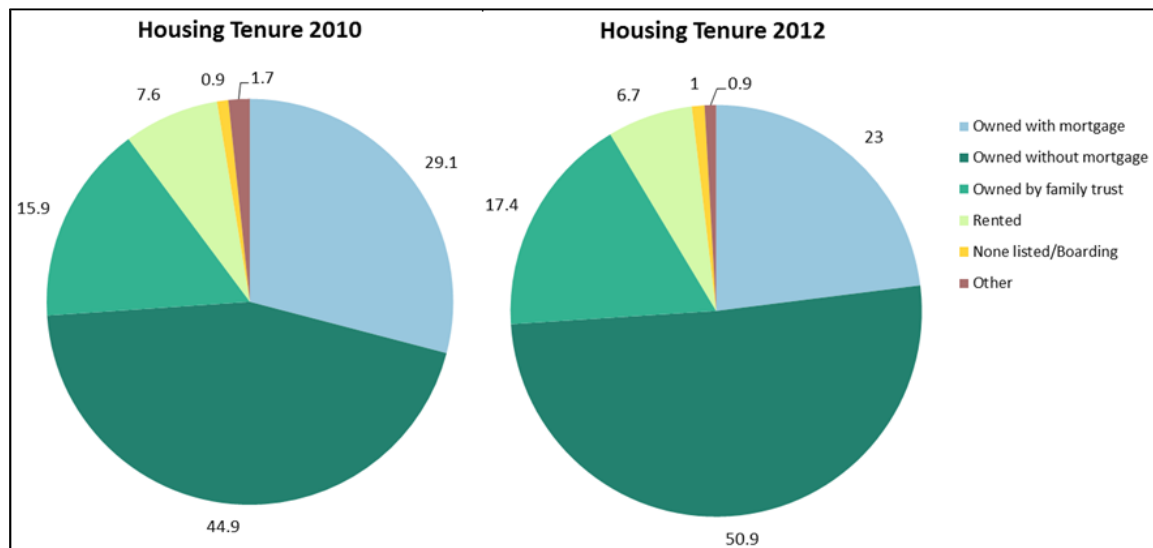


Figure 4. Housing tenure in 2010 and 2012.

Source: New Zealand Longitudinal Study of Ageing (NZLSA)

## Wellbeing

The key variables of household income, assets and housing tenure were tested for their associations with wellbeing and quality of life. In the light of the literature referred to at the beginning of this paper, it was hypothesised that those on lower incomes, with fewer assets and renting accommodation would score lower on wellbeing and quality of life scales.

We tested the relationships between household income and asset accumulation with wellbeing applying two well used internationally applied scales WHOQoL-8 and CASP-12. Household income was calculated after tax and housing costs had been deducted and with equivalence scales so that households of different sizes could be compared regarding basic costs. WHOQoL-8 focussed primarily on questions of satisfaction whereas CASP-12 identifies broader areas relating to control, autonomy, self-actualisation and pleasure.

Both household income and asset accumulation were significantly associated with the wellbeing scales for both waves (see Table 3). There were substantially lower wellbeing scores for those with less household income and fewer assets. However the relationship between asset accumulation and wellbeing was stronger.

Table 3.

*Correlations between asset value, household income and measures of wellbeing.*

	Asset Value		Household Income	
	2010	2012	2010	2012
WHOQOL-8	.319	.279	.092	.143
CASP-12	.274	.250	.060	.089

All correlations significant at  $p < .01$ .

We then examined the relationship between housing tenure and wellbeing applying both wellbeing scales. The tenure categories were collapsed into ‘Owned’ (including owned without a mortgage, owned with a mortgage and owned by a family trust) and ‘Not Owned’ (including renters, those in tied accommodation and boarders). Housing tenure and wellbeing measures were significantly related at both waves ( $p < .001$ ). Those in the ownership categories had higher wellbeing scores than those in the non-ownership categories.

The hypothesis was confirmed that those on lower incomes, with fewer assets and renting accommodation would score lower on wellbeing and quality of life scales than those on higher incomes with greater asset accumulation and who lived in homes they owned.

## Discussion

As noted earlier, the purpose of this paper was to explore the income, asset accumulation, housing tenure and wellbeing data in the first two waves of the New Zealand Longitudinal Study of Ageing (NZLSA) to identify the living standards and experience of wellbeing for those 50 years and over. Social and economic wellbeing for citizens is the high level goal of most modern democratic states and so the relationships of income, asset accumulation and housing tenure with wellbeing are very important from a public policy perspective. The status of the statistical relationships for the 50 to 86 year olds and separately for the 65 and over groups between wellbeing and the three dimensions provides an indication of how well the policy settings of government and their interaction with the market in New Zealand are meeting citizens’ needs.

The hypothesis that those on lower incomes, with fewer assets and renting accommodation would score lower on wellbeing and quality of life scales than those on higher incomes with greater asset accumulation and who lived in homes they owned was confirmed. This is congruent with the findings of most, but not all, of the literature on the subject. Interestingly, asset accumulation demonstrated a stronger relationship with wellbeing than income, though both were significant. This finding suggests policies that contribute to or promote saving will contribute to greater wellbeing in later life. Encouraging citizens, including low income people, to plan for the future, even in a small way, can enhance wellbeing. KiwiSaver is an example of such a policy and it will be important to monitor its impact on quality of life in the future. Likewise an adequate

income and affordable homeownership contribute to positive wellbeing. Deficits in any of these three areas are significantly associated with lower levels of wellbeing.

The personal and household income findings followed the pattern in the literature demonstrating higher incomes for those in late mid-life than for those 65 years and over, and asset accumulation continuing over a longer period. However asset accumulation showed very little difference between the older group and the total sample. Unlike other studies, asset accumulation showed no marked reduction during the later years.

Both median and mean personal and household income for the total sample 50 to 86 years registered a decline from wave 1 to wave 2 probably reflecting the impact of the global financial crisis. However, when the personal and household incomes of those 65 years and over were separated out, median income increased between waves 1 and 2, probably reflecting the protective qualities of NZ superannuation from movements in the market. Mean income for the older group showed more market impact.

The poverty measurement results for those 65+ years demonstrated the same trends as the Ministry of Social Development's Household Incomes Report for the 50% and 60% of median relative thresholds with a decline in the numbers in poverty between the two waves. The 60% of median threshold showed similar percentages in poverty as MSD, but the 50% threshold showed higher percentages. As noted earlier, most people in this group are recipients of NZ superannuation and that payment is very close to the 50% of median threshold. A small movement in incomes can have an exaggerated impact on the numbers in poverty. The decline in the numbers below the poverty threshold in 2012 may suggest wither an easing of the impacts of the global financial crisis or an adaptation to it. However, when housing costs are taken into account a different picture emerges (see the following paragraphs).

Unlike the relative poverty measures, the constant value after housing costs measure registered an increase of those in poverty over the same period. Furthermore, the numbers were higher than expected. This latter result almost certainly reflects increases in housing costs which are not specifically adjusted for in the relative measures.

The total sample 50 to 87 years showed lower numbers in poverty than the older sub-sample of those 65 years plus. This probably reflects both the employment and income status of the younger group. It also suggests that New Zealand superannuation, while preventing deep poverty may be insufficient to meet the basic needs of a greater number of older people than has been thought. The value of NZ superannuation in relation to median household income has deteriorated over the last decade (Perry, 2013).

The median asset value, not including the family home, was a little over \$250,000 which was higher than expected. Furthermore, the older sub-group showed no substantial difference from the total sample as the literature implied it would. The assets of older people in this study were well preserved among the older group, most of whom had retired from the labour market.

Homeownership was very high in both waves, although the extra two years of the second wave showed an very small increase in mortgage free housing from 44.9% in 2010 to 50.9% in 2012. This probably demonstrates the gradual increase in asset accumulation over time noted in the literature.



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