



National Centre for Social and Economic Modelling
• University of Canberra •

Regional incomes revisited: what happens to income distribution after age 65?

Simon Kelly (corresponding author)

NATSEM, University of Canberra, ACT, 2601

Phone: 02 6201 2788

Email: Simon.Kelly@natsem.canberra.edu.au

Justine McNamara,

NATSEM, University of Canberra, ACT, 2601

Phone: 02 6201 2776

Email: Justine.McNamara@natsem.canberra.edu.au

**Paper presented at the 2004 ANZRSI Conference,
Wollongong, NSW, 29 September 2004**

About NATSEM

The National Centre for Social and Economic Modelling was established on 1 January 1993, and supports its activities through research grants, commissioned research and longer term contracts for model maintenance and development with the federal departments of Family and Community Services, and Education, Science and Training.

NATSEM aims to be a key contributor to social and economic policy debate and analysis by developing models of the highest quality, undertaking independent and impartial research, and supplying valued consultancy services.

Policy changes often have to be made without sufficient information about either the current environment or the consequences of change. NATSEM specialises in analysing data and producing models so that decision makers have the best possible quantitative information on which to base their decisions.

NATSEM has an international reputation as a centre of excellence for analysing microdata and constructing microsimulation models. Such data and models commence with the records of real (but unidentifiable) Australians. Analysis typically begins by looking at either the characteristics or the impact of a policy change on an individual household, building up to the bigger picture by looking at many individual cases through the use of large datasets.

It must be emphasised that NATSEM does not have views on policy. All opinions are the authors' own and are not necessarily shared by NATSEM.

Director: Ann Harding

© NATSEM, University of Canberra 2004

National Centre for Social and Economic Modelling
University of Canberra ACT 2601 Australia
170 Haydon Drive Bruce ACT 2617

Phone + 61 2 6201 2750 Fax + 61 2 6201 2751

Email natsem@natsem.canberra.edu.au

Website www.natsem.canberra.edu.au

Abstract

Regional differences in overall income distributions among Australians are widely acknowledged. In this paper, we examine the extent of these regional differences for working age Australians and whether they persist into old age. Using data provided by the Australian Bureau of Statistics, we describe differences in income distributions between people by state/territory, by level of remoteness and by age (15-64 and 65+).

Overall, we found that regional differences in income largely disappear in the 65 and over group, and that regardless of their place of residence, large numbers of older Australians have very low income. Our findings suggest that a substantial majority of older adults in both rural and urban areas are living on an income similar to that provided by the age pension.

Author note

Dr Simon Kelly is a Principal Research Fellow at the National Centre for Social and Economic Modelling (NATSEM) at the University of Canberra. Dr Justine McNamara is a Senior Research Officer at NATSEM.

Acknowledgments

The research for this paper was undertaken as part of the Review of Pricing Arrangements in Residential Aged Care by the Department of Health and Ageing. The authors gratefully acknowledge the funding provided by the Review. The authors also acknowledge the assistance provided by the Australian Bureau of Statistics in producing the data used in this paper.

Regional incomes revisited: what happens to income distribution after age 65?

Abstract

Regional differences in overall income distributions among Australians are widely acknowledged. In this paper, we examine the extent of these regional differences for working age Australians and whether they persist into old age. Using data provided by the Australian Bureau of Statistics, we describe differences in income distributions between people by state/territory, by level of remoteness and by age (15-64 and 65+).

Overall, we found that regional differences in income largely disappear in the 65 and over group, and that regardless of their place of residence, large numbers of older Australians have very low income. Our findings suggest that a substantial majority of older adults in both rural and urban areas are living on an income similar to that provided by the age pension.

Contents

Abstract	iii
Author note	iii
Acknowledgments	iii
Abstract	iv
1 Introduction	1
2 Data Source	2
3 Where Australians live	3
4 The income of Australians	4
4.1 Income distribution during the working years	4
4.2 Income distribution after age 65	5
5 State by State comparison	6
5.1 New South Wales	Error! Bookmark not defined
5.2 Victoria	Error! Bookmark not defined
5.3 Queensland	Error! Bookmark not defined
5.4 South Australia	Error! Bookmark not defined
5.5 Western Australia	Error! Bookmark not defined
5.6 Tasmania	Error! Bookmark not defined
5.7 Northern Territory	Error! Bookmark not defined
5.8 Australian Capital Territory	Error! Bookmark not defined
5.9 Income distribution summary	12
6 Conclusion	13
References	16

1 Introduction

The proportion of the Australian population who are aged 65 years and over will roughly double over the next 40 years, to almost one in every four Australians by 2040 (ABS, 2003a). At the same time, the growth rate of those in the workforce age range will fall to zero in 40 years time. As a result, the elderly dependency ratio – the ratio of people aged 65+ to the population of working age (15-64 years) – is projected to increase from 18 per cent in 2000 to over 36 per cent in 2040 (Table 1). In other words, in the future there will be fewer workers to support each retired person. The increasing elderly dependency ratio for Australia is not as severe as in some other countries (notably Italy, Germany and Japan) but it still significant and the economic aspects are a major issue.

Table 1 Elderly Dependency ratios (population aged 65+ as a percentage of those aged 15-64), **selected countries, 2000-2040**

	2000	2010	2020	2030	2040
	%	%	%	%	%
USA	19.0	19.5	25.6	33.6	35.1
Japan	25.0	33.8	43.8	46.0	54.3
Germany	24.0	29.6	33.0	43.3	49.6
France	24.4	25.3	32.2	38.7	43.4
Italy	26.9	31.4	37.4	49.1	64.4
UK	24.6	25.9	31.2	38.3	42.3
Canada	18.7	20.7	28.0	37.3	39.8
Australia	18.0	19.8	25.9	32.2	36.1

Source: Authors calculations based on *OECD Tables and Figures on Ageing*, OECD, 2000

The OECD has highlighted that the growing elderly dependency ratio means that future governments in most countries will be “hard put to finance [retirement pensions] out of pay-as-you-go contributions from people still in employment” (2000). In addition, Disney and Johnson claim that most OECD pension systems are in a state of flux, as governments struggle to meet the costs of their current retirement income systems and grapple with the issue of future costs (2001).

The Australian government has become increasingly concerned about the challenges that this high dependency ratio will impose on our society and this has been reflected in Australian social policy. Policy such as the introduction of compulsory superannuation in the late 1980s attempted to increase the level of older Australian self-provision.

In this paper, we attempt to provide some insight into the capacity of people in retirement for self-provision by comparing the levels and distribution of incomes in 2001. We examine the income distribution among Australians both during their working lives (ages 15 – 64), and aged 65 and over.

In addition to differences in income between working and retired Australians, it is widely known that incomes vary between states of Australia and between metropolitan areas and country areas. The Australian Bureau of Statistics (ABS) reports that several states and territories have average incomes well below or well above the national average (in part reflecting differential age distributions of some of these regions), and also finds differences in average income between capital cities and other regions (ABS, 2003a). In this paper, we focus on regional differences in income patterns both before and during old age.

2 Data Source

This analysis is based on a set of tables specially produced for this project by the Australian Bureau of Statistics. The tables are from the 2001 Census and classify individuals by remoteness, age and income. In the ABS tables, income is divided into 16 income ranges plus 'not stated' and 'overseas visitor'. Income is measured as individual gross weekly income (including pensions and allowances). The original 16 ranges of income have been collapsed into 13 categories in this paper due to very small numbers of people receiving very low and negative incomes.¹

Remoteness is classified in the data as major city, inner regional, outer regional, remote, very remote and migratory. Age is divided into persons aged 15 to 64 years and persons aged 65 years and over.

Persons with incomes of *not stated* or *overseas visitor* and those with a remoteness category of *migratory* are excluded from most of the following analysis. People living in institutions (such as prisons and nursing homes) are also excluded from the ABS data on which this analysis is based.

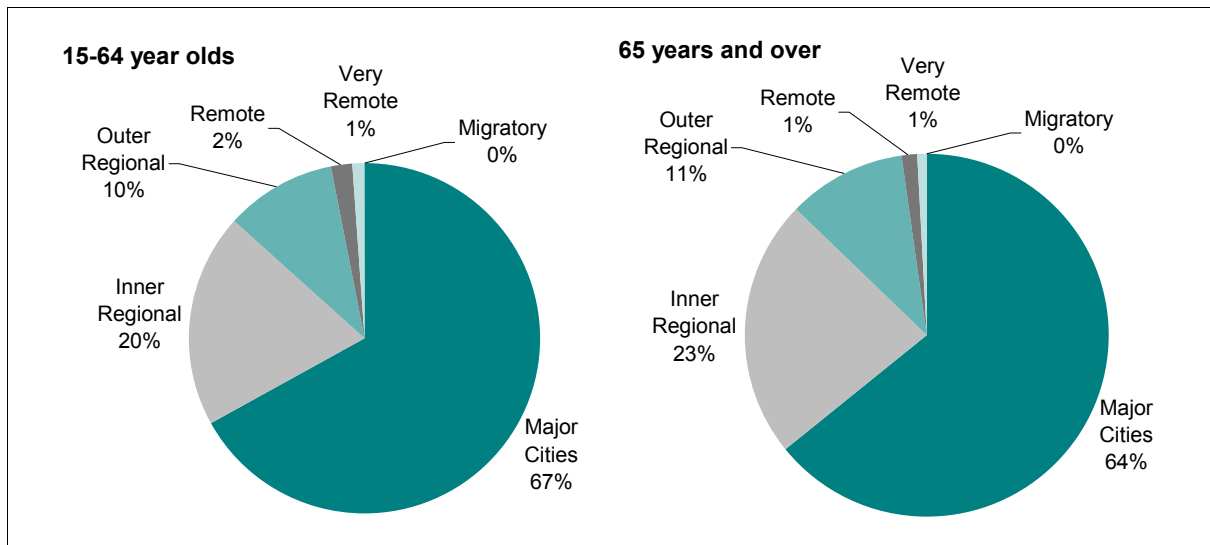
There were a total of 12.65 million people aged 15 to 64 years in 2001. Of these 1.3% were *overseas visitors*, 0.07% were *migratory* and 6.84% had income *not stated*. For those aged 65 and over, there were 2.39 million. Of these 0.74% were *overseas visitors*, 0.05% were *migratory* and 11.3% had income *not stated*. Once people in these categories were excluded, 11.6 million individuals aged 15-64 and 2.10 million aged 65 and over were included in analyses.

¹ Negative incomes are normally associated with two types of individuals. The first is a business owner whose business is currently losing money and the second is a person whose income is based on investment performance and the investments are currently not profitable.

3 Where Australians live

It is well known that the majority of Australians live in the major cities. This is confirmed with these data (see Figure 1). Of those aged 15-64, 67% live in the major cities and a further 30% live in either inner or outer regional areas. For those aged 65 and over, a slightly smaller proportion live in the major cities (64%) and a slightly higher proportion live in regional areas (34%).

Figure 1 Remoteness by age, Australia, 2001



Data source: ABS Census 2001

The categories of *remote*, *very remote* and *migratory* represent only three percent of those aged 15-64 and only two percent of those aged 65 and over. Given the exclusion of *migratory* from the income analysis and the small number of older Australians living in these regions, *remote* and *very remote* have been amalgamated in the remaining analyses in this paper. Similarly few income differences were identified between those living in inner and outer regional areas. With similar income distributions, it was decided to amalgamate inner and outer regional into one category. Thus we end up with three broader regional categories: major city dwellers; regional dwellers; and people living in remote and very remote areas.

In the next section the overall distribution of income of Australians is presented for those under and over age 65, and then each state and territory is considered separately.

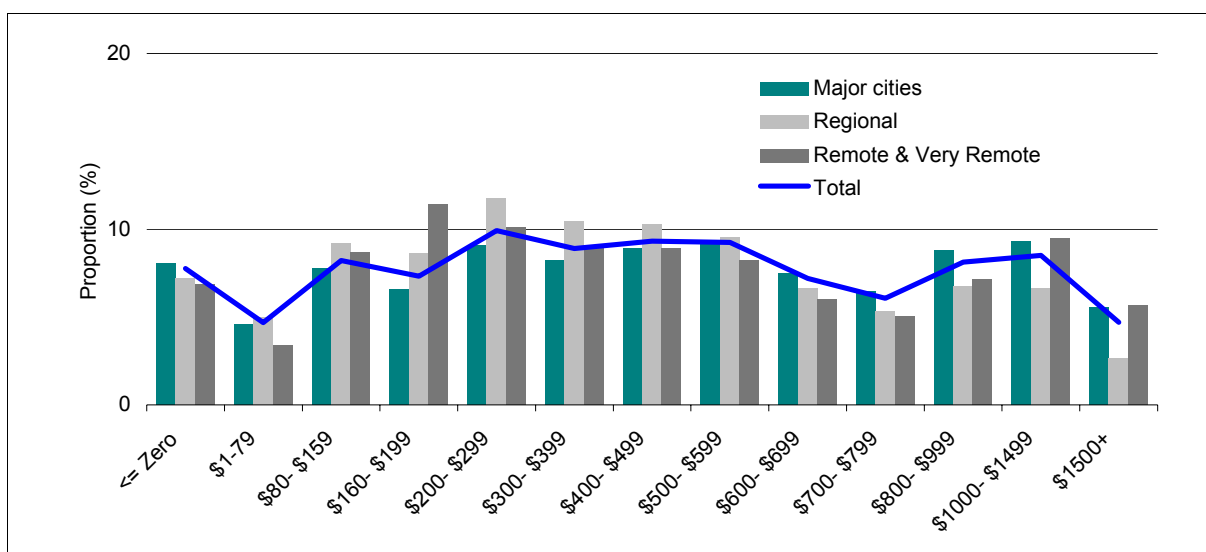
4 The income of Australians

4.1 Income distribution during the working years

The incomes of working age Australians are presented in Figure 2. The graph shows the proportion of people aged 15-64 by their total weekly income in three aggregated remoteness categories – Major cities, Regional and Remote & Very Remote. The line on the graph shows the overall proportions. Analysis by remoteness category shows that there are broadly similar proportions in each of the income ranges. There appears to be a reasonably wide distribution of incomes in all the remoteness categories. For example, approximately 8% of those aged 15-64 in the major cities have an income of zero or less per week. The same is true for those in living in regional areas and those in remote areas of Australia. At the same time each of these areas has another 8% with incomes of \$800-\$999 per week.

While there is a wide distribution of incomes in all areas, there are some differences. Those living in remote areas (dark grey columns) have a higher than average proportion of people in the \$160-199 income range (11.4% against the overall average of 7.3%) and higher proportions in the income ranges above \$1000 per week. A higher proportion of those in the major cities (teal-coloured columns) have negative or zero income compared with those in regional or remote areas, but there are also larger proportions with high incomes in the major cities (\$600 and above).

Figure 2 **Weekly income by remoteness category of individuals aged 15 to 64 years, Australia, 2001**



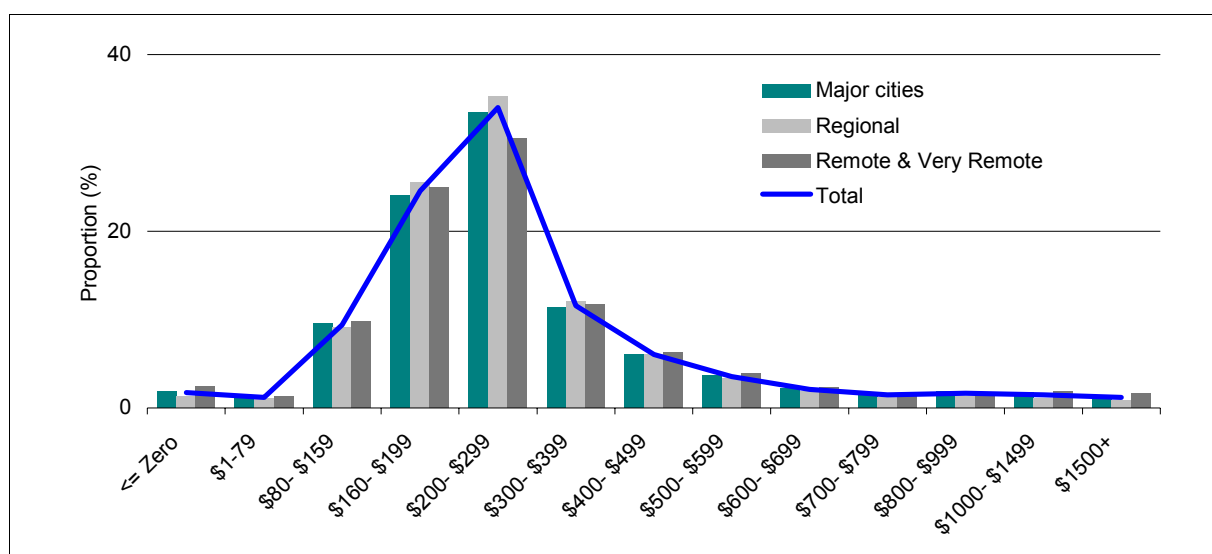
Data source: ABS Census 2001

Those in regional areas (light grey columns) tend to have lower than average income than their major city counterparts but their income distribution is also more concentrated. Larger proportions of regional 15-64 year olds have income around \$300-\$500 per week than those in the major cities or those in remote areas but fewer have very low incomes or very high incomes. The distribution for those in remote areas is more concentrated around both moderately low and moderately high levels of income than is the case for city or regional dwellers.

4.2 Income distribution after age 65

The same graph of income distribution by remoteness for those aged over 65 is quite different to the one presented for working age Australians. In Figure 3 it can be seen that the distribution of incomes for all levels of remoteness areas are very highly concentrated (note the different scale required to accommodate the high proportions). For older Australians, almost six in ten have an income of between \$160 and \$299 per week. Only 17% of Australians of working age have incomes in this range. It is worth highlighting here that the Age Pension in 2001 was \$201.00 per week for a single person and \$167.75 for a member of a couple. With these pension rates in mind, it would seem that majority of those aged 65 and over live on an income equivalent to the age pension or the pension plus a small supplement to the pension. While fewer older Australians have very low incomes than their working age counterparts, 70% of all Australians over 65 had individual incomes of less than \$300 per week, compared with only 38% of working age Australians.

Figure 3 **Weekly income by remoteness category of individuals aged 65 and over, 2001**



Data source: ABS Census 2001

The differences between remoteness categories that were evident in the working age incomes are not evident in the incomes of older Australians. The high proportion of individuals in remote areas living on an income of \$160-199 has increased after age 65 (it rose from 11.4 to 24.9%) but the other areas have increased even further and now remote areas have a similar proportion in this range as the other areas. The higher proportions of those living in major cities with very low and very high incomes have disappeared and now the income distribution of those living in the major cities is the same as those living in regional or remote areas of Australia.

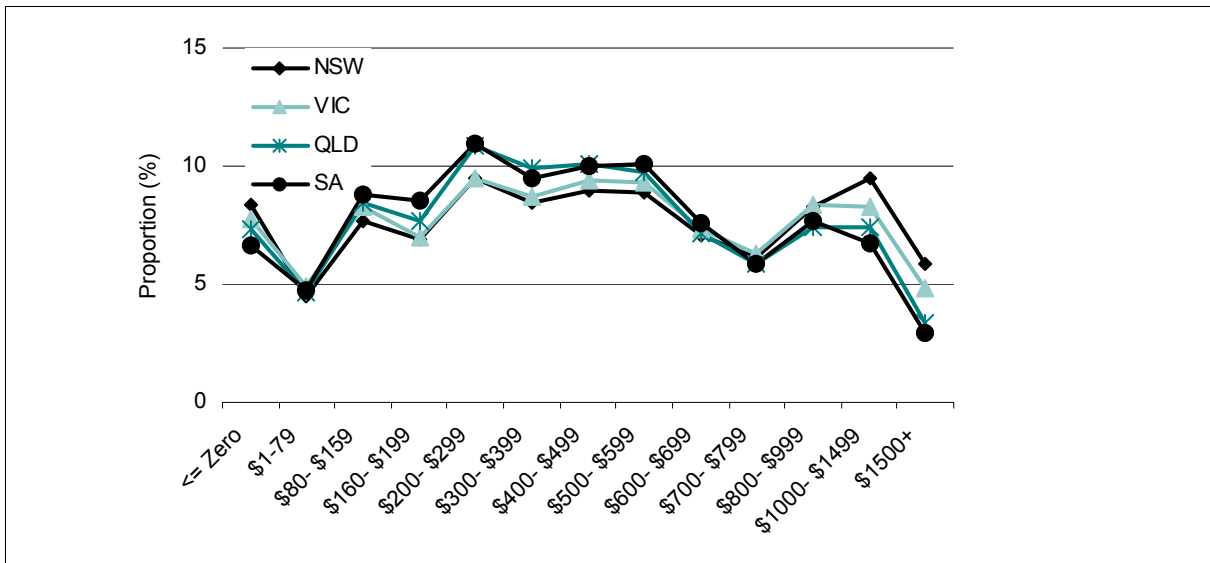
5 State by State comparison

5.1 Working age Australians

The figures above showed that the income distribution of those aged 65 and over was concentrated around the pension level. The differences, based on remoteness, were minimal for this age group. The income distribution for those aged 15-64 was quite different to this. The 15-64 year old income distribution was not concentrated but significant proportions were found in all income ranges. There were also differences in the distributions of those in the major cities, regional and remote areas. The regional incomes were lower than average but fairly concentrated, while the major cities had higher proportions at both the low and high ends of the scale.

These overall numbers may be concealing some quite different patterns between individual states and territories. To see if this is the case, this section examines some of the results at a state level.

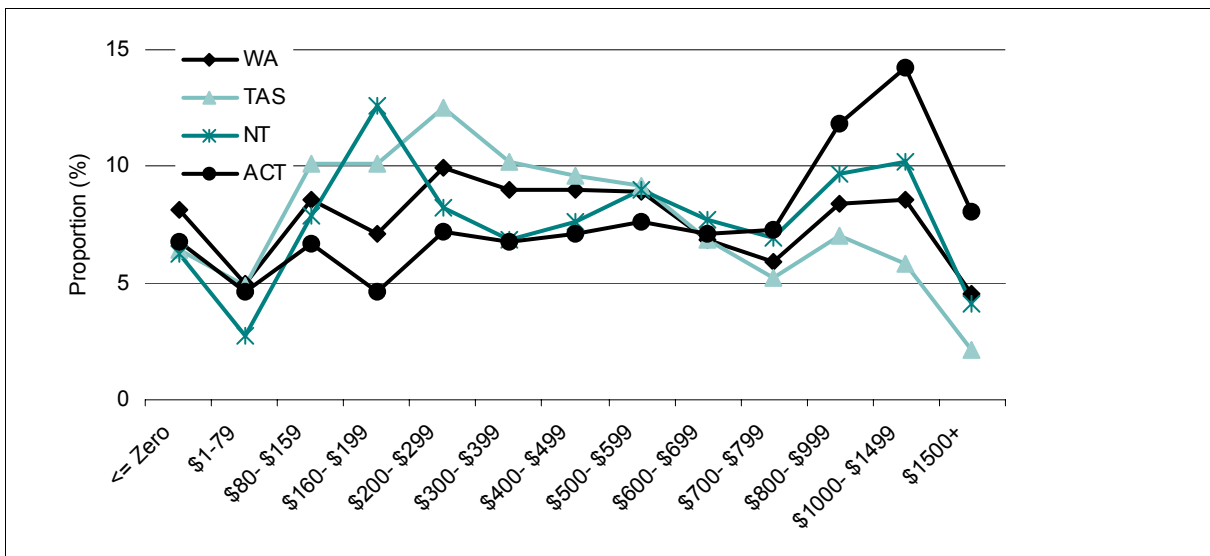
Figure 4 Weekly income by state of individuals aged 15 to 64 years, 2001



Note:

Data source:

Figure 5 Weekly income by state of individuals aged 15 to 64 years, 2001



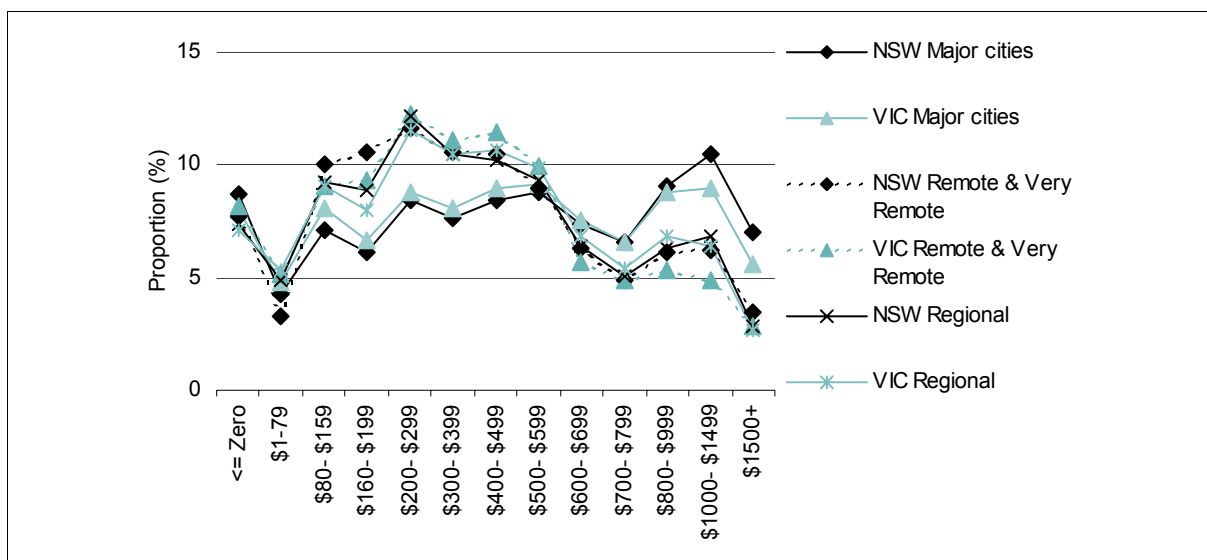
Data source: ABS Census 2001

Figures 4 and 5 show the income distributions of working age Australians by state (divided between two graphs for ease of interpretation), and show substantial variations between states, indicating considerable regional differences in average individual income. New South Wales, Victoria and the ACT have the highest proportions of individuals with incomes of \$800 or more per week, while the other states and territories have higher proportions of low or moderately low income earners. The dominance of high-paying public sector employment in the ACT is evident, with 34.2% of working age ACT residents having incomes of \$800 or more

per week, compared with the Australian average of 21.3%. After the ACT, New South Wales has the next highest proportion of high income individuals, with almost 24% of the state's population in the \$800 plus range.

When the state-by-state figures are broken down by remoteness, further differences emerge, and regional variations within and across states are revealed². Figure 6 compares income distributions for people aged 15 to 64 in major cities in NSW and Victoria with distributions for regional and remote areas in these states. The chart shows clearly that the incomes of working age individuals in the regional and remote areas of these states are concentrated in the lower income bands, while residents of major cities are much more likely to have high income. In NSW, over twenty-six per cent of those in major cities have incomes of \$800 or more per week, compared with only sixteen per cent in regional and remote NSW. The skewing of the income distribution in NSW is also apparent in the lower proportions of those in the major cities having incomes below \$500 per week (with the exception of negative and zero incomes). Thirty four per cent of those in the major NSW cities have an income of between \$1 and \$399 while this proportion is forty-six per cent for those in regional and remote areas. Differences between city dwellers and rural residents are also evident in Victoria, although the high incomes of city dwellers are not quite as striking as those of NSW.

Figure 6 **Income distribution by remoteness for individuals aged 15 – 64, NSW and Victoria, 2001**



a

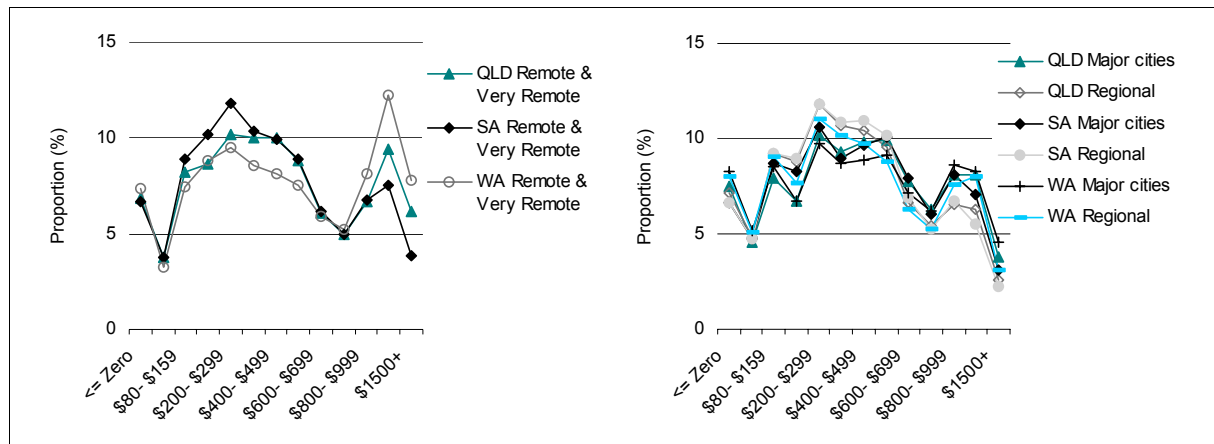
² According to the ARIA definitions of remoteness used in this paper, Tasmania has no major cities, the Northern Territory has no major cities or inner regional areas, and the ACT has no outer regional, remote or very remote areas, and the numbers in ACT inner regional areas are too small to be reliable. Thus the capacity for regional analysis within these states and territories is limited.

Note:

Data source:

Not all states, however, share the pattern of wealthier working age major city residents with less well-off regional and remote counterparts. Figure 6 compares income distributions in remote and very remote areas of Queensland, South Australia and Western Australia with distributions in major cities and regional areas in those states. In all these states, incomes of major city and regional dwellers follow a very similar pattern, with the substantially higher incomes of working age city dwellers in NSW and Victoria not evident here. In addition, residents of remote and very remote areas in these states are more likely to have higher incomes than people living in the big cities. In Western Australia, over 20 per cent of those in remote areas have an income of \$1000 or more (16 per cent in Queensland, 12 per cent in South Australia). This is likely due to the influence of the mining industry in the remote areas of these states. The other peak in this distribution occurs at relatively low levels of income, possibly reflecting the low incomes of indigenous Australians in these remote areas.

Figure 7 **Income distribution by remoteness for individuals aged 15 – 64, Queensland, South Australia and Western Australia, 2001**



a

Note:

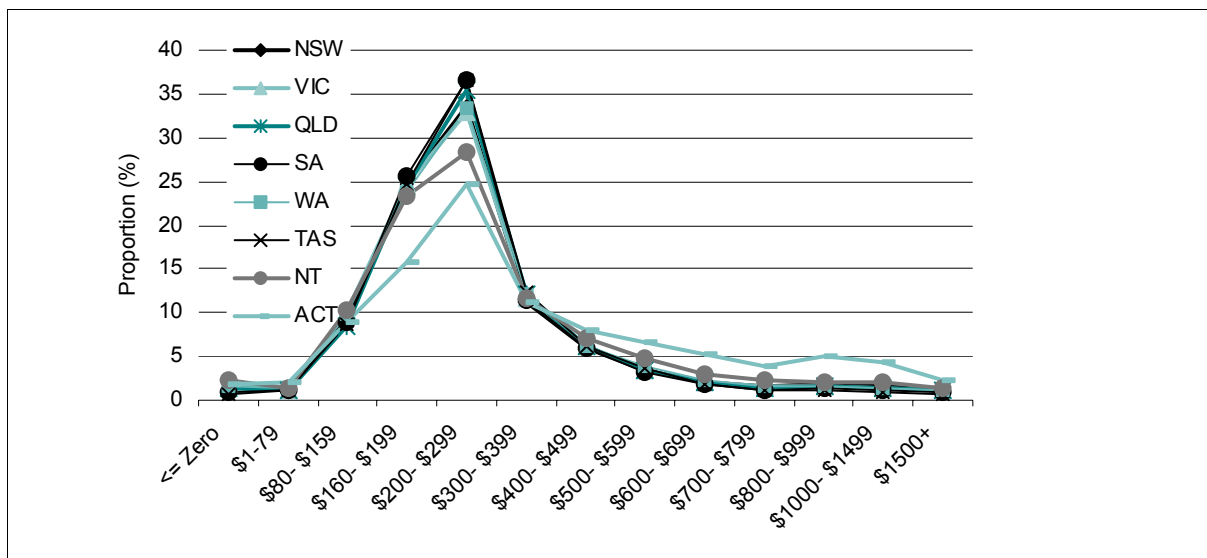
Data source:

5.2 Older Australians

The income distribution by state for retirement-age Australians is shown in Figure 6, shows that differences between states largely disappear for this age group, with all states following a similar pattern of concentration of the distribution between \$160 and \$299 per week. Only the ACT and the Northern Territory differ slightly from this pattern. Both Territories having a slightly lower percentage of their older populations in the \$160-\$299 band (51.6% for NT and 40.4% for the ACT compared with the Australian average of 58.5%), although the Northern Territory figures need to be interpreted cautiously due to the small population of over-65 adults in this region.

The ACT has somewhat higher proportions of older adults with incomes in the higher ranges, perhaps reflecting the superannuation benefits of public sector employment. Whereas 82.4% of all Australians 65 and over have an income under \$400 per week, only 64.7% of older adults in the ACT have this income. A different perspective on these statistics is that the proportion with an income of \$400 or more in the ACT is twice the national average.

Figure 7 Weekly income of individuals aged 65 and over, by state



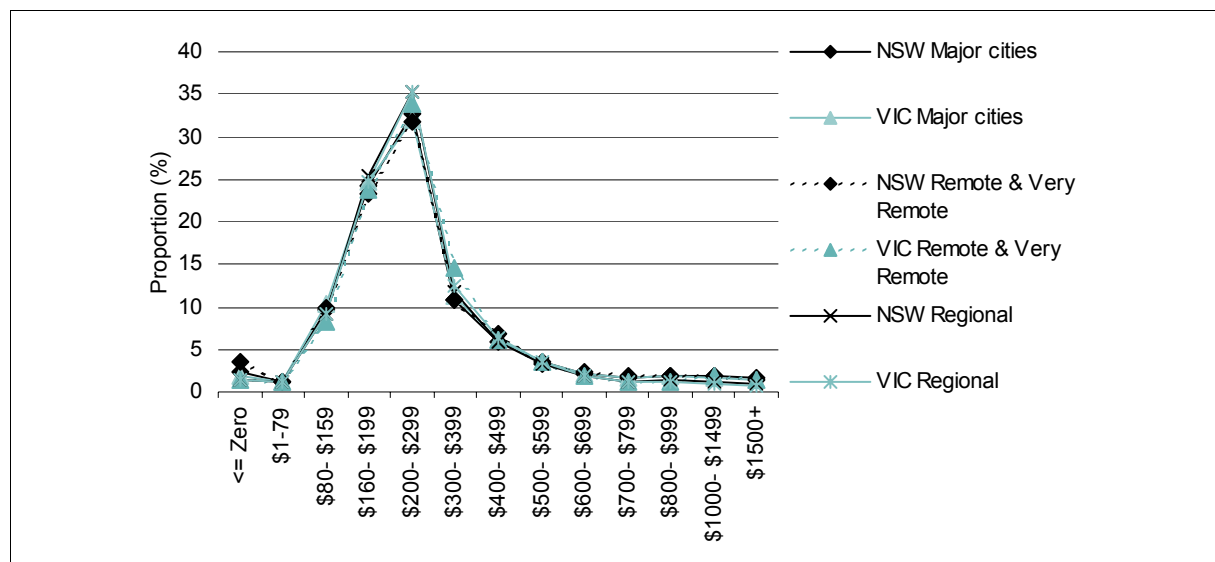
Data source: ABS Census 2001

Differences in terms of remoteness categories also largely disappear when incomes of older Australians only are examined. For example, Figure 8 shows the distribution of incomes for people aged 65 and over for NSW and Victoria by remoteness category. The differences in distribution between the major cities and other areas evident for these states in the working age population is no longer present. In NSW, for example, the one-in-four proportion with incomes over \$800 for those in the cities

under 65 is now only one-in-twenty. The proportion of people in the NSW major cities aged 15-64 with income in the range \$1 - \$399 is one-third but it is close to eighty per cent for those aged 65 and over.

Figure 9 shows the distribution of incomes after age 65 for Queensland, South Australia and Western Australia, and shows a similar pattern of a

Figure 8 Weekly income of individuals aged 65 and over, by remoteness category, NSW and Victoria



a

Note:

Data source:

The same NSW graph for those over 65 is quite different (Figure 7). The differences between the major cities and the other areas are no longer present. The one-in-four proportion with incomes over \$800 for those in the cities under 65 is now only one-in-twenty. The proportion of people in the NSW major cities aged 15-64 with income in the range \$1 to \$399 is one-third but it is close to 80% for those aged 65 and over. In the major cities a very significant change in the distribution has occurred.

In the regional and remote areas of NSW, there are also higher proportions of people with low incomes in the later life group compared with the working age group, but not to the same extent as the major cities. These combinations of changes to the

distributions have produced income distributions for the three areas that are very similar. The proportions for major cities, regional and remote areas with incomes over \$800 per week are 5.5, 3.4 and 5.3 respectively. And those with incomes between \$1 and \$399 are 78.8, 82.7 and 77.0%.

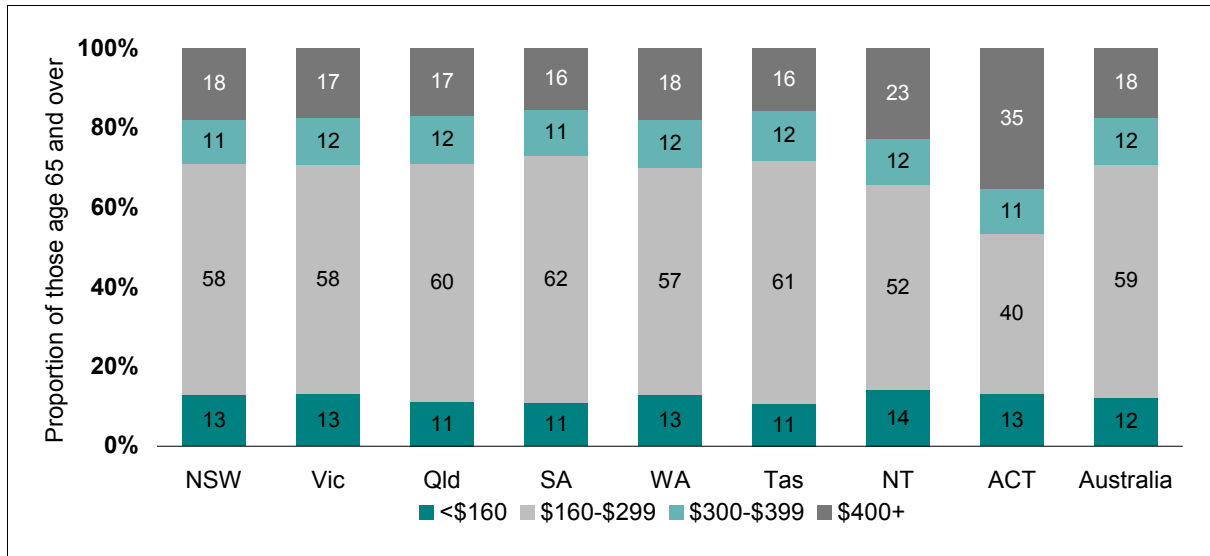
The differences between remoteness categories that were evident in the working age incomes are not evident in the incomes of older NSW residents. The concentration of higher incomes among major city dwellers has disappeared and in this age group the income distribution of those living in the major cities is the same as those living in regional or remote areas of NSW. For older NSW residents, no matter where they live, incomes are very highly concentrated around \$160-\$299 per week (58.5% have income in this range).

The large proportion of the population employed in the public sector in the ACT gives it a unique income distribution both before and during old age. The proportion on high incomes during their working lives is much higher in the ACT than in most parts of Australia. In addition the retirement benefits of public sector employment appear to be influencing the retirement incomes of those in the ACT. The proportion living on an income of around the Age Pension is the lowest in the country and the proportion living on an income of \$400 per week or more is twice that of the overall figure.

5.3 Income distribution summary

This analysis suggests that the area in which an older Australian lives is not related to the distribution of income, at least at the national level. It appears that the majority of older Australians are living on an income similar to that provided by the Age Pension. Almost 60% of older Australians have a weekly income of between \$160 and \$299.

Figure 9 Proportions of those aged 65 and over by weekly income and by state and territory, 2001



Data source: ABS Census 2001

Examination by state and territory suggests once again that while the incomes of those aged 15-64 do vary by remoteness and by state/territory, the variation for those aged 65 and over is small. The distribution of incomes for this age group is concentrated around the pension level. Figure 20 shows that, with the exception of ACT and NT, all states and territories had around 60% of their 65+ population with incomes in the \$160-\$299 range. The ACT distribution was less concentrated with a significantly higher proportion of people having high incomes. The NT also had a high proportion with income over \$400 per week but not as high as the ACT. The small number of people in this age range in the NT may have influenced the findings.

6 Conclusion

The absence of regional differences in later life income across Australia raises two concerns. First, the concentration of the income distribution at between \$160 and \$299 per week confirms that low income is the norm rather than the exception among older Australians. This overall low level of income suggests that many older adults at present may be only supporting themselves at a basic level of comfort, and are unlikely to be able to make substantial financial contributions to the costs of any long-term care they may require. It also reflects the reliance on the Age Pension as the primary source of income for most people in this age group (King, Walker & Harding, 1999).

Second, the absence of regional variations in this pattern of generally low income means that many older Australians living in regions in which the cost of living is relatively high are likely to be experiencing difficulties in providing for their basic needs. Contrasts between the income levels of working age and older Australians are particularly marked in the big cities of Victoria and New South Wales, where the very high incomes of large groups of younger people are starkly contrasted with the modest incomes of so many older Australians in these cities.

While expenditures, particularly housing costs, may be lower for older households than younger ones this is not necessarily the case for all older adults. For example, King, Walker and Harding (1999) found that real housing costs for single aged people had actually risen since the 1970s, in contrast to flat housing costs for aged couples.

A recent study found that a single person in retirement would spend around \$326 per week on a 'modest but adequate' lifestyle in retirement – while a more comfortable lifestyle would cost \$631 per week (Saunders *et al.*, 2004). These figures assume the retiree owns their own home but recent ABS statistics indicate that over one-quarter of older adults living in single person households do not own a mortgage-free home (ABS, 2003b). Similarly, most financial planners suggest at least \$30,000 per annum (\$600 per week) is required for a comfortable lifestyle in retirement for the average person. The results in this paper imply that more than 70% of current retirees have an income of less than \$300 per week and are surviving on an income of less than 'modest but adequate'. Only 8% have an income of \$600 per week or more and could be considered to be 'comfortable'.

The ACT has a lower concentration of older people with low incomes than other states and territories (although even here over half older adults have weekly incomes of less than \$300 per week). This may be due to the prevalence of public sector employment in the ACT, and the superannuation benefits that go with it.

The next generation of retirees, those currently aged 50-64, for who only slightly increased levels of superannuation savings by retirement are envisaged, may not be willing to accept a living standard that is less than modest (Kelly *et al.*, 2002). An improvement to a modest or comfortable standard will require a contribution from the retiree's private savings. Unfortunately, one thing that the baby boomer generation has not done well is to voluntarily save for their retirement. The superannuation that they have compulsorily saved will provide a small supplement to the pension – but only if it is not exhausted before the official retirement age is reached. The use of superannuation to self-fund early retirement could easily result in little superannuation remaining at age 65, let alone at age 80 or 90.

This study did not include a consideration of the assets held by older Australians (except to the extent that income generated by assets is included in total income), and

it may be that some of those people with low incomes may have substantial wealth. However, this will not be true of all older Australians. Asset tests attached to the age pension mean that those people receiving the pension will not have large assets outside their family home, and wealth among older Australians is not equally distributed among household types (ABS, 2002).

Only one measure of economic well-being – gross individual income – is used here, and it is possible that measures which incorporate family size, tax rates, or asset holdings could produce a different picture of older adults' financial independence. However, such changes in measurement are unlikely to change the overall picture of a lack of regional variability among the incomes of older Australians.

While the absence of substantial regional variation among the incomes of older Australians suggests a lower degree of regional income inequality among older than younger Australians, this does not necessarily translate into equality of advantage (or disadvantage) across regions among older people. More research is needed to assess the regional effects of the concentration of the income of older Australians around the pension rate. How do older Australians with low income provide for themselves in areas where the cost of living is high, and what types of older households in which regions are most needy? To what extent are low old age incomes in some regions accompanied by higher rates of ill health, and poorer access to health care? Finally, what regional differences are likely to emerge in income distribution as successive cohorts of Australians reach old age with greater access to superannuation income? Given that superannuation is a fixed proportion of earned income and higher incomes of 15-64 year olds are apparent in the major cities, the retirement incomes of those that live in major cities should also be higher. Will this increase regional inequality in the future?

References

- ABS (Australian Bureau of Statistics) 2002, *Experimental estimates of the distribution of household wealth, Australia, 1994-2000*, Working Paper No. 2002/1, ABS, Canberra.
- ___ 2003a, *Population Projections Australia 2002 to 2101*, ABS Catalogue No. 3222.0, ABS, Canberra.
- ___ 2003b, *Household Income and Income Distribution, 2000-01*, ABS Catalogue No. 6523.0, ABS, Canberra.
- Disney, R. and Johnson, P. 2001, *Pension systems and retirement incomes across OECD countries*, Edward Elgar Publishing Limited, Cheltenham, UK.
- Kelly, S., Harding, A. and Percival, R. 2002, *Live Long and Prosper? Projecting the Likely Superannuation of the Baby Boomers in 2020*, Paper presented to the 2002 Annual Conference of Economists Business Symposium, Adelaide, South Australia, October.
- King, A., Walker, A. & Harding, A. 1999, 'Social security, ageing and income distribution in Australia', NATSEM paper presented at the International Conference on Family, Social Policy and Financial Strategy, Taipei, Taiwan, 16-17 April 1999.
- OECD 2000, "The Costs of an Ageing Society", *OECD in Washington No. 22*, OECD Washington Center, Washington DC, November/December .
- Saunders, P., Patulny, P. and Lee, A. 2004, *Update and extending indicative budget standards for older Australians*, Final Report for the Association of Superannuation Funds of Australia, University of NSW, Sydney, January.