

# **The material wellbeing of older New Zealanders: background paper for the Retirement Commissioner's 2013 review**

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This report has been prepared in response to a request from the Commission for Financial Literacy and Retirement Income for a summary of what we know about the material wellbeing of the current cohort of older New Zealanders, including identification where possible of the groups most at risk of hardship. The report also identifies data issues that limit a more detailed profiling.

Almost all the findings are drawn from publications that are in the public domain and are available on the Ministry of Social Development's website.<sup>1</sup> There is some new material in Section E that is not yet published elsewhere, but which is to be incorporated into a fuller whole-of-population living standards report expected to be released in 2014.

The selection and organisation of the material has been guided by the intended primary use of the information. It is a resource for the Retirement Commissioner's retirement income policy review rather than a standard research paper.

The key sources are listed below. The reader is referred to them for further detail as noted.

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|-------------------------|---|
| Fergusson et al (2001)  | - for more findings from the 2000 Survey of Older People  |
| Cunningham et al (2002) | - for more findings from the 2000 Survey of Older Maori   |
| Jensen et al (2006)     | - for a summary of findings on older New Zealanders from the 2004 Living Standards Survey   |
| Perry (2009)            | - for key findings from the 2008 Living Standards Survey, for summary descriptions of the ELSI and FRILS measures, and for more on international comparisons of hardship rates for older and younger New Zealanders using non-income measures |
| Perry (2013)            | - for more on international comparisons of income poverty rates for older people (aged 65+).  |

The data sources used for these research reports are the Ministry of Social Development's Living Standards Surveys (LSS) and Statistics New Zealand's Household Economic Surveys (HES).

This report is an updated version of the one on the same theme prepared for the 2010 Review. There have been no further Living Standards Surveys since LSS 2008, but data from three new Household Economic Surveys (HES 2009-10, 2010-11 and 2011-12) are used in this update.

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<sup>1</sup> Go to <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/index.html> and click on 'L' for living standards research or 'H' for household incomes research.

## Summary

### Material wellbeing and living standards

- In this paper material wellbeing and living standards are used interchangeably. They refer to the things that money can buy, the goods and services we consume:
  - they are first of all about the basics, the essentials that everyone should have and no one should have to go without in a country like New Zealand: the ability to eat adequately, keep warm, keep ourselves clothed and presentable, wash and have healthy sanitation for ourselves and others, go to the doctor, pay the bills on time, and move around the city, the town or countryside as required
  - the household goods we have and don't have and their quality are all constituent aspects of our living standards and material wellbeing
  - material wellbeing is also about the degree of freedom a household has for accessing or purchasing desirable non-essentials, over and above the basics.
- A household has unacceptably low living standards or material wellbeing (is in hardship) when it lacks or cannot afford many of the basics and has few, if any, of the desirable non-essentials. From an incomes perspective, a household is said to be 'poor' when it has such a low income that it is very difficult or even impossible for it to keep on purchasing the basic goods and services needed for survival and the minimum acceptable participation expected in a more economically developed country such as New Zealand.
- Material wellbeing and living standards as used in this paper are therefore quite different from the wider notion of 'quality of life', and also from the way 'living standards' is used in the New Zealand Treasury's 'Living Standards framework'. Both these are much broader notions that go well beyond material wellbeing.

### Measuring material wellbeing

- For comparing the material wellbeing of different groups in the population, household income has long been used as a convenient and easily understood measure.
- The income measure is usually 'equivalised disposable household income', that is:
  - total household income from all sources (including all government transfers such as main working-age benefits, Working for Families tax credits, NZS, the Accommodation Supplement and so on)
  - less income tax
  - and adjusted for household size and composition.
- While household income is an important contributor, there are many other factors such as housing costs, savings from past income and from gifts, other assets, and special demands on the budget (such as health-related costs) that can also make a sizeable difference to the actual living standards people experience.
- A second stream of research uses more direct non-income measures to assess relative material wellbeing. With these measures or indices, the impact of both income and other factors is captured in the different index scores (living standards) that households get, based on their answers to survey questions.
- The Ministry of Social Development's Economic Living Standards Index (ELSI) makes use of survey-based information about items households either have or don't have because of the cost, items and activities that households do or don't economise on in order to be able to afford other basics, and some self-ratings of material wellbeing and the adequacy of household income.
- The ELSI scores can be used to rank the population from low to high living standards, and the impact of various factors on reported living standards can be identified. In this research, income is one of the factors that is seen to impact on a household's level of material wellbeing rather than being the proxy measure itself.
- Households with similar incomes can have quite different day-to-day living standards.

## The material wellbeing of older New Zealanders – overview<sup>2</sup>

- The great majority of older New Zealanders have sufficient income and assets to provide a reasonable standard of living. Many have a very good standard of living.
- There is evidence of a small group of older New Zealanders (4-7%) whose living standards are very restricted: they would be considered by most to be living in undue material hardship. The hardship rate for older New Zealanders is however lower than for any other age group.
- These relatively good outcomes for older New Zealanders are due to the mix of current public provision (mainly New Zealand Superannuation (NZS)) and the private provision built up by most of the current cohort over their lifetime. A key component of the private provision is mortgage-free home ownership which is relatively high among the current cohort.

## Risk factors for hardship among older New Zealanders

- The ELSI-based research shows (unsurprisingly) that the risk of hardship is much higher for older New Zealanders who:
  - are receiving little or no income over and above NZS
  - pay rent or have a mortgage
  - have low savings & other assets (other than their home, if any, and household items)

Any one of these factors alone increases the risk. Having more than one increases the risk greatly.
- Going beyond these risk factors that involve current financial circumstances and taking a longer-term perspective, the research shows that the risk of hardship in the 65+ years is much higher the more adverse life events the respondent has experienced in earlier years. Each of these can be seen as a factor that impacts on current financial circumstances through its impact on income in previous years and on accumulated assets. Examples of these adverse life events are:
  - separation or divorce, redundancy, longer-term hospitalisation or unemployment, especially in the decade or two before age 65
  - low occupational socio-economic status or no full-time employment at age 50-59
  - having no formal educational qualifications.
- While none of these findings are surprising, whether they are about the impact of the more immediate financial factors or of the longer-term factors, they do provide a timely reminder of the importance of both non-income factors and of events over the whole life-course for determining material wellbeing in older age.
- They draw attention to the importance of policy settings in addition to those for NZS, and to the impact on savings and wealth generation of the different policies and programmes that have been in place from time to time over the lifetime of the current cohort.
- The reminder is especially relevant given the long-established tradition of using income alone as a measure of relative living standards, and especially as a key measure of poverty and material hardship.
- In addition to the risk factors noted above, all of which could be seen as explanatory factors as well as predictive risk factors, there are also some demographic associations for which the causal links are not so clear. The risk of hardship is higher for those older New Zealanders who are 'younger', Maori or Pacific, or non-partnered.

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<sup>2</sup> These findings and those that follow apply to those living in permanent private dwellings - these include self-contained units in retirement villages. The surveys do not cover those living in institutions or non-private dwellings.

### Income and the material wellbeing of older New Zealanders

- While household income is not the only factor that determines the level of material wellbeing for older New Zealanders, it is nevertheless a fundamental and very important one, not least for those who have next to no income other than NZS and very little in the way of savings or assets (other than the family home, perhaps) that can be drawn on to avoid undue hardship.
- For this group, even a relatively small change in (real) income can make a very large difference to how they are able to live day by day.
- The level of NZS is crucial for a large number of older New Zealanders:
  - for 40%, NZS provides almost 100% of their income
  - the next 20% have on average around 80% of their income from NZS
  - this degree of dependence has not changed greatly in the last two decades
  - while the value of NZS remained relatively steady in real terms from 1991 to 2005 (with just a 5% rise from 2000 to 2001), then rose 14% from 2006 to 2012), median household incomes rose strongly over most of this period (42% from 1994 to 2012)
  - a consequence of these different growth rates is that NZS fell from 67% of the median in 1994 to just under 50% in 2009, rising a little to 53% in 2012.
- The OECD uses a 'poverty line' of 50% of median household income for their analyses and for international comparisons. This leads to incongruous assessments at a point in time (eg the poverty rate for the Czech Republic is lower than for, say, France which has much higher incomes), and misleading assessments over time. The New Zealand case is an example of the latter. Because the value of NZS dipped a little below 50% of the median in 2009, the poverty rate for older New Zealanders suddenly rose from close to zero in 2001 to 22% in 2009 then fell away again to 11% in 2012.
- These dramatic changes can easily leave the impression that there was a very large and sudden change for the worse in the actual living conditions of many New Zealanders followed by a rapid improvement. Neither conclusion is warranted. The rapid changes simply reflect the existence of the 'pensioner spike' in the New Zealand income distribution.
- There is a good case for using household income after deducting housing costs (AHC income) as the preferred income measure for assessing relative material wellbeing across different age groups and family groups. For older New Zealanders it allows for some useful discrimination between those who pay rent or a mortgage and those who do not, and implicitly recognises the advantage of a mortgage-free home for avoiding hardship. Even better would be to add net imputed rent to household incomes rather than deducting housing costs, but the data requirements are too demanding at present for New Zealand.
- On average from 2009 to 2012 8% of older New Zealanders lived in households with housing costs that were more than 30% of household income. This is up from 6% in the mid 1990s and 3% in the late 1980s.

## Glossary

Older New Zealanders	New Zealanders aged 65+
NZS	'NZS' is used as a short-hand for 'New Zealand Superannuation / Veteran's Pension'
HH	Household
EFU	'Economic Family Unit'. There are four types of EFUs: a couple, a couple with dependent children (aged under 18), a sole parent with dependent children, unpartnered individuals without dependent children living with them. A household may contain more than one EFU (eg 75 year old female with her 50 year old daughter (two EFUs); a couple with a 20 year old daughter, 12 year old son and one of the children's grandparents (3 EFUs as the daughter and the grandparent are separate EFUs)).
65+ couple EFU	A couple EFU in which at least one partner is aged 65+
Disposable HH income	The total of all income from all sources for all HH members, after payment of tax and receipt of tax credits.
Equivalentised HH income	Equivalentising is a means of standardising HH incomes in terms of HH size and composition so that the relative material wellbeing of HHs of different sizes and compositions can be more sensibly compared. The equivalence ratio used for one person HHs is 65% of that used for couples. This is the same as the ratio of the NZS single living alone rate to that for a married couple.
Income	When 'income' is used in an unqualified way, it means 'equivalised disposable HH or EFU income' unless the context clearly requires otherwise.
BHC	HH or EFU incomes before deducting housing costs
AHC	HH or EFU after deducting housing costs
Housing costs	Includes rent, board and mortgage payments, rates and body corporate fees. Does not include maintenance or development costs.
LSS	Living Standards Survey (Ministry of Social Development)
HES	Household Economic Survey (Statistics New Zealand)
MWS	Material Well-being Scale, developed for the 2001 report on the Living Standards of Older New Zealanders. The MWS is a precursor of ELSI.
ELSI	Economic Living Standards Index <sup>3</sup>
FRILS	Fixed Reference Index of Living Standards, a complement to ELSI

<sup>3</sup> See Perry (2009) pp39ff for a brief description of the development of ELSI and of its make-up, and for references to the technical reports that give the full detail of its development.

## Introduction and overview

In this paper material wellbeing and living standards are used interchangeably. They refer to the things that money can buy, the goods and services we consume:

- they are first of all about the basics, the essentials that everyone should have and no one should have to go without in a country like New Zealand: the ability to eat adequately, keep warm, keep ourselves clothed and presentable, wash and have healthy sanitation for ourselves and others, go to the doctor, pay the bills on time, and move around the city, the town or countryside as required
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A household has unacceptably low living standards or low material wellbeing (is in hardship) when it lacks or cannot afford many of the basics and has few, if any, of the desirable non-essentials. From an incomes perspective, a household is said to be 'poor' when it has such a low income that it is very difficult or even impossible for it to keep on purchasing the basic goods and services needed both for survival and for the minimum acceptable participation expected in a more economically developed country such as New Zealand.

Material wellbeing and living standards as used in this paper are therefore quite different from the wider notion of 'quality of life', and also from the way 'living standards' is used in the New Zealand Treasury's 'Living Standards framework'. Both these are much broader notions that go well beyond material wellbeing.

### Key findings from MSD research from 2000 to 2013

Survey-based research by the Ministry of Social Development (MSD) over several years shows that the great majority of older New Zealanders have sufficient income and assets to provide a reasonable standard of living. Many have a very good standard of living. There is evidence of a small group of older New Zealanders (4-7%) whose living standards are very restricted: they would be considered by most to be living in undue material hardship. The hardship rate for older New Zealanders is however lower than for any other age group.

These findings apply to those living in permanent private dwellings (including self-contained units in retirement villages). The surveys do not cover those living in institutions or non-private dwellings.

These relatively good outcomes for older New Zealanders are due to the mix of current public provision (mainly New Zealand Superannuation (NZS)) and the private provision built up by most of the current cohort over their lifetime. A key component of the private provision is mortgage-free home ownership which is relatively high among the current cohort.<sup>4</sup>

This assessment of the relative material wellbeing of older New Zealanders is based on three strands of research:

- using household incomes (after deducting housing costs) as an indicator of material wellbeing
- using non-income measures which seek to get a more direct measure of actual daily living conditions
- using respondent self-ratings of the adequacy of their household income to meet necessities (food, clothing, accommodation, and so on).

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<sup>4</sup> At the 2006 Census, 80% of households where the reference person was aged 65+ lived in an owner-occupier home, whether owned directly or held in a family trust by one or more in the household (DTZ New Zealand, 2007). Around 90% of these were mortgage-free (estimate based on the 2008 LSS and 2009 HES).

## Using household income to measure material wellbeing

The standard approach in OECD and EU nations for assessing relative material wellbeing has been to use after-tax household income from all sources, adjusted for household size and composition (that is, equivalised household income). Income data is widely available over many years and the approach is easily understood. The incomes approach does however have some well-known limitations:

- Collecting accurate income data in surveys is challenging.
- Even if very accurate information is collected, the conceptualisation of 'income' that is used usually involves a trade-off between a 'proper' wide notion of income and the practical limitations of the data. It is relatively straightforward to adjust for tax and transfers, but more difficult for example to calculate imputed rent for home-owners. In addition there is no definitive way to adjust for household size and composition.
- Even if income data is collected accurately and imputed rent is included, there remain other issues when using household income to compare material wellbeing across households. Different households with the same income can have quite different actual day-to-day living standards because of different asset levels other than the family home (household goods, vehicles, financial savings), differing demands on the budget from health costs and needing to support others, differing abilities and inclinations for household production (meals, do-it-yourself repairs and maintenance), and access to local amenities.

The limitations of the incomes approach is especially evident when the focus is on the relative material wellbeing of older people, as the level of assets for this group has a large impact on their living standards.

In addition to the more general issues outlined above, the policy settings and near universality for NZS mean that for New Zealand there is the added challenge of a large 'pensioner spike' in the income distribution close to the standard poverty lines of 50% or 60% of median household income. This means that the reported poverty rate for older New Zealanders is highly sensitive to the choice of poverty line. This phenomenon, together with the other issues already noted means that the usual BHC incomes approach to assessing the relative material wellbeing of older New Zealanders is not a useful or reliable one.

The Ministry uses two alternative approaches to try to address or avoid the limitations of the standard incomes approach.<sup>5</sup>

The use of household incomes after deducting housing costs (AHC incomes) goes some way to addressing these two issues: the pensioner spike is significantly smoothed out as low-income (NZS only) households have a range of housing costs; and the low housing costs for mortgage-free home owners to some degree recognises the value of what for most is their most valuable asset, the family home. MSD uses AHC incomes as its primary incomes measure when assessing relative material wellbeing.<sup>6</sup>

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<sup>5</sup> MSD uses AHC incomes and a non-incomes approach (ELSI) as alternatives to the traditional BHC approach. Another approach is to use data sets that allow the use of a much wider and almost complete notion of income which brings income and wealth into the one account so to speak. Frick and Headey (2009) is an example of other research that shares this paper's significant reservations about using BHC incomes to investigate the material wellbeing of older citizens. Their point is that comparisons based on pension incomes are potentially misleading because the living standards of retirees depend on their total economic resources, and particularly their total wealth (net worth), not just on pension incomes. This leads them to compare the two countries using both incomes and wealth. The non-incomes approach takes a different route, looking instead out actual outcomes rather than improving the income measure used so that it covers more of the total economic resources available to households.

<sup>6</sup> Ideally, net imputed rent would be added to the incomes of those owning their own homes rather than housing costs deducted. There are at present some significant data challenges with actually carrying out the imputation. See further discussion in Section B.

## Using non-income indicators to measure material wellbeing

MSD has also developed measures of material wellbeing that are not income-based. They focus instead on the actual living conditions that people experience, rather than on household disposable income which is just one of the inputs into what determines a household's living standards.

One of the benefits of using non-income measures to assess material wellbeing is that the impact on living standards of both income and of factors other than income can be highlighted and better understood. In particular, factors that are associated with increased risk of hardship for older New Zealanders can be identified and the size of their impact measured.

These risk factors are:

Current financial and economic risk factors:

- little or no income other than NZS
- making mortgage or rent payments (which is usually the same as 'having high housing costs' or 'not owning own home mortgage-free')
- having little in the way of savings or assets (other than household goods and the dwelling itself).

Life history risk factors:

- experiencing adverse events, especially in the decade or so prior to age 65 (eg separation or divorce, unemployment, redundancy, long-term hospitalisation)
- having a low occupational socio-economic status score after the age of 50
- having no formal educational qualifications.

Socio-demographic characteristics:

- younger older New Zealanders have a greater risk of hardship
- older Maori and Pacific people have a higher risk of hardship
- non-partnered older New Zealanders have a higher risk of hardship than their partnered counterparts.

The findings about the impact of the financial, economic and life history factors are hardly surprising, but they serve as a useful reminder of the importance of 'pre-retirement' events and circumstances for the material wellbeing of older New Zealanders. While some of the life-course events are of a more private nature (eg separation/divorce), and others are driven by circumstances well outside New Zealand's control (eg GFC), many are more directly influenced by local social and economic policies over a lifetime.

## Structure of the report

Section A sets out an organising framework for thinking about the relationship between current income, past income, assets, special demands on the budget, living standards, and so on.

Section B reports on the incomes of older New Zealanders, showing how NZS tracks relative to the average wage and to overall household incomes, and describing how older New Zealanders fare relative to other age groups using an after housing costs income poverty measure.

Section C uses findings from MSD's living standards research to describe how older New Zealanders are faring relative to other age groups using non-income measures of material wellbeing, and compares these findings with those using incomes and self-ratings of income adequacy.

Section D provides international comparisons of poverty and hardship rates for those aged 65+.

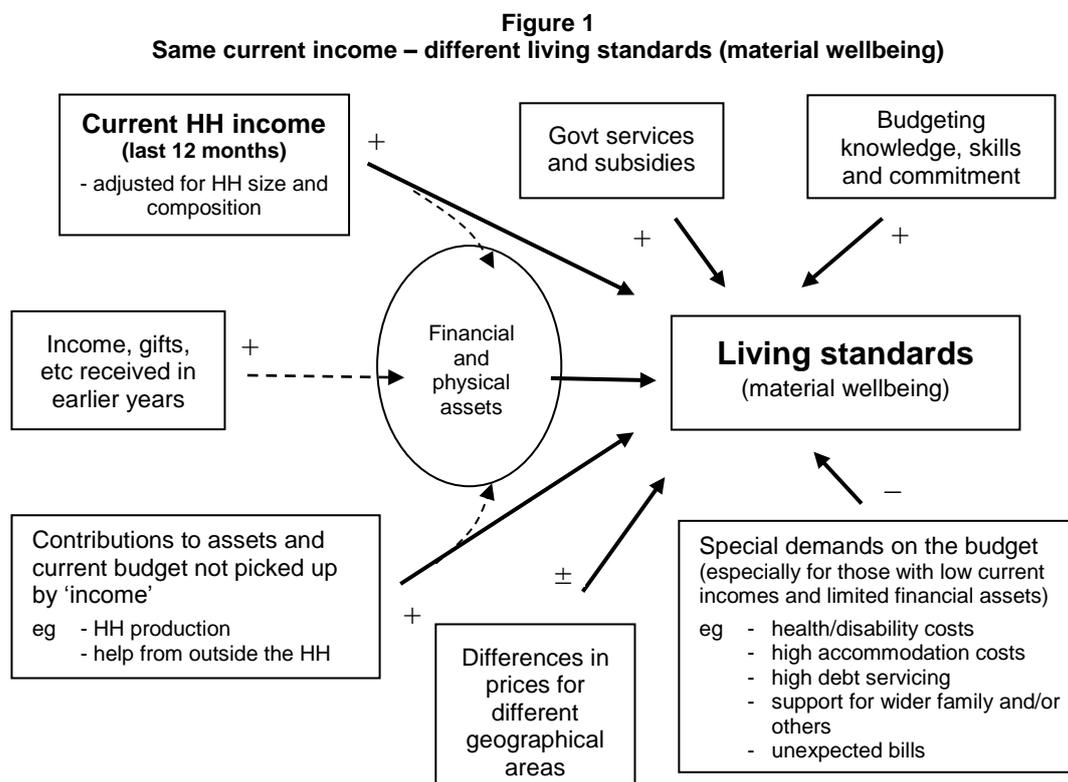
Section E identifies factors underlying or associated with variations in the living standards of older New Zealanders, and summarises what we know about the relative size of the impact of these factors based on the 2000, 2004 and 2008 Living Standards Surveys.

## Section A

### Measuring living standards at the household level: an 'inputs' and an 'outcomes' approach

As outlined in the Introduction there are, broadly speaking, two approaches to measuring material wellbeing or living standards at the household level: an 'inputs' approach using household incomes as the indicator for resources available for producing material wellbeing, or a more direct 'outcomes' approach that looks at the final achieved living conditions of the household.<sup>7</sup> Many factors determine these living standards outcomes. While current household income is a very important and influential one, there are many others.

**Figure 1** shows at a high level the different factors that can impact on a household's living standards (understood narrowly as material wellbeing, rather than the broader 'quality of life' notion). The level and quality of financial and physical assets, assistance from support networks and government services, budgeting and related skills, and special demands on the household budget can all have significant positive or negative effects on living standards, over and above the effect of current income. As these factors fall differently across different households, current household income, even when adjusted for household size and composition, can only be a rough indicator of actual household living standards.<sup>8</sup>



<sup>7</sup> Using expenditure or consumption measures can be seen as a third way, somewhere between the income approach and the more direct non-incomes approach. Data collection demands and a range of conceptual challenges mean that the expenditure and consumption approaches are less often used.

<sup>8</sup> While current household income alone cannot be expected to be a fully reliable indicator of material wellbeing, Figure 1 suggests that differences in income more broadly understood – in terms of past income and gifts (as represented by current net worth), current income, expected future income, household production, and so on – are much more likely to explain differences in living standards. In this wider sense, it could be said that it is almost all about income (cf the life-cycle and permanent-income hypotheses for understanding levels of current consumption as current income varies).

Non-income measures or indicators are useful for getting more direct information on a household's actual day-to-day living standards ('outcomes'). Non-income indicators include information about access to household durables, the ability to keep warm, have a good meal each day, pay the bills on time, pursue hobbies and other interests, and so on. The Ministry of Social Development has developed a more direct measure of material wellbeing, the 40-item Economic Living Standards Index (ELSI).<sup>9</sup> A short-form of ELSI (ELSI\_SF) was also developed and the 25 items needed for it have been in the Household Economic Survey (HES) since 2006-07.<sup>10</sup>

Actual current living standards measured more directly in this way reflect the impact not only of current household income, but also of accommodation costs, assets, special demands on their budget, and so on. ELSI scores reflect not only the impact of current household incomes and other circumstances, but also the cumulative impact over a longer timeframe of key factors such as employment and income patterns over previous years, consumption and savings decisions, and the life history of a household and its members.

All this applies to all households across the income distribution and across the life-cycle. It has particular relevance however for assessing the material wellbeing of older New Zealanders, many of whom have relatively low incomes but a good asset base that together maintain the living standards of the household at a reasonable level. While for the population as a whole current household income on its own has limitations as an indicator of material wellbeing, it is even less reliable when used on its own to assess the material wellbeing of older New Zealanders.

None of this is meant to imply that using current household income is of no importance in relation to assessing the material wellbeing of households, or of older households in particular. It is, for example, important to understand the sources of income for older New Zealanders, how NZS tracks relative to the average wage and to household incomes more generally, and how older New Zealanders fare on standard income poverty measures in their own right and relative to other age groups. The next section covers these themes, then the report moves to an assessment of the material wellbeing of older New Zealanders based on non-income measures using the ELSI measure.

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<sup>9</sup> See Perry (2009) pp39ff for a brief description of the ELSI measure and its make-up.

<sup>10</sup> The ELSI\_SF has recently been updated and further developed into a Material Wellbeing Index (MWI) which uses half of the original ELSI\_SF items together with several new ones. The new item set is in the 2012-13 HES for which the data collection phase has just finished (June 2013). The MWI has an improved and updated set of items, but the MWI and the ELSI rank the population in much the same way (correlation of 0.95).

## Section B

### The incomes of older New Zealanders

**Figure 2** shows the distribution of household incomes for older New Zealanders and for those aged under 65, using incomes after tax and transfers and after adjusting for household size and composition (equivalised disposable household income). Individuals are grouped by their household's income into categories which are multiples of \$1500 pa (\$30 pw).

**Figure 2**  
Household income distribution for older New Zealanders relative the rest of population (BHC), HES 2012

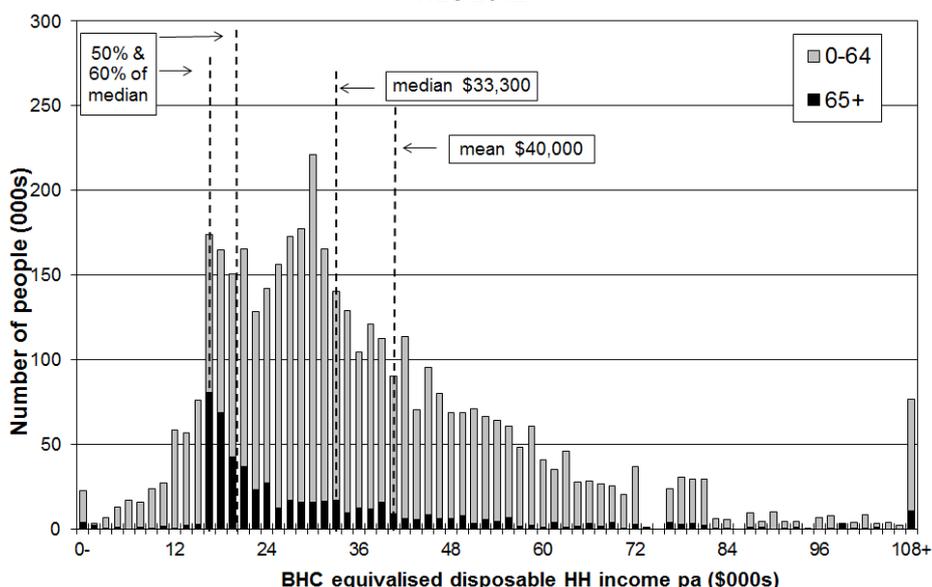


Figure 2 clearly shows the 'pensioner spike' at close to the 50% of median poverty line.

The spike is a direct consequence of (a) New Zealand having a (nearly) universal NZS that is neither income nor asset tested, and (b) there being a large proportion of older New Zealanders with very little other income over and above NZS.

The great majority of older New Zealanders are very dependent on NZS and other government transfers for their income:

- 40% have virtually no other income source
- the next 20% have on average around 80% of their income from NZS and other government transfers
- half of older New Zealanders report less than \$100 pw (per person) from sources other than government transfers
- this degree of dependence has not changed greatly in the last two decades
- those in couple EFUs tend to have higher per capita non-government income than do those in single person EFUs.

Around one in three older New Zealanders receive more than half their income from sources other than NZS:

- for this group, the proportion of income from other sources has grown a little over recent years, mainly due to increasing non-government income for those in 'younger' couple households (aged 66-75), in turn reflecting increasing employment and self-employment income from the is group.

### NZS relative to average after tax earnings and to median household income

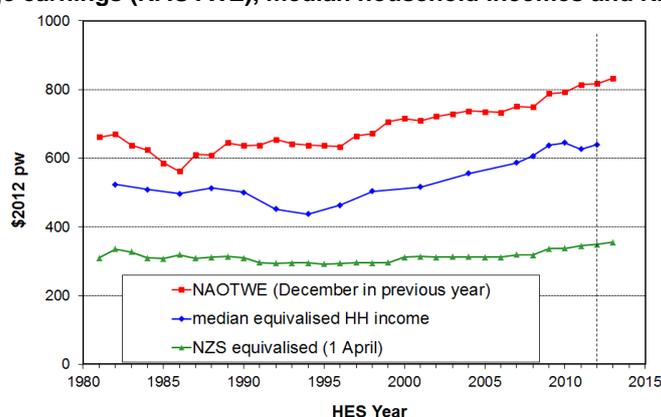
Because NZS provides the bulk of income for such a large proportion of older New Zealanders, it is useful to know how NZS tracks:

- in real terms
- relative to average wages
- relative to median household income.

**Figure 3** shows the trends in real terms (\$2012) of net average ordinary time weekly earnings (NAOTWE), median household income and NZS. Compared with wages and household incomes, the value of NZS in real terms remained fairly steady from the early 1990s to 2006, then rose by 14% from 2006 to 2012. The changes to NZS that have occurred have doubtless made a significant difference for those older New Zealanders who have little income other than NZS, and because of the large number of recipients involved the fiscal implications of relatively small changes are non-trivial. Nevertheless, for the purposes of comparing the three trends in Figure 3, NZS can be said to have remained fairly steady since the mid 1980s.

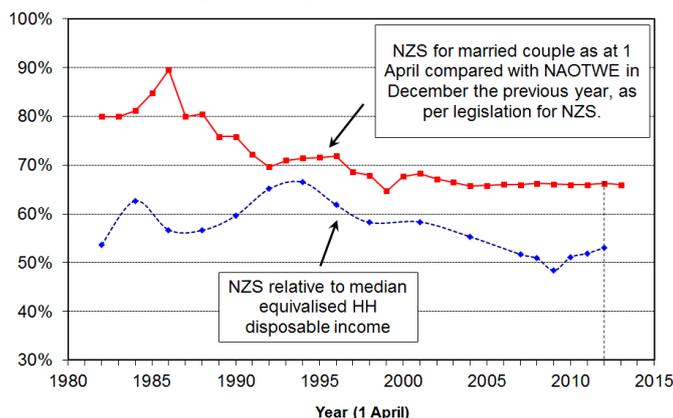
Median household incomes have risen strongly in real terms since the mid 1990s. The rate of growth for median household income is higher than that for the average wage in part because of the increase in hours worked by second income earners in two-parent households.

**Figure 3**  
Trends in average earnings (NAOTWE), median household incomes and NZS (in 2012 dollars)



The upshot of the differing growth rates for median household incomes and NZS is that the value of NZS relative to median household incomes steadily declined from the mid 1990s to HES 2009 (as shown in **Figure 4**). It has recovered since then to 53% of median household income in HES 2011-12 because of both a fall in real terms of median household income and a rise in NZS in real terms as a result of income tax changes and rises in gross average wages. See also **Table 1** below.

**Figure 4**  
NZS relative to average earnings and median household incomes



So, while NZS has remained broadly the same in real terms in the last two decades, its value has declined considerably since the mid 1990s relative to the incomes of middle-income households. This means that for those whose income is NZS and not a lot more, their purchasing power will have remained steady (all else equal) compared to what they have become used to, but relative to the average consumption possibilities for the rest of the nation the purchasing power for this group of older New Zealanders has on average declined.

### OECD league tables for poverty among older citizens

A second implication of the decline in the value of NZS relative to median household income relates to how the OECD ranks New Zealand in the income poverty rate league tables they publish from time to time.

The OECD uses a 50% of median poverty line. In 2001, the poverty rate for older New Zealanders on this measure was very low (~0-2%) as the value of NZS was safely above the 50% poverty line, and New Zealand was commended for having successfully 'erased poverty' among older people.<sup>11</sup> By 2008-09 the poverty rate for older New Zealanders had reached 22%, one of the 'worst' in the OECD, and has since begun to fall away again (11% in 2011-12).

The OECD analysis in its 2007 report was naïve and misleading, as (among other things) it did not also note that when using a 60% of median poverty line the New Zealand poverty rate for those aged 65+ was at that time around 33%+, one of the highest in the OECD/EU. The OECD are now more careful in their reporting and analysis of such trends, and advocate a more comprehensive framework involving income, consumption and wealth (OECD, 2013). There is however still evidence in New Zealand of the sound-bite having stayed in the minds of many as a part of the 'received wisdom'.

**Table 1**  
**NZS relative to the median equivalised BHC household income median (%)**

1984	86	88	90	92	94	96	98	01	04	07	08	09	10	Apr 11	Oct 11	12
63	57	57	60	65	67	62	58	58	56	52	51	48	51	52	53	53

<sup>11</sup> OECD (2007: 11) asserts that "the main features of New Zealand Superannuation are well crafted and have successfully erased poverty among the elderly".

## Using incomes after deducting housing costs<sup>12</sup> (AHC) for comparing income poverty rates for different age groups

The use of BHC income measures is generally taken as the self-evident starting point. There is however a good case to be made for the use of AHC incomes as the primary approach for low income / income poverty comparisons across different population subgroups, when the focus is on income as an indicator of material wellbeing. The rationale for using the AHC approach is given below, and is followed by a summary of key findings for older New Zealanders using the approach.

### Rationale

- First, variations in housing costs do not necessarily correspond to similar variations in housing quality. This is most significant when comparing the material wellbeing of age groups. Many older individuals are in households that have good accommodation and relatively low housing costs (eg the vast majority of those living in mortgage-free homes). Many in an earlier part of the life cycle have a similar standard of accommodation but relatively high accommodation costs. Ideally, the value of imputed rent for homeowners would be added to income to even up the comparisons (ie the BHC approach has limitations in this regard and a broader income concept is needed), but the practical difficulties are considerable. As an approximation for the purposes of comparing material wellbeing, the AHC approach deducts housing costs from after-tax cash income for all households to level the playing field as it were.
- Once a household is committed to a particular residence, outgoings on housing costs cannot easily be adjusted or put off in 'tight times' as they can for other expenses like entertainment and recreation, and even to some degree for basics like food and clothing.<sup>13</sup> When the primary focus is on trends in income poverty and hardship, it is important to understand trends in 'residual income', taking housing costs as a given fixed cost in effect. Housing costs represent a very significant proportion of the total spending for many low-income households.
- Third, as noted above, a unique characteristic of the New Zealand BHC income distribution is the very large 'pensioner spike' at around the value of NZS (see Figure 2 above). In recent years, the spike has been located close to a 50% of median poverty line (BHC). In the late 1990s it was around a 60% of median poverty line. The presence of the spike can lead to large variations in reported poverty rates for the 65+ group over time, leaving the misleading impression that there are significant changes in material wellbeing occurring for this group. In addition, the same issue can lead to similarly misleading comparisons with the relative wellbeing of other age groups. An AHC approach largely avoids these issues and is more suitable as the primary measure (for New Zealand at least).
- Ideally, imputed rent (less 'landlord' type costs such as rates, interest, minor repairs and maintenance) would be added to the incomes of those owning their own homes rather than housing costs being deducted. The inclusion of imputed rent is recommended by international experts on income measures (UNECE, 2011) and the OECD (OECD, 2013). In other words, the (BHC) income concept as usually operationalized is deficient. There are some significant data challenges to overcome in order to carry out the exercise, but Australia have done it (ABS, 2011), and researchers have applied the idea more generally (eg Frick et al, 2010). The issue was on the agenda of the recent (February, 2013) Meeting of Providers of OECD Income Distribution Data. Hopefully this will become possible in New Zealand in the medium term, but in the meantime deducting housing costs is a reasonable second-best approach.

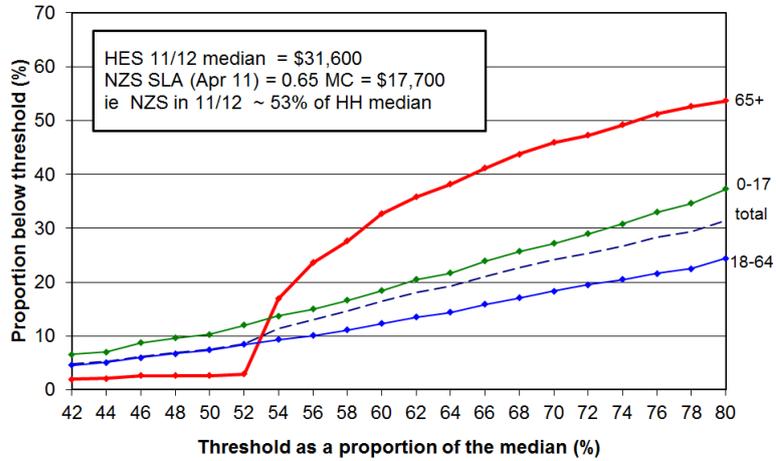
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<sup>12</sup> 'Housing costs' in this paper includes rent, board and mortgage payments, rates and body corporate fees. It does not include maintenance or development costs.

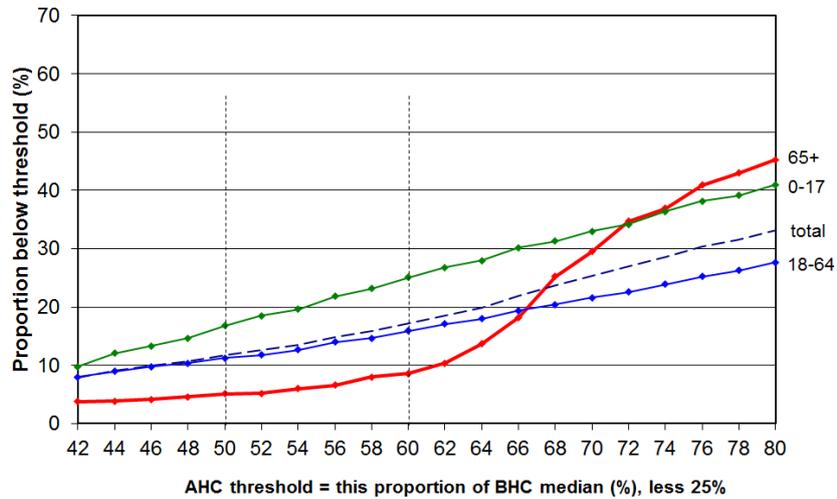
<sup>13</sup> Maintenance can be and often is deferred, but maintenance costs are not part of the housing costs used in this report.

Figures 5A and 5B show how the bunching of AHC incomes for those aged 65+ is much less severe than for BHC incomes. The 'cliff-face' at around 50% of the median (BHC) is considerably smoothed out for AHC incomes. Small shifts in the median or the threshold do not therefore have the same disproportionate and potentially misleading effects on (trends in) poverty rates for the 65+ when using AHC incomes.

**Figure 5A**  
Sensitivity of income poverty rates to the threshold used, BHC incomes, HES 2012



**Figure 5B**  
Sensitivity of income poverty rates to the threshold used, AHC incomes, HES 2012



### Income poverty using an AHC approach

**Table 2** shows poverty rates using AHC incomes, with the poverty threshold set in real terms at 60% of the 2007 BHC median, less 25% to allow for reasonable housing costs.<sup>14</sup>

The poverty rate on this measure for older New Zealanders (7%) is lower than for other age groups. This is a consistent finding over many years.

Those in 65+ one person EFUs have a much higher risk of income poverty (12% on this measure) than do those in couple EFUs (6%). This is also a well-established finding.

The lower panel shows (unsurprisingly) the value of mortgage-free home ownership for helping older New Zealanders avoid poverty (on this measure).

The figures are for the average of the latest three surveys (HES), as some of the sub-groups are relatively small in a given survey (eg 18-24 yrs, those aged 65+ in rental accommodation or with mortgages).

**Table 2**  
**Poverty rates (%) using a fixed reference AHC measure, HES 2010 to HES 2012 (avg)**

	Rate (%)	Composition (%)
<b>Total population</b>	15	
<b>Age group</b>		
0-17	21	
18-24	18	
25-44	15	
45-64	12	
65+	7	
<b>EFU type</b>		
65+ couples	6	
65+ non-partnered	12	
<b>Tenure (65+)</b>		
Owned or FT mortgage-free	3	76
Owned or FT with mortgage	12	11
Rented (private, local authority, HNZA)	27	13

- Notes: (1) FT = Family Trust  
(2) 'Owned or FT mortgage-free' means that the dwelling is owned by the householders or a Family Trust, and the householders make no mortgage payments.

<sup>14</sup> The 25% deduction for housing costs is used only to establish the AHC poverty line. For individual households, their actual AHC income is calculated and compared with this threshold. See Perry (2013) for detail on this approach.

## Section C

### Using non-income measures to assess material wellbeing: living standards from low to high

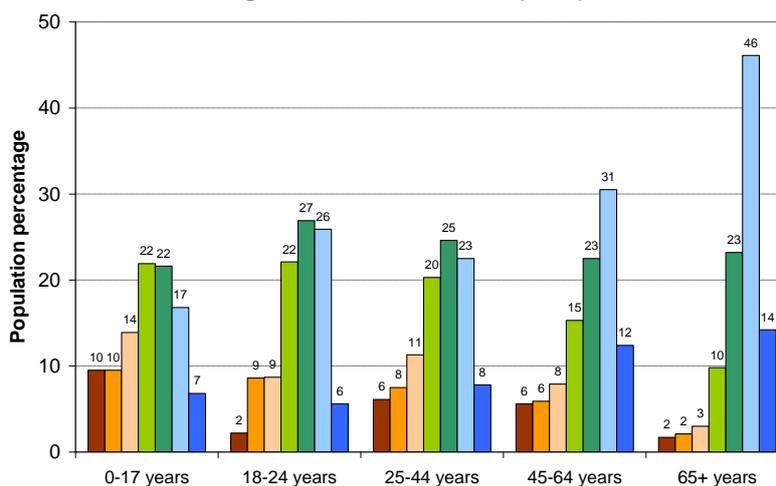
The Ministry's Economic Living Standards Index (ELSI) is made up of 40 items, the bulk of which (37) are non-income items related to actual living conditions. The items include information on ownership and access to consumer durables, the degree to which households need to economise in their consumption in order to be able to pay for basics, self-ratings of standard of living, and so on. A short-form of ELSI (ELSI\_SF) was also developed and the 25 items needed for it have been in the Household Economic Survey (HES) since 2006-07.<sup>15</sup>

Individual items from a survey can provide valuable information about aspects of material wellbeing. However, the different patterns of preferences that households have regarding consumption, and the different aspects of material living standards reflected in different individual items are more usefully integrated into a summary index using several or even two or three dozen items (as is the case for ELSI).<sup>16</sup>

The ELSI measure allows the living standards of different groups to be compared across the full range from low to high, rather than just focussing on the low living standards or hardship end of the spectrum. For presentation purposes the ELSI living standards range can be divided into seven levels, from very low (Level 1) to high (Level 7). Levels 1 and 2 are generally taken to be the 'hardship' levels.

**Figure 6** shows that in 2008 older New Zealanders have the most favourable distribution of living standards of all age groups. Hardship rates are relatively low (4%, compared with 19% for children (0-17 yrs), and 12% for working age adults (18-64 yrs)). Older New Zealanders had the highest average ELSI score of all groups: '47' compared with '40' for the whole population and '36' for children.

**Figure 6**  
Distribution of material living standards for age groups,  
using the seven ELSI levels (2008)



Notes: The numbers above the bars in the chart are percentages.

The left-hand bar in each age group is Level 1 (very low living standards), and the right-hand bar is Level 7 (high living standards).

A key conceptual underpinning of the ELSI measure is that 'an item contributes information about a person's living standard only when it relates to something the person wants' (Jensen et al 2002:12). This means that a respondent who does not have an item and does not want it is

<sup>15</sup> See Perry (2009) pp39ff for a brief description of the ELSI measure and its make-up, and footnote 10 on page10 for further information on the indices.

<sup>16</sup> See Appendix 1 for information on a selection of individual items for different age groups and family types.

considered to have a higher standard of living than another respondent who does not have the item but does want it, all else being equal. A good case can be made for adopting this conceptualisation of living standards, but it does mean that the question can reasonably be raised as to whether the living standards rankings using ELSI are unduly affected by changing preferences as people age, for example.

An alternative index, FRILS (Fixed Reference Index of Living Standards), has been developed to explore the impact on rankings of adaptive preferences and of preferences changing between surveys. In contrast to ELSI, FRILS assesses relative material wellbeing directly against a list of items without considering whether the respondent wants an item or not. In addition, FRILS does not use the self-ratings by the respondent of their standard of living or adequacy of household income. Hence it is a 'fixed reference' measure, not so dependent on individual preferences.

When results for older New Zealanders are compared using ELSI and FRILS:

- for hardship comparisons, the relativity between the 65+ group and the rest of the population is much the same whether using ELSI or FRILS – older New Zealanders have relatively low hardship rates
- for comparisons at the higher end of the scale, older New Zealanders overall still rate well on FRILS, but not as well as when using ELSI.<sup>17</sup>

### Comparing hardship findings using AHC incomes, non-income measures, and self-ratings

**Table 3** shows the poverty and hardship rates for different age groups and for families with children using four measures. On all four measures, and whether using LSS or HES data, the poverty or hardship rate for older New Zealanders is lower than for other age groups, and for the two families-with-children groups.

**Table 3**  
**Poverty and hardship rates (%) for selected age and family groups:**  
**LSS 2008 and the average for HES 2010, 2011 and 2012**

	Average for HES 2010, 2011 & 2012	From LSS 2008 and HES (Avg for HES 2010, 2011 & 2012 in brackets in columns 2 & 4)		
		Using HH incomes after deducting housing costs	Using ELSI, a more direct non-income measure	Using FRILS, a more direct non- income measure
ALL	15	13 (13)	14	19 (19)
0-17 yrs	21	19 (21)	20	26 (26)
SPs with dependent children	44	39 (39)	40	46 (48)
2Ps with dependent children	13	11 (14)	12	18 (18)
18-24 yrs	18	11 (14)	13	-
25-44 yrs	15	14 (13)	14	18 (19)
45-64 yrs	12	12 (12)	12	17 (17)
65+ yrs	7	4 (6)	4	11 (10)

- Notes:
1. The income poverty measure uses incomes after deducting housing costs, as in the Social Report. The threshold set at 60% of the 2007 BHC median adjusted by the CPI, less 25% to allow for housing costs.
  2. The ELSI hardship figures are based on ELSI levels 1-2. The FRILS figures are based on the equivalent for FRILS.
  3. EFU income is rated by respondents as 'not enough' to meet basic expenses for necessities (food, clothing, accommodation, and so on).
  4. The findings are based on data from HES 2010, 2011 and 2012, and from the 2008 LSS. As the bracketed figures show, the findings are very similar from both sources. The 2009 HES (in the field near the time of the 2008 LSS) also produces very similar figures.

<sup>17</sup> See Perry (2009) pp39ff for a brief description of the development of ELSI and FRILS and their make-up.

## Section D

### International comparisons

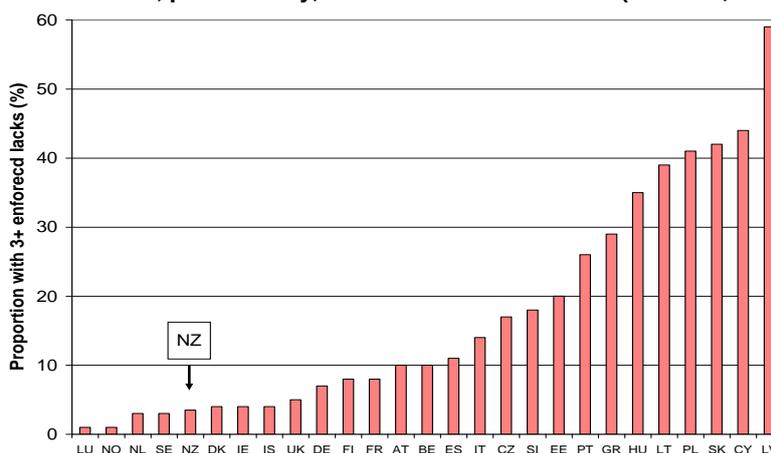
International comparisons of the living standards of groups within nations have traditionally been carried out using household incomes before taking housing costs into account. Comparisons based on this approach have some well-known and serious limitations and can often be seriously misleading. See the discussion on pp 4, 6 and 13 above, and for more detail see pp151-153 in Section J in Perry (2013).

Comparisons using after housing costs (AHC) income measures are more useful but the relevant data is not available in enough countries to make this a viable option for international comparisons at present.

In the last few years some international comparisons have become possible using non-income measures. These avoid many of the limitations of the incomes approach. The comparisons are at present limited to European nations and New Zealand as countries such as Canada, Australia, and the United States do not yet have the appropriate survey data to allow proper 'apples with apples' comparisons.

Using the official EU 9-item deprivation index, New Zealand has a low hardship rate among its older population relative to European nations. **Figure 7** shows that New Zealand ranks near the top of the table (3%) alongside the Netherlands, Sweden, Denmark and Ireland. Even when compared only with the 'old EU' members (say, from Italy to the left on Figure 7), the New Zealand rate is relatively low. In contrast, the New Zealand hardship rate for children is 18% on this measure, at the 'low' end (ie more deprived, more to the right) relative to the 'old EU' members. The relativities using this EU measure are similar to those reported in Table 3 above.

**Figure 7**  
Deprivation rates using the official 9 item EU index, those aged 65+  
EU-25 less Malta, plus Norway, Iceland and New Zealand (EU 2007, NZ 2008)



Source: Figure D.2 in Perry (2009).

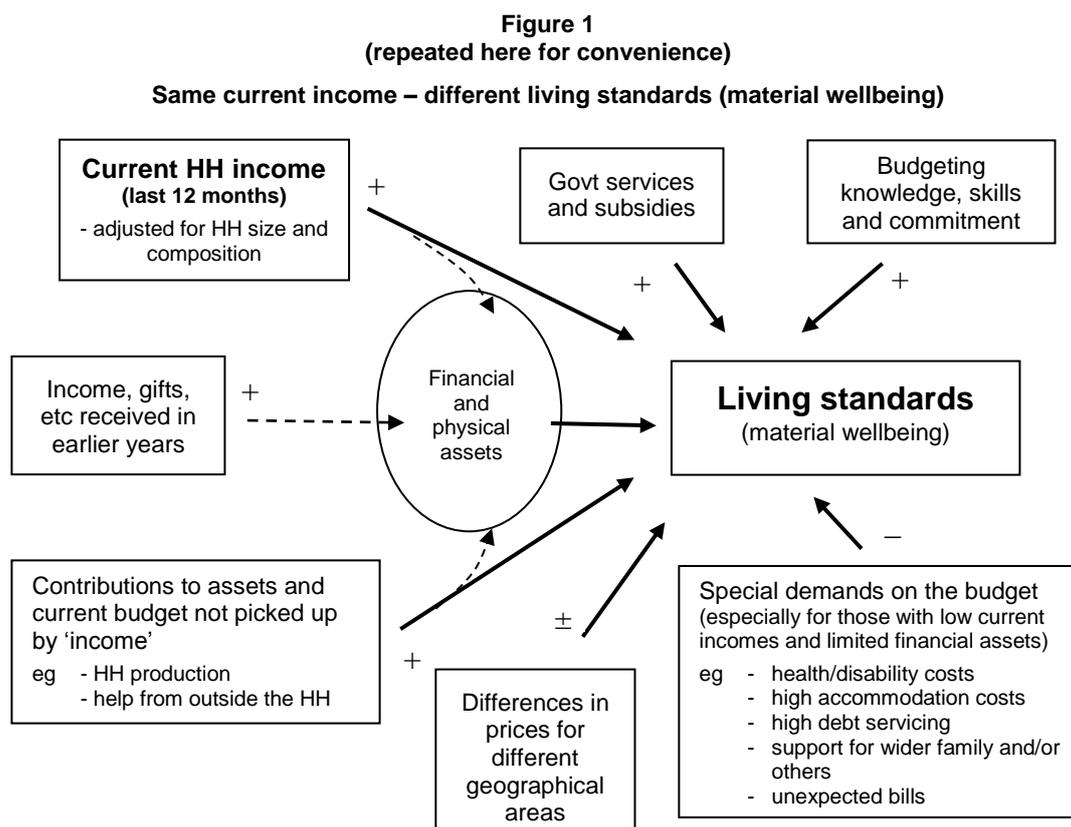
The EU has recently developed an updated and improved index using 13 items. Six of the original 9 are retained and there are 7 new items (Guio et al, 2012). The new index has not yet been adopted officially but it is currently under consideration. The 2008 LSS data has 11 of the 13 items and can reasonably approximate the other 2. On this new and different measure, the hardship rates for younger and older New Zealanders are again 18% and 3% respectively.

## Section E

### Factors underlying or associated with the variation in living standards of older New Zealanders

As indicated in Figure 1 (repeated below for convenience), there are many factors that have an impact on the material wellbeing or living standards experienced by older New Zealanders. Current household income, accommodation costs, savings and other assets are all obvious factors that are likely to explain a good part of the reported variation in living standards.

There are other factors that lie behind these more proximate factors that are also likely to impact on current living standards, especially to increase the risk of hardship. Examples of adverse events from earlier in the life course that are likely to increase the risk of hardship for older New Zealanders include low educational attainment, periods of unemployment or imprisonment, lengthy hospitalisation, and divorce or separation. In terms of the conceptual model in Figure 1, each of these life course factors works to limit current income or limit the assets available for older New Zealanders, compared with what they would otherwise have been.



This section reports on what we know about the impact on the living standards of older New Zealanders of both the more proximate financial factors as well as the life history factors. In addition it outlines differences in living standards by various demographic factors (age, sex, ethnicity, and household composition).

When the focus is on the low living standards end of the spectrum, these factors can be used to construct a risk factor profile for older New Zealanders vis-à-vis their chances of experiencing material hardship.

### The data sources and their limitations for the purposes of this section

This section draws on data from the 2000, 2004 and 2008 Living Standards Surveys. The strengths and limitations of these surveys well illustrate the data issues that exist for a comprehensive assessment of the material wellbeing of older New Zealanders and the factors that underlie or are associated with the variation in their living standards. The core data issues are of two types:

- a) having a suitable range of variables all collected in the one survey so that a proper analysis can be conducted based on unit record data; and,
- b) having the sample size large enough for those aged 65+ so that subgroup analysis is feasible.

To avoid distracting from the central focus of the report, discussion on the first matter (having a suitable range of variables in the one survey) is set out in **Appendix 2** rather than here in the main text. The issues around sample size are however discussed in this section as they are directly relevant to the ability to provide an assessment of the relative risks of hardship for different subgroups of older New Zealanders.

Of the three Living Standards Surveys, the one conducted in 2000 has by far the largest sample size (see **Table 4**). As indicated in the table, there were in fact three surveys conducted in 2000: the Survey of Older People, the Survey of Working Age People and the Survey of Older Maori aged 65-69.

**Table 4**  
**Sample numbers for the three Living Standards Surveys: 2000, 2004, 2008**

	Total sample size	Sample size for those aged 65+
2000 LSS (Older people)	3060	3060
2000 LSS (Working age people)	3682	-
2000 LSS (Older Maori, aged 65-69)	542	-
2004 LSS	4989	923
2008 LSS	5008	1080

The 2001 report on the Living Standards of Older New Zealanders (Fergusson et al, 2002), based on the 2000 LSS, remains the benchmark for identifying factors underlying or associated with the variation in living standards of older New Zealanders. The sample size for older New Zealanders in the 2000 LSS was much larger than for the other two living standards surveys (see Table 4). This and the full regression analysis for potential explanatory factors together give this 2001 report an authoritative standing.

Ideally three types of comparative information would be provided for each category used within each of the explanatory factors and each of the demographic characteristics:

- mean ELSI scores
- distribution of living standards across ELSI Levels (with adjacent Levels clumped where necessary – eg Levels 6 and 7 for ‘higher living standards’)
- hardship rates (which is in effect a variation on the levels distribution above, using the lower two or three ELSI levels).

This analysis is feasible based on the 2000 dataset, but not all the information can be reliably reported using the 2004 and 2008 datasets because of the small sample size for some of the relevant cells. The limitation is especially severe when it comes to trying to identify in detail the groups most at risk of hardship, especially as for the whole 65+ group there are relatively few classified as being in hardship. To help increase the sample numbers available for hardship analysis, this section uses ELSI Levels 1-3 as the hardship zone rather than just Levels 1-2, but even so there are still limitations.

**Table 5** shows the sample size for each subgroup overall and for the Levels 1-2 and Levels 1-3 hardship zones, using the 2008 LSS dataset. The achieved sample size for the 2008 LSS was 5008, with 1080 respondents coming from 65+ EFUs. For comparisons of mean ELSI scores for the various 65+ subgroups and for giving the general contour of the living standards distribution (low, medium and higher), the number in the sample is usually large enough. However, for breaking down the hardship groups, the numbers are more often than not too small.<sup>18</sup>

**Table 5**  
**Sample numbers for selected subgroups of older New Zealanders (aged 65+), 2008 LSS**

	ALL 65+	ELSI Levels 1-2	ELSI Levels 1-3
65+ EFUs (n1)	1076	44	78
- single person	538	28	51
- couple	534	16	27
65+ individuals	1600	61	108
- 65-69	513	29	48
- 70-74	423	22	35
- 75-79	332	7	17
- 80+	332	3	8
65+ individuals (non-partnered)	538	28	51
- 65-74, male	65	5	8
- 65-74, female	163	18	26
- 75+, male	76	0	1
- 75+, female	234	5	16
65+ individuals	1600	61	108
- European	1455	48	77
- Maori	66	3	9
- Pacific	36	7	15
- Asian	22	3	5
- other	21	0	2
65+ individuals	1600	61	108
- own, mortgage-free	89	7	9
- own, mortgage	89	19	44
- family trust	286	11	21
- rent, private	118	12	19
- rent, HNZN	36	12	15

Note: There are four 65+ EFUs who have dependent children (and are therefore neither couple nor single person EFUs)

<sup>18</sup> The HES has had an achieved sample of 3200 to 3600 from 2006-07 to 2011-12.(800 to 900 65+ EFUs), so the limitations are even greater for the HES than for the 2008 LSS.

## Summary of findings from the 2000 LSS

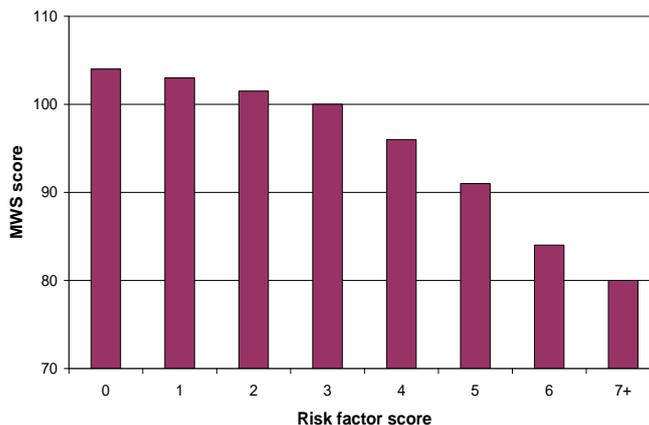
Fergusson et al (2001) developed and used a Material Well-being Scale (MWS) as a non-income measure of the living standards of older New Zealanders. The MWS was a pre-cursor to ELSI. As would be expected from theoretical considerations, as reflected for example in the conceptual framework in Figure 1, the 2001 report (p130) found that:

*... the level of material well-being achieved by older people was not the reflection of a single factor (such as the current level of family income) but rather reflected the effects of accumulations of factors that included: current financial circumstances (income, savings/investments, accommodation costs); exposure to past and current financial stress; and socio-demographic background.*

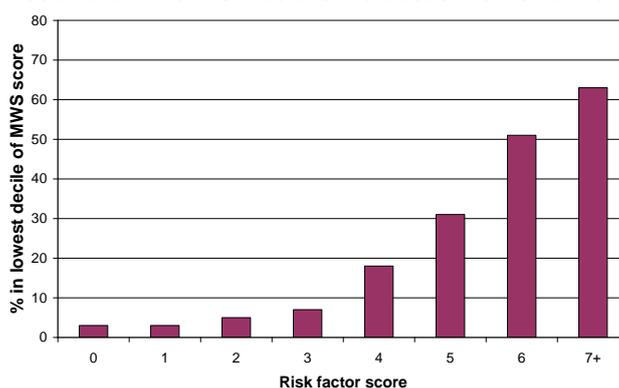
The research found that higher income, higher asset levels, higher occupational socio-economic status, lower accommodation costs and lower numbers of adverse life events were all (unsurprisingly) associated with higher MWS scores on average, and vice versa. It also found that the older group of older New Zealanders had lower risks of hardship and higher average MWS scores than their younger counterparts. Older Maori had higher risk of hardship and lower average living standards than non-Maori, and older Pacific peoples had higher hardship risk and lower average living standards than Maori. The findings are outlined in more detail in **Appendix 3**.

To illustrate the cumulative impact of risk factors on the level of living standards and on the likelihood of experiencing hardship, the report developed a risk factor score for each EFU by taking each risk factor and scoring it 1 or 0 according to fairly elementary criteria (eg NZS only = 1, otherwise 0; no savings = 1; no full-time employment from 50-59 = 1, and so on). **Figure 8** shows the declining MWS score as the number of risk factors increase. **Figure 9** looks at the risk factor scores for those in the lowest decile of MWS scores, illustrating how it is the cumulative impact of several risk factors that makes the difference.

**Figure 8**  
The accumulation of risk factors reduces material wellbeing



**Figure 9**  
The accumulation of risk factors increases the risk of hardship



## Findings from the 2008 survey, supplemented with findings from the 2000 and 2004 surveys as required

There is nothing in the findings from either the 2004 or 2008 living standards surveys that calls into question what was found based on the 2000 surveys. The impact of income, housing costs, tenure and home ownership arrangements are clear and are as expected. Variations by age, sex and household composition are also the same as in 2000 and 2004. The 2008 LSS does not have information on other assets or life history (apart from education). The 2000 and 2004 findings are used for these.

### Income

The income question in the surveys asked about incomes in the 12 months prior to interview. In the 12 months prior to the 2008 survey, the single living alone after tax NZS rate was close to \$15,000 pa. The married couple NZS rate is the same as the single living alone rate once the adjustment is made for EFU composition (ie once the income is equivalised).

The first category in **Table 6** is for those older New Zealanders in households where the equivalised household income is less than \$16,000 pa. Almost all these older New Zealanders have reported incomes that are at or just slightly above the NZS rates for the period. The table shows that living standards initially rise as income rises, then plateau before rising again for the relatively small group (9%) with significant non-NZS income.

**Table 6**  
Mean ELSI scores, ELSI 1-3 hardship rates, and proportion with higher living standards:  
by BHC EFU equivalised income for all aged 65+, LSS 2008

equivalised BHC EFU income (after tax)	% in category	Mean ELSI	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
under \$16,000 pa	51	45	9	50
\$16,001 to \$20,000	16	47	--	65
\$20,001 to \$25,000	9	49	--	68
\$25,001 to \$30,000	8	48	--	73
\$30,001 to \$40,000	6	49	--	69
\$40,001 to \$50,000	4	51	--	87
Over \$50,000	5	53	--	82
<b>Total 65+ population</b>	<b>100</b>	<b>47.1</b>	<b>7</b>	<b>60</b>
<b>Total population</b>	<b>-</b>	<b>40.3</b>	<b>13</b>	<b>35</b>

-- = cell size too small to give reliable estimates beyond reporting 'very low' hardship rates

**Table 7** uses incomes after deducting housing costs. Variations in AHC incomes are associated with greater variations in ELSI scores than for BHC incomes. The combined impact of income and housing costs has better explanatory power for the variation in living standards than income on its own. This is consistent with the theoretical framework shown in Figure 1 above (p20).

**Table 7**  
Mean ELSI scores, ELSI 1-3 hardship rates, and proportion with higher living standards:  
by AHC EFU equivalised income for all aged 65+, LSS 2008

equivalised AHC EFU income (after tax)	% in category	Mean ELSI	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
under \$10,000 pa	11	41	18	33
\$10,001 to \$15,000	43	46	8	55
\$15,001 to \$20,000	19	47	--	60
\$20,001 to \$30,000	14	50	--	75
\$30,001 to \$40,000	6	51	--	81
Over \$40,000	7	52	--	83
<b>Total 65+ population</b>	<b>100</b>	<b>47.1</b>	<b>7</b>	<b>60</b>

### Accommodation costs (excluding repairs and maintenance costs)

**Table 8** shows the impact of different levels of accommodation costs on material wellbeing for those with equivalised EFU incomes under \$16,000 pa (51% of the 65+ population). By limiting the analysis to low-income EFUs the impact of accommodation costs is kept more to the fore, and is not confounded with the impact of income.

Higher housing costs mean lower average material wellbeing, lower proportions with higher living standards and much higher hardship rates, especially for those with accommodation costs in the \$80 to \$159 pw bracket and above (\$4000 to \$8000 pa and above).

**Table 8**  
**Mean ELSI scores, ELSI 1-3 hardship rates, and proportion with higher living standards for low income 65+ EFUs (EFU BHC income less than \$16,000 pa):**  
**by weekly accommodation costs per person in the EFU, LSS 2008**

	% in category	Mean ELSI	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
under \$20 pw	11	47	~6	57
\$20 to \$49	59	46	6	54
\$50 to \$79	11	44	~15	52
\$80 to \$159	12	41	18	36
\$160 or more pw	7	41		31
<b>Low income 65+ population</b>	<b>100</b>	<b>45</b>	<b>9</b>	<b>50</b>
<b>Total 65+ population</b>	<b>-</b>	<b>47</b>	<b>8</b>	<b>60</b>

Analysis of incomes and housing cost data from the HES shows that the proportion of older New Zealanders (aged 65+) living in households with housing costs that are more than 30% of household income has risen from around 3% in the late 1980s to 6% in the mid 1990s and to 8% on average in 2011 and 2012. While the average 2011 and 2012 proportion (8%) is still much lower than that for the population as a whole (29%), the rising trend is one to watch for the future. (See Table C.3 in Perry (2013)).

### Tenure

Unsurprisingly, those older New Zealanders who live in their own mortgage-free home have higher living standards on average, lower hardship rates and a greater proportion in the higher living standards zone than do those with a mortgage and those who rent. **Table 9** shows these gradients for those older New Zealanders in relatively low-income households. This finding is what would be expected given the findings on the impact of accommodation costs noted above.

**Table 9**  
**Mean ELSI scores, ELSI 1-3 hardship rates, and proportion with higher living standards for low income 65+ EFUs (EFU BHC income less than \$20,000 pa):**  
**by tenure, LSS 2008**

	Mean ELSI	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
Owned or FT, mortgage-free	47	5	60
Owned or FT, with mortgage	42	15	38
Private rental	42	13	31
HNZC rental	32	51	- -
<b>Low income 65+ population</b>	<b>46</b>	<b>8</b>	<b>54</b>

- - = cell size too small to give reliable estimates beyond 'very low' hardship rates

Those renting Housing New Zealand Corporation (HNZC) properties have a very low mean score, high hardship rates and very few in the 'higher living standards' zone. This is consistent with the selection criteria used for granting a rental arrangement with HNZC.

### The combined impact of income and housing costs: using the ratio of housing costs to income

Another way of investigating the combined impact on material wellbeing of income and housing cost is to use the housing costs to income ratio for lower-income EFUs. This ratio is sometimes referred to as the OTI (the ratio of housing Outgoings to Income).

By limiting the analysis to EFUs with incomes less than \$16,000 pa (51% of older New Zealanders), the results are not as likely to be confounded by the income effect itself.

**Table 10** shows significant impact of OTIs higher than 15% for older New Zealanders in EFUs with incomes only from NZS and perhaps a little more. Hardship rates are significantly higher, and the proportion with higher living standards is considerably lower.

**Table 10**  
**Mean ELSI scores, ELSI 1-3 hardship rates, and proportion with higher living standards for low income 65+ EFUs (EFU BHC income less than \$16,000 pa):**  
**by OTI, LSS 2008**

OTI	% in category	Mean ELSI	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
Less than 15%	63	47	7	56
15 to 30%	17	42	16	46
More than 30%	20	40	20	31
<b>Low income 65+ population</b>	<b>100</b>	<b>45</b>	<b>8</b>	<b>50</b>

## Savings and assets

The 2008 LSS did not collect information on savings and assets. **Table 11** uses the information from the 2000 LSS, and shows the expected gradient: higher savings and asset levels are associated with higher living standards. This holds for both non-partnered and partnered EFUs as well as for the total 65+ population. Couple EFUs have higher savings and assets on average than single person EFUs. (They also have higher home ownership rates.)

**Table 11**  
Mean MWS scores by value of savings and investments, LSS 2000

Savings and investments (\$000)	Non-partnered		Partnered		Total	
	%	Mean MWS score	%	Mean MWS score	%	Mean MWS score
None	18	92	12	93	16	92
0+ to 10	31	98	19	97	25	98
10 to 25	19	101	14	100	16	101
25 to 50	10	103	14	101	12	102
50 to 100	11	103	15	103	13	103
100 to 200	6	105	12	105	9	105
200 to 300	3	106	5	105	4	105
300+	3	109	10	108	6	108

Source: Table 7.5 in Fergusson et al (2001).

- Notes: (1) Savings and investments in this table exclude the value of household goods and of the primary residence, if any.  
 (2) The MWS is similar to ELSI in its make-up. The main difference is that it is standardised to have a mean of 100 and a standard deviation of 10.

## The impact of the level of savings/investments, 'controlling' for income and housing costs

The 2008 LSS did not collect information on savings and assets. **Table 12** uses the 2004 LSS and shows the impact of the level of savings and investments (other than the value of the EFU's home and household goods) for EFUs with low AHC incomes. By selecting this group, the analysis to a large degree takes out the confounding effect of income and housing costs. The gradients across all three measures in the table are strong and in the direction expected.

**Table 12**  
Mean ELSI scores, ELSI 1-3 hardship rates, and proportion with higher living standards for low income 65+ EFUs (EFU AHC income less than \$15,000 pa):  
by value of savings and investment, LSS 2004

Savings and investments (\$000)	% in category	Mean ELSI	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
0 to 10	45	41	13	27
10 to 25	24	46	5	55
25 to 100	19	46	7	53
100 to 300	9	48	0	55
300+	2	54	0	88

-- = cell size too small to give reliable estimates beyond 'very low' hardship rates

## Education

For those with a Bachelor's degree or higher, average material wellbeing is higher and a higher proportion have higher living standards than for other groups (**Table 13**). The material wellbeing profiles for the other categories are all fairly similar to each other. These findings are consistent with those from the 2000 LSS (see Fergusson et al, Table 7.10). The risk of hardship for the University educated group is also lower than for the rest.

**Table 13**  
**Mean ELSI scores, ELSI 1-3 hardship rates, and proportion with higher living standards**  
**by highest EFU qualification for 65+ EFUs, LSS 2008**

	% in category	Mean ELSI	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
No formal qualification	22	46	9	56
School qualification	33	46	7	55
Occupational certificate or diploma	32	47	9	59
Bachelor's degree or higher	13	50	5	70
<b>All 65+ EFUs</b>	<b>100</b>	<b>46.7</b>	<b>7</b>	<b>59</b>

## EFU type

**Table 14** shows the mean ELSI scores and the hardship rates for the two EFU types: couple EFUs and one person EFUs (ie non-partnered individuals). In the couple EFUs at least one partner is aged 65+.

Couple EFUs have a higher mean ELSI score, lower hardship rates and a larger proportion with 'higher' living standards than one person EFUs. Both EFU types have higher average living standards and lower hardship rates than those aged 45 to 64.

The 2000 and 2004 surveys give similar relativities.

**Table 14**  
Mean ELSI scores, hardship rates, and proportion with higher living standards:  
by EFU type, LSS 2008

	Mean ELSI	Hardship (levels 1-2, %)	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
All 65+	47.1	4	7	60
One person EFUs	46.0	5	9	54
Couple EFUs	48.0	3	5	65
45-64	42.1	12	19	43
<b>Total population</b>	<b>40.3</b>	<b>13</b>	<b>23</b>	<b>36</b>

### Single-EFU and multi-EFU households

Households can be single- or multi-EFU households. In 2008, around one in six of couple EFUs and one in four one person EFUs were in multi-EFU households.

The average ELSI score for those in multi-EFU households is a little lower than for those in single-EFU households, and a smaller proportion of EFUs in multi-EFU households have higher living standards (**Table 15**). Unfortunately the sample numbers are too low for those in multi-EFU households to allow the reliable reporting of their hardship rates.

A likely explanation for the generally lower living standards in multi-EFU households is that the decision to live in a wider household is driven by practical economic necessity either for the older person / older couple, or for the rest of the household (or both).

**Table 15**  
Mean ELSI scores, hardship rates, and proportion with higher living standards:  
EFU type in single- and multi-EFU HHs, LSS 2008

	Mean ELSI	Hardship (levels 1-2, %)	Higher living standards (levels 6-7, %)
All 65+	47.1	4	60
One person EFUs	46 / 45	sample numbers too low to give reliable hardship figures for those in multi-EFU HHs	59 / 39
Couple EFUs	49 / 45		68 / 50
45-64	42.1	12	43
<b>Total population</b>	<b>40.3</b>	<b>13</b>	<b>36</b>

Note: Where two figures are given in a cell, the first is the single- and the second is the multi-EFU figure

## Age

**Table 16** shows the mean ELSI scores, hardship rates and higher living standards rates for those aged 65-74 and those aged 75+, with comparisons for those aged 45-64.

The older group of older New Zealanders (aged 75+) has a higher mean ELSI score, lower hardship rates and a larger proportion with higher living standards than the younger group of older New Zealanders (aged 65 to 74). Both age groups (65 to 74 and 75+) have higher average living standards and lower hardship rates than those aged 45 to 64. The 2000 and 2004 surveys give similar relativities.

**Table 16**  
**Mean ELSI scores, hardship rates, and proportion with higher living standards:**  
**by age group, LSS 2008**

	Mean ELSI	Hardship (levels 1-2, %)	Hardship (levels 1-3, %)	Higher living standards (levels 6-7, %)
65+	47.1	4	7	60
65-74	45.8	5	9	55
75+	48.6	2	4	66
45-64	42.1	12	19	43
<b>Total population</b>	<b>40.3</b>	<b>13</b>	<b>23</b>	<b>36</b>

The report using the 2000 data proposes three possible explanations for the better outcomes for the older group of older New Zealanders (Fergusson et al, 2001:134):

*The first is that this association reflects a general process of disengagement so that as people grow older, their wants and needs tend to reduce, making older people less vulnerable to material hardship. This type of explanation is clearly applicable to the scale of material well-being that has been developed in this study since measures of deprivation have been assessed relative to the respondent's choices and preferences.*

*The second explanation is that the association may reflect a cohort effect in which, for a variety of reasons, older cohorts experienced a more favourable economic life history than younger cohorts. Such an association could have resulted in members of older cohorts being more materially advantaged when compared with younger cohorts.*

*The third explanation is that the linkage reflects the effect of some unmeasured factor (relating to lifestyle or capability) that influences both material well-being and the likelihood of surviving into advanced age, with the consequence that the "survivor" group tends to be better endowed in respect of that factor than is the younger group.*

The first explanation draws on the concept of 'adaptive preferences'. As discussed above (pp16ff), an alternative index (FRILS) has been developed to assist in minimising the impact on rankings of adaptive preferences and of preferences changing between surveys. Using FRILS, the relativities between the older (75+) and younger group (65-74) remain, as does the relativity between the 65+ group as a whole and the rest of the population, albeit with the difference slightly reduced. This suggests that the first explanation is not a strong candidate.

The fact that the same relativities between the younger group and the older group are still evident 8 years later in 2008 suggest that the cohort effect explanation is also not a strong candidate at present (although this may change in the future).

The most likely explanation is some combination of the third one (the 'survivor' group is different), together with the fact that the sample used for the studies includes only those in private residences, not those in residential care in rest homes and the like.

So, to sum up, for those older New Zealanders remaining in private dwellings, increasing age is associated with a small increase in material well-being, possibly due to some unmeasured factor (relating to lifestyle or capability) that influences both material well-being and the likelihood of surviving into advanced age,

## Sex

Males and females in couple EFUs are assumed to have the same or similar material wellbeing. If there are any differences between the living standards of 65+ males and females these can therefore be found only for non-partnered individuals.

**Table 17** summarises findings from the three Living Standards Surveys on the living standards of older non-partnered New Zealanders by sex.

**Table 17**  
**Mean ELSI scores, hardship rates, and proportion with higher living standards:**  
**for non-partnered individuals aged 65+, by sex, LSS 2000, 2004 and 2008**

	Mean ELSI		Hardship (levels 1-2, %)		Hardship (levels 1-3, %)		Higher living standards (levels 6-7, %)	
	M	F	M	F	M	F	M	F
LSS 2000 (65+)	47.4	47.3	3	3	7	7	62	60
LSS 2004 (65+)	46.2	45.0	5	6	7	12	57	50
LSS 2008 (65+)	46.7	45.7	4	5	6	10	57	53
LSS 2008 (45-64yrs)	38.1		20		30		30	
<b>Total population</b>	<b>40.3</b>		<b>13</b>		<b>23</b>		<b>36</b>	

The findings from the 2000 data (the survey with the largest sample for those aged 65+) show no difference in hardship rates, higher living standard rates or mean scores between non-partnered males and females.

The report based on the 2004 Living Standards Survey found that there was on average very little difference in the living standards of older non-partnered males and females, although there was possibly a slightly higher hardship rate for women when the ELSI Levels 1-3 definition was used.

The 2008 findings are very similar to those for 2004.

In 2008, the hardship rate for both male and female non-partnered older New Zealanders (~5%) was low compared with that for younger non-partnered people (eg 20% for those aged 45-64 years, using the ELSI levels 1-2 definition of hardship).

## Ethnicity

There are 1455 older (65+) Pakeha/European in the 2008 LSS sample, but only 66 Maori and 79 'other'. This means that anything definitive on hardship rates by ethnicity for older New Zealanders is not feasible from this dataset. What is possible is to report on are the mean ELSI scores and the general contours of the distribution of ELSI scores for older Maori.

**Table 17** shows that when compared with the older European/Pakeha population, older Maori are more likely to be experiencing some degree of hardship and less likely to have higher living standards.

The distribution of living standards scores for older Maori is more like that for all adults aged 25 to 64 years. The mean score for both is 41, and when the ELSI levels are clumped as 1-3, 4-5 and 6-7, the distribution for older Maori is very similar to that for adults aged 25 to 64 years.

**Table 17**  
**Mean ELSI scores, and proportions with low, average and higher living standards:**  
**by ethnicity, LSS 2008**

	Mean ELSI	'Low' Levels 1-3, %	'Average' Levels 4-5, %	'Higher' Levels 6-7, %
Older Maori	41	20	46	33
Older European/Pakeha	48	5	31	64
Older 'Other'	38	24	56	20
25-64 years (all)	41	22	41	36
Total population	41	23	41	35

These general findings are consistent with what was found in the 2000 LSS within which there was a special Survey of older Maori aged 65-69 years (n=542):

*'... when compared with [older] non-Maori, [older] Maori were far more likely to face material hardship and far less likely to have above average material well-being.'*

Cunningham et al (2002: 63)

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## Appendix 1

### Comparison of selected 'hardship' items for different groups

**Table A1.1**  
**Proportion (%) of individuals in EFUs where there is an enforced lack of a 'basic' or other evidence of hardship, relative to general consumption expectations for the majority of New Zealanders**  
**LSS 2008**

	Those in sole parent EFUs	Those in EFUs with dependent children	45-64 years	65+ years	ALL
want, but do not have because of the cost:					
a meal with meat, fish or chicken at least each second day	5	3	3	<1	2
the main rooms of your home kept adequately warm	16	8	6	2	7
economise 'a lot' in order to keep down costs so as to be able to purchase other basics					
gone without/cut back on fresh fruit and vegetables	29	13	9	4	10
gone without/cut back on visits to family/friends	30	16	12	4	12
spent less time on hobbies or other special interests	43	29	17	5	21
gone without/cut back on buying magazines	45	33	21	10	25
put up with feeling cold to save heating costs	28	12	9	3	10
delayed replacing/repairing appliances not working	31	17	11	4	12
dampness or mould a major problem	26	16	9	5	12
pawned/sold something to help meet everyday costs (more than once in last 12 months)	18	7	3	1	6

## Appendix 2

### Data sources

The variables needed, in addition to the usual demographic variables, are:

- EFU income (including at least a three-way distinction between income sources – government, employment and other private),
- EFU assets and liabilities (with detail on mortgages, equity and market value for the primary residential home, other debt and other investments and savings, other substantial material assets (eg a vehicle)) – these are needed not only for those aged 65+, but also for the rest of the population to enable monitoring of trends for different cohorts and for modelling the likely financial circumstances of future 65+ cohorts.
- accommodation costs
- non-income indicators of hardship and material wellbeing more generally (eg the 25 ELSI short-form items currently in the HES and GSS)
- to properly understand trends in saving patterns and so on, longitudinal data is needed rather than just repeat cross-sectional information.

**Table A2.1** below shows the coverage of these variables in current datasets and the sample size for those aged 65+.

**Table A2.1**  
**Variable coverage and 65+ sample numbers for national sample surveys**

	<b>EFU Income</b>	<b>Non-income measures</b>	<b>Assets and liabilities</b>	<b>Accommodation costs</b>	<b>Life history factors</b>	<b>65+ sample size</b>
HES	Yes	Yes	No	Yes	No	~800
LSS 2000	Yes	Yes	Yes	Yes	Yes	3060
LSS 2004	Yes	Yes	Yes	Yes	Yes	920
LSS 2008	Yes	Yes	No	Yes	No	1080
SoFIE	Yes	Very limited	Yes – in some waves	Yes	No	3310
GSS	Yes	Yes	No	No	No	1930

Note: the SoFIE sample size is for wave 2.

## Appendix 3

### Summary of findings from the 2001 report (Fergusson et al, 2001) on the contribution of various factors to variation in Material Wellbeing Scale scores

**Table A3.1** summarises the findings on the contribution of specific factors to variation in the living standards of older New Zealanders, based on the 2000 LSS.

**Table A3.1**  
**Contribution of specific factors to variation in material wellbeing of older New Zealanders:**  
**from Fergusson et al (2001), based on the Survey of Older People, 2000**

Factor	Impact/ association
Income	Higher income means higher living standards on average, and lower risk of hardship. The strength of the association between income and material wellbeing was modest. Variations in income explained 6% and 16% of the variation in levels of material wellbeing for singles and couples respectively. The weak association does not mean that income does not matter for material wellbeing and for avoiding hardship. The low correlations are likely to reflect two main factors apart from measurement errors: (a) there is very little variation in income for 60% or so of the sample as this proportion have very little income over and above NZS; and (b) the impact of housing costs, other savings, adverse life events and so on make a significant contribution to variation in material wellbeing scores.
Accommodation costs	Higher accommodation costs mean lower living standards on average and greater risk of hardship.
Tenure	The research found that both home ownership and accommodation costs on their own had a significant association with material wellbeing, but that accommodation costs had the stronger association. Information on tenure did not provide any further useful predictive information once the impact of accommodation costs were accounted for. However, as owning one's own home mortgage-free is the most likely way to have very low accommodation costs, the research reinforces the view that 'home ownership is one positive step that older respondents may take to preserve their levels of material well-being following retirement' (p133).
Other savings and investments	Higher levels of savings and investment (excluding the family home if there is one) mean higher levels of material wellbeing.
Adverse life events	Adverse life events such as divorce or separation, unemployment, bankruptcy, redundancy and the like were found to increase the risk of hardship and reduce average material wellbeing scores.
Age	Average MWS scores increased and the chance of being in hardship decreased with increasing age for older New Zealanders. In other words, older New Zealanders were better off on average than younger New Zealanders. See main text, Section E, for a discussion on this finding.
Ethnicity	Older Maori people more likely to be experiencing hardship and had lower living standards on average than non-Maori. The difference was largely explained by differences in economic circumstances. Older Pacific peoples were found to have lower living standards on average than Maori or European-Pakeha/other respondents.
EFU composition	For the same level of income, assets, and so on, single person EFUs fared better than couple EFUs. However, incomes, home ownership and assets for couples were on average higher than for singles. The research did not report on whether the MWS for couples was greater or less than that for singles. See the 2008 findings in Section E for more information on this.