

# **A spatial analysis of trends in housing markets and changing patterns of household structure and income**

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## EXECUTIVE SUMMARY

Over the last few decades Australia, like a number of other countries, has experienced significant social, demographic and economic change. The combined effect of these changes has resulted in a significant polarisation of household income and to increasing social and spatial inequality on a range of indicators. One such indicator is housing and home ownership. There has been some consideration of the role played by public housing in contributing to, rather than ameliorating, spatial inequalities. However, somewhat less attention has been paid to the more general role that housing and home ownership may have in contributing to social and spatial inequality.

The possibility that they may contribute to social and spatial polarisation is not new. Past research has suggested that income polarisation will lead to a polarised housing market which, in turn, will reinforce inequalities arising from the labour market. Recent research already has signalled a decline in aggregate home ownership rates amongst younger households.

Concerns with the extent of socio-tenurial polarisation arise because home ownership is seen as contributing to social advantage. The paper provides a brief overview of the new research emerging on the social externalities associated with home ownership. High ownership rates, however, also have made a significant contribution to protecting older low income households from poverty after their housing costs were taken into account. Conversely, private rents have contributed to older (as well as many younger) low income households being pushed into after housing poverty.

The question of whether socio-tenurial polarisation already observed at a national level is more or less significant at a regional level is likely to depend on whether income polarisation at a regional national level is more or less significant than at a national level. Current research in Australia suggests that increasing regional inequality is one outcome of the social and economic changes that have taken place.

Chapter 2 of the paper provides an overview of research that documents the changing structure of the income distribution in Australia and raises issues associated with the measures based on gross household income that are to be used in this study. It concludes that, for housing related purposes, it is critical to maintain household structure as well as household income as analytical variables. Studies at a national level have highlighted an increasing polarisation of income and the "disappearing middle" in relation to the underlying distribution of income in Australia. In part, these changes are attributable to a growing earnings inequality. In part, they are attributable to socio-demographic changes impinging upon household structure.

An increase in inequality has also emerged at a regional level with the result there has been an increase in the geographic polarisation of household income across Australia. This trend has been popularised and simplified by the media as a rural versus urban divide. Much of the discussion of and concern with these trends has focussed on the loss of employment opportunities as a result of the economic restructuring that has taken place. However, concerns also have been expressed about the possibility that there are factors that contribute to an institutionalisation of the disadvantage that is associated with low earnings capacities and opportunities. One of the factors so identified relates to housing and home ownership.

Chapter 3 of the paper discusses the ways in which home ownership contributes to cumulative advantage (and, conversely, how lack of home ownership contributes to cumulative disadvantage) by pointing to the range of both the social and economic advantages associated with it. Social advantages are attributed to network effects and to interaction effects between home owners and the community in which they live. Economic effects relate both to policy factors and to the ways in which housing markets operate. Whilst the advantages cannot be presumed to hold for all households, there is evidence to suggest that housing wealth accumulated through home ownership has added wealth inequalities to the income inequalities that have emerged over the period of economic restructuring that took place in the 1980s and 1990s in Australia. Consistent with this, home ownership has been seen by some as a cornerstone of Australia's welfare state and there is ample evidence to show that home ownership has protected many older Australians from after housing poverty. In light of the data presented and arguments rehearsed in chapter 3, the declines in home ownership that have been observed amongst younger households at an aggregate level in Australia raise serious concerns. These relate both to future patterns of wealth and income equality and to the capacity of Australia's welfare policies to provide future generations with the same standard of living in retirement as enjoyed by the current generation.

They also raise concerns about the extent to which future generations will be able to gain access to the benefits of economic growth when these benefits are spatially concentrated. This latter concern arises because of the constraints that housing markets place on labour mobility. Some of these concerns underpinned the spatial mismatch debates that emerged, initially in the 1970s but again in the 1990s.

Chapter 4 highlights the ways in which regional variations in housing and labour markets might interact to generate a similar process of cumulative disadvantage as that associated with lack of access to home ownership. Regional variations in the impact of economic restructuring have resulted in 'hot spots' and 'cold spots' in the Australian economy and the extent of structural change has been significantly different in metropolitan and non-metropolitan Australia. Higher unemployment rates in non-metropolitan regions in Australia mean reduced labour market opportunities for those households in these regions whose members are unemployed or under-employed. Higher house prices and higher rents in areas with higher employment opportunities impose constraints on their ability to re-locate for employment related reasons. Research elsewhere has suggested these constraints may be even more binding on home owners with limited equity in their dwellings. Conversely, more accessible housing in these regions may attract households who are otherwise unable to meet their housing preferences and, in so doing, permanently lock them out of labour market participation.

Thus, there are a number of ways in which housing and home ownership may reinforce the polarisation of income that has emerged in Australia in the last few decades as a result of social, economic and demographic change. This research project is concerned with the outcomes of these processes.

The literature review presented in this paper identifies a number of factors that underpin the issues to be covered in this research project. The first is the changing structure of household income that, in part, is attributable to the impact of economic restructuring and, in part, to social and demographic change. The second is the spatial variation in household income both attributable to, and distinct from, these changes. Spatial differences in household growth and household income are likely to impact differentially upon housing markets and contribute to regional differences in house prices. These differences can be seen either as encouraging households with

a high preference for home ownership to locate in regions where housing is affordable or as constraining them from locating in regions where housing is unaffordable. A third is the changing structure of housing markets themselves.

The research to be undertaken in this project focuses on the spatial impact of social and economic change on housing outcomes. In particular, it focuses on the change for households with different socio-demographic characteristics and on the spatial and economic factors affecting the observed outcomes. The interaction of economic, socio-demographic and geographic factors is likely to become increasingly important as moves towards labour market flexibility increase the importance of spatial mobility and as the economic uncertainty associated with such flexibility decreases the willingness or ability of households to make long-term economic commitments. An understanding of the interaction of economic, socio-demographic and geographic factors is critical for any attempt to determine what the future pressures are likely to be on both regional and national home ownership and private rental markets.

One simple illustration of the importance of identifying the impact of socio-demographic and economic change on housing outcomes can be given. A changing income distribution, whether the increasing proportion of low income households are young or old, has significantly different housing and housing policy implications. In the current environment, older households are more likely than not to be owners. Their future housing needs are likely to be associated with support services, often aimed at keeping them in their homes, or with financial assistance meeting the ongoing costs of maintaining their homes. Younger households, on the other hand, are more likely to make demands on the private rental market and, if unemployed or in receipt of social security payments of some sort, to make demands upon rental assistance. If these younger households are permanently excluded from home ownership, the rent assistance demands they make on public expenditure are likely to re-emerge when they reach retirement age. Likewise, the support services they may need are likely to differ depending on whether they are, or are not, in their own home. If they are trapped in areas where housing is low cost and, because of this, have less access to employment opportunities, the rent assistance demands they make on public expenditure are likely to continue until they reach retirement age. Some of the possible policy responses to these issues lie within State jurisdiction; others lie within Commonwealth jurisdiction. Thus, the spatial implications of change are critical.

The outcomes of the research questions addressed will provide a more informed basis than is currently available to assess the spatial need for, and implications of, alternative policies in relation to rental housing and home-ownership. The outputs of this project should be of interest to housing policy practitioners and planners at both a Commonwealth and State level. The data on patterns of change in home ownership at a spatial level by socio-demographic characteristics of households and a projection of these trends into the future will serve as input to the development or otherwise of home ownership programs at either Commonwealth or State level. The discussion of trends in housing markets will inform central government about likely pressures on demands for rent assistance and on the effectiveness of current rent assistance policies. Any questions about the capacity of the two major tenures (*viz.* home ownership and private rental) to meet the emerging needs of households will provide an indication of the demands likely to be made on social housing in the future.

# CHAPTER 1. INTRODUCTION AND OVERVIEW

Over the last few decades Australia, like a number of other countries, has experienced significant social, demographic and economic change as a result of economic restructuring and what has been called the second demographic transition.<sup>1</sup>

Social and demographic change has resulted in smaller households with the impact of an aging population being compounded by declining marriage rates, declining fertility, increasing divorce and separation and a rise in the proportion of single person and lone parent households. These changes are likely to have as great an impact on household income as that which arises from economic change. Economic change associated with economic restructuring has resulted in spatially concentrated patterns of job loss and expansion and increasing mismatches of employment skills and opportunities. Economic change associated with labour market reform (deregulation) has resulted in increased casualisation of employment, a growth in part time rather than full time jobs, increased earnings disparities and increasing disparities in the unemployment rates of skilled and unskilled workers. The extent of these changes has varied across regions but, in Australia, has been considerably greater in non-metropolitan regions than it has in metropolitan regions. These changes and the factors contributing to them that are relevant to this study will be examined in more detail below.

The combined effect of socio-demographic and economic change has resulted in a significant polarisation of household income and to increasing social and spatial inequality on a range of indicators. One such indicator is housing. There has been some consideration of the role played by public housing in contributing to, rather than ameliorating, spatial inequalities. However, somewhat less attention has been paid to the more general role that housing and home ownership may have in contributing to social and spatial inequality, despite concerns expressed both in Australia and elsewhere. The issues surrounding these debates will be discussed below.

The possibility that housing and home ownership may be seen as a contributor to social and spatial polarisation is not new. In response to disparate outcomes in housing markets, Winter and Stone (1998, p5), for example, have suggested the “contemporary process of income polarisation in Australia will in the long term result in a polarised housing market which will, in turn, reinforce the polarisation emerging from the labour market.” Their conclusion is based on work undertaken by Badcock (1994). Hamnett (1994) has provided a similar argument for the UK.

These concerns led Winter and Stone to investigate the extent of socio-tenurial polarisation. They concluded there was a possible emergence of a permanent barrier for less skilled and low paid workers to what they defined as middle and high tenure categories. In their housing tenure hierarchy, middle and high categories are associated with ownership or rental by choice whilst the low category is associated with public rental and those who are constrained to the private rental market. They concluded that less skilled and low paid workers were being marginalised by being constrained to those categories at the bottom of their tenure hierarchy. Their analysis provided clear evidence of a link between labour markets (in terms of income and occupational status) and housing markets (in terms of tenure outcomes) in Australia. The size of their survey, however, restricted their capacity to determine the extent to

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<sup>1</sup> Van de Kaa (1987) claims the first transition, associated with reductions in fertility rates, was dominated by concerns for family. The second transition is associated with the right and self-fulfilment of individuals. He claims the key words ‘altruistic’ and ‘individualistic’ can be used to describe these transitions. In many ways, this description of the demographic change that has taken place mirrors descriptions given to the economic changes that have taken place at the same time.

which this socio-tenurial polarisation was linked to the spatial polarisation of income that has emerged over the past decade or so.

Concerns with the extent of socio-tenurial polarisation arise because home ownership is seen as contributing to social advantage. To illustrate, in the ABS socio-economic indexes for areas (SEIFAs), households owning or purchasing a dwelling are one of the key factors contributing to both urban and rural relative advantage, along with the proportion of high income families, high status occupations, skilled households.<sup>2</sup> Some of the reasons why this might be so will be discussed below.

Home ownership has long been seen as the logical pinnacle of a housing career and evidence based on data from the 1970s indicates that, in the past, nearly 90 per cent of households had been home owners at some stage in their lives. High ownership rates have made a significant contribution to protecting older low income households from poverty after their housing costs were taken into account. Conversely, private rents have contributed to older (as well as many younger) low income households being pushed into after housing poverty. Serious concerns that the socio-tenurial polarisation observed by Winter and Stone might be a permanent rather than a temporary state are raised by evidence from recent research. Yates (1994, 2000), for example, provides evidence of declining home ownership rates amongst younger households in Australia over the past few decades. Wulff and Maher (1998), provide evidence that a high proportion of private renters have rented for at least 10 years, which suggests that private rental can no longer be regarded as a tenure of transition. If this is so, an increased number of disadvantaged households are likely to face an increased probability of being pushed into poverty as a result of their housing costs when they retire. They are, of course, also likely to impose an increased burden on the Commonwealth through their need for rent assistance or, depending on what model of housing provision for low income households is operational in 10 or 20 years time, on the States through their demands on social housing.

The question of whether socio-tenurial polarisation identified at a national level is more or less significant at a spatial level is likely to depend on the extent to which income polarisation at an aggregate or national level is more or less significant at a disaggregate or regional level.<sup>3</sup> This, in turn, will depend on whether inequalities are more pronounced within regions or between regions. The emergence of spatial disparities in employment opportunities can lead to increasing inequality at a spatial as well as household level. The extent of this will vary according to the extent to which spatial variations in economic inequality are overlaid by spatial variations in household structure and by spatial variations in the proportion of households with at least one person notionally attached to the labour force. This, in turn, is likely to be affected by spatial variations in the age distribution of the population. These factors are likely to contribute to spatial differences in the impact of socio-demographic and economic restructuring on housing markets. In turn, spatial differences in the response of housing markets will impact on the housing opportunities households face in different regions.

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<sup>2</sup> Conversely, indices of relative disadvantage are based on, low income, low skill, unemployment and the proportion of households in public housing.

<sup>3</sup> In what follows, data constraints will limit consideration of the "socio" component of socio-tenurial polarisation to that which is related to income differentials. Pahl (1988) in his influential work provides a strong argument for moving from a pre-occupation with a class or occupational based analysis to one based on household income, arguing that households are becoming increasingly more fortunate or deprived depending on whether they are 'work rich' or 'work poor'.

This paper focuses on the spatial impact of these changes on housing outcomes. In particular, it focuses on the change for households with different socio-demographic characteristics and on the spatial and economic factors affecting these outcomes. The interaction of economic, socio-demographic and geographic factors is likely to become increasingly important as moves towards labour market flexibility increase the importance of spatial mobility and as the economic uncertainty associated with such flexibility decreases the willingness or ability of households to make long-term economic commitments. An understanding of the interaction of economic, socio-demographic and geographic factors is likely to be critical for any attempt to determine what the future pressures are on both local and national home ownership and private rental markets.

Chapter 2 below provides an overview of the literature on income inequality in Australia at both a national and regional level and on the broad trends that have contributed to this. This highlights factors associated with social, demographic and economic change but gives little indication of the extent to which the underlying causes are likely to be resolved or reinforced over time.

Chapters 3 and 4 provide an overview of the literature on two of the important issues that underpin this research project. The first is the role of home ownership in contributing to economic and social advantage. This is covered in chapter 3 where the benefits and costs of home ownership to both the individual and society are examined. Much of the conceptual part of this relies on literature from outside of Australia but supporting evidence relies on Australian material, as does the discussion of the issues associated with the role of home ownership in relation to the welfare state. The final sub-section provides a brief overview of how the factors considered have affected tenure preferences in Australia.

Chapter 4 provides a review of the literature that attempts to explain how housing and home ownership can interact to reinforce existing social and economic inequalities. These interactions are presumed to work primarily through the labour market. This section, therefore, highlights the importance of the constraints imposed on mobility by the operation of the housing market.

Chapter 5 provides a brief summary of how the factors discussed in the first three sections might interact. The evidence presented in chapter 2 below suggests there are strong spatial impacts of the effects of social and economic restructuring. This outcome raises a number of questions as to how the social and economic system adjust to change and what the outcomes of this process are. Potential processes of adjustment are reviewed in chapter 4. A framework for reviewing the outcomes is developed in chapter 5. The paper concludes with an overview of the analysis to be undertaken in this research project.

# CHAPTER 2. INCOME INEQUALITY IN AUSTRALIA

## 2.1 Overview

The changing structure of the income distribution in Australia has been widely documented. Whilst the results of studies vary according to whether they focus on gross or disposable income and according to whether they employ individuals, income units or households as the basis of their analysis, the underlying trends are similar. The gap between households at the lower end of the income distribution and those at the top of the income distribution has increased.<sup>4</sup>

### 2.1.1 *Income inequality and income concepts*

Inequality studies distinguish between a number of income concepts. The starting point is generally private or market based income, which includes wages and salaries, profits, business income, property income, superannuation and various private transfers. Gross income is defined as private income plus direct government transfers. It is gross income which is the measure employed in this study. Disposable income is gross income less personal income tax. Equivalised income, which takes into account the number of people dependent upon household or income unit income, can refer to any of these income measures. Fuller definitions can be found in Johnson et al (1995, p. iv) and a discussion of the conceptual issues associated with measuring income can be found in Saunders (2001).

Whilst many income distribution studies are limited to comparisons over a relatively short period of time because of data limitations, Saunders provides data that spans a full generation from 1968-69 and 1997-98. For consistency with the 1968-69 data that covered families only (that is, single person households and other non-family individuals were excluded), the data for 1997-98 are similarly restricted. These data show the income share of families in each of the lowest 5 deciles declined, whilst the income share of those in each of the top five deciles increased. Over this period, the income cut off for those in the top income quintile increased by 50 per cent in real terms, whereas the cutoff for those in the bottom income quintile decreased in real terms by 5 per cent in real terms. The resultant increase in inequality was, in Saunders' words, "substantial, both historically and internationally".

Table 2.1 below provides more comprehensive data on income inequality based on all income units (that is, including the increasing proportion of single person households) but it is limited to a comparison between 1986 and 1997-98. Two separate measures are presented here.<sup>5</sup>

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<sup>4</sup> Whether the circumstances of those at the bottom have improved or not is open to debate and is dependent upon what measures are employed. There is, however, no doubt that the circumstances of those at the top have improved.

<sup>5</sup> Saunders provides several other indicators as well. For simplicity in presentation these have been excluded from this presentation as the information contained in them is summarised by the above.

**Table 2.1 Changes in the distribution of household income: 1986-1998**

	income measure				
	full time wage and salary	market	gross	disposable	equivalent
<b>1986</b>					
Gini	0.238	0.532	0.417	0.364	0.352
P90/P10	2.837	na	7.915	6.137	4.841
<b>1990</b>					
Gini	0.224	0.543	0.427	0.375	0.330
P90/P10	2.835	na	7.944	5.997	4.213
<b>1994-95</b>					
Gini	0.271	0.570	0.436	0.385	0.338
P90/P10	2.915	na	7.910	6.161	4.250
<b>1997-98</b>					
Gini	0.272	0.582	0.442	0.390	0.343
P90/P10	3.055	na	8.393	6.387	4.327

Source: Saunders (2001)

The Gini coefficient measures the extent to which the actual distribution of income differs from complete equality.<sup>6</sup> Whilst the Gini coefficient provides a single summary measure of inequality, its value is sensitive to the weights assigned to different income groups. A redistribution of income from higher to lower income households in the middle of the income distribution, for example, will reduce the Gini coefficient by the same as a redistribution between households at more extreme points of the distribution. (Lambert, 1989:45) The second measure provides an alternative to the Gini coefficient by focusing on the distance between the bottom and top of the income distribution.

With the exception of the results for equivalent income, this table shows a generally consistent pattern of increasing inequality. Market incomes are the most unequal and full-time wage and salary incomes are the most equal. However, as indicated by the percentage increase in the Gini coefficient, the growth in inequality in each of these has been the most rapid in the last 10 or so years.

Inequality has been considerably reduced by social security transfers (as reflected in gross income) and, to a lesser extent, by the income tax system (as reflected in disposable income). When an adjustment is made for differences in need using the OECD equivalence scale<sup>7</sup>, the extent of inequality is reduced further, reflecting the positive association between the size of the income unit and the income received by it. As Saunders argues, these results are "consistent with the view that deregulation of the economy and the increasing role of market forces over the last two decade has produced an increase in income inequality that has been moderated by the social security and income tax systems."

<sup>6</sup> A coefficient of 0 represents complete equality where the Lorenz curve (plotting the cumulative percentage of income units against their cumulative share of income) is a forty-five degree line. A coefficient of 1, where all income is received by one income unit, represents complete inequality.

<sup>7</sup> This assigns a weight of 1 for the first adult, 0.7 for each subsequent adult and 0.5 for each child.

Smeeding (1997) suggests that Australia (alongside the UK and the US) is one of the three countries with both the greatest degree of inequality in the OECD and one of the same three with the greatest increase in inequality in the 10-15 years since 1980.<sup>8</sup> An update provided by Saunders suggests that the relative position of Australia improved marginally after 1995.

Behrendt (2000) focuses specifically on the bottom half of the distribution for the early 1990s rather than income distribution as a whole. Consistent with Smeeding's results, she shows that Australia is one of the worst performers in relation to the proportion of households in relative poverty.<sup>9</sup> On her estimates, Australia has 25 percent of households in near poverty (below 60% national median); these levels are as high as those in the US and some 10 - 15 percentage points above those which hold in most other OECD countries. Almost 5 per cent of households are in extreme poverty (below 30 per cent of the national median). In both cases, the results for Australia are amongst the worst of the OECD countries. These outcomes are in stark contrast with comparative studies of income distribution in the 1970s which showed that Australia was characterised by relative income equality (Saunders, 2001).

### *2.1.2 Adjusting for household composition*

These comparative results are based on equivalised income where an adjustment, based on economies of scale and the relative needs of adults and children, has been made for household size. Equivalent adjustments have the effect of providing a (subjective) judgement of the comparability of standards of living for households with different compositions. On the OECD modified standard, for example, individuals living as a couple with 1.5 times the income of a single person, are deemed to have the same equivalent income. On other commonly used scales, equivalence would require a couple to have 1.7 times the income (the 'old' OECD equivalence scale) or 1.4 times the income (the 'international' square root equivalence scale).<sup>10</sup> Whilst such adjustments to income, however, do indicate the different demands made upon their income, there are several problems that are likely to arise in relation to their use in relation to housing.

Equivalence adjustments are based on average expenditure needs for different households. The determination of a typical family budget is complex enough when limited to items such as food, clothing and so on. Once housing costs are taken into account it becomes close to impossible to define a typical budget since housing costs vary by location and by tenure (and age) once minimum household needs in terms of dwelling size and type are defined. The most recent attempt to define budget standards in Australia, for example, defined a standard that both included and excluded costs although Saunders et al (1998:114), in commenting on the difficulties associated with the inclusion of housing costs in any budget standards, argued "[i]t is worth noting here that in several of the European countries where budget standards have been in existence for some time .. no attempt has been made to estimate a housing budget because of the difficulties of variability and representativeness." In the budget standard that included costs, housing costs were varied by tenure, by age and income of household and all households were located in a suburb that could lay

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<sup>8</sup> Based on individual data and equivalised disposable income, the OECD average P90/P10 is 3.6; Australia is 4.3, the UK 4.67 and the US 5.78.

<sup>9</sup> Both Smeeding and Behrendt employ equivalent disposable income as their income measure, but they rely on different equivalence scales. Smeeding uses a square root scale based on the number of persons in the household and Behrendt uses the modified OECD scale which reduces the weights for second and subsequent adults to 0.5 and those for children to 0.3.

<sup>10</sup> There is no agreement on what these measures should be, so that any income distribution measure that is based on equivalent income incorporates some implicit value judgement about horizontal equity between different types of households, or individuals within different types of households. Bradbury (2001) questions whether such adjustments should be made given that it could be argued that household choice is endogenous and can be presumed to generate a benefit in and of itself.

reasonable claim to having median priced dwellings and median rents. Needs were based on the Canadian occupancy standards employed in many Australian studies concerned with housing.

A simple illustration of the problems with equivalence adjustments once housing is taken into account can be given by considering single persons and couple households who are generally required to have the same minimum housing needs in terms of number of bedrooms. Several examples can be given to illustrate the difficulties that arise. A couple on \$450 pw<sup>11</sup> (or approximately \$22,500 pa) has an income equivalent to a single person on \$300 pw or \$15,000 on the modified OECD scale. On conventionally used occupancy standards, both households have the same housing needs. The first example presumes both households rent privately. If their housing is rented at a cost of, say, \$100 pw, the single person will have an after housing income of \$200 pw (or approximately \$10,000 pa) and the couple will have an after housing income of \$350 pw (or approximately \$17,500 pa). This latter income is equivalent to \$233 pw (or approximately \$11,600) on the modified OECD scale or is 1.75 times the single person's income. This is considerably higher than the presumed 1.5 equivalence scale.

This outcome arises because the same economies of scale that were applied in generating the equivalence scales do not include housing needs. Households that are equivalent before housing costs are taken into account will not be equivalent after housing costs are taken into account.

In the second example, the same household will have different housing costs depending on whether they are renting or owning. As numerous studies have shown, the income circumstances of households before their housing costs are taken into account can be significantly different from their circumstances after their housing is taken into account. In large part this issue arises because the conventionally used measures of income do not impute a net rental income for the latter household. This net rental component may be positive or negative depending on the equity position of the household. This, in turn, is likely to vary with the age of the household. Equivalence scales that do not vary with tenure or age will fail to provide effective measures of the comparable standards of living of households on different gross or disposable income levels.

A third example, and the most relevant for this study, is that housing costs vary considerably by location. Median house prices or rents in metropolitan regions, for example, exceeded those in non-metropolitan regions in the same state by as much as 20 to 80 per cent in 1996. Variations within metropolitan and non-metropolitan regions are equally significant. This variation in housing costs means that households with similar incomes, whether equivalised or not, have very different opportunities in relation to their housing tenure. In a similar example to that used above, two single person households on the same level of income will have very different levels of income after their housing costs are taken into account if one lives in the city and one lives in a non-metropolitan area. The former may pay, for example, \$200 per week compared with the \$100 per week the same type of housing would cost in a non-metropolitan area. The equivalence before housing no longer holds after housing is taken into account. Thus after housing income for the metropolitan dweller would be \$100 per week, and only half of the \$200 per week available to the non-metropolitan dweller. As indicated in a recent report to a US Senate Committee on poverty measurement, "[t]he feasibility and desirability of adjusting ... for geographic cost of living differences has been the topic of repeated discussion and analysis for a long time. .. Some analysts have argued against .. adjusting .. for area price differences on the grounds that such differences are likely to be offset by income differences

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<sup>11</sup> It matters not if this is gross or disposable income.

and, hence, do not represent real differences in life quality. .. Economic theory suggests that, over the long run, measure of "quality of life" (taking into account both prices and wage levels) will equalise across areas because people will continually migrate to the more pleasant areas, causing prices to rise and wages to fall. .. The counterargument, is that ..households cannot be expected to quickly change location when they experience a decline in income." (Citro and Michael 1995, p184) Their research leads them to the latter view and to the conclusion that adjustments should be made for differences in housing costs since it is these costs that vary most across the country.<sup>12</sup>

Despite these difficulties, different households obviously both have different capacities to pay for housing and different housing needs. One approach to ensuring that these differences are explicit is to forego equivalence adjustments in the first instance, but to retain household composition and size as an analytical variable. This approach means that any subjective judgements made about the comparability of different household types will remain explicit and that the impact of household structure on the variables of interest can be separately analysed.

### *2.1.3 Inequality as reflected in changes in gross household income*

In this paper, gross household income will be used as the initial descriptive variable of changes in income distribution.<sup>13</sup> As shown in Table 2.1, the extent of income inequality observed will be greater for this variable than for equivalised income because of these differences in household size and the outcomes will be sensitive to changes in household structure. Differences in the ways in which household structure has changed in the different regions considered in this paper will be outlined in the analysis to be undertaken.

Table 2.2 below provides a broad overview of the changes that have taken place in gross household income between 1975 and 1999. All data are presented in \$1996 for consistency with results to be presented later in this project. On an Australia wide basis, average real household income decreased from \$913 per household per week in 1975 to \$819 per household per week in 1994 before partially recovering to \$857 in 1999 (all measured in 1996 dollars). In other words, between 1975 and 1999 there was an overall decline of \$56 per household (in \$1996).

Table 2.2 provides a similar indication of increasing inequality over this period as provided in Table 2.1. The mean income of households in the lowest income quintile decreased from \$240 per week in 1975 to \$156 in 1999. At the same time, that of households in the highest income quintile increased from \$1,823 per week in 1975 to \$1,945 in 1999. In 1975, the mean income for households in the top income quintile was 7.6 times that of those in the lowest income quintile. By 1999, the income of households in the top income quintile was 12.5 times that of those in the lowest income quintile. These changes are consistent with a growing number of low income households and a growing number of high income households.

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<sup>12</sup> Because of data difficulties associated with more complex budget standards or hedonic price measures, they recommend use of distribution of private rents from census data, standardised by size of dwelling, to generate such indices.

<sup>13</sup> Only gross income is available in the census data used in this paper.

**Table 2.2: Household income quintiles, 1975 to 1999**

	Mean income in income quintile (\$1996)					all households	ratio Q5/Q1
	1	2	3	4	5		
<b>1975</b>	\$240	\$559	\$821	\$1,124	\$1,823	\$913	7.6
<b>1984</b>	\$220	\$453	\$745	\$1,079	\$1,817	\$863	8.3
<b>1994</b>	\$198	\$401	\$670	\$1,025	\$1,812	\$819	9.2
<b>1999</b>	\$156	\$403	\$694	\$1,088	\$1,945	\$857	12.5

Source: Unit record files, ABS Household Expenditure Surveys, 1975 to 1994, with income data CPI adjusted to \$1996

ABS Household Expenditure Survey 1998-99, ABS Cat No. 6530.0

Much of the decline in average household income in Table 2.2 can be attributed to changes in household composition. An increasing proportion of single person and lone parent households will contribute to an increase in the proportion of low income households. This is particularly so if these households are un- or under-employed or no longer in the workforce.

Johnson et al (1995, p59-63) provide estimates which show a fall in real household income from 1982 to 1994 \$39 per week (converted to \$1996) on an unequivalised basis but a marginal increase of almost \$4 per week on an equivalised basis. Harding (1997, p18) provides similar estimates for changes in real household disposable incomes. Redmond (1999), who employs a per capita income measure (which effectively adjusts for household size but makes no allowance for economies of scale), obtains a different outcome in his analysis of single family households undertaken for the ABS. He shows there was a decrease in per capita income amongst households of \$28 per week (in \$1996) between 1982 and 1996 when sharing between income units within the family is assumed.<sup>14</sup>

All of the studies referred to in this section which undertook an analysis on more than one definition of income showed that the observed increase in inequality declined as increasingly broader definitions of income were employed (moving from market to gross to disposable incomes). All showed that it declined once equivalence scales were used to adjust household income by household size. Both Harding (1997) and Johnson et al (1995) report increased household inequality on an equivalised basis even though they employ different equivalence scales and Harding, in particular, shows a persistence of the 'disappearing middle' hypothesis amongst households even after household size and the tax transfer system is taken into account. Saunders (1993) casts some doubt on the phenomenon based on equivalised disposable household incomes suggesting that redistribution has been from the bottom to the top of the income distribution.

<sup>14</sup> Johnson et al use an equivalence scale with a weight of 1 for the first adult, 0.6 for the second and subsequent adults and 0.3 for children; Harding uses a simplified version of the before housing Henderson equivalence scale which varies with employment status as well as by household structure. A table of these scales can be found in Saunders (1993, p42). This yields a lower weight for second and subsequent adults (approximately 0.4 for each) and a lower weight for children (between 0.2 and 0.3). The ABS estimates are restricted to single family households and assign equal weight to all household members.

Despite a relatively unchanged average level of equivalised household income for the measures chosen by Johnson and Harding, there has been an increase in inequality in household incomes as a result of a growing market based inequality in incomes. This increase in inequality of earned income has been offset only partly by the tax transfer system. As seen in Table 2.1, it holds regardless of whether household or equivalised households are employed for purposes of comparison. Harding argues the net effect of these changes has resulted in “real income gains at the top and bottom of the income spectrum and losses for the middle 50 per cent of Australians.” (Harding 1997, piii).

#### *2.1.4 Factors contributing to increased income inequality*

Growing market based inequality, in turn, has been attributed to a growing earnings inequality in Australia and the phenomenon of “the disappearing middle” have been highlighted in a number of earlier studies (eg Borland and Wilkins 1996, Gregory 1993, Johnson et al 1995).<sup>15</sup> An overview of the methodological issues raised by these studies and of the results obtained can be found in EPAC (1995).

A number of labour market trends have contributed to these outcomes. These include

- increased female participation rates (with rises in female participation rates more than offsetting falls in male participation rates);
- a decline in the full time participation rate and an increase in the part time rate;
- structural changes in employment with a decline in traditional blue collar and manufacturing jobs;
- a growth in community services, and wholesale and retail trade (which are sectors where women are more likely to find employment);
- a shift to self employment;
- a marked increase in unemployment (which now rises rapidly during a recession; and falls off more slowly during the recovery phase);
- an increase in long term unemployed (more than one year); and
- an evolving industrial relations environment.

Harding argues that the new workplace environment implicit in these changes “is moving away from the concern with social protection and the ‘living wage’ that characterised the first three-quarters of this century and towards direct bargaining at the workplace level. While the evidence is not yet conclusive, many are concerned that the shift to enterprise bargaining will accelerate the trend towards greater earnings inequality and lower wages for the most lowly paid and disadvantaged.” She also reiterates a DSS observation that, as a result of these changes, “around one in five Australian employees work variable hours and do not have security of employment or leave entitlements.” (Harding 1997, p3).

## **2.2 Regional inequality in Australia**

Gregory and Hunter, in a series of influential papers (for example, Gregory 1996, Gregory and Hunter 1995, Hunter and Gregory 1996), have shown there have been distinct spatial variations in the extent of this change in household income. In their geographical analysis of income inequality based on census data, for example, Gregory and Hunter (1995) suggest a relatively mild increase in inequality at a

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<sup>15</sup> There has been some debate over terminology, with Belchamber (1996) arguing that a more accurate term would be “the vanishing bottom” in terms of where job losses have occurred. However, there is no dispute over the outcome based on individual earnings distributions.

national level disguises very strong geographic trends in inequality. They conclude there has been "a significant increase in the geographic polarisation of household income across Australia." (p4).

Their work shows that, between 1976 and 1991, the mean income of households in the top 5 per cent of census Collectors Districts increased by 23 per cent while in the lowest 5 per cent it fell by the same amount (Gregory and Hunter 1995, p5). Similar results hold if the unit of analysis is increased to postcode, statistical local area (SLA) or statistical division (SD) levels. In the early part of this time period, this increase in inequality was attributed to growing levels of unemployment. Between 1981 and 1991, however, it was due more to a marked increase in incomes in the higher status areas.

Whilst the work of Gregory and Hunter attracted much media attention on regional inequality when it first appeared, it often reinforces similar results and concerns raised in earlier studies by other authors who focussed specifically on spatial inequality within metropolitan areas rather than between them. The hypothesised causes and observed consequences of change, however, are similar regardless of whether intra-metropolitan or intra-regional inequality is examined. In some ways, studies undertaken at an intra-metropolitan level have a higher degree of spatial integrity to them than those broader based studies which focus on regions defined by specific characteristics. Examples of specific characteristics are SES or other multidimensional indicators as used by Gregory and Hunter (1995) or Walmsley and Weinand (1997) or degree of urbanisation as used by Lloyd et al (2000). Badcock (1997) provides an excellent overview of Australian studies in the 1980s and 1990s and provides a review of the theoretical approaches used to inform the outcomes. This spatial integrity arises when some attempt is made to deal with regions that are contiguous, rather than being grouped according to a common characteristic.

As an example of intra-metropolitan studies, in their study of social polarisation in Australian cities, Murphy and Watson (1994) report that work in the 1980s showed the poorer areas within metropolitan regions accumulated a disproportionate share of unemployed and lower income earners between 1971 and 1986. These areas have higher concentrations of regional manufacturing jobs and contain "a preponderance of people who lack the skills to participate effectively in the changing economy" (p583).

Baum (1997) provides significant evidence of occupational restructuring in Sydney between 1986 and 1991. Occupational restructuring was the original focus of the social polarisation debate (as articulated by Sassen 1991; Fainstein et al 1992 or Hamnett 1994, 1996). However, Baum acknowledges that the income effects may be more important (p 1888). This is consistent with Pahl (1988).

Stillwell (1989) focuses on the relationships between changes in unemployment, home ownership rates, the proportion of low income families and the proportion of high income families in different local government areas between 1981 and 1986. Based on the increased variability in the distribution of outcomes, he concludes there was greater inequality in 1986 than 1981. His analysis, however, relies on univariate data and no attempt is made to relate changes in one variable to changes in the other. Whilst his maps of Sydney provide clear indications of changes in household income, they do not provide a consistent spatial pattern of the implications of these changes. Home ownership rates, for example, increased by a considerable amount in a number of local government areas, some of which had the highest growth in low income families and some of which had the highest growth in high income families. Additional factors, such as the changing age and household composition of the families involved, are needed to explain some of the outcomes he describes.

Forster (1999) provides similar results for Adelaide and Melbourne. His work recognises the importance of changing household structures in explaining changing spatial patterns of income but, like Stilwell, his analysis is constrained by use of univariate census data as available from CDATA or the basic community profiles.

Walmsely and Weinand (1997) explicitly recognise the difficulties of relying on single indicators to provide an assessment of the extent to which there has been a spatial component to the types of inequality observed by Gregory and Hunter and others. They see spatial inequality as being potentially even more significant than income inequality, in part "because it influences how problems are tackled in the political arena, notably the mix of regional and structural policies." They rely on a multi-dimensional set of indicators to identify regions with significant proportions of people who might be in difficulty. Their key variables are proportions of people unemployed, proportions of single parent households, of frail aged, of pre-school children, of those with limited education, with no qualifications, of those with non English speaking backgrounds and private renters. These multidimensional indicators of disadvantage are asserted to "provide a broader interpretation of 'well-being' than that afforded by income measures alone." (p75) As with the simpler measures employed in some of the studies indicated above, however, their measure does not allow for interaction between changing household structures and the variables chosen for consideration.

Their measures are standardised before being converted into a single index for each of 176 regions (statistical sub-divisions) throughout Australia. These indices are derived for each of the censuses from 1976 to 1991. On the basis of their complex indicator, a number of regions (generally resource rich rural regions) showed consistent improvement throughout the period covered and a number of regions (generally rural or industrial areas) showed a persistent deterioration. Whilst they concluded that no one type of region dominates as either a 'winner' or 'loser' and that the general pattern was one of increasing differentiation between regions, they did, however, conclude that there was a clear gap within metropolitan areas and between metropolitan and remote rural Australia.

These conclusions are supported by later work undertaken by Lloyd et al (2000) who provide a comprehensive assessment of changes in regional incomes between 1991 and 1996 both within and between regions. Their results on the changing inequality within regions are based on real gross household incomes. Their results on the changing inequality between regions are based on gross household incomes equivalised using OECD scales<sup>16</sup>.

Their regional groups are based on the section of state classifications defined by the Australian Bureau of Statistics; these are capital city, other major urban areas, regional towns, rural towns and rural areas. Table 2.3 summarises average household incomes in each of these regions.

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<sup>16</sup> Based on a weighting system which assigns 1 to the first adult in the household plus 0.7 for further adults and 0.5 for each dependent child (defined as aged 0-14).

**Table 2.3: Estimated average household income (\$1996) and real income growth by region, 1991-1996**

	1991	1996	change
	\$pw	\$pw	%
capital cities	844	861	1.99
major urban areas	721	722	0.26
regional towns	658	666	1.14
rural towns	583	589	0.99
rural areas	671	694	3.35

Source: Lloyd et al (2000), Table 4

Average household income is highest in the capital cities and major urban areas and lowest in rural towns. These relativities remained unchanged between 1991 and 1996. The results in Table 2.3, however, indicate higher growth in household incomes in the capital cities (accounting for 60 per cent of the population) and in rural areas (accounting for 12 per cent of the population). Hardest hit, in relative terms, have been the major urban areas (6 per cent of the population), although average household incomes in these areas still exceed those elsewhere. Thus, the results above suggest an increased divergence in the economic well-being of households in the capital cities over those elsewhere.

The differences in growth in household income highlight several difficulties with these results. First, the data cover a relatively short time span from 1991 to 1996. This particular period chosen is one where the economy recovered from a severe recession to a peak in economic growth. Thus, growth in household income may be partly cyclical rather than reflecting a general upward trend. Also, because farm incomes are generally more volatile than those for the economy as a whole, the shorter is the period over which a comparison is made, the less robust are the results likely to be.

Major urban areas cover areas with as disparate experiences as Wollongong, Newcastle and Geelong and the Gold Coast and Townsville. The first three have been significantly affected by the decline in manufacturing industry. The latter two, in principle, should have benefited from the growth in the tourism component of the service sector but also simultaneously may have experienced a disproportionate growth of households not in the labour force. This raises a second difficulty with the results and, again, highlights the importance of taking changes in household composition into account. In fact, different patterns of demographic change as well as economic change are the two explanations Lloyd et al give for the differences in the results when these are disaggregated by state. Sydney is seen as having benefited from increasing globalisation whilst South Australia, Tasmania and regional Victoria lagged behind. These results are shown in Table 2.4.

**Table 2.4: Estimated average household income by state and region, (\$1996), 1996**

	capital cities	major urban areas	regional towns	rural towns	rural areas	all regions
	\$pw	\$pw	\$pw	\$pw	\$pw	\$pw
New South Wales	942	732	641	584	678	837
Victoria	855	673	619	550	706	795
Queensland	806	725	710	609	691	749
South Australia	712		603	552	691	690
Western Australia	811		809	659	752	804
Tasmania	700		617	591	646	655
Northern Territory	1016		1005	753	747	966
Australian Capital Territory	1052				721	1052

Source: Lloyd et al (2000), Table 4

As Lloyd et al point out, the pattern of a higher income in the metropolitan areas than in other urban and rural areas holds for all states, but the degree of inequality between metropolitan areas and other areas varies significantly between states.

Within each of their 5 regions in each of the states, there has been a similar 'hollowing out' of the middle as observed in earlier national studies. Lloyd et al restrict their analysis to four income groups - low, lower middle, upper middle and high - rather than the more commonly used quintiles. Consistent with the averages reported in Table 2.3 and Table 2.4, their results show a predominance of households with upper middle incomes in the capital cities and a predominance of lower middle income households elsewhere. In all regions in each state, however, there was an increase of the proportion of households with low incomes and an increase in the proportion of households with high incomes although this was more pronounced in some regions than others. In other words, between 1991 and 1996 there was an increase in inequality within each region as well as between regions.

In the final stage in their analysis, they undertake an exercise similar to that reported by Gregory and Hunter by examining the increase in spatial inequality between regions between 1981, 1991 and 1996. Gregory and Hunter examined changes in mean income in regions ranked by their socio-economic status as defined by the ABS urban and rural indexes of relative advantage. Lloyd et al rely solely on equivalised income as a means of ranking regions and limit their analysis to local government areas. They showed that an increasing share of growth in income between 1986 and 1996 went to households in the most affluent LGAs; this trend was more pronounced from 1986 to 1991 than it was from 1991 to 1996. On their calculations, (equivalised) household income in the top 5 per cent of LGAs increased by 7.9 per cent between 1986 and 1996. On the other hand, average household income in the 5 per cent of LGAs that were the least affluent, fell by 5 per cent.

This trend is consistent with that observed earlier by Gregory and Hunter (1995) whose analysis was based on unequivalised household income data from 1976 to 1991. This analysis was based on data at a collector district level. It was extended to statistical local areas (similar in size to LGAs) and to statistical divisions in their 1996 work with similar results (Hunter and Gregory 1996).

Gregory and Hunter (1996, p180), however, suggest that whilst regional inequality has increased, it makes only a small contribution to overall inequality, estimating that regional inequality contributes only 10 per cent to total income inequality. In their view, its importance is seen in the impact it has on social stratification through social or spatial polarisation.

## **2.3 Factors affecting regional inequality**

As indicated above, a number of factors have been identified as contributing to increasing spatial inequality. The first is spatial variation in the way in which demographic change and changes in household structure have taken place. The extent to which the results described in section 2.2 can be attributed to differential changes in household composition in the different regions being analysed will be addressed explicitly in the research to be undertaken in the next stage of this project.

Notwithstanding the obvious effects of changing demographic and social structures, however, there is sufficient evidence from research already undertaken to suggest that additional factors are also relevant. This is evident from the results of those studies that have focussed on spatial outcomes for particular household types (for example, Burbidge and Winter 1996) or that have adjusted for household composition (for example, the LGA level analysis undertaken by Lloyd et al 2000).

Gregory and Hunter (1995, p20-21), for example, attribute their results in part to changing household composition with an increase in, and increasing concentration of, single parent households in the poorest regions. However, they point to at least three further possible causes for growing inequality:

- economic restructuring and structural adjustment (and particularly the decline in manufacturing industry) resulting in very significant increases in localised unemployment and a spatial mismatch between the location of the population and the location of jobs;
- a shift in the demand for labour away from unskilled to skilled and educated workers; and
- a decline in the overall number of jobs being created with the result that the least skilled, who tend to live in the more disadvantaged areas, miss out.

Murphy and Watson (1994, p583) raise the possibility that these people are migrating disproportionately to the metropolitan fringe and to high amenity coastal areas to obtain lower cost housing. The penalty for this, however, is seen as further reduced access to jobs.

Burbidge and Winter (1996) explicitly relate trends in social and spatial inequality to housing policy and show that the location of public housing is an important factor contributing to the concentration of low income households in Sydney and Melbourne. In an attempt to recognise the importance of taking household composition into account, their analysis is limited to two parent families with dependent children. As such, of course, it ignores the impact of the increasing proportion of single adult households and households with no children.

Fincher and Wulff (1998, p144-145) place a broader focus on housing as a factor contributing to spatial polarisation in their study on households in poverty. They build on the work initiated by the Henderson report in the 1970s, arguing that that report, along with the associated commissioned studies, identified a number of factors that contributed to the spatial concentration of poverty; these included

- high housing costs, particularly in gentrifying locations
- limited employment opportunities in some locations (leading to joblessness and/or underemployment)
- lack of public and private services and facilities (particularly transport)

In line with Henderson, they viewed location as a factor that contributed to disadvantage.

*"Those unable to afford high housing costs or private transportation to work or services, and those unable to convert assets into income (such as farmers - added) could be rendered poorer because of characteristics of their localities." (p 149)*

Along with numerous others, they point to a number of significant social and economic trends that have contributed to uneven spatial outcomes. These include (p150)

- globalisation (which has led to adverse consequences for workers in less competitive world markets)
- economic restructuring (which has resulted in changing patterns of employment)
- counter-urbanisation (which began in 1981 and is attributed both to lifestyle choices and to an attempt to reduce housing and living costs)
- spatial divergence (which can arise when there is a disparity between population and employment growth. This is likely to be exacerbated by a continued convergence of investment in Sydney and Melbourne and internal migration away from these cities)
- economic rationalism (which has resulted in an increased reliance on a user pays approach and has led to the closing of public facilities in rural and regional Australia)

Within the capital cities, they see the process of spatial polarisation being driven by housing market outcomes with the fringe suburbs being seen as the only realistic option for aspiring owner occupants.

Stilwell (1989, p12-13) pointed to increasing spatial inequality between local government areas in Sydney in the 1980s, which he attributed to structural change and resultant changes in labour and housing markets. In his view "patterns of urban inequality reflect the distribution of winners and losers from the structural changes. And the very existence of the house price inequalities tends to reinforce the spatial segregation, in that, while winners can compete for the residential prizes, the losers from structural changes are increasingly banished to the localities where house prices remain just within reach. Thus, the changing conditions in labour and housing markets interact to reinforce spatial inequality."

Gregory and Hunter (1996) also suggest that regional inequality is "an outcome of contemporaneous increase in dispersion of rent and reduction in regulation in the housing market."

Gregory and Sheehan (1998) relate increasing inequality to the rising level and duration of unemployment from the early 1970s to 1996. They revisit reports of hidden unemployment amongst both males and females in participation rates and of declining full time employment and rapidly rising part time employment. They point to a 73.5 per cent increase in the number of families with dependent children with no parent employed and a 51.1 per cent increase in families with two parents employed between 1979 and 1995. This, they suggest, has contributed to the polarisation of family incomes. They argue that falling incomes in areas of low socio-economic

status and rising incomes in high status areas "is at odds with the belief that workers are mobile between occupations, jobs, industries and job locations." (p125). Issues associated with labour mobility will be returned to in section 4.

### 2.3.1 Summary

Two broad themes can be drawn out of these explanations: there are a range of factors that can be taken as exogenous to the observed outcomes and there are factors that may contribute to a cumulative process of spatial inequality. Many of the factors outlined above fall into the first category. Clear examples are the impact of globalisation and economic restructuring on household incomes and on regional inequality. It is, however, those in the second category that potentially are of more interest and are the major concern of this paper.

Gregory (1996, p20), for example, raises the possibility that the existence of growing spatial inequality might, in itself, "contribute to the *persistence* of joblessness and to the *growth* of inequality over and above any initial shock that increases urban inequality."

Gregory (1996) expresses a concern that such spatial inequality may have within it the seeds of a cumulative process. He suggests that the

*"[s]ignificant pattern indicates that the forces making for increased income inequality across households exert a strong and systematic neighbourhood effect. These forces have either impacted upon individuals according to the neighbourhood in which they live and/or there is a geographic sorting process at work so that households which lose income are moving to poor neighbourhoods and households which gain income are moving to high income neighbourhoods."*

A similar concern is expressed by Latham (1996)

*"High incomes bring with them access to high cost housing areas and also a high propensity for outsourcing household consumption. In this fashion, high skill locations enjoy a virtuous cycle of high income, high consumption and high employment. By contrast, low skill areas are locked into a cycle of low consumption and low employment. Successful individuals usually move out of these areas while new, poorly skilled residents move in, producing a churning effect."*

These concerns will be returned to in chapter 4 below.

## CHAPTER 3. WHY HOME OWNERSHIP MATTERS

As indicated in the previous chapter, numerous authors have highlighted housing in general and home ownership status in particular as being a factor that contributes to and reflects the income polarisation observed at both a national and a regional level in Australia.

Related concerns have emerged over the past decade in the international literature with increasing recognition of the social implications of inequality and of the potential that these social factors have to interact with other factors to reinforce economic inequality. In Australia they are reflected in much of the social capital literature.

This chapter examines three aspects of the literature that has contributed to these concerns. The first section focuses on that which is directly concerned with the possibility of social interactions between inequality and home ownership that may reinforce existing structural income inequalities. The second section highlights some of the factors that affect the economic advantages that flow from home ownership. The third section examines the interaction between home ownership and the welfare state and raises some of the issues associated with the changing role of the welfare state in the past few decades. A fourth theme in the literature returns to earlier concerns that interactions between inequality and home ownership may reinforce existing structural income inequalities. This will be considered in section 3.4 below along with explicitly spatial issues. In section 3.4 economic interactions and the possibility that housing and labour market together may combine to reinforce existing structural inequalities will be examined.

Because relatively few of the issues raised in this literature have been examined in the Australian context, as always, care must be taken in assuming that issues relevant in one country necessarily follow in another.

### 3.1 Externalities associated with home ownership

The Russell Sage Foundation in the US recently launched a new research initiative under the rubric "Social Dimensions of Inequality". One of the aims of this project is to demonstrate how different types of inequality are interlinked. As stated in the introduction to their research program (Russell Sage Foundation 2001)

*"..income distribution does not tell us all we need to know about inequality .. Inequality has social, as well as economic dimensions. Those who have fallen behind in the labour market may have lost ground on other fronts, such as housing, health care, education, access to credit and access to the law. These social dimensions of inequality may be the consequences of economic inequality, or the causes - unequal access to housing may be one consequence of economic inequality, while educational inequality may be a cause. .."*

*"The recent bout of income inequality, brought about by a restructuring economy, may dissipate as the economy resettles. But it may also become entrenched through the social changes that come in its wake. Those losing out economically may also suffer cumulative social disadvantages that are difficult to reverse. The fear is that economic divisions may harden into social divisions, hampering economic mobility and passing on today's inequities to the next generation."*

Somewhat earlier, the MacArthur Foundation initiated a Network on Economic Inequality and Social Interactions that, likewise, was based on what they call a "memberships theory of inequality". This theory suggests that "the causal determinants of disparity may be found in the social interactions that an individual experiences over the course of his or her life" (MacArthur Foundation, 2001). They highlight three basic features that may contribute to this. These are, first,

- individual preferences, beliefs and opportunities which they believe are strongly influenced by one's membership in various groups and are likely to be affected by a number of factors of which geographic location is one which is highlighted; second,
- interaction effects within groups which result in group influences generating similar outcomes among members of the group and, finally,
- social stratification by income and other factors which leads to differences between groups and which "result in greater inequality at a point in time, as well as decreased social mobility over time."

In their view, "altering group memberships may be an essential part of efforts to achieve greater equality of opportunity. Operationally, this perspective suggests that policies such as affirmative action and the de-concentration of public housing may advance access to opportunities in ways not previously recognised."

Galster and Killen (1995) develop both a heuristic and formal model to show how process (defined as factors operating on personal attributes and converting these to outcomes) interacts with prospect (defined as the opportunity set or factors that influence outcome). Their conceptual framework depends on individual decisions (which are affected by their values, aspirations, preferences, endowments and past choices), on the opportunity structure (which is affected by the connections between housing and mortgage markets) and on information and perceptions (affected by local social networks). It is reinforced by a dynamic interaction between all of these factors so that current outcomes are affected by past decisions, opportunities and information available. Geography has an impact via spatial variations in opportunity structure and housing has an impact because of a segregation of dwellings by price and the resultant spatial polarisation of households.

Hoff and Sen (2000) explicitly relate social interaction concerns to home ownership by developing a model that shows how home ownership combined with community wide interaction effects can result in tenure polarisation. This arises from market failures in relation to imperfect capital markets constraining would be home owners and coordination failures preventing communities from reaching optimal outcomes. Their argument focuses specifically on the consequences of local externalities generated from home ownership. In their view, the quality of a home and its future market value are higher when it is in a community where neighbors expend high effort (a *spillover effect*); and for an individual household, the marginal returns to effort are higher when neighbors expend high effort (a *complementarity effect*).

*"Every household desires to own its home because it realizes that then it will obtain a greater return on any effort it makes to improve its home and community (since it can "capitalize" the gains from these investments). However, because of capital market imperfections, a household can afford to buy its home only if its income is above a threshold. So the richer households buy their homes and expend more effort in improving their homes and communities that do the poorer households, who rent. It is in these effort choices that there exist community-wide "interaction effects." (p2)*

Their analysis focuses explicitly on three interaction effects:

- complementarities in home maintenance effort. Whilst they recognise there are identification problems in inferring externalities from geographic association, they suggest there is robust evidence to support the claims that home owners will intensify their own investment behaviour if they perceive the quality of their area improving.
- complementarities in social control by residents. This relates to activities such as reporting criminal activity. The risks of these activities are seen to decrease as the numbers of others who are prepared to undertake such risks.
- complementarities among citizen's efforts to monitor and obtain services from government. As more people are informed about and monitor government actions, the more responsive is government to the electorate. They claim there are sufficient research results to suggest that the "market" recognises the presence of such neighbourhood interaction effects."

They claim their analysis provides considerable support for the current US initiatives on expanding home ownership opportunities for low income households and for the "moving to opportunity" (MTO) demonstration program which involves moving families from least desirable housing estates to what are seen as safer neighbourhoods.<sup>17</sup> Home ownership is seen as a way of breaking out of a 'vicious circle' "where neighbourhoods do not function because individuals lack incentives to take efficient actions in the community and governments do not perform well because the electorate does not provide incentives for government responsiveness " (p31).

There is a considerable UK based literature on the first of the effects identified by Hoff and Sen. An overview of some of this can be found in Munro and Leather (2000). They conclude from a series of interviews that, whilst owners are more likely to undertake repairs than tenants, they are still likely to under-maintain their dwellings because maintenance decisions are driven by consumption rather than investment priorities.

DiPasquale and Glaeser (1999) provide evidence from both US and German social surveys that lends support both to the argument that home owners undertake greater investment in local amenities and social capital than do renters and to the argument that the relationship is causal. Their evidence, however, suggests that much of this effect can be attributed to the barriers to mobility created by home ownership. Home owners are regarded as being "relatively less mobile because of high transactions costs in the real estate market and low levels of mobility predict high levels of social capital. Homeownership also creates incentives to invest in the particular forms of social capital that are complementary to residential capital, like neighbourhood watch or civic associations." (Glaeser et al 2001:p23)

Glaeser et al (2001) build on this work by developing what they define as an "economic approach" approach to social capital, in which individual social capital enables owners "to reap market and non-market returns from interactions with others." Their approach to theorizing about how social capital is formed makes numerous predictions that are supported by the data. Amongst these is the fact that home ownership reduces mobility and therefore raises investment in neighbourhood specific capital which, broadly speaking, is interpreted as membership of organizations and establishment of networks. Social capital is seen to correlate strongly with home ownership.

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<sup>17</sup> Background information on the MTO project can be obtained from the US Department of Housing and Urban Development's site (<http://www.huduser.org/publications/affhsg/choices.html>) or from a Princeton University site dedicated to research on this program (<http://www.wws.princeton.edu/~kling/mto/background.htm>).

Similar arguments have been presented in Australia by Troy (1991) who relied on literature from the 1930s to support his claims.

Prior to this focus on the social interaction effects of home ownership, work on the externalities associated with home ownership focused more on the benefits within the household. Green and White (1997), for example, have suggested that children of home owners stay in school longer than children of renters and that this relationship is particularly important for low income households. Boehm and Schlottman (1999) use US panel data to examine the impact of housing on children's productivity. After controlling for factors that are generally regarded as affecting education and earnings, they reach a similar conclusion. The average child of home owners is shown to achieve a significantly higher level of education and, thereby, a higher level of earnings than that of non-home owners. Parent's housing tenure is also shown to have a significant impact on the child's tenure decision.

Aaronsen (1999), however, suggests that many of the beneficial effects on children can be explained by the residential stability associated with home ownership rather than home ownership per se.

Issues associated with home ownership and mobility will be addressed in more detail in chapter 4.

These attempts to identify factors that contribute to cumulative social disadvantage point to a number of reasons why home ownership might be important. Home owners are seen as contributing more both to social capital (through their involvement in the local community) and to neighbourhood quality (through their investment in their own dwellings). Each of these has an interactive and hence cumulative effect that serves to reinforce the initial advantages enjoyed by home owners. They are reinforced as the benefits of the stability provided by home ownership are passed through from one generation to the next.

### **3.2 Other benefits associated with home ownership**

Much of the recent US related research on the benefits of home ownership reviewed above has arisen in response to the National Homeownership Strategy announced by President Clinton in June 1995. This, in turn, arose partly as a reaction to the declines in home ownership that had been observed in the US during the 1980s. These declines were most severe amongst segments of the population who, traditionally, have been the most marginal of first home buyers. Whilst the aggregate home ownership rate in the US declined from 65.6 per cent in 1980 to 64.1 per cent in 1991, the home ownership rate for low income families fell from 39 per cent to 27 per cent over the same period. Even for moderate income households, it dropped by 10 percentage points. What was of particular concern, as well, was the decline in home ownership amongst families under age 35. In 1980, almost 45 per cent of families in this age cohort were home owners. By 1991, less than 38 per cent were. (US HUD 1995)

Similar outcomes have been observed in Australia. Yates (2000), for example, showed that whilst the national home ownership rate in Australia was relatively stable in the two decades to the mid 1990s, the home ownership rate for households aged 30 to 34 fell by 13 percentage points from 68.8 per cent to 55.2 per cent. Over the same period, that for households aged 35-44 fell from 74.4 per cent to 70.3 per cent. As in the US, this decline was most severe for low and low to moderate income households with dependent children.

The US home ownership strategy in the mid 1990s addressed this decline in home ownership. It was based on what the Department of Housing and Urban Development's Office of Policy Development and Research in an Urban Policy Brief (US HUD 1995) has described as four fundamental benefits associated with owning a home:

- Through homeownership, a family...invests in an asset that can grow in value and...generate financial security.
- Homeownership enables people to have greater control and exercise more responsibility over their living environment.
- Homeownership helps stabilize neighborhoods and strengthen communities.
- Homeownership helps generate jobs and stimulate economic growth.

The literature reviewed in section 3.1 reflects some of the first attempts to test the second and third propositions from this list which, whilst often asserted, had seldom been tested.

This section reviews some of the more well established research concerning the first of these propositions that has contributed to concerns about declines in home ownership and to any associated cumulative advantage and disadvantage.

There is widespread evidence, for example, that homeownership has been a key source of financial benefit. As Rossi and Weber (1996) argue, most of the past research on the benefits of home ownership has focussed on the economic benefits associated with it. This research indicates some consensus on two major benefits: the preferential tax treatment of homeownership and the possibility of wealth accumulation. As Rossi and Weber argue,

*"Whether to own or to rent a home is a matter of choice. However, it is a choice that is heavily constrained. On the demand side, the constraints are household financial resources, and income prospects, as well as the locational needs of household members and the amount of housing required. On the supply side, the major constraint arise from the differences in the housing offered on the rental and ownership markets... These constraints.. effectively reduce choices for households. Some households cannot enter the home ownership market because of low wealth or income or because of locational needs." (p3)*

In Australia, home owners do not pay tax on the imputed income derived from the equity in their home. By the same token, however, they are also unable to deduct their interest costs. Thus this aspect of the tax system benefits those with high equity in their housing and those with high marginal tax rates. For low income households with low equity holdings, renting may well be more cost effective for a number of years. Neutze (1984) provides a formal analysis of these outcomes under restrictive and aspatial assumptions concerning housing market behaviour.

Home ownership, however, does act as a form of forced saving and those who undertake it ultimately are more likely than not to end up with a valuable asset. In 2000, dwelling assets were valued at more than \$1500b. (Commonwealth of Australia, 2001a). Their share in total net private sector wealth in Australia has increased from 45.7 per cent in 1960 to 52.7 per cent in 1997 (Bacon 1998) and 53 per cent in 2000 (Commonwealth of Australia, 2001a). Baekgaard (1998) estimates that owner-occupied housing accounted for 90 per cent of this net housing wealth in 1993.

Kelly (2000) has used the NATSEM dynamic simulation model to predict current and future housing wealth from data generated from census data and income surveys from 1986 and 1997. Before reporting his results, one important cautionary point concerning the use of his data should be made. His results are estimates based on home ownership propensities as at 1997. Whilst they do adjust for structural changes in the socio-economic and demographic characteristics of households, they cannot adjust for changing ownership propensities over time. Nonetheless, they serve to highlight the enormous significance of housing wealth in Australia.

Kelly's results suggest that the average dwelling in Australia is likely to increase in value from \$100,000 in 1986 (in \$1986) to \$350,000 by 2026 (in \$2026). His data show that aggregate housing wealth in Australia grew from \$354b in 1986 (in \$1986) to \$1250b in 2000 (in \$1997) and he estimates it will increase to \$2450b by 2026 (in \$2026)<sup>18</sup>. In real terms (\$1996) this represents a three fold increase in real housing wealth from \$561b in 1986 to \$1406b in 2026 with a commensurate increase in the real average value of dwellings from \$148,000 in 1986 (\$1996) to \$182,000 in 1997 to \$212,000 in 2026.

By contrast, the average housing loan is predicted to increase from just \$11,500 in 1986 to \$200,000 in 2026. The real value of housing debt is estimated to increase even more rapidly from \$68b in 1986 to \$790b in 2026 (all in \$1996) with total outstanding loans to increase from \$43b in 1986 to \$1,376b in 2026.

His simulation about house prices are based on ABS capital city house price data. These data alone are sufficient to show that not all owner-occupier households will benefit equally from this growth in house prices. Between 1986 and 1999, for example, real house prices, on average, grew from a high of 4.6 per cent in Sydney to a low of -1.1 per cent in Adelaide. These averages also conceal some considerable variation over time.

The changing fortunes of home owners over time and the sensitivity of the returns to home ownership to the time of purchase have been analysed in detail by a number of authors. As Burbidge (2000) and, earlier, Maher (1994) and Badcock (1994) have shown, there are significant disparities in the capital gains associated with housing within the major cities as well as between them. Maher (1994, p24) argues these marked spatial differentials in price change create inequities in a number of areas and that price differentials within cities are creating more unequal cities through forcing the less well off to more inaccessible locations. These conclusions were derived from results based initially on data from an 8 region classification of Melbourne and repeated at a local government area level.

Burbidge (2000) uses data from 4 local government areas in Melbourne and the same number in Sydney to draw similar conclusions concerning the impact of gains from home ownership. He claims that the benefits of home ownership have increased existing differences in income and wealth and have thus helped to create a more unequal society.

These studies followed and reinforced similar work undertaken by Badcock (1994) whose study was based in Adelaide, which was one of the cities where average dwelling prices fell rather than increased from the mid 1980s to 1999. Badcock tracked the housing histories of owners who sold at the peak of the late 1980s property cycle. His results highlighted the impact that the timing of entry into home ownership as well as the location of the dwelling had a significant impact on the returns to home ownership. They were sufficiently clear for him to retract his earlier agnosticism about the impact of housing wealth. "Taking owner-occupation as a

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<sup>18</sup> Actual CPI is used for data to 1999; an inflation rate of 2 per cent per annum from 1999 is assumed.

whole, there are reasonable grounds for believing that in Australia, especially during this period of labour market restructuring, housing wealth is being progressively concentrated amongst those households with the greatest opportunities for career advancement." (p625)

Similar conclusions also have been drawn in studies of countries which have a similar focus on home ownership in their housing policies. In their brief on the benefits of home ownership, the Office of Policy Development and Research (US HUD 1995) recognised that the question of whether the value of owner-occupied housing increased or decreased can be affected by a number of external factors. Despite this, they argued that "homeownership has become a critical factor in moving up the economic ladder. Home equity is the largest single source of household wealth for most Americans. Median net wealth for homeowners exceeds \$78,400, while renters accumulate less than \$2,300, or 3 percent of this amount. For homeowners, almost 60 percent of their wealth is in the form of home equity. For minority homeowners, home equity is an even more important component of wealth, representing more than three-fourths of their median net wealth of approximately \$48,300, almost 100 times the median wealth of the average black renter (barely \$500). For owners in the lowest income brackets as well, equity in single-family homes constitutes more than half their wealth." (p2) In their US based study, for example, Rossi and Weber (1996) report that home owners tend to have higher incomes (and more earners) than do renters. Consistent with this, they also have higher savings and, maybe not surprising, higher debts. This is explained by owning households being more affluent, so that their better finances allow them to go further into debt. Renters, on the other hand, are more likely to have education loans and overdue bills.

Several authors from the UK, however, whilst not questioning the benefits that home ownership has for high income high wealth households, have questioned any underlying perception that home ownership benefits all. In studies that are consistent with the Australian results indicated above, Maclennan et al (1997) and Ford and Wilcox (1998), for example, have pointed to the difficulties faced by marginal home purchasers. Many of these were encouraged into home ownership in the UK through the deep subsidies provided through the right to buy policies of the 1980s. However, problems arose for many when an economic downturn resulted in widespread decreases in housing prices and significant negative equity for numerous households. Many of these marginal purchasers bought into declining regions or into locations where capital losses were highly likely, even at the point of sale. Before this work Forrest et al (1990) cautioned against assuming that home ownership automatically conferred benefits on all those who undertook it and Doling et al (1988) expressed concern about growing indebtedness.

This brief overview of issues surrounding the financial benefits associated with home ownership has ignored one key factor that has been a critical issue in the examination of housing policy. Namely, the financial benefit that outright owners derive from lower housing costs and/or higher living standards in retirement compared with older households who have not benefited from the wealth accumulation associated with home ownership.

### **3.3 Home ownership and the welfare state**

Numerous studies in Australia have pointed to the extent to which living standards are affected by housing costs which, in turn, are affected by housing tenure. Some of the earliest work on poverty highlighted the role of home ownership in alleviating poverty after housing costs. Bradbury et al (1986) provide an early example of this. A detailed discussion of some of the issues can be found in Karmel (1998). King (1998) provides an update of measures first generated for the Henderson Report in the

1970s. He shows a rise in before and after housing poverty between 1973 and 1996 but argues that lower after housing than before housing poverty suggests more households are raised out of poverty by low housing costs than pushed into it by high housing costs. One of the major reasons for this is high outright ownership amongst older low income households. Work by Landt (1998), Landt and Bray (1997) and Percival (1998) supports this.

Yates (2000) documented the high and increasing proportion of older households who were home owners between 1975 and 1994, showing that, by 1994, more than 82 per cent of households with a head aged over 65 were home owners. Percival (1998) shows that the vast majority (over 90 per cent) of these are outright owners and that the highest rates of outright ownership occur amongst households in the lowest income groups (as a result of the interaction of age and income effects). He also shows how outright ownership has protected lower income home owners, most of whom are older home owners, from significant declines in after housing income between 1975 and 1997. His results are shown in Table 3.1 below.

As can be seen from Table 3.1, after housing (equivalent household disposable) income fell for all tenure types other than for owners and for all income groups other than for owners in the lowest income quintile. King et al (1999) highlight the importance of home ownership for retired households and shows the relative uniformity of home ownership rates across the income spectrum for retired households.

The protection that home ownership provides for households in retirement is consistent with the argument that home ownership along with occupational superannuation has been seen as a "cornerstone of the welfare state" (Winter and Stone 1998, p3). This argument has been forcefully put by Castles in a number of sources (Castles 1985, 1997, 1998).

*"Home ownership.. is very like the growth of pension income entitlements, in storing resources that come on stream later in the life-cycle. .. To the degree that home ownership and the welfare state can be shown to have quite similar outcomes for a very significant part of the electorate, it might well be argued that a major aspect of post-war politics .. has been a .. politics of old-age security.."*  
(Castles, 1998, p6-7)

From the outset, owner-occupied housing has been at least partially excluded from the means test and, from 1912, wholly excluded. Even in official Treasury documents, this is acknowledged as having contributed to keeping age pensioners above the poverty line (Commonwealth of Australia 2001b).

**Table 3.1: Average after housing equivalent household disposable income (\$1997), by disposable income quintile and tenure type**

	1975-76	1988-89	1993-94	1997est	change 75-93	change 75-88	change 75-97
	\$pw	\$pw	\$pw	\$pw	%	%	%
<b>Owner</b>							
Q1	149	143	140	184	-6.0	-4.2	23.5
Q2	297	245	235	234	-20.9	-21.2	-21.2
Q3	422	343	328	341	-22.3	-23.0	-19.2
Q4	530	444	457	465	-13.8	-19.4	-12.3
Q5	804	753	736	764	-8.5	-6.8	-5.0
all owners	374	359	352	368	-5.9	-4.2	-1.6
<b>Purchaser</b>							
Q1	96	50	53	82	-44.8	-92.0	-14.6
Q2	232	174	154	169	-33.6	-33.3	-27.2
Q3	324	245	237	237	-26.9	-32.2	-26.9
Q4	454	348	327	328	-28.0	-30.5	-27.8
Q5	710	555	568	572	-20.0	-27.9	-19.4
all purchasers	440	340	350	364	-20.5	-29.4	-17.3
<b>Private renter</b>							
Q1	112	71	75	101	-33.0	-57.7	-9.8
Q2	277	211	187	180	-32.5	-31.3	-35.0
Q3	351	308	284	284	-19.1	-14.0	-19.1
Q4	528	416	400	408	-24.2	-26.9	-22.7
Q5	768	628	625	619	-18.6	-22.3	-19.4
all private renters	409	318	299	309	-26.9	-28.6	-24.4
<b>All tenures</b>	400	336	329	340	-17.8	-19.0	-15.0

Source: Percival (1998), Table 14 (first three columns based on ABS HES surveys, 1997 generated by microsimulation techniques from 1993-94 survey)

Murphy and Watson (1994) rely on Castles' work to argue that until recently in Australia the welfare state has largely been seen as a safety net.

*"The emphasis in Australia historically was on providing full employment for its workers through industry protection rather than bolstering those out of work. This has led to a relatively impoverished welfare and non-government voluntary sector. Similarly, home ownership was considered the right and preference of all citizens, and therefore large levels of subsidy have bolstered this sector, and assisted households into this sector rather than providing low rental accommodation as an alternative."* (p587)

From a similar base, Winter and Stone (1998) also argue that

*"the Australian emphasis on payment of a 'living wage' carried with it the responsibility to save to provide for oneself in old age. The age pension has always been set at a modest rate and claimants have been income and asset tested. So the key way Australians have managed to save for retirement is through purchasing owner occupied housing. The process of home purchase enables forced savings to accumulate as the asset value of the house transfers to the owner occupier through mortgage repayments..."* (p4)

With the changes to retirement incomes policy which began in the 1980s and the move to compulsory superannuation in the early 1990s, the question of the future role of home ownership in contributing to retirement incomes remains uncertain. The focus of some of the early retirement income modelling undertaken within Treasury, for example, was on financial saving. Whilst it was recognised that most assets were held in the form of housing, housing was not seen as providing a retirement income (Gallagher and Preston, 1993).

However, concerns have been expressed that younger households may substitute compulsory superannuation savings for forced home ownership savings and, thereby, diminish the effectiveness of the former (eg REIA 1996). If this were to occur, the assumptions made by the Treasury's Retirement income Modelling Taskforce in their projections of income needed for retirement would be rendered invalid. These issues led the Senate Select Committee on Superannuation (1994) to recommend that contributions to superannuation be available as a 'circuit breaker' to assist into home ownership those who might otherwise be excluded. (p79)

The suggestion that households may be assisted into home ownership was made in recognition of the contribution that home ownership made to living standards after retirement. The argument that home ownership might be seen as a substitute for the social welfare expenditure has been argued elsewhere. Castles (1998), for example, finds that home ownership rates in OECD countries are inversely correlated with government expenditures in a variety of categories and particularly those that might be classified as social insurance. From this, he suggests that home ownership might act as a form of private insurance in lieu of public welfare.

Conley (2000) suggests that this correlation may be spurious, as income inequality is not controlled for. His own work, based on a cross section macro-analysis of predominantly OECD countries, shows there is a negative correlation between home ownership and economic inequality. Thus, low social expenditures might arise from low inequality rather than being associated with high home ownership rates. In his view, the causal direction between these relationships is not clear.

Kemeny (1992), however, has argued that widespread home ownership acts as a deterrent to generous welfare payments because "housing costs absorb such a high proportion of the household budget that it will generate resistance to collective arrangements in other areas". (p121-2)

Not all of the implications of these studies are clear. However, they do raise a number of issues about the contribution that home ownership makes to alleviating poverty in old age. Conley (2000) suggests that the goal of home ownership

*"may work at odds with desire of governments to provide traditional forms of social insurance and/or income support. On the other hand, interventions into the housing market can perhaps be seen as viable alternatives to traditional income-based approaches. When the welfare state is viewed through this wider lens, we may come to the paradoxical conclusions. For example, someone could argue that the Thatcher policy of housing privatization was one of the more progressive welfare state programs in Britain's recent history."* (p22)

This notwithstanding, he concludes with the observation that, once home ownership is taken into account, poverty rates of high home ownership countries are considerably reduced. "..While home ownership may smooth out consumption over the lifecycle - easing housing costs in old age, for example - those who do not own are left even further behind." (p23)

Winter and Stone (1999) concur.

*"If fewer households are able to enter home ownership, then fewer households will be able to redistribute their income through to their retirement years. In this scenario long-term horizontal redistribution - that is, the level of equality for individuals across the life-course - would be negatively affected, in turn impacting upon vertical redistribution, the level of equality between individuals at any point in time. The latter would emerge as a larger group of older people rendered poorer by not having access to the benefits of home ownership." (p62)*

Home ownership might be seen as a complement to, or a substitute for, the welfare state, and as emerging from or contributing to increased inequality. Regardless of which view is taken, there seems little doubt that any decline in home ownership is likely to contribute to pressures on the government to increase social expenditures to address the resultant increases in after housing poverty that ultimately are likely to be associated with lower home ownership rates.

### **3.4 Preference for home ownership**

The direct and indirect advantages of home ownership outlined above provide one explanation of why home ownership has been the tenure favoured by a vast majority of households, not just in Australia, but also elsewhere.

A considerable body of research highlights the strong preference that Australian households have for owner-occupation of detached dwellings. In her overview of research on housing and location preferences, Wulff (1993), for example, identifies this as being the predominant factor influencing housing choice. The high correlation between home ownership and detached dwellings, however, provides some limit on the extent to which the vast evidence reviewed can be used to support an underlying preference for home ownership. Wulff reports that the results of the 1977 Inquiry into Housing Costs, which explicitly considered the trade-offs between tenure and dwelling types, suggest that it is a preference for a separate dwelling that is more dominant. Over 70 per cent of long term renters stated they would prefer to continue to rent rather than compromise their current (detached) dwelling choice. It is recognition of this that underpins Troy's critique of urban consolidation policies (Troy 1996).

Many of these housing preference studies were undertaken before the significant increase in the proportion of medium density housing in the major metropolitan cities of Australia. Yates (2001), however, has suggested that medium density housing, in fact, has assisted households into home ownership and that a preference for home ownership has dominated the choice of younger households in the two largest cities in Australia. This does not deny a preference for a detached dwelling over a medium density dwelling. It merely reflects the affordability constraints that the former impose on many younger Australian households.

Recent work by Yates (2000) and Mudd et al (1999) has suggested that much of the decline in home ownership for younger households can be attributed to changing socio-economic structures of these households. However, both studies suggest that there is some component of a preference change embodied in observed outcomes. More recent work by Yates (2001) suggests that preference change, at least in the major metropolitan cities, is likely to be limited primarily to younger, more affluent households. The life-style choices made by such households, who are relatively unconstrained in their housing choices, may simply reflect a deferral of home purchase. For less affluent households, a decline in home ownership represents a constraint.

Changing household structures and changing work patterns, along with recent evidence of declines in home ownership, have led to some of the earlier conclusions regarding housing preferences being questioned. As an AHURI research project, the University of Queensland and QUT are currently undertaking an update of this work, which will provide some new insights into this. Their study is about housing aspirations and preferences among Australian households and their focus is on the ways in which these reflect the changing nature of Australian society. A companion study being undertaken by the Australian National University Research Centre is to examine the utility of housing aspirations of Australians through a longitudinal study of aspirations and outcomes.

From her literature review, Wulff (1993) identifies a number of reasons why home ownership is important to people. Many of these relate to investment and to the financial security that home ownership is seen to provide. For some, the benefits to their children, both in terms of the security home ownership provided and in its inheritable value were important. This reflects some of the issues discussed in section 3.2 above. Other factors, such as privacy and stability, reflected a psychological rather than material interpretation of the importance of home ownership to those who sought it. The AHURI research to be undertaken will provide some insight into the aspects of tenure that are currently seen as important by Australian households.

### **3.5 Summary**

This chapter has examined a number of the factors that highlight the importance of home ownership and why home ownership matters. There are important social interaction effects or externalities associated with home ownership that add to the economic advantages associated with home ownership. These economic advantages are associated primarily with the opportunities for wealth accumulation, although a number of authors do caution against assuming that they follow automatically for all owners. For owners that do move to outright ownership, home ownership provides a contribution to increased living standards in retirement along with a significant protection against poverty.

Home ownership also is seen to have a significant interaction with the labour markets. On the one hand, it contributes to labour market inflexibility because home owners are considerably less mobile than renters. On the other hand, home owners are provided both with a buffer against unemployment and a greater incentive and ability to find a new job should they become unemployed.

As indicated, this potential interaction of housing and labour markets explicitly introduces the notion of space. Additional factors that highlight why space matters and how regional differences in housing market can impinge upon outcomes over and above those already considered are the focus of the following section.

## CHAPTER 4. WHY SPACE MATTERS

The previous chapter focussed specifically on home ownership and pointed to the possibility of a cumulative interaction between home ownership and economic disadvantage. This chapter continues this theme by considering the way in which regional variations in housing and labour markets might interact to generate a similar process of cumulative disadvantage.

The strong spatial impacts of the effects of social and economic restructuring raise a number of questions as to how the social and economic system adjusts to change but ultimately the interactions between housing and labour markets is critical. This chapter focuses first on labour mobility as a means of adjustment and then, in section 4.2, on the constraints that housing markets impose on this adjustment process. It returns to issues associated with home ownership in section 4.3.

### 4.1 Labour market issues

Regional variations in the impact of economic restructuring have resulted in regional disparities in unemployment rates and in “hot” and “cold” housing markets. Stimson et al (1998), for example, use census data for 1986 and 1996 to provide an overview of the extent to which there were spatial variations in both population and employment growth and decline. Similar issues have been covered for the US by Dieleman et al (2000). Baum et al (1999) provide a more detailed analysis of census data in Australia to identify the factors that have contributed to what they call community opportunity and vulnerability as a result of the economic restructuring that took place between 1986 and 1996. They highlight the diversity of experience within and between various regions in Australia but point to the importance of labour market engagement and household income as fundamental factors in contributing to differences between regions.<sup>19</sup>

The 1986 and 1996 censuses in Australia were each undertaken during an upturn in the economic cycle. However, Stimson et al argue that the upturn in the 1990s differed from that in the 1980s. There was less of a downturn in unemployment and there was “a sharpening of the differential regional impact of globalisation”(p71).

The Productivity Commission (1998) provide estimates of structural change in metropolitan and non-metropolitan regions in Australia between 1981 and 1996. Their structural change indexes show that non-metropolitan regions experienced both a higher degree of structural change and a higher degree of variability in that change.<sup>20</sup> Table 4.1 below shows that, by 1996, the unemployment rate for Australia as a whole was 9.2 per cent. However, for non-metropolitan regions it was 2 percentage points higher, at 10.5 per cent, than it was in metropolitan regions, at 8.5 per cent. A greater degree of structural change provides one explanation of unemployment rates that are higher in non-metropolitan areas than in metropolitan regions. Higher unemployment rates provide one explanation of the regional differences in household incomes indicated in Table 4.1 and, in more detail, in section 2 above. As can be seen in Table 4.1, in 1996 household incomes in non-

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<sup>19</sup> Their results, based on discriminant analysis of CDATE variables, also suggest that housing factors are of lesser significance, being subsumed by labour market factors. In part this outcome may arise from their reliance on the univariate census data available in their database and their consequent inability to take into account the key interaction effects that are critical to any housing analysis. This, however, does not detract from the persuasiveness of the results they have obtained.

<sup>20</sup> A structural change index measures the proportion of the workforce that would have to move into different industries to re-establish the industry employment shares that prevailed at the start of the period. Whilst the greater variability in non-metropolitan regions could be explained in part by differences in the degree of aggregation employed, this does not hold for the differences in the average values. (Productivity Commission, 1998, p24-25).

metropolitan regions were almost 25 per cent lower than household incomes in metropolitan regions.<sup>21</sup>

Labour mobility is presumed to play an important role in bringing labour market adjustment.<sup>22</sup> As argued by the Productivity Commission (1998, p43), "where the composition of growing and declining activities results in skills available in a region differing from those in demand, or where the total demand for labour within a region falls or expands, geographic mobility can be an important adjustment mechanism."

**Table 4.1: Some key characteristics of metropolitan and non-metropolitan regions in Australia, 1996**

	Non-metropolitan	Metropolitan	Australia
	%	%	%
Population growth 1981-1996	25.6	21.1	22.7
Population share	37.2	62.8	100.0
Unemployment rate	10.5	8.5	9.2
Household income (\$1996)	\$32,500	\$41,900	\$38,500

Source: Productivity Commission (1998, Table 3.1).

A recent paper by Groenewold (1997) provides an overview of factors that affect labour mobility and inter-regional migration in Australia and of the literature that has contributed to the identification of the relevant factors. He undertakes an analysis of inter-regional flows based on a framework that takes into account personal characteristics, aggregate market variables and what he calls environmental-political regional characteristics. He concludes that, in Australia at least, inter-regional equilibrating forces are slow and do not serve to equalise regional unemployment rates. The Industry Commission (1993) argue that changes in the participation rate, in fact, are considerably more important in the adjustment process than is inter-regional migration. A similar conclusion was reached by Decressin and Fatas (1995) for European labour markets. This suggests that workers leave the labour force rather than the region in response to regional downturns (and that increased participation rather than in-migration provides additional labour during upturns).

Debelle and Vickery (1998), on the other hand, suggest that inter-regional migration is important in Australia but that there are significant barriers to mobility which limit the extent of migration. These they attribute to lack of information about interstate job opportunities and to adjustment costs associated with housing. This latter point is addressed below.<sup>23</sup>

<sup>21</sup> According to the Productivity Commission, population and unemployment data differ from those published by ABS because of differences in population estimates in the data sources employed. Household income estimates are based on census data and are some 10 per cent lower than the equivalent NATSEM data that underpins results presented in Table 2.4. This may be attributable to the fact that there is a high proportion of partial and not-stated incomes in census data. NATSEM have imputed income values at a census collectors' district level. No indication of any corrections made is given in the Productivity Commission report. Inclusion of partially stated income data in the estimates above would account for a lower average value. For each table, however, the relativities between regions are unlikely to be affected materially by these source differences.

<sup>22</sup> Other adjustment mechanisms are wage adjustment, firm mobility and exit from the labour force. Debelle and Vickery provide a brief overview of some of the literature on these mechanisms. However, these are outside the concern of this paper.

<sup>23</sup> One barrier not considered is that of household structure. A household with at least one person in the workforce and one person unemployed is likely to be less mobile than a household with no persons employed.

## 4.2 Housing market issues

A number of housing market constraints have been considered to impinge upon labour mobility. There are two broad themes to this literature. The first is concerned with the factors that contribute to regional disparities in house prices and with the impact that these differentials have on household mobility. This section examines some of this literature and focuses on the ways in which these differences have been seen to contribute to growing spatial concentrations of poverty. The second broad theme is concerned with the impact that home ownership has on residential mobility and employment outcomes and, through this, on economic disadvantage. These issues are examined in section 4.3.

### 4.2.1 *Factors affecting regional house prices*

Discussion about interactions between housing and labour markets and on the ability of households to move from areas of declining employment opportunities, in general, were generated by observations of inter-regional differences in levels and rates of change in house prices. This has been a theme of both UK and US literature.

A starting point for this literature is that which deals with the determinants of house prices. Early examples for the UK can be found in Allen and Hamnett (1991) and Holmans (1990) and for the US in, for example, in Case and Shiller (1988) and Mankiw and Weil (1989). Useful overviews of later UK literature can be found in Meen (2001) and Meen and Andrew (1998a) and of later US literature in Cho (1996), Chinloy (1996) and Di Pasquale and Wheaton (1994).

This literature suggests that the fundamental factors that underpin any long run upward pressure on housing demand are income and demographic structure. The extent to which this results in an upward pressure on house prices will depend on whatever supply constraints limit the response to increased demand. Thus, as Meen (2001, p23) suggests, any tendency for regional house prices to change at different rates is due either to differences in the economic influences on prices or to differences in the way in which regional prices respond to similar changes.

Muellbauer and Murphy (1994) focus on a number of factors have contributed to regional differences in the pressures on housing markets. Amongst these are differences in income and in income inequality between regions, differences in the rate of acceleration of unemployment and differences in regional population growth compared with housing stock growth. Whenever these pressures meet with supply constraints, house prices will rise. Thus, uneven spatial impacts of economic restructuring combined with different supply constraints in different housing markets can lead to uneven impacts on regional house prices.

These pressures are strengthened by evidence of an extrapolative element in expectations so that, once house prices rise, the rise is reinforcing. This has been described as a 'frenzy effect' (Muellbauer and Murphy, 1997). Muellbauer and Murphy (1994) point to additional self-reinforcing effects from feedback through income and consumption effects. Incomes are seen to rise in response to past house price increases. They suggest this may be attributable, in part to cost of living effects, to the effect of high house prices in curtailing regional labour supply and to the fact that house prices may reflect expectations of income growth. They may also arise from the role that housing collateral plays in financing small business and through wealth effects on consumption feeding into employment and incomes through demand for locally produced goods and services. In short, booms in house prices can be shown to lead to speculative investment in housing which crowds out shelter demand and so limits the supply of affordable housing for those who might be attracted to high growth areas.

Meen (1999, 2001) adds to explanations of why regional house prices might differ by pointing to different responses in regional markets to changes in the variables that affect house prices. In particular, these can arise from differences in the structure of regional housing markets. Such differences might arise, for example, from regional differences in the availability of substitutes to owner-occupation, or from differences in the extent of gearing.

#### *4.2.2 Impact of regional differences in house prices on mobility*

Differentials in regional house prices as a result of the types of factors identified above have been seen as one of the major constraints on inter-regional labour mobility. They are not, of course, the only factors that are relevant.

Clark and Dieleman (1996) rely on international evidence to identify the most common factors affecting mobility. The most significant of these are combinations of demographic and economic variables. Demographic variables include a change in marital status (a rule of thumb is that every marriage break up creates 1.5 households); the age of the household head (by 35-40 mobility declines considerably until retirement then increases again) and whether the household head is retiring. They also include the number of pre-school children (the propensity to move increases as space requirements rise) and the number of children of school age (the propensity to move decreases so as not to disrupt schooling). Economic variables related to housing include previous tenure (private renters are more mobile), income, and housing costs. Economic variables related to the labour market include whether or not there has been a job change and whether spouse is in employment (increases probability of moving into owner-occupation but probability of finding a new dwelling that satisfies job requirements of both is reduced).

Many of these moves, of course, are intra- rather than inter-regional. In the Australian context, however, Wulff and Newton (1996, p431) suggest that housing factors are likely to affect both types of mobility. Local moves are more likely to be linked to demographic factors whereas inter-regional moves are more likely to be linked to labour market factors.

Typically, inter-regional migration is presumed to be influenced by relative unemployment and earnings opportunities. Cameron and Muellbauer (1998) point to a 'body of evidence' that suggests high relative earnings and employment opportunities encourage migration to a region. However, their work on migration patterns in the UK between 1978 and 1995 adds to the evidence that suggests that high relative house prices discourage migration. In their words

*"The results support the hypothesis that migration responds strongly to relative earnings and relative employment prospects, as measured by the unemployment rate. However, the evidence is for extremely important housing market effects. High relative house prices discourage net migration to a region, though expected house price rises, by reducing the user cost of housing, can provide a temporary offset. Furthermore, recent experience of negative returns in the housing market acts as a strong disincentive against net migration to a region. As owner-occupation has risen, the evidence is that the influence of relative house prices on net migration rates has risen also."*  
(p440)

These results have been reaffirmed by US based research. Gabriel et al (1992), for example, on the basis of migration patterns in the US in the 1980s, suggest that their

*"results suggest house price differentials are important determinants of household moves and operate to offset some of the added incentive to migrate to areas characterised by the most favourable labour market conditions. Moreover these findings apparently stem, in part, from capital market imperfections, suggesting that the effectiveness of migration as a labor market allocation mechanism could be improved by addressing cash-flow affordability issues." (p255)*

On the basis of the results of his research, Meen (2000) expresses a concern that regional differences in house prices may constrain mobility and limit the capacity of low paid or unemployed persons to move to a region where wage rates or the probability of obtaining employment are higher.

*"Housing and labour markets may generate dynamic spirals of decline in some urban locations. The low skilled are more likely to be unemployed and, therefore to have low incomes. But those on low incomes have a lower probability of moving (or commuting to jobs elsewhere). Furthermore, as high income, employed households move away from [declining areas], the unemployment rate in [those areas] rises even further which .. makes those locations even less desirable to households who can move. Out-migration, then, increases even further and the end result is the cumulative process of decline." (p18)*

Meen and Andrew (1998b) suggest differences in house prices, therefore, cause segmentation in labour markets.

#### 4.2.3 Spatial mismatch

A concern with the employment impacts of widening house price differentials has been a focus of some of the US based spatial mismatch and gentrification literature concerned with trends within cities. Holzer (1991) provides a useful early review of this. Later reviews can be found in Ihlanfeldt and Sjoquist (1998) and Kain (1992). Labour market and housing market segregation within cities, however, raises different issues than segregation on a regional basis. Within metropolitan areas, long commuting times and high commuting costs impose significant barriers to employment opportunities. Across regional boundaries, these constraints are likely to be insurmountable.

The US spatial mismatch literature originated from a hypothesis developed by Kain (1968) who revisited it a generation later, suggesting that concern with the issues initially raised were submerged by more widespread macroeconomic concerns of rising inflation and unemployment. Its revival in the early 1990s, however, reflected concerns with growing unemployment and worsening problems of spatially concentrated poverty.<sup>24</sup> Kain (an economist) claimed that economists in the intervening 25 years had concluded that "race, not space" was the problem. He raised the concern that the operation of housing markets would serve to confine the disadvantaged to a "narrow and spatially concentrated segment of the metropolitan housing market" (p380). Supply constraints and lower expected appreciation were also seen as lowering home ownership opportunities and contributing to the benefits outlined in chapter 3 above.

Residential segregation, in turn, was presumed to be an important cause of low employment levels because of the mismatch between employment and housing opportunities. The relocation of jobs associated with structural change and housing market segregation "have acted together to create a surplus of workers relative to the number of available jobs in submetropolitan markets...." Ihlanfeldt and Sjoquist (1998, p849).

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<sup>24</sup> In the US, it was inner city poverty that was the focus of concern.

This spatial mismatch hypothesis is seen as contributing to unemployment, under-employment, lower wages and/or longer commutes for those in employment. One implication of it is that the success of any welfare to work program as those implemented in the US and, more recently, in Australia, may hinge on improving recipients' access to jobs.

Whilst much of the spatial mismatch hypothesis literature was concerned with trends within cities and the impact that these trends had on reinforcing existing racial disparities, the issues raised by it can be extended to broader concerns for any group potentially affected by cumulative processes of disadvantage.

Since the emergence of the spatial mismatch hypothesis, there have been numerous attempts to test its validity. Ihlanfeldt and Sjoquist (1998) review at least 30 of these. They claim that the vast majority of those that are methodologically sound have provided considerable support for the claim that there are significant housing barriers that prevent lower skilled (and lower paid) workers from shifting their labour supply to areas where there are higher employment prospects.

In a precursor to some of the social interaction literature reviewed in the previous chapter, they identify a number of barriers that might prevent a shift in labour supply in response to this mismatch that emerge from the studies they reviewed. These are lack of accessibility to jobs by public transport, differences in employer and employee characteristics, poor information about job availability and exclusion from the networks used to fill jobs. To these, they add lack of child care facilities for sole parents and, as variations on the above, a trade-off limit between commuting distance and wages paid, discrimination in employment and perceptions or misperceptions about the jobs available.

Ihlanfeldt and Sjoquist claim that a mobility strategy, based on making it easier for people to get to jobs, has been the key component of the US based response to spatial mismatch. A key characteristic of this mobility strategy is that it presumes labour mobility is possible even though residential mobility might be constrained. Such labour mobility, however, is limited to those cases where commuting rather than migration is an option. In their UK based study of the interrelationships between housing markets, commuting and migration, Cameron and Muellbauer (1998) suggest that relative house prices might be expected to have opposite effects on net regional commuting compared with net migration. Their results suggest that this, in fact, is the case and that, for contiguous regions, high relative house prices encourage in-commuting by discouraging in-migration. "Thus, for contiguous regions, commuting can act as a significant safety valve to offset the pressures the housing market can exert on the operation of regional labour markets." (p441)

Commuting, however, is not a viable solution as a means of responding to differences in non-contiguous labour markets. For these regions, the impact that housing markets have on residential mobility remains highly significant.

### **4.3 Home ownership and labour markets**

When commuting is not a possible, inter-regional mobility remains constrained by regional variations in house prices. This is only one of two housing factors that have been considered as a constraint on inter-regional mobility. The second housing related factor is tenure. This is considered below.

#### *4.3.1 Oswald's conjectures*

In a companion set of papers in the late 1990s, Oswald (1996, 1997) conjectured that home ownership was the missing piece of the unemployment puzzle in Europe. This hypothesis arose out of his attempt to find an explanation for the upward trend in unemployment in Europe since the 1970s from factors that exhibited a similar upward

trend. Home ownership was one of these. It rose rapidly in most European countries in the latter part of the 1900s both as a result of increasing standards of living and changes in housing policy. This rise of home ownership and an associated decline in private renting was seen to have contributed to the secular rise in unemployment from the 1970s because workers in owner-occupied homes were seen to be relatively immobile. In his view, "labour markets of the West have become ossified by a reduction in the ability of firms and workers to 'match', or by some growing impediment to mobility". (Oswald 1996, p5)

In a series of simple correlations he showed there was a positive relationship between home ownership and unemployment both between countries and within countries. This relationship held both for levels of home ownership and unemployment and for changes in each, for simple correlations and for more formal statistical analyses that controlled for a number of factors traditionally argued to affect unemployment. It held across countries (using data for 19 OECD countries) and it held within countries. In virtually all of his estimates he found a robust relationship which suggested that for every 10 percentage point increase in the home ownership rate there was a 2 percentage point increase in the unemployment rate.<sup>25</sup> He suggests that, whilst his results are not sufficient to explain the whole of the rise in joblessness, the home ownership variable is most strongly correlated with unemployment and has the greatest individual explanatory power. He is careful to warn that it would be "unwise .. to read too much into the paper's findings" but claims "the early patterns in the data suggest the idea is worth exploring." (Oswald 1997, p13)

In a later paper, Oswald (1999) identified five possible mechanisms for this effect on unemployment. These were

- a direct effect from home ownership. Because selling and moving house is expensive, owners are less mobile than renters and therefore are more vulnerable to economic downturns in their regions.
- an inability of unemployed owners to move to places of employment. High home ownership rates are seen as a constraint on young people's ability to enter an area to find a job because of lack of capital restricts their access to housing.
- a tendency for immobile workers to accept jobs for which they may not be ideally suited. This, he suggests, reduces their efficiency, adds to wage costs and contribute to a general loss of jobs.
- the planning regulations associated with high home ownership. Home owners may impose restrictions on what type of industry can be established in residential areas in order to protect their living environments. This may restrict entrepreneurial opportunities for setting up new operations.
- home owners commute longer distances than renters. This is seen as adding to congestion and hence adding to the disincentives to find employment by making it more costly to get a job.

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<sup>25</sup> His within country analyses were often based on very small numbers of observations, were likely to be sensitive to outliers, and held for only 8 of the 11 countries for which within country regional data were available. However, the results for the USA and the UK, which support his conclusions, were based on extensive panel data with at least 500 observations and can be regarded as robust. Some doubts also might be raised about his across country data. If the accuracy of the data for Australia are indicative of the overall accuracy of his data his results are built on rather shaky foundations. Oswald's data for Australia presume an increase in the aggregate home ownership rate of 7 percentage points from 1960 to 1990. This is in marked contrast with census data that show a relatively stable home ownership rate of around 70 per cent from 1961. Mudd et al (1999) provide a useful overview of variations in estimates of the aggregate home ownership rate depending on what data source is employed. Their analysis supports the view that the aggregate home ownership rate has been stable over this period.

His analysis followed a well established literature in the UK that had provided substantial evidence that tenure did affect mobility although much of the earlier work was concerned more with the impact of council housing than with home ownership. Gordon (1990), for example, suggested outright ownership and council housing both imposed constraints on labour market adjustment because they may be associated with a weaker incentive to search for employment. He saw a weak private rental sector as being the major impediment to mobility. Hughes and McCormick (1990) likewise suggest that council housing imposes the greatest constraints. Munro (1990), however, points out that because housing tenure is closely related to income, it may be difficult to isolate effects of each. Households moving for employment related reasons have no guarantee they will find either employment or affordable housing in their new location. Higher income households have more capacity to bear this risk as they can more readily rectify any mistakes.

#### *4.3.2 Downpayment constraints*

US work for the same period reflected concerns closer to those raised by Oswald. On the basis of US mortgage loan and closure data, for example, Chan (1996) shows movers have higher property values, lower loan to value ratios and higher incomes. She claims her results "are very suggestive of large constraints to mobility affecting high LTV borrowers. The most likely culprit is the decline in property values, coupled with downpayment requirements for the purchase of another home." (p307) In a follow up paper (Chan 2000), she points to the spatial lock-in that can arise from the constraints on mobility imposed by these downpayment requirements when there are significant spatial variations in rising and falling house prices.

Her work reinforces a range of work in the US. She points to work by Stein (1993), for example, who has developed a theoretical model to show that downpayment constraints on repeat buyers can reduce mobility. If house prices fall, households are constrained from moving. This is supported by results from Genosove and Mayer (1994), which show that households with high loan to value ratios are less likely to sell than households with lower loan to value ratios. Nakagami and Pereira (1991) develop a theoretical model that predicts that higher house price appreciation lead to faster trade up and to increased mobility. Kiel (1994) provides empirical support for this. Henderson and Ioannides (1989) find that wealthy and more educated families tend to be more mobile. Gronberg and Reed (1992) find similar results.

Similar work has been undertaken in the UK. Henley (1998) responded to concerns that the UK housing market was hindering labour market flexibility. He outlines a number of reasons why there might be a limit to the extent to which house prices will fail to stimulate home buying activity. The first is the Case and Schiller (1989) argument that "the rational response in a falling market is to hold on to existing housing investment in anticipation of positive future returns." (p415) The second is the Wheaton (1990) argument that negative equity can prevent sellers from setting prices that match what buyers are prepared to pay. The third is the downpayment constraint examined by Chan and others.

Henley builds on earlier work by Henley et al (1994) that showed an inverse relationship between housing wealth holdings and job tenure amongst owner-occupiers. This is consistent with the US based findings of Henderson and Ioannides (1989). One explanation relates to mortgage lending. Low wealth households by definition will require high loan to value ratios, which, in turn, might require more financial security than that provided by high labour market mobility.

Henley's results, based on panel data in the UK from 1991 to 1994, suggest that regional unemployment restricts mobility. This, he claims, is consistent with the adverse effect of unemployment on the state of local housing markets and, therefore, on the ability of households to sell and move to jobs elsewhere. However, for young homeowners (under 30), higher levels of housing equity can facilitate residential mobility for those in search of an improved job match. His results also support the concerns of Chan and others by reinforcing the role of a downpayment constraint in constraining housing outcomes. The widespread negative equity in the UK in the early 1990s had a strong effect in this respect. He draws two conclusions. The first is that housing wealth is important in explaining mobility (with the 1990s negative equity experience having a significant adverse effect on residential mobility). The second is that residential mobility is relatively unresponsive to labour market conditions. Owner-occupiers do not appear to move from regions of high unemployment. High transactions costs "may deter commuters from seeking a better geographical match of home and job" (p426). For those with negative equity, this creates an additional hurdle.

Henley uses these results to suggest that the rental market in the UK may have been "denuded to a sub-optimal level". He concludes that, in a "labour market which no longer provides 'employment-for-life', a housing market which forces employees into owner-occupation at an early stage in their life-cycles may not be one which is appropriate" (p426). This conclusion about households being forced into home ownership is somewhat at odds with his earlier judgement that rental accommodation has the characteristics of an inferior good compared to owner-occupation" (p425).

#### *4.3.3 Home ownership as an incentive to remain employed*

Goss and Phillips (1997), however, hold what might be regarded as a contrary view regarding the role of home ownership and unemployment. Their US based study of unemployed workers in 1986 suggests that home ownership reduces the duration of unemployment by providing a pressing incentive for mortgage holders to return to the work force. However, like Henley, they suggest that home equity aids job search through a wealth effect.

Oswald's work has been undertaken at a macro level of analysis, which means that his aggregate analysis abstracts from many of the individual factors that affect housing, job and location decisions (such as changes in household structure). The research undertaken by Goss and Phillips in the US and by Henley in the UK, by being based on micro level data rather than macro data, address some of these potential concerns with Oswald's work. Van Leuvensteijn (2000) and Van Leuvensteijn and Koning (2000) have undertaken similar work for the Netherlands in order to correct for what they see as potentially spurious correlations in the macro data employed by Oswald. The Netherlands is one of the few countries where Oswald's relationship between home ownership and unemployment does not hold for regions within the country. Van Leuvensteijn and Koning test four hypotheses they claim are implicit in Oswald's work. These are

- (i) home owners are less likely to move than renters
- (ii) unemployed home owners are less likely to move than unemployed renters
- (iii) owners of houses are less likely to move to another job because they are unwilling to leave the region
- (iv) owners of houses are more likely to become unemployed

Van Leuvensteijn and Koning's results show support for the first of these hypotheses. Once all the relevant factors are controlled for, home owners are less likely to move than renters. Oswald claims workers are less likely to move if they own a house. Van Leuvensteijn and Koning suggest that the outcome could also be explained by a reverse causality between home ownership and job commitment. Their analysis

distinguishes between those who have stayed in their job and those who have moved to a new one. They show that, whilst home owners are less likely to move than renters and are less likely to change jobs than renters, of those who do change jobs or who lose their jobs, home owners are more likely to move than renters. Three potential explanations are provided for this observed outcome, two of which apply specifically to the policy environment in the Netherlands.

- unemployed home owners may adjust their housing costs by moving. Van Leuvensteijn and Koning suggest that Oswald's thesis may be sensitive to cyclical factors with the constraint on home owners being more likely in a downturn and/or in a depressed housing market.
- unemployed home owners in the Netherlands are not entitled to social assistance if they have too much capital. Therefore, they must either release and spend what equity they have in their housing or they have a strong incentive to find a job.
- renters are insured against job loss through rent subsidies. This may lower their incentive to find a job.

Their conclusion that home owners who do lose or change their jobs are more likely to move than renters in the same circumstances is consistent with the evidence reported above that highlights the importance of housing equity in enhancing mobility. The former result is consistent with Böheim and Taylor (2000) who show both that unemployed are more likely to move than employees and that mortgage holders have low levels of labour market and residential mobility.

Their results are at odds with what they claim is an implicit prediction of Oswald's work - namely that home owners are less likely to change location and therefore are more vulnerable to unemployment. Van Leuvensteijn and Koning suggest that there is both less job transition but also less prospect of unemployment.

However, their results also suggest that unemployed owners are more likely to move than unemployed renters. This, they suggest, is consistent with the argument that home owners are more likely to be committed to their employment for a number of reasons. They suggest that home ownership is likely to provide the incentive for workers to invest effort into retaining their jobs. Along with Oswald, they argue this will contribute to labour market inflexibility.

The similarities in the results obtained from research in a number of different countries lends some support to the veracity of these results. The differences in the results, however, serve to highlight the importance of taking institutional and structural differences into account. Oswald's predictions about lower mobility for home owners may not be as relevant in countries that, unlike the UK, have a significant private rental market or a flexible social rental sector, both of which might facilitate mobility. Conversely, in countries where much of the rental stock is not affordable for those who become unemployed, access constraints in private rental may lead to the same results as access constraints in home ownership.

#### **4.4 Summary**

This chapter has provided a selective overview of literature explicitly concerned with the relationship between labour markets and housing. Labour mobility is the only aspect of labour markets that has been considered and the role of regional differences in house prices and home ownership are the only aspects of housing markets that have been considered.

The results of labour mobility studies in Australia suggest that there are constraints on the extent to which inter-regional migration has been effective in providing an adjustment mechanism to reduce regional disparities in unemployment rates. A review of the international literature suggests that regional disparities in house prices and high rates of home ownership may be two factors that have contributed to this lack of mobility.

House prices are most likely to limit the location choices of those who have low wealth and low incomes. To the extent housing markets limit the capacity of such households to move out of regions with low labour demand (and, potentially, high unemployment rates), they have the capacity to further contribute to these economic measures of disadvantage. Such households are also likely to face binding credit constraints in relation to home purchase. Affordability constraints that also lock these households out of home ownership, have the potential to further exacerbate this disadvantage.

The literature reviewed in this chapter suggests that housing markets are likely to have different impacts on households at different stages in their life-cycle. Newly formed households with income and wealth constraints may be constrained by high housing prices from locating in those labour markets where employment opportunities are greatest. To the extent that such households are influenced in their decisions by an underlying preference for home ownership over renting, these constraints are likely to be even more pressing.

Conversely, established home owners in poorly performing regions may be constrained by their current tenure status from moving to regions with more favourable labour market opportunities by low relative house prices. Whilst labour market concerns are of relevance only to those households still attached to the labour force, households wishing to relocate for other (personal or lifestyle) reasons will be similarly constrained.

Thus, as Meen (2000) has argued, the literature reviewed in this chapter raises the possibility of a dynamic interaction between housing and labour markets that contributes to economic polarisation over time. Low income owner-occupiers are likely to be less mobile than higher income households because they are likely to be faced with binding credit market constraints. As a result they are less able to move in response to changing labour market conditions, particularly if these regions are locations of high house price growth. They are also more likely to be locked into locations of poor quality because of declining relative house prices. As a result, they can be "trapped" in declining areas. Although private renters are more mobile than home owners, similar arguments can be employed for regions where there are relative shortages of low rent stock.

## CHAPTER 5. ISSUES AND RESEARCH OUTLINE

### 5.1 Overview

This paper has provided an overview of the ways in which housing and home ownership may reinforce the polarisation of income that has emerged in Australia in the last few decades as a result of social, economic and demographic change.

Chapter 2 provided background data on changes in the distribution of household income at both a national and regional level and provided an overview of the factors that have contributed to this. Some of these factors, such as the impact of globalisation and economic restructuring, were interpreted as having an exogenous impact on regional income inequality. Other factors, such as housing and home ownership however, were regarded as having the potential to contribute to a cumulative process of spatial inequality.

Chapter 3 provided an overview of the literature that has begun to emerge in the last decade or so on the way in which home ownership may contribute to increasing inequality by focussing on both its social and economic attributes. It also pointed to the supporting role that home ownership has had in underpinning Australia's social welfare policies. The literature in the previous chapter highlighted the mobility constraints that housing and housing markets impose on households and, through this, pointed to the ways in which housing markets can interact with labour markets to further reinforce a cumulative process of spatial inequality. Lower income households (and, particularly, newly formed lower income households) may be forced to locate in areas with limited labour market opportunities because of the limited housing opportunities they face. Labour market flexibility, therefore, may be constrained by housing market inflexibility and housing markets may contribute to reinforcing patterns of inequality.

The literature review presented in chapters 2,3 and 4 above has identified a number of factors that underpin the issues to be covered in this research project. The first is the changing structure of household income that, in part, is attributable to the impact of economic restructuring and, in part, to social and demographic change. The second is the spatial variation in household income both attributable to, and distinct from, these changes. Spatial differences in household growth and household income are likely to impact differentially upon housing markets and contribute to regional differences in house prices. These differences can be seen either as encouraging households with a high preference for home ownership to locate in regions where housing is affordable or as constraining them from locating in regions where housing is unaffordable. A third is the changing structure of housing markets themselves.

One issue that will not be canvassed in this paper is the potential endogeneity of household structure. The possibility that headship rates are affected by housing market circumstances and that headship rates cannot be treated as exogenous to the housing market has long been recognised in tenure choice literature (eg Borsch-Supan and Pitkin, 1988). The role of house prices and/or housing costs in affecting the housing and household formation decisions of young adults has been explicitly taken into account in work by Haurin et al, (1994) for the US and Bourassa et al (1994) for Australia. Ermisch (1999), in particular, has shown that regional relative house prices significantly retard household formation, particularly for lower income individuals. Earlier work by DiSalvo and Ermisch (1997) highlights the impact of regional unemployment rates and regional relative house prices on household formation and tenure decisions.

These studies raise important simultaneity issues and introduce a spatial dimension at least implicitly to the extent they consider regional differences in the price variables incorporated into the analysis or to the extent that employment opportunities vary regionally. Their results clearly indicate the way in which socio-economic structures of households can be affected by the interaction of household formation and tenure choice. They provide less insight into the way in which these outcomes may affect regional differences in household structure and in the economic well-being of households. This paper will document changing household structures and indicate the extent to which these changes have impinged upon the capacity of households to access home ownership. It will, however, take these household structures as given and will not attempt to relate household formation rates to housing market variables.<sup>26</sup>

Figure 5.1 below provides a diagrammatic summary of some of connections between location, household structure and housing markets implied by the indicative overview of relevant literature. It points to the direct and indirect impacts of the social, demographic and economic restructuring which has taken place in Australia as in a number of other countries over the past few decades.

Economic restructuring and social and demographic change are taken as given, or exogenous, factors affecting the outcomes of interest. Economic restructuring, however, has a direct effect on regional economies and on the employment opportunities and incomes of households in those regions. These changes in economic circumstances, augmented by social and demographic change, have a direct effect on the socio-economic characteristics of households. Changes in the socio-economic characteristics of households, along with changes in regional economies, impinge upon regional housing markets and create a changing pattern of housing constraints. At the same time, changes in the socio-economic structure of households along with the different constraints in different housing markets affect, not only tenure preferences, but also housing opportunities.

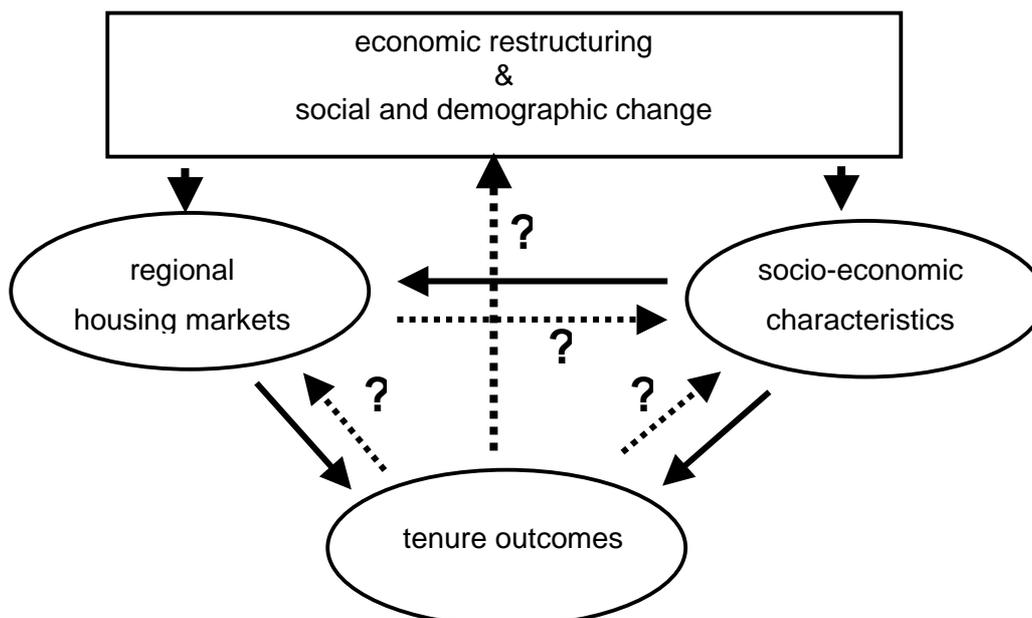
Tenure preferences, conversely, may influence location choices and, through this, may affect housing markets. They may also affect household structure decisions. Through their impact on labour market flexibility, tenure outcomes may affect the ease with which adjustment processes filter through the economy and the extent to which the economic system adjusts.

These processes are complex and are affected by numerous other factors not considered here. This research to be undertaken for this project does not attempt to describe the processes of change which have the potential to bring about different outcomes in different housing markets. It has more limited aims. First, it aims to provide an indication of what the net effect on housing outcomes has been for households in different socio-economic groups in different regions in Australia. Second, it aims to provide an indication of the extent to which these outcomes have changed over time. In this way, it aims to provide some insights into the impact of the potential links illustrated in Figure 5.1.

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<sup>26</sup> The work referred to above suggest that the major impact of housing markets is to retard household formation by encouraging young adults to remain in the parental home or to move into group rather than individual households. However, the growth of single person households over the period to be examined in this paper suggests that a reverse causality might apply with the high growth of households placing pressure on housing markets.

Figure 5.1: Potential interactions between spatial, socio-economic and housing change <sup>a</sup>



a. heavy lines represent factors identified in literature; dotted lines represent potential impacts

An extensive body of housing research has highlighted the way in which housing outcomes are driven by socio-demographic factors, by changes in household incomes and by housing opportunities. Less work has been undertaken on whether spatially distinct patterns of household formation, along with spatial disparities in employment opportunities, can lead to spatial disparities in household incomes. If this is so, there will be spatial differences in the impact of socio-demographic and economic restructuring on housing markets. To the extent there are spatial differences in the response of housing markets to social and structural change, these will impact on the housing opportunities open to newly formed households both in relation to home ownership and in relation to private rental.

## 5.2 Research issues and questions

These outcomes will be addressed through the following specific research questions:

1. How did the demographic, economic and social environment for the housing system change at a spatial level between 1986 and 1996?
2. How did housing outcomes respond to or reflect these changes?

The outcomes of the first research question will provide an analysis of changes in housing markets at a sub-national level and a more detailed analysis of how these changes relate to changing household structures, the changing age distribution of the population and the changing economic structure of households. They will provide new data on changing home ownership patterns at a spatially disaggregated level taking into account the impact of changes in the socio-economic and demographic structures of households.

The outcomes of the second research question will provide a geographical sense of space to the emerging work on inequality undertaken by Gregory and Hunter and given further substance by NATSEM based research. The outcomes will determine the extent to which observed spatial polarisation in household incomes can be attributed to changing household structure and to changing employment opportunities. They will show how changing incomes impinge upon and are affected by housing outcomes.

The first stage of the project will provide an analysis of changes in housing markets at a metropolitan and non-metropolitan level within each state. It will also provide a detailed analysis of how these changes relate to changing household structures, the changing age distribution of the population and the changing economic structure of households. The second stage of the project will disaggregate this further to a within metropolitan and non-metropolitan level of analysis. Both stages will provide new data on home ownership trends at a spatially disaggregated level, which take into account the impact of changes in the socio-economic and demographic structures of households. They will provide some insights into the extent to which location choices within the larger capital cities are affected by lifestyle choice or economic factors.

The outcomes of the second research question will provide a geographical sense of space to the emerging work on inequality undertaken by Gregory and Hunter (whose analysis was conducted in terms of the socio-economic status of areas) and by Lloyd et al (whose spatially disaggregated work was not disaggregated by household and housing characteristics). The outcomes will determine the extent to which observed spatial polarisation in household incomes can be attributed to changing household structure and the extent to which it can be attributed to changing employment opportunities. They will provide an indication of how this impinges upon and is affected by housing outcomes.

The results will provide an indication of the extent to which declines in home ownership observed in earlier studies are confined to the larger metropolitan areas or uniformly spread across all regions in Australia. They will provide an indication of the extent to which any observed declines have the potential to result in an increased demand for rent assistance or social housing in later life. The results will provide an indication of the extent of the socio-spatial interrelationships between housing and labour markets. The outcomes of both research questions will provide a quantitative assessment of how the impact of socio-demographic and economic change in household structure affects tenure outcomes. As such, they will provide a more informed basis than is currently available to assess the spatial need for and implications of alternative policies in relation to rental housing and home-ownership.

In examining outcomes at a spatially disaggregated level, and taking into account the whole housing system (and hence the links between the three major tenures of owner-occupation, private rental and public rental), this research will move beyond work undertaken previously. The progressive disaggregation of the data will enable hypotheses about the extent and impact of spatial polarisation to be examined and tested. The analysis will enable a comparison of the housing outcomes of households in different stages of their life-cycle (eg new entrants and retirees) at two different points of time and, from this, will provide information on the ways in which these outcomes have been affected by location.

## 5.3 Policy relevance

Questions relating to the future environment for housing policy depend critically on the future demographic, social and institutional environment in which the housing system operates. They will depend on whether or not current employment trends, income trends and housing market pressures continue. In turn, this will depend on the extent to which the past trends towards a polarisation of household incomes has a strong spatial component and, in the second instance, on the extent to which this spatial component is associated with labour markets with low employment opportunities.

One simple illustration of the importance of identifying the impact of socio-demographic and economic change on housing outcomes can be given. A changing income distribution, whether the increasing proportion of low income households are young or old, has significantly different housing and housing policy implications. In the current environment, older households have a past housing history and are more likely than not to be owners. Their future needs are likely to be associated with support services, aimed at remaining in their homes, or with financial assistance meeting the ongoing costs of maintaining their homes. Younger households are more likely to make demands on the private rental market and, if unemployed or in receipt of social security payments of some sort, to make demands upon rental assistance. Some of the possible policy responses to these issues lie within State jurisdiction; others lie within Commonwealth jurisdiction. Thus, the spatial implications of change are critical.

The outcomes of the research questions addressed will provide a more informed basis than is currently available to assess the spatial need for, and implications of, alternative policies in relation to rental housing and home-ownership. The outputs of this project should be of interest to housing policy practitioners and planners at both a Commonwealth and State level. The data on patterns of change in home ownership at a spatial level by socio-demographic characteristics of households will assist with a projection of these trends into the future and will serve as input to the development or otherwise of home ownership programs at either Commonwealth or State level. The discussion of trends in housing markets will inform central government about likely pressures on demands for rent assistance and on the effectiveness of current rent assistance policies. Any questions about the capacity of the two major tenures (viz. home ownership and private rental) to meet the emerging needs of households will provide an indication of the demands likely to be made on social housing in the future.

## 5.4 Methodology

### *5.4.1 General approach and data base*

The research will begin with a statistical overview of key regional differences in relation to socio-economic change, to housing outcomes, and to labour market opportunities. This will be followed by an analysis of housing outcomes at a regional level from which it will be possible to examine the impact of increased income (for example, arising from improved employment opportunities) on housing outcomes at a spatial level. This statistical analysis will enable tenure outcomes to be predicted for given household characteristics. This work will provide an indication of the extent to which the Gregory and Hunter work, based on analysis of average data for areas at the Collectors District level and relying on SES characteristics of these areas, has a coherent sense of space.

Limited availability of data has meant that, to date, there has been little analysis of the spatial implications of the housing outcomes of changes in household income and household structures. This proposal addresses these weaknesses by an interrogation (more detailed than hitherto has been possible to date) of a special matrix tabulation of census data for 1986 and 1996. This data set contains full count census data on households in private occupied dwellings, disaggregated by age, income, number of persons employed, household type, dwelling type, size of dwelling, in a number of regions in Australia. As such, it enables the important interactions between household characteristics and housing outcomes to be taken into account and analysed at a spatially disaggregate level. It provides spatial data only available from census data but overcomes the weakness of analyses that rely on CDATA or other census products because it allows for the interactions between characteristics such as age, income and household type.

In the first stage of the project, regions will be defined at a metropolitan and non-metropolitan level. In the second stage of the project the data for the larger metropolitan regions (Sydney and Melbourne) and for non-metropolitan NSW will be further disaggregated in order to contribute to a greater understanding of the outcomes of the relationship between socio-demographic change and spatially defined housing outcomes.

Exploratory work on research question 1 suggests there are significant differences in the changes in home ownership rates between metropolitan and non-metropolitan regions within each State amongst households below the age of 45. Logistic regression techniques will be employed to decompose these changes into their component parts as a means of separately identifying the spatial and socio-economic impacts on the outcomes observed. This identification of the extent to which these impacts differ across regions will provide a means of estimating future home ownership (and by default) rental outcomes in those regions as household compositions change.

The analysis will focus in the first instance on housing outcomes for households in the critical household formation years of 25 to 44 since the experiences of these households are likely to affect longer term demands for housing assistance. These outcomes will be compared with the outcomes for older households (from 45 -64 and 65+) whose housing outcomes are likely to have been influenced by past as well as current economic and housing market conditions. For households over 65, housing decisions are also less likely to be constrained by labour market conditions. The data available for this analysis categorise households into 5 different income groups and key household types: couples, couples with children, singles, sole parents <45, other (including multiple family and group households). Inconsistencies arising from definitional changes in the data between 1986 and 1996 mean sole parents and multiple family households need to be aggregated for households over 45.

In the first stage the analysis will employ the same level of spatial disaggregation as employed for the private rental study undertaken by Wulff and Yates (2001) to enable full use to be made of the results of that earlier study. It will examine changes in housing outcomes at a metropolitan-non-metropolitan split within each state and relate these to changes in socio-economic characteristics.

In the second stage, the analysis will be undertaken at a more disaggregate level within the Sydney and Melbourne metropolitan regions and within non-metropolitan NSW for the Hunter, Mid-North Coast, Illawarra statistical regions and, to provide a comprehensive coverage of the state, the Rest of NSW. The Hunter and Illawarra regions include Newcastle and Wollongong, which faced high unemployment as a result of economic restructuring. The Mid-North Coast has been seen as a growth area for those of retirement age. These are the only non-metropolitan regions that

can be identified at a below rest of state level of disaggregation in the data set. As in the first stage, the analysis will examine changes in housing outcomes at a metropolitan-non-metropolitan split within each state and relate these to changes in socio-economic characteristics.

#### *5.4.2. Choice of age groups*

Whilst most of the analysis in the final report will cover all age groups, a more detailed case study will focus on changes in household structure and housing outcomes for households in the 25-44 year age group. Focus on a particular age group means that life-cycle effects and the impact of an aging population can be abstracted from. A more in depth analysis of one age group also means that greater attention can be paid to all of the factors that might influence outcomes. A twenty year range has been selected as being sufficiently broad to capture the impact of the major changes which have contributed to demographic uncertainties which have taken place whilst abstracting from the effects of demographic certainties. This age range encompasses the median age of Australia's population, which was 31 in 1986 and 34 in 1996 (ABS, 1997), and the critical household formation years.

In 1986, the 25-44 age group included most of those raised in an era of post-war optimism, an expectation of economic growth and full employment and early, almost universal marriage (McKay, 1997). In large part, it was a cohort for whom the culture and ideology of home ownership was well entrenched and for whom home ownership policies were still being actively pursued.

In 1996, the 25-44 year old age group includes the last of McKay's 'stress' generation, the generation for whom there was a tension between belief in an 'easy future and ... no future at all' and the first of what he described as the 'options' generation, the 'wait and see' generation. In large part, it is a cohort for whom uncertainty about the future has dominated its thinking and for whom flexibility and choice have been given greater emphasis than ever before. Most of these households were making housing choices in a period when government had withdrawn from active support of home ownership policies and during a period of unprecedented economic change.

The 25-44 year age group is an age group for whom labour force attachment is the norm and for whom unemployment, retirement or retrenchment is far more likely to be involuntary than voluntary. It is one for whom location decisions are more likely to reflect housing and employment opportunities than lifestyle choices.

It is the age range in which those households who are likely to marry and/or have children are most likely first to do so, even when there has been a deferral of these decisions. The median age of men at first marriage was 27.5 in 1996. For women it was two years younger. Co-habitation occurs at an earlier age. The median age of mothers at first birth within a registered marriage was 28.7 in 1996 (although only 72.6 per cent of all births occurred within a registered marriage). (ABS, 1998b)

It is the age range in which those households who ultimately become home owners are most likely first to do so. The average age of first home buyers in Australia varied between 32 and 33 in the 1980s and 1990s. (ABS, 1998a). Of the households who have ultimately attained home ownership in the post-war period, 75 per cent have done so before they were 41 years old.<sup>27</sup>

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<sup>27</sup> This figure is taken from Winter and Stone (1999, p47) and applies to males. The equivalent age for females is 40.

In other words, the 25-44 year age range is sufficiently broad to incorporate most of the critical stages associated with household formation and household structure. Changes identified in this case study are unlikely to reflect the impact of a deferral or delay of critical household and family formation decisions.

#### *5.4.3 Choice of regions*

In the first stage of the project, the housing outcomes for households in this age group are examined at a spatial level which disaggregates Australia into 15 regions based on a metropolitan/non-metropolitan split for each of the states and territories in Australia.<sup>28</sup>

Debelle and Vickery (1998) justify the use of state boundaries in their analysis of regional differences in unemployment in Australia on the assumption that state boundaries form the major barriers to migration. In its recent work on structural change, the Productivity Commission (1998) justified this level of disaggregation because it was seen “to reduce the complications that arise where people live in one area yet work in another.” Similar arguments can be used to justify the level of disaggregation employed here.

Analysis of the impact of spatial and economic outcomes on the housing choices made by households requires regions to be defined in such a way that regional differences in economic factors (such as employment opportunities or house prices) reasonably can be presumed to affect or be affected by the location decisions made by households. The spatial level of aggregation employed in this paper has been chosen to be large enough to identify distinct housing markets and labour markets. It has the added advantage that a significant amount of data and analysis of the data is available at this level of aggregation. It is the greatest level of disaggregation for which systematic data on house prices are available.<sup>29</sup> On the basis of her study of the dynamics of Australian (capital city) house prices, Tu (2000) concludes these capital cities' housing markets are highly independent, with only a few links between specific housing markets. On the basis of her results, she concludes that the Australian housing market is segmented and independent with each capital city's housing market dynamics being driven primarily by its own internal economic forces. This supports claims that these regions can be employed to define separately identified housing markets.

There are, of course, also considerable weaknesses in working with the degree of aggregation employed here. The type of structural change which has taken place means there is considerable variation within each of the regions chosen and particularly within the non-metropolitan regions which cover areas as disparate as depressed remote rural communities with declining populations and booming coastal resort towns with rapidly growing populations. Baum et al (1999) provide a comprehensive coverage of the factors that contribute to these differences. Paris (1994) expresses some concern with this traditional choice of regions, arguing that the effect of economic restructuring and demographic change in Australia has resulted in a breakdown of the pattern of metropolitan dominance reflected in a state based metropolitan/non-metropolitan split.<sup>30</sup>

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<sup>28</sup> In what follows, "states" will be used to refer to both the 6 states and 2 territories.

<sup>29</sup> Sub-metropolitan house price data are available for most of the capital cities but there is relatively little data available for non-metropolitan Australia and no systematic source of sub-market data within non-metropolitan regions.

<sup>30</sup> To borrow from some of Paris's more colourful explanations and with apologies to David Williamson, one of Australia's best known and most prolific contemporary playwrights, Australia's population has been “Travelling North”. Much coastal development has arisen from the growth of “leisure, pleasure or retirement centres”. In the extreme, these are represented by the Gold Coast - described by Jones, and quoted in Paris, as “A Sunny Place for Shady People”. Finally, “Australians love the Bush, in theory at least, but the locals are deserting it in droves” (Paris, 1994:565)

Any blurring of the chosen metropolitan/non-metropolitan distinction arising from such change will serve to obscure differences between the regions employed in this paper. Thus, the above concerns are likely to strengthen rather than weaken any results generated by a choice of regions which embodies this variability. A more disaggregated analysis or differently defined level of disaggregation would be likely to reduce the extent of regression to the mean and result in greater differences than those reported below.

In the second stage of the project, differences within metropolitan and non-metropolitan regions will be taken into account by a selective analysis of several regions within non-metropolitan NSW and of sub-metropolitan regions within NSW and Victoria. This more disaggregated analysis will provide an indication of the extent to which the results obtained in stage 2 are sensitive to the level of aggregation employed.

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