



*Final Report*

# Housing, inequality and the role of population mobility

authored by

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## **ACRONYMS**

ABS	Australian Bureau of Statistics
AHURI	Australian Housing and Urban Research Institute Ltd
AIHW	Australian Institute of Health and Welfare
CRA	Commonwealth Rent Assistance
DSE	Department of Sustainability and Environment (Vic Govt.)
LGA	Local Government Area
NRAS	National Rental Affordability Scheme
SD	Statistical Division
SLA	Statistical Local Area
SSC	State Suburb (Collection District derived)
SSD	Statistical Subdivision

## EXECUTIVE SUMMARY

This study aims to bring the role of population mobility into contemporary academic understandings of socio-spatial polarisation. The term, 'socio-spatial polarisation' refers broadly to the growing gap between rich and poor households in both socio-economic position ('socio') and geographic location ('spatial'). While an extensive literature exists concerning the ways in which housing and labour markets affect urban socio-spatial patterns, limited attention has been given to the fundamental role of household mobility in creating these spatial patterns. A substantial influx or out-movement of particular groups of households (e.g. high or low income; young students or retirees) from various parts of a city, for example, can potentially re-shape the socio-spatial structure.

During recent decades, the socio-spatial divisions that characterise Australia's major cities have become more pronounced. In other words, not only has the income gap between rich and poor households widened (AIHW 2007), but this gap has played out spatially in differentiating the urban communities that house the rich and poor. Socio-spatial polarisation has become a recognised feature in Australia's major cities (Randolph & Holloway 2005; Yates & Wood 2005; Reynolds & Wulff 2005).

For households, location within the city has become a crucial determinant of overall welfare, including outcomes associated with health, education, employment, real income, social well-being social capital and personal security (for an overview, see Maher 1999). These socio-spatial divides, therefore, are a matter of public concern. House prices and rent levels play a pivotal role in shaping the socio-economic landscape of the metropolitan area by determining where people can live based on their economic resources.

This study focuses on socio-spatial polarisation in Melbourne, the capital city of Victoria and Australia's second largest city. Melbourne's population of 3.9 million accounts for 73 per cent of the State of Victoria's population. A low-density sprawled metropolitan region, Melbourne covers 7694 square kilometres and runs approximately 116 kilometres north to south and 122 kilometres east to west. The analysis disaggregates Melbourne into sixteen ABS-defined Statistical Subdivisions (SSDs) and discusses them in terms of four broad housing market areas.<sup>1</sup>

### Research approach

The mobility analysis examines migration patterns at the household level for each of Melbourne's SSDs between 2001 and 2006. The analysis specifically examines:

- The percentage distribution of in-movers by geographic origin (local, elsewhere in Melbourne, elsewhere in Australia or overseas).
- Net household gains and losses by geographic origin and destination for each SSD.
- Impact of in- and out-mover households on local SSD household income structure (in other words, selective migration by household income groups).

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<sup>1</sup> The authors are aware that the analysis is subject to a 'scale effect' as a result of the large geographic size of the spatial units under analysis (the SSDs). However, socio-spatial polarisation studies can and have been undertaken at a variety of different spatial scales. In this case, SSDs offered the opportunity to use available high-quality, customised census data over a 20-year period, and are also ABS recognised spatial units with some degree of internal social and economic homogeneity.

In order to gauge the impact of household mobility on different housing markets, the analysis groups the sixteen SSDs into four broad housing market types based on the relative growth in house prices between 2001 and 2006.<sup>2</sup> In other words, do households of differing income levels disproportionately move into or away from different markets? Do different markets display different mobility patterns? The four types are referred to as 'very high cost', 'high cost', 'average to low cost', and 'very low cost' and each represent a number of ABS-defined SSDs.

## Key findings

- Socio-spatial polarisation emerged sharply in Melbourne in the twenty-year period 1986–2006.
- Evidence of social polarisation can be found in the changes in Melbourne's household income distribution. Between 1986 and 2006, the numbers of households in the lowest and highest income categories increased, while the numbers of middle-income households declined.
- Evidence of spatial polarisation can be found in the widening gap in median house prices between Melbourne's highest- and lowest cost SSDs. The gap more than doubled between 1986 and 2006, leading to low income households becoming considerably more restricted in their potential residential location choices.
- Likewise, the percentage point gap in median weekly private rents between the lowest and highest SSD expanded from 31 to 48 percentage points. In dollar terms, this translated to a \$56 (in \$2006) gap in 1986 rising to \$107 in 2006 or nearly double.
- Household mobility contributes strongly to polarisation, particularly because of the distinctive household income pattern of in- and out-movers in both extremes of the housing market. SSDs in differently priced housing markets showed identifiable household mobility patterns by household income. The most visible differences in mobility were evident in the *very high* and *very low* cost markets.
- Apart from Inner Melbourne (which is a highly transitory market), *very high* cost markets had disproportionate gains of high income households and disproportionate losses of low income households.
- In *very low* cost markets, high income households were more likely to move out than to move in.
- *Very high* and *high* cost housing markets had disproportionate numbers of high income households moving in compared with the proportion of high income households in the stable population. Thus, household mobility acts to intensify the already advantaged socio-economic position of the regions.
- In *very low* cost markets, in-mover household incomes tend to be similar to the resident population, thereby consolidating the already existing low income structure of the area.

In summary, it is the areas at the extreme ends of the metropolitan housing market where household mobility operates most strongly to further increase socio-spatial polarisation.

This research is based on the assumption that increased socio-spatial polarisation is an unwanted and negative outcome for a metropolitan area. This research has shown that the pattern of moves by very high and very low income households has increased

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<sup>2</sup> Household mobility information is shown separately for each SSD but presented under each housing market type.

the socio-spatial gap in Melbourne. Policies that aim to reduce the extreme ends of the polarisation process will build more socially inclusive cities and contribute to a better quality of life for all households. The most direct way that policy makers can influence residential mobility is through decisions about the amount of public housing, its location and its allocation to eligible households. Indirect options, on the other hand, will involve partnerships with the private sector, but importantly, are more likely to engage greater numbers of households. Finally, improving the overall well-being of disadvantaged households will help to close the socio-economic gap which has become evident in Melbourne over the past twenty years.

# 1 INTRODUCTION

This research focuses on how socio-spatial polarisation comes about through major movements in rents and house and apartment prices and, importantly, through migration.

The study aims to bring population mobility into contemporary research debates and understandings of socio-spatial polarisation. While extensive research has documented the ways in which housing and labour markets affect socio-spatial patterns, very limited research has considered the fundamental role of population mobility. Population mobility – in this study, residential moves by households into and out of different areas within Melbourne, Australia – determines how households are distributed across the metropolitan region. Ultimately, mobility shapes and re-shapes the socio-spatial structure of cities.

The main research questions are as follows.

1. How do housing and income inequalities contribute to social and spatial polarisation?
2. What is the role of population mobility in contributing to the polarising processes operating in Australian cities? What are the socio-economic characteristics of households moving into and out of different housing markets? What has been the net gain or loss of different socio-economic groups between 2001 and 2006? Is there a selectivity process operating in different housing markets areas?
3. What are the implications for the efficient operation of the housing market and the need for government intervention in the form of housing assistance or other areas of public resources and services?

Over the past two decades, socio-spatial divisions both within and across Australia's major cities have become more pronounced, provoking interest and concern among scholars and policy makers. In major cities world-wide, economic, political and social structures have been transformed and in so doing have intensified socio-spatial divisions (Kesteloot 1998; Baum et al. 2006). In Australian cities, O'Connor et al. (2001) argue that the decline in the manufacturing sector played a major part in intensifying the underlying historical urban divisions.

Research into the changing social structure of Australian cities has traditionally relied on cross-sectional five-yearly census data to document the characteristics of residents in different local areas (see, for example, Jones 1969; Johnston 1973). Although valuable, these studies overlook the dynamic of residential mobility that lies behind local area change. This study aims to highlight the role of mobility in changing socio-spatial patterns in Melbourne.

The policy relevance of this study can be found in the well-documented social and economic consequences of geographic location. Cass (1998, p.50) has observed that 'housing is located in a network of basic amenities, public community services, education, training and job opportunities and social and cultural facilities'. These facilities either help or hinder residents in their job search. Several studies conducted for the Australian Government's Social Justice Strategy in the 1990s demonstrated that the place in which people live has a direct effect on the real income and well-being of households. Importantly, it is not the physical location *per se* that makes a difference to people's lives, but 'how space is socially and economically structured' (Wulff et al. 1993, p.2). In other words, geographic locations bestow differing levels of employment, retail, recreational, social and community opportunities and services. More recent research has pointed out the links between housing, location and social

cohesion (Stone & Hulse 2007), social capital and social inclusion (McDonald et al. 2005).

British research on disadvantaged young adults living in economically marginalised neighbourhoods found that the strong ties these young people had toward their local areas reduced the likelihood of moving out of the area. Most young people expressed a wish to stay in their local areas and 'it was difficult for them to perceive in full the spatial polarisation of class inequality. Partly because they were so familiar with their own (geographic) place, they had strikingly little awareness of their subordinate place in wider class structures' (MacDonald et al. 2005).

An understanding of how the population movements of different social groups into and out of different areas in varying stages of polarisation can signal to policy makers the locations of growing community concern.

This study investigates socio-spatial polarisation and population mobility in Melbourne, Australia. Most studies of socio-spatial polarisation concentrate on a specific city because of both the need to understand the local factors, including history, geography and urban planning, and of the data requirements. The research team's access to several key data sources on house and apartment prices, and customised census matrices on Melbourne enhance the value of the analysis.

In June 2008, the Melbourne Statistical Division (SD) recorded a population of 3.9 million people and accounted for 73 per cent of the State of Victoria's population. Melbourne is a low-density sprawled metropolitan region covering 7694 square kilometres and running approximately 116 kilometres north to south and 122 kilometres east to west. Since settlement the major socio-spatial division in Melbourne has been between the working-class northern and western suburbs of the city, and the more affluent eastern and southern regions (Reynolds & Wulff 2005). This distinction generally reflected the differences in the attractiveness of the terrain and landscape between the north-west and south-east parts of the city, separated by the Yarra River' (Burnley 1980, p.228).

Like other Australian cities, Melbourne was constructed around the automobile and the resulting culture and urban form rely heavily on private automobile access. The result is urban sprawl and on-going expansion of low-density suburbs at city outskirts. In recent years, the two fastest growing areas in terms of total residential approvals were the outer fringe suburbs and inner city redeveloped docklands area.

During the 1980s and 1990s Melbourne's neighbourhoods were influenced by economic, social and political shifts which led to a second wave of gentrification (Wulff & Lobo 2009). Divisions in the housing market widened between existing and aspiring home owners, particularly those in the inner Melbourne regions compared with others living in outer fringe suburbs (Burke & Hayward 1990) and housing price increases and capital gains showed 'a substantial class bias' (Burbidge 2000). Maher (1994) has also identified distinct spatial differences in the distribution of house price changes in Melbourne in the late 1980s and argued that such differentials create inequities in: population and labour mobility; access to housing; the quality of the environment; and access to public goods and services.

## **1.1 Final Report structure**

The rest of this Final Report is divided into six parts. Chapter 2 reviews a range of academic studies that have examined urban socio-spatial inequality and, in particular, the role the housing market and mobility play in creating or reducing such inequalities. Chapter 3 next describes the research approach and the major data sources used in this analysis. Chapter 4 presents summary indicators of polarisation in Melbourne

between 1986 and 2006 and goes on to place each SSD into one of four housing market types. These housing markets are then broadly described in terms of socio-economic patterns since 1986. Chapter 5 provides the heart of the analysis, that is, an empirical exploration of the migration flows between 2001 and 2006 both into and out of the four housing market types. Chapter 6 provides a summary of the key findings and the policy implications of the findings.

## 2 SOCIO-SPATIAL DIFFERENTIATION AND THE ROLE OF LOCAL HOUSING MARKETS AND POPULATION MOBILITY

This chapter aims to review the literature related to ways in which housing creates spatial and social inequality in cities and to introduce the role of population mobility as the background driver leading to socio-spatial divisions.

Social and spatial divisions in urban areas are not new, yet changes in the rate and nature of these divisions over the past twenty to thirty years have concerned scholars, planners and authorities alike. These shifting socio-spatial patterns, and the processes driving the changes, have been well-documented for cities both internationally and in Australia. In developed nations, several studies point to interrelated changes in economic, political and social structures as the force behind growing urban socio-spatial divisions (Kesteloot 1998; Baum et al. 2006). For example, referring to Australian capital cities, Baum et al. (2006) argue that employment restructuring, the dismantling of the welfare state, and shifts in household structures, have exerted a strong impact on spatial patterns. Their research statistically identified seven distinct clusters of Statistical Local Areas (SLAs) that represented different degrees of social advantage and disadvantage and concluded that Australia is experiencing 'the emergence of a set of new social realities reflected in differentiated socio-spatial and socio-economic processes' (Baum et al. 2006, p.1550). Other Australian research suggests that economic restructuring (and in particular, the decline in the manufacturing sector), as the most powerful process that has intensified the underlying historical urban divisions (O'Connor et al. 2001).

These shifts in urban socio-spatial distributions require new explanations. As Randolph (2004) describes:

something new has happened to the structure of our cities over the last two decades or so that can be seen to represent a threshold between earlier phases of urbanisation and what we might, for want of a better term, call 21st-century Australian cities (Randolph 2004, p.482).

Randolph is not alone, nor the first, in recognising this need (for example, Lee 1994, p.1192). A considerable language has arisen around research that attempts to explain urban socio-spatial distributions. In studies world-wide, socio-spatial inequalities have been portrayed in various terms, including:

- social and spatial polarisation (Hamnett 1994; Murphy & Watson 1994; Dorling & Woodward 1996; Badcock 1997; Baum 1997; Andersen 2002; Reynolds & Wulff 2005)
- social exclusion and deprivation (Kesteloot 1998; Langlois & Kitchen 2001)
- the dual or quartered city (Marcuse 1989; Marcuse & Van Kempen 2000)
- locational disadvantage (Maher et al 1992; Beer 1994; Maher 1994)
- social disadvantage (Randolph & Holloway 2005).

Longer-established terms, such as segregation, poverty and – more generally – inequality, also continue to be employed when discussing contemporary patterns of urban differentiation.

This present study generally employs the concept of 'socio-spatial polarisation' although other terms are mentioned in different contexts. The term, 'socio-spatial



polarisation' refers broadly to the growing gap between rich and poor households in both socio-economic position ('socio') and geographic location ('spatial').

## **2.1 The housing market and socio-spatial divisions in cities**

At the core of this present study is the recognition that the structure and functioning of the housing market play a fundamental role in the creation of spatial patterns of inequality in cities. The housing market also operates to consolidate or intensify inequalities among different urban social groups. Given that housing is embedded in spatial locations, housing can contribute directly to a household's access to services and quality of life. These outcomes are interlinked and influenced greatly by the economic capacity of the household.

### *2.1.1 Spatial differentiation and the housing market*

As introduced above, the housing market determines where people live in a city and, as a result, directly influences spatial patterns of inequality. Dwellings are physically situated in locations with differing access to basic amenities, services, education and employment opportunities. Many low income households find themselves trading off better access to services in their search for affordable private rent or home ownership. The level of urban amenity tends to be directly related to the price of housing with high-amenity areas containing the costliest and low-amenity areas the cheapest. Cass refers to the 'stark differences' in residents' access to services between high- and low cost housing market areas (Cass 1998). Australian research into locational disadvantage (see Maher 1999 for an overview) emphasised that the importance of location derives from the contribution it makes to the real income and well-being of households. A US-based study describes these locations as 'opportunity structures' that convert 'social class distance into spatial distance and back again' (Dwyer 2007, p.23). As Cass (1998, p.63) observed, 'physical locations themselves do not cause disadvantage'. Instead, disadvantage arises from housing market processes and government policies that deliver services, programs and economic benefits unevenly across metropolitan regions. Housing market dynamics leading to rising house prices and rent levels can block low income households from accessing housing in these usually well-resourced areas and leave them few residential options apart from poorly resourced areas.

Housing has been described as containing a bundle of goods, incorporating preferences for owning or renting, dwelling structure and size, quality, space and location (Maclennan 1982, p.38). Studies have focused on different aspects of housing and shown how it contributes to spatial inequality.

### *2.1.2 Dwelling structure*

Physical dwelling structure, for example, has been found to determine where particular social groups live in a city. Van Weesep and Van Kempen (1992) argued that in Dutch cities the nature of the housing stock determined patterns of segregation. In large cities within the Netherlands, the authors discovered that the poor were concentrated within the inner city, while the more affluent resided outside. They argued that this segregation resulted largely because the old, small, poor-quality stock (and thus inexpensive) clustered within the cities and was the only stock affordable for poorer households. In a Melbourne-based study, the authors also believe that falling house prices in areas of high concentrations of the poor were likely to reflect, among other things, the 'quality and social reputation of the housing stock' (p.62). The areas were established in the 1960s making the stock now 'outdated by contemporary standards' and in the case of two of the areas, was largely made up of ex-public

housing dwellings (Birrell et al. 1999, p.62). In another study focusing on Melbourne, Burke and Haywood (2000) argued that in vulnerable or 'at risk' suburbs:

The reliance on a 'market-led' resurgence...is handicapped by the quality of the stock. The dwellings are not solid brick Victorian terraces awaiting gentrification, but more likely 1950s weatherboards or brick veneers which, because of cheap construction and minimal maintenance, have reached the end of their economic life ... There is not likely to be a spontaneous market-led regeneration of these areas (Burke & Hayward 2000, p.77).

However, it is these very areas of falling house prices and poor-quality stock that are the most affordable locations for low income households to live.

### 2.1.3 *Tenure*

Tenure also plays a part in creating spatial differentiation in cities. In Greater Copenhagen, Denmark, where social housing constitutes around 19 per cent of dwellings, Andersen et al. (2000) documented the role that tenure and state housing policy can play. This study found that local councils implicitly promote owner-occupation by refusing to build more social housing. In this way, local councils attract higher income households and simultaneously force low income households to leave their municipalities. Thus the composition of housing supply in each municipality is a result of not only demand, but also deliberate council policy, and thus the nature of segregation differs between council municipalities. In Australia, Burbidge and Winter (1996) argue similarly that the government's role in housing provision needs to be recognised in order to understand changes in the extent and spatial distribution of urban poverty. Successive government policy decisions have allocated public housing in Australia to increasingly lower income households. Given that public housing itself tends to be spatially concentrated, the authors contend that the state has contributed to spatial inequalities and concentrations of poverty within these areas. But, as the authors also acknowledge, with such a small proportion of Australian households in public housing (less than 5% in 2006), the residential location of the majority of low income families will be determined by either the private rental market or home purchase market. Randolph (2004) points out that since public housing estates are being 'diversified away' through urban renewal programs, the disadvantage that has for so long been associated with these estates will now shift to the private housing markets of the 'ageing middle suburbs'. These latter areas will 'become the next great focus of public action', and even, 'the new slums of the 21<sup>st</sup>-century Australian city' (p.488).

In Australian cities, the dominant tenure form is owner-occupation (68%) followed by private rental (21%). Accordingly, the location of the small amount of public housing stock will exert only limited influence on patterns of inequality in Australian urban areas. Unlike the public housing stock, moreover, the remaining majority of private dwellings are not 'purpose-built' for a particular tenure type and, as Yates and Wood (2005) have found, these dwellings quite frequently transfer between the private rental and owner-occupation markets. This study by Yates and Wood lends empirical support to Randolph's (2004) claim, that disadvantage is now shifting to the private housing market. Yates and Wood (2005) provide evidence for increasing spatial polarisation or concentration of dwellings in the low-rent segment of the private rental market in Sydney. They found that the residential choices available to lower income households in Sydney are 'narrowing' as the location of the low-rent stock increasingly concentrates, a process they refer to as 'market-driven spatial polarisation' (2005, p.92). Randolph and Holloway (2005, p.176) acknowledge the contributing role of broad macro-economic changes, yet argue that at the local level, '... it is the housing market that determines the precise geography of disadvantage'. This point is

reinforced in Melbourne-based research that concludes that the 'Winners and losers in the economic race are sorting themselves out geographically through the agency of the private housing market'—prices in the poorest areas are lower, the stock is poor quality and has a poor social reputation, and in some areas, there are large numbers of ex-housing commission dwellings (Birrell et al. 1999, p.62). While tenure plays a role in generating patterns of spatial differentiation in Australian cities, other aspects of housing markets may be even more influential. The most important sorting device is price.

#### *2.1.4 House prices and rent levels*

Reynolds and Wulff (2005) in a study of Melbourne found evidence of a strong link between trends in polarisation and house prices over the period 1986 to 1996. Analysing trends at the suburb level, they found growing socio-economic advantage concentrated in the inner and eastern middle suburbs, surrounded by increasing disadvantage in the west and south-east. The fringe suburbs, often considered to be socially homogenous, showed a more differentiated pattern. As the authors observe, where once the housing market was viewed as a channel through which home ownership might moderate socio-economic inequalities, it is now 'exacerbating the inequalities generated by the labour market' (Reynolds & Wulff 2005, p.23).

Spatial differentiation in Melbourne house prices has been part of the urban structure of the metropolitan area for many decades. Gondor and Burbidge (1992), for example, examined differential levels of capital gains across Melbourne between 1974 and 1990. Noting that capital gains were not distributed evenly throughout Melbourne over this period, the authors pointed out two main implications of spatially differentiated price gains on housing. First, the increased wealth inequality between households in mainly inner and middle suburbs of Melbourne that enjoyed the highest capital gains, and those in the surrounding outer and fringe suburbs where house price increase was not as great. Maher (1994), too, documented the marked spatial variability in house price change, at both the inter-metropolitan scale between major capital cities, and the intra-metropolitan scale, within localities in Melbourne. Linking these house price inequities to broader issues of social disadvantage, Maher argued that price inequities affected differential access to public goods and services and the nature and extent of residential differentiation as well as future urban development (Maher 1994).

## **2.2 Household income**

Levels of income, particularly in market economies, determine the ability of a person or household to access goods and services that support their standard of living (Saunders 2001), and thus consumptive choices and opportunities will vary for individuals and households differentiated by level of income. It is within this socio-economic context that income variables provide a valid and accepted measure of general living standards, and provide the means to measure changes in these over time and space.

The availability of adequate income plays a fundamental role in the quality of life and well-being of individuals, households and groups (Maher & Burke 1991). Differences in the income distribution among various social groups or spatial areas (and changes over time) can signify differences in levels of well-being and living standards (Myers 1992; Bourne 1993; Gibbs & Knight 2000; Saunders 2001). Most studies measuring socio-spatial differentiation employ household income as a key measure.

In a study into the spatial distribution of income within inner areas of Canadian cities, Bourne (1993, p.1294) used income 'as a convenient proxy variable for social class, economic status and material well-being'. Logan (2000, p.178) used the median

household income of census tracts as a 'general purpose indicator of neighbourhood quality', based on the knowledge that higher income areas generally have greater access to higher-quality goods and services. In spatial terms, MacLachlan and Sawada (1997) believe that income distribution is largely responsible for patterns of social differentiation in cities. Australia's documented widening income gap suggests that spatial divisions have widened accordingly. In the ten years to 2005–06, Australian real median weekly equivalised disposable income increased by 34 per cent overall, yet higher income households reaped the greatest benefit from this increase, at a rate 9 percentage points greater than low income households (AIHW 2007).

### **2.3 The role of mobility in shaping socio-spatial patterns**

Between 2001 and 2006, 6.6 million Australians (aged 5 years and older) changed their place of usual residence. This accounts for approximately 40 per cent of the Australian population (aged 5 and over). These moves are the basic force that shapes the pattern of settlement within Australia (ABS 2009). Population mobility, as the prime agent of population redistribution (more important in nearly all places than variations in fertility and mortality) is fundamental to understanding spatial demographic and economic change.

Demographers and geographers have a long-standing interest in patterns of spatial mobility. Mobility (or migration as it is referred to more broadly) has a direct impact on population distribution and can alter the characteristics of areas, markets and needs. Mobility involves considerable economic activity and therefore is important for forward planning, both for government and for business. Needless to say, mobility has direct implications for the property investment and development industries.

Mobility research encompasses both long-distance migration (including inter-regional, interstate and international moves) as well as short-distance residential moves. Studies of population mobility are regularly released by the ABS and each census year brings about a more detailed examination (see, for example, Bell 1995 for an overview).

Surprisingly, the ways in which mobility shapes the locations of origin and destination communities within cities has not received a great deal of attention. These questions have been more commonly asked in studies of long-distance movers such the analysis of changing preferences for coastal living or 'the bush' in 'the big shift' (Salt 2001) or life style preferences of relatively affluent empty nesters in the 'sea change' (Burnley & Murphy 2004).

In his review of residential mobility (local moves) research, Dieleman (2001, p.249) notes that prior to Rossi's influential study of 'why families' move (Rossi, 1980), mobility research had focused almost entirely on documenting individual (person level) patterns of origin and destination to the neglect of household analysis. Dieleman credits Rossi with forging the now established link between residential mobility and housing research, 'a link now taken for granted but quite unusual at the time' (Dieleman 2001, p.249).

In studies of intra-urban household moves, the gentrification literature comes closest to bringing in the analysis of mobility, although the questions are usually couched in terms of higher income households 'displacing' lower income households (Atkinson & Wulff 2009). The authors suggest that gentrification refers to 'the migration of higher income and status groups to lower social status/income neighbourhoods and derelict housing and the consequent transformation of such areas to higher status neighbourhoods' (Atkinson & Wulff 2009, p.6). The gentrification literature tends to

focus on the displacement of low income households by higher income households and does not consider other possible movement flows such as higher income households moving into already high income areas, thus boosting the socio-economic status or higher income households moving out of low income areas and leaving a residual population behind (van Ham & Clark 2009; South & Crowder 1998; Massey et al. 1994). Atkinson's work (2000) on London represents one of the few studies that determined that migration patterns were more significant than status improvements among the resident population in explaining gentrification outcomes.

Van Criekingen (2009) points out in his study of gentrification in Brussels that migration dynamics are under-investigated in the gentrification literature, although researchers seem to imply that it is the key process lurking in the background.

Likewise, household residential moves also drive the changing patterns of socio-spatial polarisation playing out in cities world-wide. The movement of different population groups into or out of areas of the city acts as a force in creating or reshaping housing markets. Dieleman (2001, p.262) argues that the 'research frontier' in the study of residential mobility should investigate how mobility behaviour interacts with local housing markets (and vice versa, how changes in local housing markets affect mobility choices).

In conclusion, this chapter has provided an overview of the multiple ways in which housing markets contribute to patterns of spatial inequalities in cities. The housing market contributes strongly to the sorting and shifting of different socio-economic groups in the city. The discussion of population mobility reminds us of the need to understand how migration dynamics can change housing markets and socio-spatial position.

### 3 RESEARCH APPROACH

This research examines the role mobility plays in contributing to socio-spatial polarisation and focuses on Melbourne, Australia. It addresses the question of the socio-economic position of households moving into and out of different housing markets. Have housing markets been reshaped by the net gains or losses of different household income groups between 2001 and 2006? Is there a selectivity process operating in different housing market areas?

#### 3.1 Household mobility analysis

The mobility analysis examines migration patterns at the household level for each of Melbourne's SSDs between 2001–2006. The analysis specifically examines:

- the percentage distribution of in-movers by geographic origin (local, elsewhere in Melbourne, elsewhere in Australia or overseas)
- net household gains and losses by geographic origin and destination for each SSD
- impact of in- and out-mover households on local SSD household income structure (in other words, selective migration by household income groups).

The mobility analysis is based on the ABS Census question pertaining to usual place of residence five years ago and usual place of residence on Census night 2006.

The key data source is a customised 2006 ABS migration matrix. This file, produced specifically for this project, is based on 2006 Census data. The migration file consists of individual records for all persons (full count Census data) and provides their geographic changes in residence between 2001<sup>3</sup> and 2006. It also contains several categorical variables, including age, household income and living arrangements. The matrix contains the counts of the number of persons who fall within all possible cross-classifications of the variables. Our analysis focuses on 1.3 million reference persons aged 15 years and older who lived in metropolitan Melbourne in 2006. Melbourne is classified into the sixteen Statistical Subdivisions, plus rest of Victoria and rest of Australia.

The analysis is based on the reference person of the household, therefore making this a study of household-based mobility. A growing body of research acknowledges the capacity of different types of households to transform urban regions. Households, particularly in terms of their mobility patterns, have been described as 'the agents of urban transformation' (Buzar et al. 2005, p.413).

ABS defines households as groups of 'one or more persons, at least one of whom is at least 15 years of age, usually resident in the same dwelling' (ABS 2006, p.192). Each household contains a reference person (also referred to as person 1) who is the starting point for determining relationships within the household and whose characteristics (such as 'age'), determine the characteristics applied to the whole household (e.g. the 'age of the household').

In the ABS Customised Migration Matrix, four household income categories are defined and are shown in Table 1.

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<sup>3</sup> A person's 2001 usual residence identifies if they were living overseas.

**Table 1: Weekly household income categories (in \$2006 dollars) for the Melbourne Special Request Internal Migration Matrix, Australia 2006**

<i>Weekly household income \$2006</i>	<i>Frequency</i>	<i>Per cent</i>
< \$499	1,389,976	19.5
\$500 – \$799	1,184,359	16.6
\$800 – \$1,699	2,178,000	30.5
\$1,700 & over	1,589,563	22.3
NS & PS	802,192	11.2
Total	7,144,090	100.0

Source: Australian Bureau of Statistics Census of Population and Dwellings 2006, Melbourne Special Request Internal Migration Matrix

It can be seen from this table that just over 11 per cent of households are recorded as having either not stated or partially stated their household income. Accordingly, for the purposes of the migration analysis, partially stated and not stated households were removed and three household income categories were devised. Low household income refers to households with incomes in the bottom two income quintiles. This is conventional government practice when defining low income for policy purposes. High income refers to households with incomes in the top quartile (or 25% of all incomes).

**Table 2: Grouped weekly household income categories (in \$2006 dollars) for the Melbourne Special Request Internal Migration Matrix, Australia 2006**

<i>Weekly household income \$2006</i>	<i>Frequency</i>	<i>Per cent</i>
Low household income	2,574,335	40.6
Middle household income	2,178,000	34.3
High household income	1,589,563	25.1
Total	6,341,898	100.0

Source: Australian Bureau of Statistics Census of Population and Dwellings 2006, Melbourne Special Request Internal Migration Matrix

### *3.1.1 Modifiable areal unit problem (MAUP)*

Polarisation studies have been conducted on several different spatial scales (Reynolds & Wulff 2005) with no single geographic scale being superior. Rather, distinctive socio-spatial patterns can be found at a range of scales.

Melbourne consists of sixteen SSDs as determined by the ABS. Although fairly broad spatial units, SSDs are nonetheless described by ABS as representing 'socially and economically homogenous regions characterised by identifiable links between the inhabitants' (ABS 2008:14). The boundaries of these SSDs have remained unchanged during the census years, 1986, 1996 and 2006 and thus census data related to these areas can be consistent over time.

**Figure 1: Melbourne Statistical Subdivisions (SSDs), 2006**



Source: ABS digital boundaries, 2006 Census of Population and Housing.

All spatially focused research based on ABS Census data is subject to issues related to the MAUP. These include: (a) the scale effect, whereby different spatial resolutions can result in different results; and (b) the zoning effect, whereby different groupings of areal units can produce varying results (Fotheringham et al. 2000, p.237). The results of this study would be most impacted by the 'scale effect' resulting mainly from the large geographic size of the spatial units under analysis (the SSDs). Adopting a smaller spatial unit would likely involve greater internal homogeneity in sale prices and thus a more precise classification. Furthermore, a smaller spatial unit would impact upon the households identified as moving 'locally' (within their SSD) or from/to another SSD. In this instance, a smaller spatial unit would give a different meaning to 'local or intra-Melbourne move'. The authors were mindful of MAUP implications such as these in project formulation, and certainly data, time and budget constraints prevented the sort of 'experimentation' with the data on a variety of spatial scales that Monmonier (1996) has recommended. In this study, the SSD was a sound choice for analysis because, as stated above:



- It allowed a whole of Melbourne analysis without being overly complex or confusing (a study examining a smaller region, such as south-east Melbourne for example, could adopt a finer spatial unit).
- High quality, customised census data were available for Melbourne at the SSD level over a twenty-year period.
- As stated by the ABS, the SSDs are regions of some internal social and economic homogeneity. Appendix B provides a table of housing and income characteristics for each SSD.

### 3.1.2 *Housing markets based on relative house prices*

In order to gauge the impact of household mobility on different housing markets, the analysis groups the sixteen SSDs into four broad housing market types based on the relative growth in house prices between 2001 and 2006.<sup>4</sup> In other words, do households of differing income levels disproportionately move into or away from different markets? Do different markets display different mobility patterns? The four types are referred to as 'very high cost', 'high cost', 'average to low cost', and 'very low cost' and each represent a number of ABS-defined SSDs. The grouping of different SSDs into four 'housing market types' is based on the median sale prices for houses relative to the overall Melbourne housing market in 2001 and 2006. This step provides the framework for linking the outcomes of the migration analysis to housing markets.

The data source for the house price analysis is drawn from individual sale price records for houses and flats in Victoria for 2001 and 2006. This information has been supplied to Monash University by LANDATA, Victorian State Government Department of Sustainability and Environment. We have constructed a database that merges unit-record level residential sale files for the calendar years 2001 and 2006. All prices have been adjusted to \$2006 dollars.

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<sup>4</sup> Household mobility data relating to each SSD within a particular housing market type is shown separately.

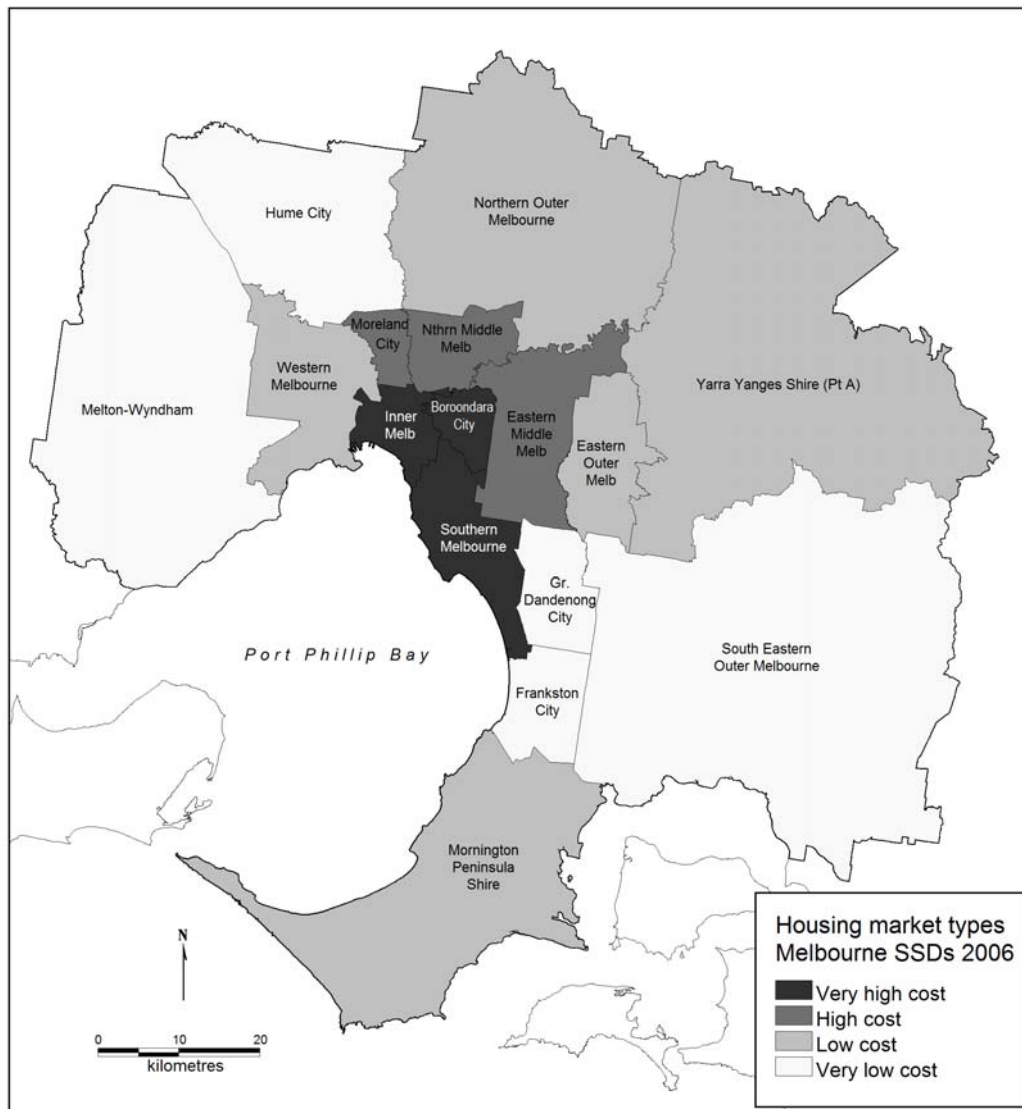
**Table 3: Classification of Melbourne Statistical Subdivisions (SSDs) into four housing market types**

		<i>Median house sale price: per cent difference from Melbourne median</i>	
		<i>2001</i>	<i>2006</i>
Very high cost SSDs (well above Melb. median)	Inner Melbourne	89	81
	Boroondara City	127	131
	Southern Melbourne	61	67
High cost SSDs (above Melb. median)	Eastern Middle Melbourne	30	28
	Northern Middle Melbourne	14	8
	Moreland City	14	5
Low to average cost SSDs (below Melb. median)	Mornington Peninsula Shire	-13	-2
	Eastern Outer Melbourne	-11	-7
	Western Melbourne	-2	-7
	Northern Outer Melbourne	-3	-8
	Yarra Ranges Shire Part A	-20	-17
Very low cost SSDs (well below Melb. median)	Greater Dandenong City	-32	-24
	South Eastern Outer Melbourne	-27	-24
	Frankston City	-30	-24
	Melton-Wyndham	-35	-25
	Hume City	-25	-27

Source: Derived from Victorian Government (DSE) LANDATA house sale price data, 2001 and 2006.

The regions have been classified by median house sale price relative to the Melbourne median in the years corresponding to those on which the mobility analysis is undertaken: 2001 and 2006. Table 3 shows each SSD classified into one of four groups: a very high cost housing market, with a median sale price well above the Melbourne median; a high cost housing market; a low (to average) cost housing market; and finally, a very low cost housing market (a quarter or more below Melbourne average price). Figure 2 presents the spatial distribution of the housing market classification.

**Figure 2: Melbourne Statistical Subdivisions (SSDs) by housing market type**



Source: ABS digital boundaries, 2006 Census of Population and Housing, and; Victorian Government (DSE) LANDATA house sale price data, 2001 and 2006.

The inner core of very high cost markets is prominent, along with the lower priced markets on the fringe. Of interest, furthermore, are the very low markets of Greater Dandenong and Frankston, with at least the former a middle-to-outer ring location rather than fringe.

The next chapter provides summary indicators of polarisation in Melbourne between 1986 and 2006. Following this, the broad characteristics of the SSDs within each housing market type are discussed. This provides background for discussing the results of the migration analysis in Chapter 5.

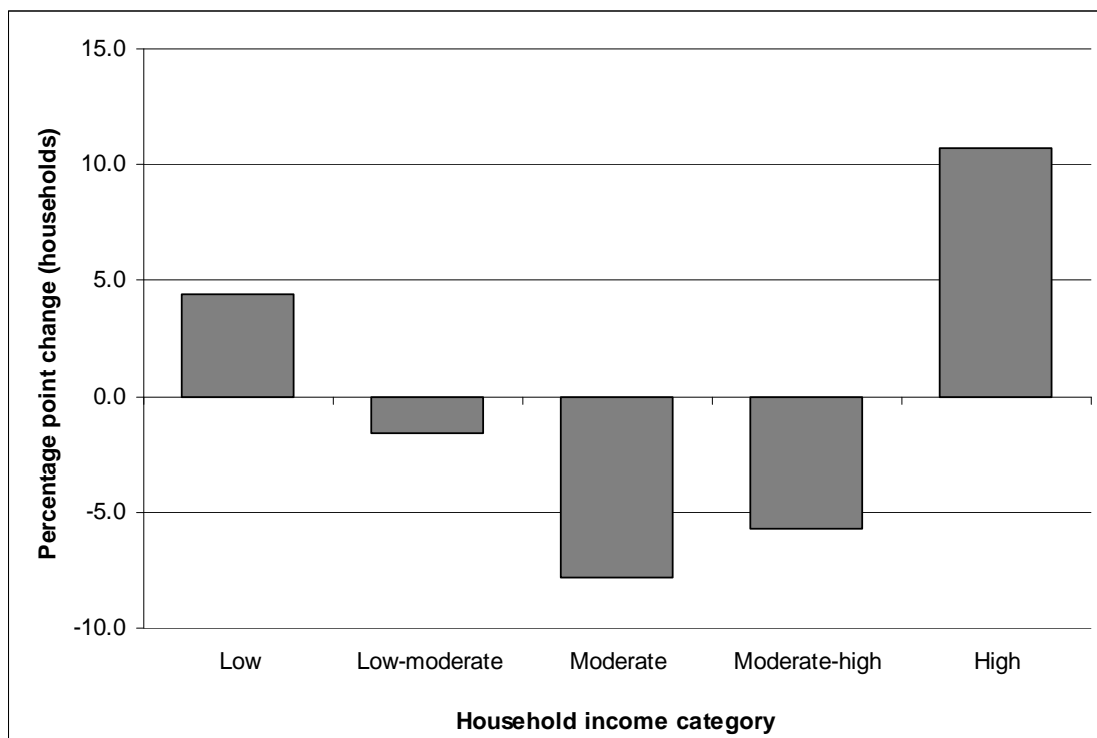
## 4 SOCIO-SPATIAL POLARISATION AND HOUSING MARKET TYPES

As discussed in Chapter 2, a range of housing market factors relating to specific locations (such as tenure patterns, dwelling types, and importantly the average costs of purchasing or renting a home) shape socio-spatial patterns in many cities worldwide.<sup>5</sup> Melbourne is no exception and property sale prices vary considerably across the Melbourne SD. Disparities are apparent even at the broad SSD level. In terms of 2006 median house sale price, for example, the highest median price was \$790 000 in Boroondara, an amount over three times that attained in Hume City which recorded the lowest median house sale price of \$248 000.

### 4.1 Indicators of socio-spatial polarisation

Turning specifically now to Melbourne, the city under investigation in this study, the following three figures reveal that polarising processes over the 1986 to 2006 period were clearly identifiable in both Melbourne's housing market and household income structure. Figure 3, for example, shows percentage point change in five consistent household income categories between 1986 and 2006. A characteristic pattern of polarisation is evident in Melbourne's changing household income structure: an increase in the share of low- and high income households and a relative decline in the three middle groups.

**Figure 3: Percentage point change in Melbourne's household income structure: 1986 to 2006**

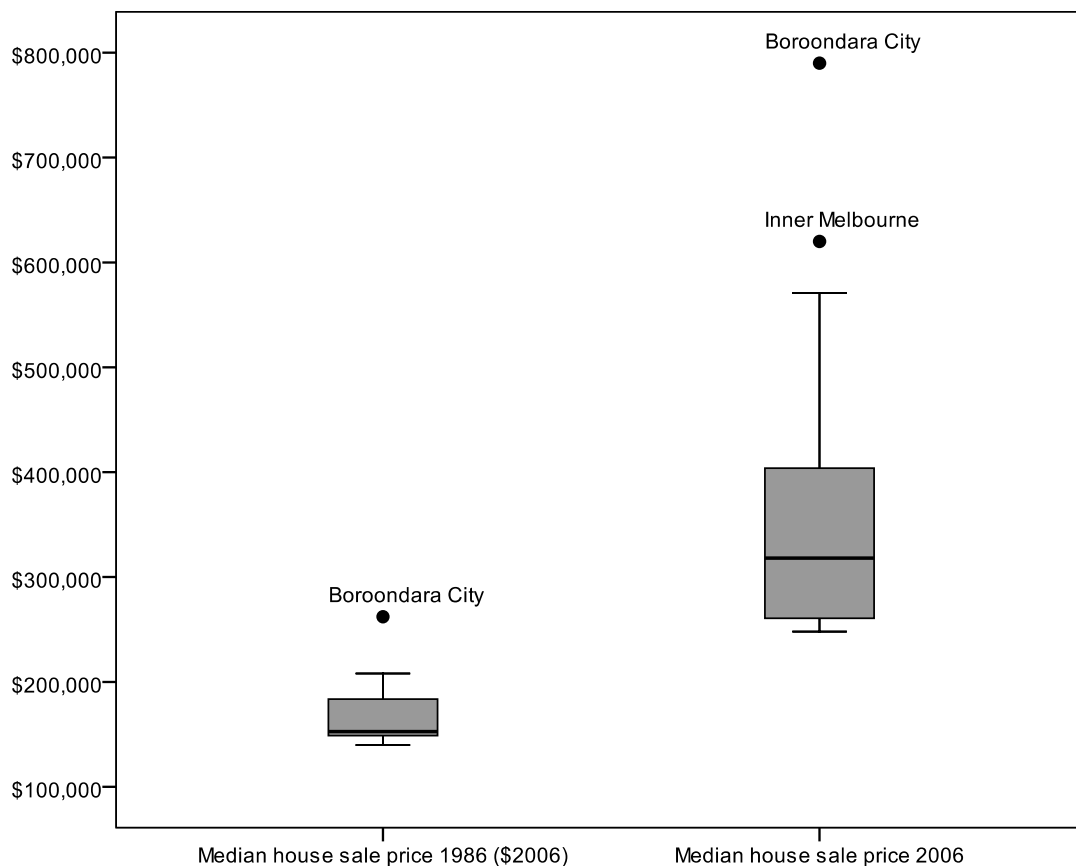


Source: ABS customised data sets, 1986 and 2006 Censuses of Population and Housing

<sup>5</sup> The household mobility analysis focuses on the variations in house prices across the SSDs.

Figure 4 compares the distribution of median house sale prices in 1986<sup>6</sup> and 2006 for the sixteen Melbourne SSDs. The box plots show clearly that the range of median sale prices for the SSDs in 2006 was much greater than twenty years earlier. In summary, the gap between the least and the most affordable housing markets has increased. In 1986, sale prices were grouped closer to the Melbourne median and only the SSD of Boroondara was considered an outlier. A very different pattern is apparent in 2006. Specifically, in 1986, median house prices in the Melton-Wyndham SSD were the lowest with an overall median of around \$140 000 (in \$2006) or 16 per cent below the overall Melbourne median. In the same year, Boroondara enjoyed the highest median house sale figure at around \$262 000, or 57 per cent above the metro-wide median. At the SSD level, therefore, median house sale prices were spread over a 73 percentage point range in relation to the Melbourne figure. However, in 2006 median house prices in Hume SSD were 27 per cent below the Melbourne median and median house prices in Boroondara were 131 per cent above the metropolitan figure. The spread of median house sale prices, therefore, had increased to 158 per cent: the gap between the lowest and highest housing markets had more than doubled over the two decades.

**Figure 4: Distribution of median house sale prices for Melbourne Statistical Subdivisions (SSDs) in 1986 and 2006**



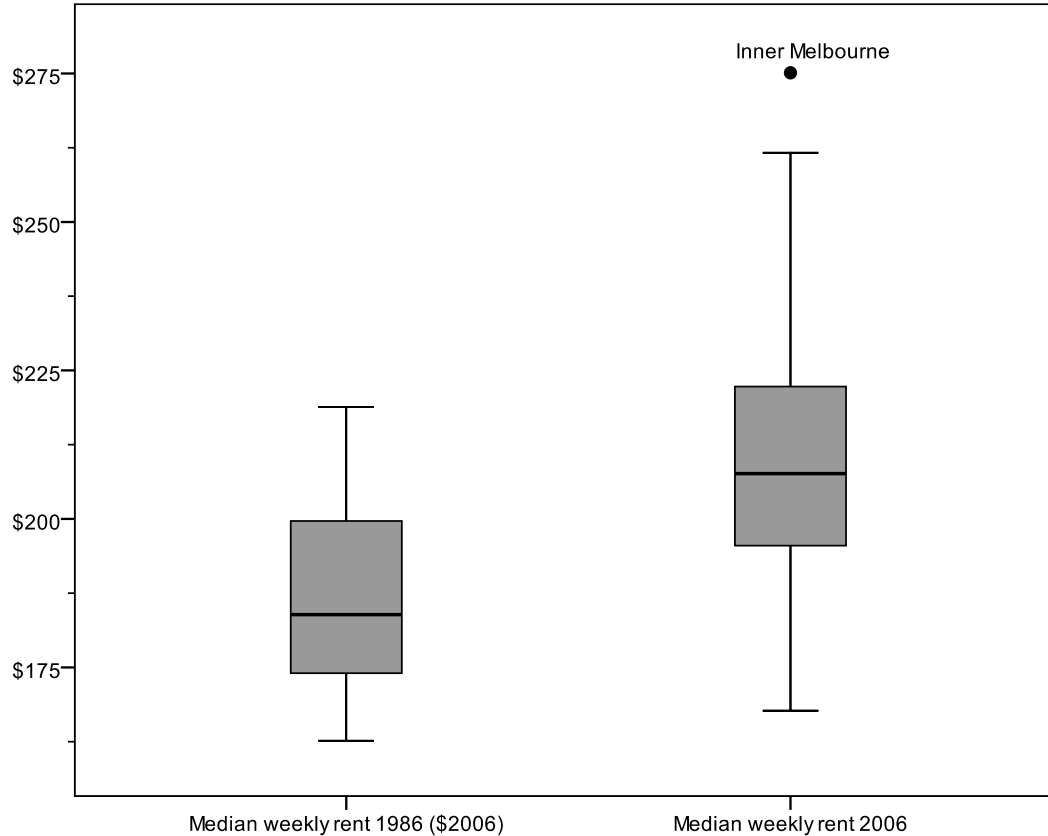
Source: Victorian Government (DSE) LANDATA house sale price data, 1986 and 2006.

Figure 5 compares the distribution of median weekly private rents for the sixteen Melbourne SSDs in 1986 and 2006. The range of values again increased, although not as dramatically as the median house price values shown in Figure 4. The

<sup>6</sup> Note: all 1986 dollar values have been inflated to 2006 dollar values using the June CPI (Australian all groups) figures ( $(154.3/75.6) = 2.04$ ).

percentage point gap in median weekly private rents between the lowest and highest SSD expanded from 31 to 48 percentage points. In dollar terms, this translated to a \$56 (in \$2006) gap in 1986 rising to \$107 in 2006 or nearly double.

**Figure 5: Distribution of median weekly private rents for Melbourne Statistical Subdivisions (SSDs) in 1986 and 2006**



Source: ABS customised data sets, 1986 and 2006 Censuses of Population and Housing

## 4.2 An overview of housing market types

This chapter describes the broad characteristics of the SSDs as grouped by housing market types.<sup>7</sup> The discussion provides a temporal, socio-economic background for the population mobility results that are presented in Chapter 5.

### 4.2.1 Very high cost SSDs: Inner Melbourne, Boroondara and Southern Melbourne

The SSDs classified as very high cost housing markets adjoin each other from Inner Melbourne through to the east (Boroondara) and the south (Southern Melbourne). House prices had steadily increased over time in these SSDs. In the three SSDs included in the 'very high cost' housing markets, the average median sale price ranged from \$571 000 (Southern) to \$620 000 (inner) and \$790 000 in Boroondara (the highest recorded median price among the sixteen SSDs). Of the three, the median price in Southern was below the other two, yet this figure was still over two-thirds higher than the Melbourne median. Private rents also soared over the past twenty years. In these areas, the household income structure had shifted upward with

<sup>7</sup> Additional, in-text statistics in this chapter were sourced from the online ABS programs Quickstats and Table Builder (2006 census). The sources for the data presented in each table were, as stated, ABS customised census data sets and LANDATA (DSE) property sale prices.

steady growth since 1986 in the proportions of high income households. By 2006, very high cost SSDs had claimed the three highest shares of high income households among the sixteen Melbourne SSDs.

Very high cost housing markets also underwent strong growth in the share of professionals and managerial households, and in the share of residents with graduate qualifications.

The three very high cost markets differed in dwelling stock and tenure characteristics. In Boroondara and Southern, the majority of the housing stock is in the form of separate houses, most of which are owner occupied. Inner Melbourne is unique in that 84 per cent of the stock is medium to high density and much of it in private rental. This reflects both the historic and recent developments in Inner Melbourne. Inner Melbourne SSD comprises the central business district (CBD), a number of gentrified surrounding suburbs and the revitalised former docklands area.<sup>8</sup> Docklands, immediately adjacent to Melbourne's CBD, experienced a dramatic transformation over the last decade with the establishment of high-rise housing developments, retail services and employment opportunities on the formerly disused and derelict site. House and apartment values in Inner Melbourne are now the second highest in the metropolitan region, with house sale prices rising by more than 120 per cent between 1996 and 2006.

Its housing market also stands out from the other SSDs. Unlike the predominantly home-ownership markets of other SSDs, Inner Melbourne is largely a rental market with a dwelling stock that consists mainly of medium- to high-rise dwellings. Inner Melbourne was host to an influx of overseas students with nominally low incomes. Fincher describes this influx of international students to Inner Melbourne as the 'backbone of the growth of the high-rise sector of the housing market over the past decade' (Fincher 2007, p.642). There is also considerable flux in the share of young couples and professionals with short-term employment visas who choose to live in Inner Melbourne, albeit for a short time, contributing to relatively high rates of population mobility.

Boroondara, located immediately to the east of the CBD (the core of the Inner Melbourne SSD), forms a residential area adjunct to the job-rich SSD of Inner Melbourne. The southern suburbs located along Port Phillip Bay include a mixture of high-priced communities with beach front access and other more modest areas characterised by light industry. These are established suburbs with a mix of separate detached and medium-density housing. The owner-purchaser rate (71%) and private rental rate (21%) correspond to Melbourne's rates.

#### *4.2.2 High cost SSDs: Eastern Middle Melbourne, Northern Middle Melbourne, Moreland City*

Geographically, the SSDs classified as high cost housing markets border the very high cost housing markets on the north and east. The 2006 median house prices in Moreland and Northern Middle were very similar (\$360 000 and \$371 000 respectively) and just above the average house price for Melbourne. The third high cost SSD, Eastern Middle, had the median house price of \$436 500, 28 per cent higher than the median for Melbourne.

Overall, these high cost markets house well-educated professionals and each contains an above-average share of adults employed in professional and managerial positions. In terms of household income, these areas gained both low- and high income households during the 20 years to 2006 and lost middle-income groups.

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<sup>8</sup> For a detailed list of the LGAs and suburbs that are located in each SSD, see Appendix 1.

However, the growth in high income households was less pronounced than that documented in the 'very' high housing markets. The growth in both low- and high income households suggests some internal polarisation was occurring at the same time that these areas were pulling away socio-economically from other Melbourne SSDs.

High cost housing markets all have high rates of home ownership and mainly separate detached dwellings. However, Moreland had the second highest rate of private rental housing (26%). Most of the private rental dwellings located closer-in to Inner Melbourne.

Moreland and Northern Middle Melbourne are the only two SSDs within Melbourne to experience a reversal in median house prices between 1986 and 2006 from below Melbourne (in both 1986 and 1996) to above the Melbourne average.

#### *4.2.3 Low to average cost SSDs: Mornington Peninsula Shire, Eastern Outer Melbourne, Western Melbourne, Northern Outer Melbourne, Yarra Ranges Shire Part A*

The SSDs classified as low to average cost housing markets generally recorded 2006 median house prices at about 7 percentage points below the metropolitan median. The exception is Yarra Ranges Shire Part A with a median house sale price in 2006 (\$285 000) 17 percentage points below the Melbourne median. In the other four SSDs in this housing market type, the median sales prices ranged from \$315 000 (Northern Outer) to \$335 000 (Mornington Peninsula Shire). Between 1986 and 2006, these housing markets gained both low- and high income households. Three markets (Mornington Peninsula, Yarra Ranges and Western) each have some unique housing market features, while two (Eastern Outer and Northern Outer) are quite similar.

Mornington Peninsula SSD, for example, located at the southern tip of Melbourne, has a strikingly different ambience to the other SSDs. Some of Victoria's most attractive holiday destinations are located in this area. Over 30 per cent of the dwellings in this area were classified as unoccupied at the time of the census, indicating the large share of holiday homes found here.<sup>9</sup> It also has a large retired population as partly evidenced by the median age of 42 compared with 36 years for metropolitan Melbourne. On the whole, the 2006 median sale price (\$336 000) was around the Melbourne average. However, of interest is that between 1996 and 2006 house prices in this area increased much more rapidly than Melbourne. This is also reflected in the fact that in 1986 and 1996, median house prices in the Mornington Peninsula Shire were 15 to 17 per cent lower than Melbourne, yet in 2006 were just 2 per cent below. The year-round established sections of the Mornington Peninsula Shire had a median house sale price over \$130 000 lower on average than in the more holiday-period seaside areas of the Peninsula.

Yarra Ranges Shire, at Melbourne's north-eastern boundary, is another picturesque region located in and around the Dandenong Ranges. It contains many tourist activities as well as a burgeoning wine industry. It has the highest proportion of detached dwellings (94%) of any SSD in Melbourne. Unemployment is low. Its higher education rate (per cent of 25–44-year-olds with a Bachelor's degree or higher) is about half that of metropolitan Melbourne (16% compared with 30%). Eighty-three per cent of households own, or are purchasing, their homes and there is little private rental housing available. Two-fifths of households contain a couple with children, a figure that is higher than average for Melbourne (34.5%).

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<sup>9</sup> The average unoccupied figure for metropolitan Melbourne is 8 per cent.



Melbourne's Western region, traditionally a working-class sector of the city, has diversified socio-economically and it is marked by considerable internal variation. Closer to the CBD, for example, gentrifying areas such as Williamstown and Yarraville are highly sought after for old worker's cottages ripe for renovation, new medium-density developments, and an expanding range of shops and services. The SSD also contains rapidly growing family-oriented subdivisions toward the periphery marketed as affordable and community-based. Despite the growing internal social differentiation within the Western SSD, house prices remained below the Melbourne median between 1986 and 2006, although showing a slight upward trend. In addition, the cost of median weekly private rental remained between 9 and 12 per cent below the Melbourne median rent over this period.

Both Eastern Outer and Northern Outer Melbourne had 2006 median house prices about 8 per cent below the metropolitan average. Both are largely Australian-born, family suburban regions with a high home-ownership rate and mainly detached housing. Both retained a more-or-less stable income ranking among Melbourne's SSDs.

#### *4.2.4 Very low cost SSDs: Greater Dandenong City, South Eastern Outer Melbourne, Frankston City, Melton-Wyndham, Hume City*

In markets described as 'very low cost', 2006 median house prices all registered at least 24 percentage points below the metropolitan figure. Included in the very low cost housing markets are two extremely rapidly growing outer suburban regions (Melton-Wyndham and South Eastern Outer), another rapidly growing outer SSD (Hume) and two suburban SSDs (Greater Dandenong and Frankston).

Across these markets, house prices and incomes are fairly similar, yet distinctions can be made in terms of other household characteristics.

The rapidly growing markets abutting Melbourne's north-western and south eastern boundaries are all relatively new markets and attractive to young families seeking home purchase. Two of Australia's ten fastest growing Local Government Areas (LGAs) in the year 2007–2008, for example, are located in Melton-Wyndham. Between 1996 and 2006 this SSD experienced the highest population and household growth of any Melbourne SSD.

Approximately 45 per cent of households in these markets contain two-parent households with children (the comparable figures for Melbourne is 35%). Owner-purchaser rates are also very high, reaching 79 per cent, and the housing stock is comprised of nearly all separate detached dwellings.

Of the three outer suburban SSDs, Hume City has a somewhat different history. In the 1970s, a large section of Hume was developed as a public housing estate (Broadmeadows) to provide housing for workers at a new automotive plant. This area has suffered with the downturn in manufacturing that occurred in the 1980s. It is a culturally diverse area with a similar level of overseas-born residents as the Melbourne metropolitan region (29%). However, this diversity is not distributed evenly within Hume.

Over the 1986–2006 period, the Frankston housing market experienced relative declines in rents and house prices. Median weekly rents fell from about 4 per cent above the Melbourne median in 1986 to 17 per cent below in 2006; median house sale prices declined from 10 per cent below the Melbourne-wide median to 24 per cent below in 2006, and apartment sale prices also declined from about 5 per cent below to nearly 30 per cent below the overall Melbourne median in 2006.

In 1986, the Greater Dandenong SSD could be described as a middle-income region. However, by 2006 it had gained the reputation of a low income area. Between 1986 and 2006, Dandenong's proportion of very low income households doubled, while the share of high income households remained unchanged. In 2006 Dandenong had the lowest share of high income households of any SSD. Between 1996 and 2006 Greater Dandenong was also the only SSD to record a population loss. Overall, between 1986 and 2006, Melbourne's population grew by around 25 per cent yet the population of Dandenong declined by 0.7 per cent. Thus, despite a suburban location and an affordable dwelling stock, Greater Dandenong has failed to prosper.

Dandenong is a major refugee settlement point within Melbourne and counts among its residents the highest absolute number of overseas-born population (over 70 000 people) along with the highest relative share of overseas-born of any SSD in metropolitan Melbourne. In 2006, 56 per cent of Greater Dandenong's population had been born overseas. Over one-fifth of the overseas-born, or nearly 10 per cent of the total SSD population, had arrived in Australia since 2000. The majority of the migrants who arrived since 2000 came from Southern and Central Asia, Southeast Asia and North Africa and the Middle East. For example, Dandenong was host to more than 30 per cent of the annual Sudanese settlement to Melbourne in the period 1997 to 2005.

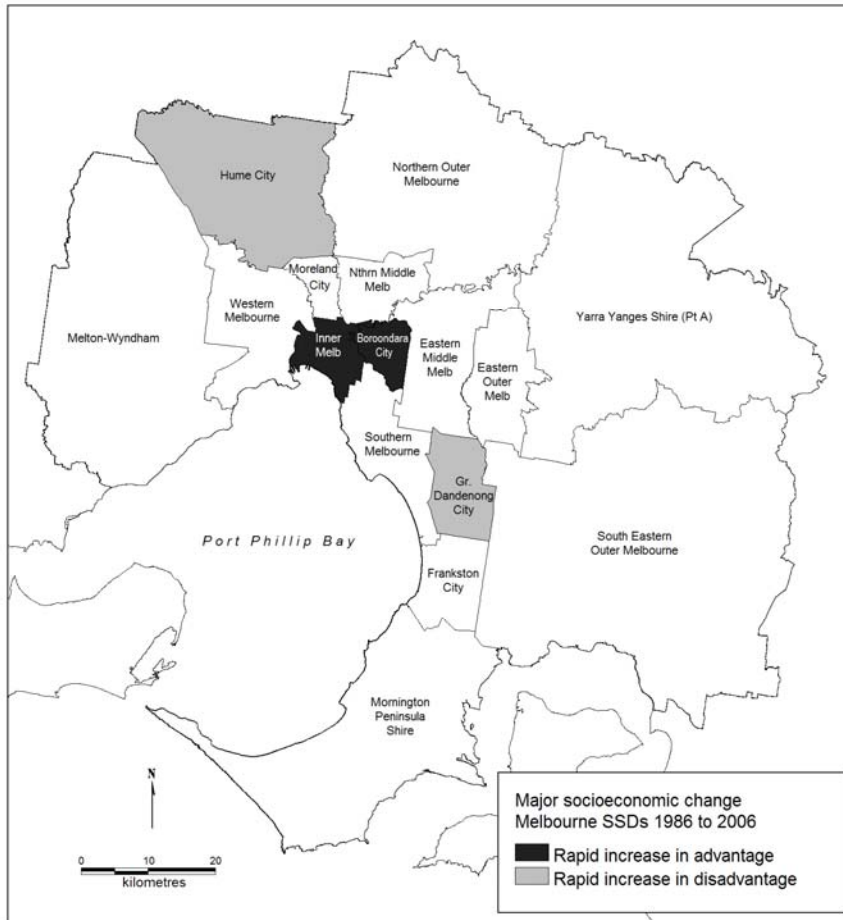
#### 4.2.5 Summary

The most notable socio-economic change among the SSDs in Melbourne occurred in the very high and very low housing markets, in other words at the extremes of household incomes and house prices. In particular:

- Inner Melbourne: median house sale prices soared between 1986 and 2006 from 16 per cent above the Melbourne-wide figure to 81 per cent above in 2006, and; median weekly rents rose from 5 per cent below the Melbourne median in 1986 to 24 per cent above in 2006.
- Boroondara City: experienced a dramatic rise in proportion of high income households (30 to 49%) and consolidated its position at the top of the high household income rankings. It had a dramatic increase in house sale prices relative to Melbourne-wide figures (from 57% above in 1986 to 131% above in 2006).
- Hume City: experienced a dramatic drop in house sale prices relative to Melbourne as a whole (from 8% below to 27% below the Melbourne median); a dramatic increase in proportion of households with low/low-moderate incomes (17% in 1986 to 29% in 2006).
- Greater Dandenong City SSD: underwent some of the most substantial changes over the two decades; for example: dramatic rise in proportion of low/low-moderate income households (24% in 1986 to 40% in 2006); dramatic decrease, relative to Melbourne, in the proportion of high income households (from 4 percentage points below the Melbourne average in 1986 to 14 percentage points below in 2006 – the greatest difference from the Melbourne average of all SSDs).

In terms of household income rank, Greater Dandenong's 2006 position is diametrically opposed to Boroondara City. These two SSDs demonstrate the sharpest degree of polarisation in Melbourne. Broadly speaking, the changes that occurred in the four SSDs listed above could be described as either a rapid move toward socio-economic advantage (Boroondara and Inner) or a rapid move toward socio-economic disadvantage (Dandenong and Hume). Figure 6 presents the geographic location of where these changes are occurring. It shows that not only are these SSDs polarised economically, but the 'gap' between them is also evident spatially.

**Figure 6: Statistical Subdivisions (SSDs) of growing advantage and disadvantage in Melbourne**



Source: ABS customised data sets, 1986, 1996 and 2006 Censuses of Population and Housing and Victorian Government (DSE) LANDATA house sale price data, 1986, 1996 and 2006.

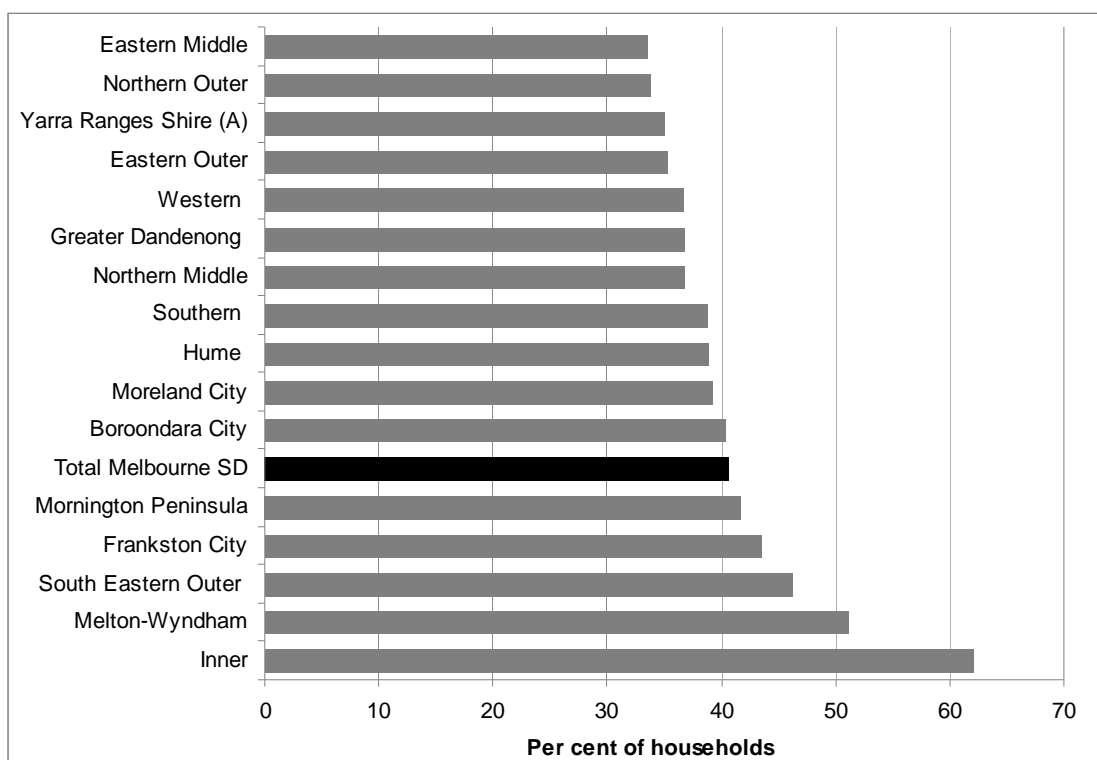
The next chapter examines the household mobility patterns in each of these SSDs. By presenting the SSDs under their housing market type, it is easier to discern whether there are particular mobility patterns operating within each market type, such as very high cost and very low cost.

## 5 HOUSEHOLD MOBILITY AND SOCIO-SPATIAL POLARISATION: MELBOURNE 2001–2006

The analysis now turns to the issue at the heart of this research: do household moves by different income groups contribute to levels of spatial inequality across metropolitan Melbourne? Household moves undertaken by different socio-economic groups potentially shape the social composition of both locations of origin and destination. In subsequent tables, the results are presented by housing market type (very high cost, high cost, low to average cost and very low cost) and focus on moves into, or out of, an SSD. However, first an overview of the total mobility levels within each SSD, including within-SSD movers, is provided.

On average, 41 per cent of Melbourne households in 2006 had changed residence since 2001 (Figure 7). These moves covered a range of geographic distances and spatial scales, including: from within the same SSD; from other SSDs within metropolitan Melbourne; from other SSDs within Australia (including regional Victoria and interstate moves); and international moves, in which the household reference person reported living overseas in 2001. One type of move that cannot be recorded in the Census involves those households that move overseas after the 2001 Census and have not returned in time to be counted in the 2006 Census.

**Figure 7: Household turnover rates,<sup>10</sup> Melbourne Statistical Subdivisions (SSDs) 2001–2006**



Source: Customised ABS migration matrix, Census of Population and Housing 2006

Three SSDs recorded substantially higher levels of mobility than Melbourne as a whole. Inner Melbourne stands out, with fully 62 per cent of households having changed address. This high rate of turnover can be explained in part by the presence

<sup>10</sup> 'Turnover' refers to any change of residence between 2001 and 2006.

of mainly young singles and the available private rental stock. Two outer suburban SSDs, Melton-Wyndham and South Eastern Outer (with turnover rates of 51% and 46% respectively) follow close behind Inner Melbourne in household turnover rates. These two outer SSDs are the most rapidly growing regions of Melbourne, and the large share of households who had moved into the areas within the previous five years were most likely to be young families and first-home buyers seeking affordable housing. Below average rates of household turnover are found in the more established SSDs (Eastern Middle, Northern Outer), which mainly house older home owners (a household segment known for its relatively low propensity to change residence).

Table 4 disaggregates household moves into four types based on geographic distance: local moves, moves from another Melbourne SSD, moves from elsewhere in Australia, and moves from overseas.

**Table 4: Household moves by distance and housing market type, Melbourne Statistical Subdivisions (SSDs) 2001–2006**

	<i>SSD of usual residence 2006</i>	<i>Local moves</i>	<i>From another Melb. SSD</i>	<i>Outside Melbourne moves</i>			<i>Total moves (%)</i>
				<i>From elsewhere in Aust.</i>	<i>From overseas</i>	<i>Outside Melbourne subtotal</i>	
Very high cost	Inner Melbourne	27	29	20	24	44	100
	Boroondara City	28	40	15	18	33	100
	Southern Melbourne	43	32	11	15	26	100
High cost	Moreland City	29	40	16	16	31	100
	Northern Middle Melbourne	38	37	13	12	25	100
	Eastern Middle Melbourne	37	35	10	19	28	100
Avg. to low cost	Western Melbourne	48	26	13	13	26	100
	Northern Outer Melbourne	45	38	9	8	17	100
	Eastern Outer Melbourne	43	42	9	7	15	100
	Yarra Ranges Shire Part A	46	38	11	4	15	100
	Mornington Peninsula Shire	49	35	12	5	16	100
Very low cost	Melton-Wyndham	35	45	13	7	20	100
	Hume City	45	35	12	9	21	100
	Greater Dandenong City	40	33	7	19	26	100
	South Eastern Outer	45	37	11	7	17	100
	Frankston City	45	40	10	6	16	100

Source: Customised ABS migration matrix, Census of Population and Housing 2006

Most Australian households move short distances, either within the same SLA or SSD (ABS 2009). While these local moves cause churning in the housing market, they do not change the socio-economic structure of the SSD as a whole. This study refers to local movers as part of the 'stable population' of the SSD. Table 4 demonstrates that in low cost and very low cost housing markets, local moves account for the largest share of all household moves. Some local movers may wish to upgrade their housing, but prefer to remain in their area. Other households in lower cost markets may have less financial ability to make a move into a more expensive market. Melton-Wyndham's lower local mover share (35%) is an exception in this regard. Most household movers in Melton-Wyndham in 2006 had moved in from other Melbourne SSDs, reflecting the attraction of this area to new home buyers. In the very high cost housing markets of Inner Melbourne and Boroondara, local movers make up smaller proportions of all moves. High and very high cost housing markets tend to attract the

highest proportions of in-movers from outside the metropolitan region, including from overseas. Overall, the figures presented in Table 4 demonstrate: (a) the dominance of local SSD moves in all household moves; and (b) that very high cost housing markets such as Inner Melbourne and Boroondara provide exceptions to this pattern. The reputation and cache attached to high cost markets are likely to be recognised far and wide, thereby disproportionately attracting interstate and overseas movers. One exception to this pattern appears in the very low cost market of Greater Dandenong, which attracted 19 per cent of its in-movers from overseas. This likely reflects the already high share of overseas-born living in this area.

Table 5 presents the actual household numbers for each mover type (both in- and out-movers). It then shows the net household gains and losses experienced in each of the SSDs, based on intra-Melbourne moves and inter-regional moves (in from, or out to, any SSD outside metropolitan Melbourne).<sup>11</sup> Net gains or losses result from imbalances in the numbers of in- and out-mover households. The numbers are presented by housing market type.

A number of general patterns can be observed (see right hand panel of net gain or loss). Every housing market defined as either very high cost or high cost recorded a net loss of households to other SSDs in Melbourne. The uniformity of this pattern suggests that perhaps high cost housing markets drive out households (although this cannot be confirmed with the data presented). In contrast, SSDs in very low cost housing markets, with the singular exception of Greater Dandenong City, gained households from other Melbourne SSDs. In other words, Melton-Wyndham, Hume, South Eastern Outer and Frankston, all gained households who, previously, had been living somewhere else in metropolitan Melbourne. The particularly large net gains experienced in the two fast-growing outer suburban areas (Melton-Wyndham and South Eastern Outer) confirm their role as magnets to young family households looking for affordable housing in new developments.

In the five years to 2006, Greater Dandenong underwent a significant net loss of over 3,000 households to other parts of Melbourne. During the same period, this area became increasingly disadvantaged relative to the city as a whole. It appears that even its house and apartment prices, one-quarter or more below Melbourne, were not enough to stem the out-movement.

Only four SSDs (Eastern Middle, Yarra Ranges Shire Part A, Eastern Outer and Greater Dandenong City) recorded net losses in every category.

In absolute numbers, in-movers from overseas (see data column 6 in table) settled primarily in the Inner SSD (16 755 households), followed by Eastern Middle and Southern (the latter two receiving 8688 and 7979 households, respectively). Overseas in-movers made a particularly strong impact on Inner (increasing the net gain over four-fold from 5400 to 22 000 households). In Eastern Middle, in contrast, the large number of in-mover households (8688) stemmed the net loss that came about due to domestic migration patterns. In many Melbourne SSDs, overseas in-migrations turned a net loss of households into a net gain (see, for example Western Melbourne, Moreland City, Northern Middle, Boroondara and Southern Melbourne).

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<sup>11</sup> Net gains or losses from overseas moves cannot be calculated because the Australian Census does not (and cannot) record if a household moves overseas.

**Table 5: Household mobility patterns, Melbourne Statistical Subdivisions (SSDs), 2001–2006**

		<i>Non-mover households (2006)</i>	<i>Local movers</i>	<i>Stable SSD population</i>	<i>In-movers</i>			<i>Out-movers</i>		<i>Net gain or loss</i>		
					<i>From another Melb. SSD</i>	<i>From elsewhere in Australia</i>	<i>From overseas</i>	<i>To another Melb. SSD</i>	<i>To elsewhere in Australia</i>	<i>Intra-Melb. moves</i>	<i>Inter-regional moves</i>	<i>Total**</i>
Very high cost	Inner Melbourne	44,180	18,638	62,818	20,082	13,593	16,755	20,390	8,100	-308	5,493	21,940
	Boroondara City	33,277	6,008	39,285	8,546	3,234	3,787	10,884	3,172	-2,338	62	1,511
	Southern Melbourne	90,240	22,961	113,201	16,967	5,710	7,979	18,321	6,630	-1,354	-920	5,705
High cost	Moreland City	31,742	5,433	37,175	7,651	2,944	2,957	8,682	2,586	-1,031	358	2,284
	Northern Middle Melbourne	57,284	11,693	68,977	11,523	4,184	3,680	12,692	4,698	-1,169	-514	1,997
	Eastern Middle Melbourne	98,494	17,328	115,822	16,293	4,541	8,688	23,609	6,609	-7,316	-2,068	-696
Avg. to low cost	Western Melbourne	94,297	24,253	118,550	12,832	6,538	6,600	17,850	6,969	-5,018	-431	1,151
	Northern Outer Melbourne	38,440	8,326	46,766	7,123	1,678	1,409	7,104	2,778	19	-1,100	328
	Eastern Outer Melbourne	55,966	12,377	68,343	11,936	2,504	1,904	12,245	4,150	-309	-1,646	-51
	Yarra Ranges Shire Part A	31,064	7,304	38,368	6,034	1,714	705	6,660	3,097	-626	-1,383	-1,304
	Mornington Peninsula Shire	29,071	9,581	38,652	6,733	2,283	892	4,602	3,409	2,131	-1,126	1,897
Very low cost	Melton-Wyndham	30,309	10,396	40,705	13,573	4,037	2,062	3,454	3,504	10,119	533	12,714
	Hume City	27,898	7,408	35,306	5,779	2,004	1,430	4,804	2,404	975	-400	2,005
	Greater Dandenong City	27,002	5,646	32,648	4,682	1,005	2,703	7,818	1,414	-3,136	-409	-842
	South Eastern Outer Melb.	47,273	17,460	64,733	14,347	4,089	2,608	6,438	4,410	7,909	-321	10,196
	Frankston City	24,584	7,875	32,459	7,029	1,722	1,031	5,577	2,401	1,452	-679	1,804

\*Excludes usual residence 2001 'not stated'.

\*\*Includes in-movers from overseas but, as stated earlier, household out-moves to overseas cannot be enumerated in the Census

Source: Customised ABS migration matrix, Census of Population and Housing 2006

Table 6 further considers the origins of in-movers to SSDs (in other words, these figures exclude local SSD movers). Seventy per cent of in-movers in Northern Outer, Eastern Outer, Yarra Ranges Shire (all low cost housing markets) came from within metropolitan Melbourne. Movers from within metropolitan Melbourne also accounted for 72 per cent of Frankston City in-movers (very low cost housing market). Around one-third of in-movers to Inner Melbourne and Greater Dandenong had lived overseas in 2001.

**Table 6: Household moves into Melbourne Statistical Subdivisions (SSDs) by housing market type, 2001–2006**

		<i>In-movers</i>				
		<i>Total in-movers</i>	<i>% from another Melb. SSD</i>	<i>% from outside of Melb. SD</i>	<i>% from overseas</i>	
Very high cost	Inner Melbourne	50,427	40	27	33	
	Boroondara City	15,570	55	21	24	
	Southern Melbourne	30,656	55	19	26	
High cost	Moreland City	13,555	56	22	22	
	Northern Middle Melbourne	19,387	59	22	19	
	Eastern Middle Melbourne	29,522	55	15	29	
		Western Melbourne	25,970	49	25	25
Avg. to low cost	Northern Outer Melbourne	10,210	70	16	14	
	Eastern Outer Melbourne	16,347	73	15	12	
	Yarra Ranges Shire Part A	8,456	71	20	8	
	Mornington Peninsula Shire	9,908	68	23	9	
Very low cost	Melton-Wyndham	19,672	69	21	10	
	Hume City	9,216	63	22	16	
	Greater Dandenong City	8,390	56	12	32	
	South Eastern Outer Melbourne	21,044	68	19	12	
	Frankston City	9,779	72	18	11	

\*Excludes usual residence 2001 'not stated'.

Source: Customised ABS migration matrix, Census of Population and Housing 2006

In terms of destination, the pattern in very high and high cost housing markets is similar, with between 70 and 80 per cent moving to somewhere else in metropolitan Melbourne and the remainder to destinations outside of Melbourne.



**Table 7: Household moves out of Melbourne Statistical Subdivisions (SSDs) by housing market type, 2001–2006**

		<i>Out-movers</i>		
		<i>Total out-movers</i>	<i>% to another Melb. SSD</i>	<i>% to outside Melb. SSD</i>
Very high cost	Inner Melbourne	28,490	72	28
	Boroondara City	14,056	77	23
	Southern Melbourne	24,951	73	27
High cost	Moreland City	11,268	77	23
	Northern Middle Melbourne	17,390	73	27
	Eastern Middle Melbourne	30,218	78	22
Avg. to low cost	Western Melbourne	24,819	72	28
	Northern Outer Melbourne	9,882	72	28
	Eastern Outer Melbourne	16,395	75	25
	Yarra Ranges Shire Part A	9,757	68	32
	Mornington Peninsula Shire	8,011	57	43
Very low cost	Melton-Wyndham	6,958	50	50
	Hume City	7,208	67	33
	Greater Dandenong City	9,232	85	15
	South Eastern Outer Melbourne	10,848	59	41
	Frankston City	7,978	70	30

\*Excludes usual residence 2001 'not stated'.

Source: Customised ABS migration matrix, Census of Population and Housing 2006

The destination pattern of households moving out of Greater Dandenong deviates from all other areas. Eighty-five per cent of households leaving Greater Dandenong settle elsewhere in Melbourne. Only 15 per cent move beyond Melbourne's boundaries. In contrast, movers leaving outer suburban locations such as Melton-Wyndham, Mornington Peninsula Shire and South Eastern Outer Melbourne have larger than average proportions of households moving to outside of metropolitan Melbourne. Notably, these SSDs are on the outer fringes of Melbourne and to some extent, out-movers may 'drift' outside of the metropolitan boundary.

Table 8 takes household income into account, in order to assess the possible impacts of mobility on the socio-economic structure of different areas. This analysis concentrates on intra-Melbourne moves and first compares the income distribution of in-mover households against that shown by stable households.

**Table 8: Intra-Melbourne household moves by household income and housing market type, Melbourne Statistical Subdivisions (SSDs) 2001–2006**

	<i>Household income level</i>	<i>Non-movers &amp; local movers (%)</i>	<i>Intra-Melbourne moves*</i>		
			<i>In (%)</i>	<i>Out (%)</i>	
Very high cost	Inner Melbourne	Low	37	24	22
		Middle	27	34	33
		High	35	42	45
		<i>No. of households</i>	56,967	18,150	18,869
	Boroondara City	Low	29	18	22
		Middle	27	29	34
		High	45	53	44
		<i>No. of households</i>	34,663	7,739	9,920
	Southern Melbourne	Low	37	25	28
		Middle	31	34	38
		High	32	41	34
		<i>No. of households</i>	100,801	15,664	16,782
High cost	Moreland City	Low	49	29	30
		Middle	32	38	39
		High	19	33	30
		<i>No. of households</i>	33,247	6,998	7,929
	Northern Middle Melbourne	Low	43	28	30
		Middle	33	39	39
		High	24	34	31
		<i>No. of households</i>	61,759	10,591	11,580
	Eastern Middle Melbourne	Low	37	24	27
		Middle	33	36	38
		High	31	39	35
		<i>No. of households</i>	103,475	14,908	21,717
Avg. to low cost	Western Melbourne	Low	44	28	28
		Middle	33	38	41
		High	23	34	31
		<i>No. of households</i>	105,373	11,787	16,370
	Northern Outer Melbourne	Low	33	28	29
		Middle	39	41	40
		High	28	31	31
		<i>No. of households</i>	40,956	6,498	6,456
	Eastern Outer Melbourne	Low	35	29	26
		Middle	38	43	41
		High	28	28	33
		<i>No. of households</i>	61,090	11,005	11,221
Yarra Ranges Shire Part A	Low	37	30	33	
	Middle	39	43	41	
	High	24	28	26	
	<i>No. of households</i>	33,872	5,506	6,070	
Mornington Peninsula Shire	Low	46	39	41	
	Middle	34	35	36	
	High	20	26	23	
	<i>No. of households</i>	34,275	6,194	4,185	
Very low cost	Melton-Wyndham	Low	33	28	33
		Middle	41	44	39
		High	26	29	27
		<i>No. of households</i>	36,199	12,483	3,147
	Hume City	Low	39	35	33
		Middle	39	43	40
		High	22	22	27
		<i>No. of households</i>	30,918	5,258	4,375

Greater Dandenong City	Low	52	48	35
	Middle	34	38	42
	High	14	14	23
	<i>No. of households</i>	28,825	4,352	7,109
South Eastern Outer Melbourne	Low	34	30	32
	Middle	42	46	41
	High	24	24	27
	<i>No. of households</i>	57,536	13,175	5,892
Frankston City	Low	44	38	33
	Middle	37	42	41
	High	19	20	26
	<i>No. of households</i>	29,015	6,442	5,128

\*Excludes usual residence 2001 'not stated'.

Source: Customised ABS migration matrix, Census of Population and Housing 2006

It is apparent in Table 8 that *very* high cost markets attract relatively more high income households than found in the stable household population. This tendency has the potential to further raise the socio-economic position of these areas. To a lesser extent, the same occurs in high cost markets. For example, 33 per cent of households moving into Moreland had high incomes compared with 19 per cent of its resident households. It appears that mobility bolsters the already high socio-economic position of very high and high cost housing markets.

In very low cost markets, in-mover household incomes are almost identical to the resident population, thereby solidifying the already existing income structure of the area. The out-mover profile from Greater Dandenong is worth noting. In this area, more high income households move out rather than in. In this already disadvantaged location, movement out of the area further pulls down the income distribution.

Table 8 shows that in certain Melbourne SSDs stable residents and those moving into the area have quite different household incomes. Very high and high cost housing markets, for example, had disproportionate numbers of high income households moving in. In Boroondara and Southern, a greater proportion of in-movers than out-movers have high incomes (thus raising the SSD income structure). On the other hand, apart from Western, in-movers to low and very low cost housing markets generally had similar incomes to the existing population. In terms of out-movers, in very low cost housing markets more so than in higher cost housing markets, more high income households are moving out than moving in (thus lowering the SSD income structure).

In brief, this chapter has demonstrated that: (a) population mobility is a key factor in generating spatial disadvantage and advantage in particular areas; and (b) that the metropolitan fringe is not necessarily the location of the greatest social disadvantage and exclusion in Melbourne.

## 6 SUMMARY AND POLICY IMPLICATIONS

This study has focused on how residential moves by different household income groups into and out of Melbourne's 16 SSDs re-shape the socio-spatial structure of the city. The key findings of the report include the following.

- Socio-spatial polarisation emerged sharply in Melbourne in the twenty-year period 1986–2006.
- Evidence of social polarisation can be found in the changes in Melbourne's household income distribution. Between 1986 and 2006, the numbers of households in the lowest and highest income categories increased, while the numbers of middle-income households declined.
- Evidence of spatial polarisation can be found in the widening gap in median house prices between Melbourne's highest and lowest cost SSDs. The gap more than doubled between 1986 and 2006, leading to low income households becoming considerably more restricted in their potential residential location choices.
- Likewise, the gap in median weekly private rents between the lowest and highest SSD expanded from 31 to 48 percentage points. In dollar terms, this translated to a \$56 (in \$2006) gap in 1986 rising to \$107 in 2006 or nearly double.
- Household mobility contributes strongly to polarisation, particularly because of the distinctive household income pattern of in- and out-movers in both extremes of the housing market. SSDs in different priced housing markets showed identifiable household mobility patterns by household income. The most visible differences in mobility were evident in the *very high* and *very low* cost markets.
- Apart from Inner Melbourne (which is a highly transitory market) *very high* cost markets had disproportionate gains of high income households and disproportionate losses of low income households.
- In *very low* cost markets, high income households were more likely to move out than to move in.
- *Very high* and *high* cost housing markets had disproportionate numbers of high income households moving in compared with the proportion of high income households in the stable population. Thus, household mobility acts to intensify the already advantaged socio-economic position of the regions.
- In *very low* cost markets, in-mover household incomes tend to be similar to the resident population, thereby consolidating the already existing low income structure of the area.

In summary, it is the areas at the extreme ends of the metropolitan housing market where household mobility operates most strongly to further increase socio-spatial polarisation. An understanding of the socio-economic dynamics of household mobility can shed light on why concentrations of advantage and disadvantage are developing and why the city is becoming more polarised. Poor households are now much more restricted in their mobility than twenty years ago, given the huge gap that has emerged in both house price and rent levels across the metropolitan region.

The challenge generated by the findings of this study concentrate mainly on how to reduce the spatial concentrations of locations of extreme disadvantage and advantage. A desired outcome would be the development of greater socio-economic mix in both types of areas. The housing market will play a pivotal role in meeting this challenge only if the supply of housing affordable to low income households is increased, and

importantly, if the location of such housing is dispersed throughout the metropolitan area.

## 6.1 Policy implications<sup>12</sup>

This research is based on the assumption that increased socio-spatial polarisation is an unwanted and negative outcome for a metropolitan area. This research has shown that the pattern of moves by very high- and very low income households has increased the socio-spatial gap in Melbourne. Policies that aim to reduce the extreme ends of the polarisation process will build more socially inclusive cities and contribute to a better quality of life for all households.

Policy makers face the problem of how to encourage urban mobility flows that offer positive outcomes for the entire community. This is an extremely difficult task (as the attendees at our Policy Workshop unanimously pointed out). In a democracy, it is hard for policy makers to have a direct influence on urban mobility flows. Nonetheless, an increased supply of affordable housing, and importantly, a wider dispersal of such housing, will improve the residential options of those most affected by changing economic conditions and rising housing market costs: low income households. The most direct way that policy makers can influence residential mobility is through decisions about the amount of public housing, its location and its allocation to eligible households. Indirect options, on the other hand, will involve partnerships with the private sector, but importantly, are more likely to engage greater numbers of households. Finally, improving the overall well-being of disadvantaged households will help to close the socio-economic gap which has become evident in Melbourne over the past twenty years.

Mobility research can offer valuable information to policy makers when implementing policies or programs that have a location-based component. The following provide some examples.

### 6.1.1 *Public/social housing: supply and location*

In a submission to the Inquiry into the Adequacy and Future Directions of Public Housing in Victoria (2010), Professor Terry Burke commented on the very low proportion of social housing in Victoria by OECD standards. As such, Burke argued that:

‘Victoria cannot offer lower income families the housing and associated educational, employment and health advantages of most other advanced societies’ (Burke 2010, p.1).

To help overcome this problem, Burke specifically suggests that existing middle and inner ring public stock (all in higher priced housing markets) be retained, and if possible, be increased.

We support this recommendation because if adopted, it would reduce the degree of socio-spatial polarisation in Melbourne by providing attractive housing options for low income households in middle to high housing markets.

### 6.1.2 *Affordable private sector housing: supply and location*

→ The National Rental Affordability Scheme (NRAS) represents an opportunity to counter the extremes of socio-spatial polarisation. It does this by increasing the supply of affordable dwellings in different locations that would attract low- to

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<sup>12</sup> As part of this research project, on April 22 2010 the research team presented the main results to an invited group of Melbourne-based academics and Victorian state government policy personnel in housing and urban planning. Some of the ideas suggested in this section come from that workshop.

moderate income households. Understanding the mobility patterns of low income households could help to guide the allocation of NRAS funding.

- VicUrban provides another approach to dispersing affordable housing throughout metropolitan Melbourne. Among other things, VicUrban's mandate includes providing competitively priced land throughout the metropolitan area and encouraging affordable housing as provided in partnership with private developers.
- Developer incentives: these encourage private developers to include affordable or social housing in their projects. This could be done in a number of ways, such as including affordable housing within a particular project, constructing affordable housing elsewhere, or making a financial or land contribution for the production of social or affordable housing in lieu of construction.

Developer incentives are supported by the recommendations of the 2010 Inquiry into the Adequacy and Future Directions of Public Housing in Victoria. The Family and Community Development Committee (2010) report recommended that the Victorian Government:

increase the supply and distribution of new affordable housing, which may include private and social housing, by amending Victorian Planning Provisions to allow for the use of 'inclusionary zoning (p.xxviii).

This would address both the supply, and importantly location, of affordable housing and go some way in allaying Hunter's (2003, p.23) concern that 'strategic urban planning has given way to free-wheeling, development-driven urban management approaches', which have undoubtedly contributed to more polarised cities.

### *6.1.3 Improving the well-being of low income households*

Although not the focus of this study, it is not only the spatial distribution of disadvantage that is a policy issue, but also the social disadvantage experienced by households living in these areas.

Policies directed at this issue tend to focus on improving the educational and training opportunities for residents of disadvantaged areas. These are aimed at providing greater job opportunities and potentially higher incomes that could, among other things, enhance mobility options.

Local job creation programs are another possible policy response, although such programs do not always have the intended outcome. Job creation programs only work if the local unemployed can actually access the jobs, rather than more highly skilled outsiders (see, for example, Birrell et al. 1999; Hunter 2003).

Overall, the policy implications are complex, and as became clear in the Policy Workshop, uncertain. However, we conclude by suggesting that the usefulness of mobility research in housing and planning deserves further attention, particularly with regard to the characteristics of movers and the spatial scale of the analysis. In a democratic society dependent on the private market, policy makers need to think creatively about steps and strategies that can encourage urban mobility flows that are positive for the entire community.

## REFERENCES

- ABS 2006, *Census Dictionary*, Cat. No. 2901.0, ABS, Canberra.
- ABS 2008, Australian Standard Geographical Classification (ASGC), Cat. No. 1216.0, ABS, Canberra.
- ABS 2009, *Migration, Australia, 2007–08*, Cat. No. 3412.0. Canberra.
- AIHW (Australian Institute of Health and Welfare) 2007, *Australia's Welfare*, Cat. no. AUS 93, AIHW, Canberra.
- Andersen, H. 2002, 'Globalisation, spatial polarization and the housing market', *Danish Journal of Geography*, 102: 93–102.
- Andersen, H., Andersen, H. & Ærø, T. 2000, 'Social polarisation in a segmented housing market: social segregation in Greater Copenhagen', *Danish Journal of Geography*, 100: 71–83.
- Atkinson, R 2000, 'Measuring gentrification and displacement in Greater London', *Urban Studies*, 37: 149–165
- Atkinson, R. and Wulff, M. 2009, *Gentrification and displacement: a review of approaches and findings in the literature*, AHURI Positioning Paper No. 115, Australian Housing and Urban Research Institute, Melbourne.
- Badcock, B. 1997, 'Restructuring and spatial polarization in cities', *Progress in Human Geography*, 21(2): 251–262.
- Baum, S. 1997, 'Sydney: social polarisation and global city status', *Urban Futures Journal*, 22(June): 21–36.
- Baum, S., Haynes, M., van Gellecum, Y. & Han, J. 2006, 'Advantage and disadvantage across Australia's extended metropolitan regions: a typology of socio-economic outcomes', *Urban Studies*, 43(9): 1549–1579.
- Beer, A. 1994, 'Roasting an old chestnut: locational disadvantage, spatial inequality and government policy', *Urban Policy and Research*, 12(3): 180–184.
- Bell, M. 1995, *Internal Migration in Australia: 1986–1991: Overview Report*, Australian Government Publishing Service, Canberra.
- Birrell, B., O'Connor, K. & Rapson, V. 1999, 'Explaining spatial concentrations of the poor in metropolitan Melbourne', *People and Place*, 7(1): 53–64.
- Bourne, L. 1993, 'Close together and worlds apart: an analysis of changes in the ecology of income in Canadian cities', *Urban Studies*, 30(8): 1293–1317.
- Burbidge, A. & Winter, I. 1996, 'Investigating urban poverty: the impact of state intervention and household change', *Urban Policy and Research*, 14(2): 97–108.
- Burbidge A. 'Capital Gains, Homeownership and Economic Inequality', *Housing Studies*, 2000, 15(2): 259–280.
- Burke, T. 2010, *Submission No. 90 to the Inquiry on the Adequacy and Future Directions of Public Housing in Victoria*, Family and Community Development Committee, Parliament of Victoria, accessed on line November 3, 2010: [http://www.parliament.vic.gov.au/images/stories/committees/fcdc/inquiries/56th/ph/submissions/S90\\_SUT\\_Institute\\_For\\_Social\\_Research.pdf](http://www.parliament.vic.gov.au/images/stories/committees/fcdc/inquiries/56th/ph/submissions/S90_SUT_Institute_For_Social_Research.pdf).

- Burke, T. & Hayward, D. 1990, *Housing Melburnians for the next twenty years: problems, prospects and possibilities*, Department of Planning and Urban Growth, Melbourne.
- Burke, T. & Hayward, D. 2000, *Melbourne's Housing Past, Housing Futures*, Institute for Social Research, Swinburne University of Technology, Melbourne.
- Burnley, I. 1980, *The Australian Urban System: Growth, Change and Differentiation*, Longman Cheshire, Melbourne.
- Burnley, I. and Murphy, P. 2004, *Sea Change: Movement from Metropolitan to Arcadian Australia*, University of New South Wales Press, Sydney.
- Buzar, S., Ogden, P. E. and Hall, R. 2005, 'Households matter: the quiet demography of urban transformation', *Progress in Human Geography*, 29(4): 413–436.
- Cass, B. 1998, 'Reshaping Housing Policy and the Benefits of Urban/Regional Location: why Gender Matters', pp.38–54 in M. Gatens and A. Mackinnon (Eds) *Gender and Institutions: Welfare, Work and Citizenship*, Cambridge University Press, Melbourne.
- Dieleman, F. 2001, 'Modelling residential mobility: a review of recent trends in research', *Journal of Housing and the Built Environment*, 16: 249–265.
- Dorling, D. & Woodward, R. 1996, 'Social polarisation 1971–1991: a micro-geographical analysis of Britain', *Progress in Planning*, 45: 67–122.
- Dwyer, R. 2007, 'Expanding homes and increasing inequalities: U.S. housing development and the residential segregation of the affluent', *Social Problems*, 54(1): 23–46.
- Family and Community Development Committee (2010), *Inquiry into the Adequacy and Future Directions of Public Housing in Victoria*, Parliament of Victoria, Melbourne.
- Fincher, R. 2007, 'Is high-rise housing innovative? Developers' contradictory narratives of high-rise housing in Melbourne', *Urban Studies*, 44(3): 631–649.
- Fotheringham, A., Brunson, C. & Charlton, M. 2000, *Quantitative Geography: Perspectives on Spatial Data Analysis*, Sage Publications, London.
- Gibbs, R. & Knight, T. 2000, *1996 Census Data Quality: Income*, Census Working Paper 00/4, Australian Bureau of Statistics, Available: <http://www.abs.gov.au/852563C30080E02A/0/376BC5C98A395CBFCA256A0600802556?Open>, accessed July 2002.
- Gondor, G. & Burbidge, A. 1992, 'Capital gains and locational disadvantage', *Family Matters*, 32: 20–21.
- Hamnett, C. 1994, 'Social polarisation in global cities: theory and evidence', *Urban Studies*, 31(3): 401–424.
- Hunter, B. 2003, 'Trends in neighbourhood inequality of Australian, Canadian and United States of America cities since the 1970s', *Australian Economic History Review*, 43(1): 22–44.
- Johnston, R. J. 1973. Social area change in Melbourne 1961–1966: a sample exploration, *Australian Geographical Studies*, 11(1): 79–98.
- Jones, F. L. 1969, *Dimensions of Urban Social Structure: the Social Areas of Melbourne, Australia*, Australian National University Press, Canberra.



- Kesteloot, C. 1998, 'The geography of deprivation in Brussels and local development strategies', in *Urban Segregation and the Welfare State: Inequality and Exclusion in Western Cities*, eds Musterd, S. & Ostendorf, W., Routledge, London, pp. 126–127.
- Langlois, A. & Kitchen, P. 2001, 'Identifying and measuring dimensions of urban deprivation in Montreal: an analysis of the 1996 census data', *Urban Studies*, 38(1): 119–139.
- Lee, P. 1994, 'Housing and spatial deprivation: relocating the underclass and the new urban poor', *Urban Studies*, 31(7): 1191–1209.
- Logan, J. 2000, 'Still a global city: the racial and ethnic segmentation of New York', in *Globalizing Cities: A New Spatial Order?*, eds Marcuse, P. & van Kempen, R., Blackwell Publishers, Oxford, pp.158–185.
- MacDonald, R., Shildrick, T., Webster, C. and Simpson, D. 2005, 'Growing Up in Poor Neighbourhoods: The Significance of Class and Place in the Extended Transitions of 'Socially Excluded' Young Adults', *Sociology*, 39(5): 873–891.
- MacLachlan, I. & Sawada, R. 1997, 'Measures of income inequality and social polarization in Canadian metropolitan areas', *The Canadian Geographer*, 41(4): 377–397.
- Maclennan, D. 1982, *Housing Economics*, Longman, London.
- Maher, C. 1994, 'Residential mobility, locational disadvantage and spatial inequality in Australian cities', *Urban Policy and Research*, 12(3): 185–191.
- Maher, C. 1999, 'Locational Disadvantage and Concentrations: A Review and Evaluation of the Findings', Chapter 1, in K. O'Connor (Ed), *Housing and Jobs in Cities and Regions: Research in Honour of Chris Maher*, University of Queensland Press, Brisbane, Queensland.
- Maher, C. A. & Burke, T. 1991, *Informed decision-making: the use of secondary data sources in policy studies*, Longman Cheshire, Melbourne.
- Maher, C., Whitelaw, J., McAllister, A., Francis, R., with, Palmer, J., Chee, E. & Taylor, P. 1992, *Mobility and Locational Disadvantage Within Australian Cities: Social Justice Implications of Household Relocation*, Australian Government Publishing Service, Canberra.
- Marcuse, P. & Van Kempen, R. (eds.) 2000, *Globalizing Cities: A New Spatial Order?* Blackwell Publishers, Oxford.
- Marcuse, P. 1989, 'Dual city: a muddy metaphor for a quartered city', *International Journal of Urban and Regional Research*, 13(4): 697–708.
- Massey, D. S. Gross, A. B. and Shibuya, K. 1994, Migration, Segregation and the Geographic Concentration of Poverty, *American Sociological Review*, 59(3): 425–45.
- Monmonier, M. 1996, *How To Lie With Maps*, 2nd edn, University of Chicago Press, Chicago.
- Murphy, P. & Watson, S. 1994, 'Social polarization and Australian cities', *International Journal of Urban and Regional Research*, 18(4): 573–590.
- Myers, D. 1992, *Analysis with Local Census Data: Portraits of Change*, Academic Press, San Diego.

- O'Connor, K., Stimson, R., Daly, M. 2001, *Australia's Changing Economic Geography: A Society Dividing*, Oxford University Press, South Melbourne, Victoria.
- Randolph, B. 2004, 'The changing Australian city: new patterns, new policies and new research needs', *Urban Policy and Research*, 22(4): 481–493.
- Randolph, B. & Holloway, D. 2005, 'Social disadvantage, tenure and location: an analysis of Sydney and Melbourne', *Urban Policy and Research*, 23(2): 173–201.
- Reynolds, M. & Wulff, M. 2005, 'Suburban socio-spatial polarisation and house price change in Melbourne: 1986–1996', *Applied GIS*, 1(1): 04–1–04–26.
- Rossi, P. 1980, *Why Families Move*, Sage Publications, Beverly Hills, California.
- Salt, B. 2001, *The Big Shift: Welcome to the Third Australian Culture*, Hardie Grant Publishing, South Yarra.
- Saunders, P. 2001, *Income and Welfare, Centenary Article - Household income and its distribution*, (Year Book Australia 2001, Cat. No. 1301.0, revised version, 31 May 2001), Available: <http://www.abs.gov.au/ausstats/abs%40.nsf/94713ad445ff1425ca25682000192af2/eb5a10e37f06c0a0ca2569de00221c9e!OpenDocument>, accessed July 2004.
- South, S. and Crowder, K. 1998, "Leaving the 'hood': Residential mobility between black, white and integrated neighbourhoods", *American Sociological Review*, 63(1): 17–26.
- Stone, W. and Hulse, K. 2007, '*Housing and social cohesion: an empirical exploration*', Final Report, Australian Housing and Urban Research Institute, Melbourne, Australia.
- Van Criekingen, M. 2009, Moving In/Out of Brussels' Historical Core in the Early 2000s: Migration and the Effects of Gentrification, *Urban Studies*, 46(4): 825–848.
- van Ham, M. and Clark, W. A. V. 2009, 'Neighbourhood mobility in context: household moves and changing neighbourhoods in the Netherlands', *Environment and Planning A*, 41(6): 1442–1459.
- Van Weesep, J. & Van Kempen, R. 1992, 'Economic change, income differentiation and housing: urban response in the Netherlands', *Urban Studies*, 29(6): 979–990.
- Wulff, M. and Lobo, M. 2009, 'The New Gentrifiers: the Role of Households and Migration in Reshaping Melbourne's Core and Inner Suburbs', *Urban Policy and Research*, 27(3): 315–331.
- Wulff, M., Flood, J. and Newton, P. W. 1993, *Population movement and social justice: an exploration of issues, trends and implications*, Social Justice Research Program into Locational Disadvantage, Dept. of Health, Housing, Local Government, and Community Services and the Bureau of Immigration and Population Research, Australian Government Publishing Service, Canberra.
- Yates, J. & Wood, G. 2005, 'Affordable rental housing: lost, stolen and strayed', *The Economic Record*, 81(255): S82–S95.

## APPENDIX A: THE SUB-GEOGRAPHY OF MELBOURNE'S STATISTICAL SUBDIVISIONS (SSDs)

Table A1: Disaggregation of Melbourne SSDs into ABS-defined smaller spatial units

<i>SSD name</i>	<i>LGA (Local Government Area) name</i>	<i>SLA (Statistical Local Area) name</i>	<i>SSC (State Suburb (Collection District derived) name</i>		
<b>Inner Melbourne</b>	<b>Melbourne (C)</b>	Melbourne (C) - Inner	Melbourne		
		Melbourne (C) - S'bank-D'lands	Docklands Southbank		
		Melbourne (C) - Remainder	Carlton Carlton North East Melbourne Kensington	North Melbourne Parkville South Yarra West Melbourne	
	<b>Port Phillip (C)</b>	Port Phillip (C) - St Kilda	Balaclava Elwood Ripponlea	St Kilda St Kilda West	
		Port Phillip (C) - West	Albert Park Middle Park	Port Melbourne South Melbourne	
	<b>Stonnington (C) (part)</b>	Stonnington (C) - Prahran	Armadale Prahran	Toorak Windsor	
	<b>Yarra (C)</b>	Yarra (C) - North	Abbotsford Clifton Hill Collingwood Fairfield	Fitzroy Fitzroy North Princes Hill	
		Yarra (C) - Richmond	Burnley Cremorne	Richmond	
	<b>Western Melbourne</b>	<b>Brimbank (C)</b>	Brimbank (C) - Keilor	Delahey Kealba Keilor Keilor Downs Keilor East Keilor Lodge	Keilor North Keilor Park Kings Park Sydenham Taylors Lakes
			Brimbank (C) - Sunshine	Albanvale Albion Ardeer Brooklyn Cairnlea Deer Park	Derrimut St Albans Sunshine Sunshine North Sunshine West
<b>Hobsons Bay (C)</b>		Hobsons Bay (C) - Altona	Altona Altona Meadows Altona North	Seabrook Seaholme	
		Hobsons Bay (C) - Williamstown	Newport South Kingsville Spotswood	Williamstown Williamstown North	
<b>Maribyrnong (C)</b>		Maribyrnong (C)	Braybrook Footscray Kingsville Maidstone Maribyrnong	Seddon Tottenham West Footscray Yarraville	
<b>Moonee Valley</b>		Moonee Valley (C) - Essendon	Aberfeldie Ascot Vale Essendon Essendon North	Flemington Moonee Ponds Travancore	
		Moonee Valley (C) - West	Airport West Avondale Heights Essendon West	Niddrie Strathmore Strathmore Heights	

<i>SSD name</i>	<i>LGA name</i>	<i>SLA name</i>	<i>SSC name</i>	<i>SSC name</i>
<b>Melton-Wyndham</b>	<b>Melton (S)</b>	Melton (S) - East	Burnside Caroline Springs Hillside (Melton)	Taylors Hill Caroline Springs - Bal Ravenhall
		Melton (S) Bal	Brookfield Kurunjang Melton Melton South	Melton West Mount Cottrell Rockbank Toolern Vale
	<b>Wyndham (C)</b>	Wyndham (C) - North	Hoppers Crossing Laverton Laverton North Tarneit Truganina	Werribee Laverton North - Bal Tarneit - Bal Truganina - Bal
		Wyndham (C) - South	Point Cook Cocoroc	Point Cook - Bal Werribee South
		Wyndham (C) - West	Wyndham Vale	Wyndham Vale - Bal
<b>Moreland City</b>	<b>Moreland (C)</b>	Moreland (C) - Brunswick	Brunswick Brunswick East	Brunswick West
		Moreland (C) - Coburg	Coburg Coburg North	Pascoe Vale Pascoe Vale South
	Moreland (C) - North	Fawkner Glenroy Gowanbrae	Hadfield Oak Park	
<b>Northern Middle Melbourne</b>	<b>Banyule (C)</b>	Banyule (C) - Heidelberg	Bellfield Eaglemont Heidelberg Heidelberg Heights Heidelberg West Ivanhoe	Ivanhoe East Macleod Rosanna Viewbank Yallambie
		Banyule (C) - North	Briar Hill Bundoora Greensborough Lower Plenty	Montmorency Saint Helena Watsonia Watsonia North
	<b>Darebin (C)</b>	Darebin (C) - Northcote	Alphington Northcote	Thornbury
		Darebin (C) - Preston	Kingsbury Preston	Reservoir
<b>Hume City</b>	<b>Hume (C)</b>	Hume (C) - Broadmeadows	Broadmeadows Campbellfield Coolaroo Dallas	Gladstone Park Jacana Meadow Heights Westmeadows
		Hume (C) - Craigieburn	Attwood Craigieburn Greenvale Roxburgh Park Somerton Tullamarine	Bulla Craigieburn - Bal Greenvale - Bal Melbourne Airport - Bal Mickleham
	Hume (C) - Sunbury	Diggers Rest Sunbury	Wildwood	

<i>SSD name</i>	<i>LGA name</i>	<i>SLA name</i>	<i>SSC name</i>	
<b>Northern Outer Melbourne</b>	<b>Nillumbik (S)</b>	Nillumbik (S) - South	Eltham North Warrandyte Research	Kangaroo Ground North Warrandyte - Bal
		Nillumbik (S) - South-West	Diamond Creek Eltham North Plenty	Plenty - Bal Yarrambat
		Nillumbik (S) Bal	Wattle Glen Arthurs Creek Christmas Hills Cottles Bridge Doreen	Hurstbridge - Bal Panton Hill - Bal St Andrews Wattle Glen - Bal
	<b>Whittlesea (C)</b>	Whittlesea (C) - North	Epping South Morang Beveridge Eden Park	Mernda Whittlesea Wollert
		Whittlesea (C) - South-East	Mill Park	
		Whittlesea (C) - South-West	Lalor	Thomastown
<b>Boroondara City</b>	<b>Boroondara (C)</b>	Boroondara (C) - Camberwell N.	Balwyn	Balwyn North
		Boroondara (C) - Camberwell S.	Ashburton Camberwell	Canterbury Glen Iris
	Boroondara (C) - Hawthorn	Hawthorn	Hawthorn East	
	Boroondara (C) - Kew	Kew	Kew East	
<b>Eastern Middle Melbourne</b>	<b>Manningham (C)</b>	Manningham (C) - East	Park Orchards Warrandyte Wonga Park	Warrandyte - Bal Warrandyte South - Bal Wonga Park - Bal
		Manningham (C) - West	Bulleen Doncaster Doncaster East	Donvale Templestowe Templestowe Lower
	<b>Monash (C)</b>	Monash (C) - South-West	Chadstone Clayton Hughesdale	Huntingdale Oakleigh Oakleigh East
		Monash (C) - Waverley East	Glen Waverley Mulgrave	Wheelers Hill
		Monash (C) - Waverley West	Ashwood Mount Waverley	Notting Hill
	<b>Whitehorse (C)</b>	Whitehorse (C) - Box Hill	Box Hill Box Hill North Box Hill South Burwood	Mont Albert Mont Albert North Surrey Hills
		Whitehorse (C) - Nunawading E.	Forest Hill Mitcham	Vermont Vermont South
		Whitehorse (C) - Nunawading W.	Blackburn Blackburn North Blackburn South	Burwood East Nunawading
	<b>Eastern Outer Melbourne</b>	<b>Knox (C)</b>	Knox (C) - North-East	Bayswater Boronia Ferntree Gully
Knox (C) - North-West			Knoxfield Scoresby	Wantirna Wantirna South
Knox (C) - South			Lysterfield Rowville	Lysterfield - Bal
<b>Maroondah (C)</b>		Maroondah (C) - Croydon	Bayswater North Croydon Croydon Hills Croydon North	Croydon South Kilsyth South Warranwood
		Maroondah (C) - Ringwood	Heathmont Ringwood	Ringwood East Ringwood North

<i>SSD name</i>	<i>LGA name</i>	<i>SLA name</i>	<i>SSC name</i>		
<b>Yarra Ranges Shire Part A</b>	<b>Yarra Ranges (S)</b>	Yarra Ranges (S) - Central	Don Valley	Warburton	
			Gladysdale	Wesburn	
			Hoddles Creek	Woori Yallock	
			Launching Place	Yarra Junction	
			Millgrove	Yellingbo	
				Powelltown	
		Yarra Ranges (S) - Dandenongs	Belgrave	Tecoma	
			Belgrave Heights	The Patch	
			Belgrave South	Tremont	
			Ferny Creek	Upwey	
Kallista	Belgrave South - Bal				
Kalorama	Kallista - Bal				
Mount Dandenong	Narre Warren East - Bal				
Olinda	Olinda - Bal				
Yarra Ranges (S) - Lilydale	Sassafras	Selby - Bal			
	Selby	Sherbrooke - Bal			
	Sherbrooke	The Patch - Bal			
Yarra Ranges (S) - Lilydale	Chirmside Park	Mooroolbark			
	Kilsyth	Mount Evelyn			
	Lilydale	Wandin North			
	Montrose	Lilydale - Bal			
Yarra Ranges (S) - North	Badger Creek	Healesville			
	Chum Creek	Yarra Glen			
	Dixons Creek				
Yarra Ranges (S) - Seville	Monbulk	Seville - Bal			
	Wandin East	Seville East			
	Coldstream	Silvan - Bal			
	Gruyere	Wandin East - Bal			
	Macclesfield	Wandin North - Bal			
	Monbulk - Bal				
<b>Southern Melbourne</b>	<b>Bayside (C)</b>	Bayside (C) - Brighton	Brighton	Brighton East	
			Bayside (C) - South	Beaumaris	Hampton East
			Black Rock	Highett	
			Hampton	Sandringham	
	<b>Glen Eira (C)</b>	Glen Eira (C) - Caulfield	Carnegie	Gardenvale	
			Caulfield	Glen Huntly	
			Caulfield East	Murrumbeena	
			Caulfield North	Ormond	
			Caulfield South	St Kilda East	
			Elsternwick		
		Glen Eira (C) - South	Bentleigh		
			Bentleigh East		
			McKinnon		
	<b>Kingston (C)</b>	Kingston (C) - North	Braeside	Mentone	
			Cheltenham	Moorabbin	
Clarinda			Mordialloc		
Clayton South			Oakleigh South		
Dingley Village			Parkdale		
Heatherton			Waterways		
Kingston (C) - South	Aspendale	Chelsea			
	Aspendale Gardens	Chelsea Heights			
	Bonbeach	Edithvale			
	Carrum	Patterson Lakes			
<b>Stonnington (part)</b>	<b>Stonnington (C) - Malvern</b>	Kooyong	Malvern East		
		Malvern			

<i>SSD name</i>	<i>LGA name</i>	<i>SLA name</i>	<i>SSC name</i>	<i>SSC name</i>	
<b>Greater Dandenong City</b>	<b>Greater Dandenong (C)</b>	Gr. Dandenong (C) - Dandenong	Dandenona Dandenona North	Dandenona South	
		Gr. Dandenona (C) Bal	Banholme Kevsborouah Noble Park Noble Park North	Sprinavale Sprinavale South Dandenona South - Bal Keysborough - Bal	
<b>South Eastern Outer Melbourne</b>	<b>Cardinia (S)</b>	Cardinia (S) - North	Avonsleigh Beaconsfield Upper Bunvio Cockatoo Cora Lvnn Emerald - Bal Garfield Garfield North Gembrook	Iona Marvknoll Menzies Creek - Bal Nar Nar Goon Nar Nar Goon North Pakenham Upper Tonimbuk Tvnona	
		Cardinia (S) - Pakenham	Beaconsfield Officer Beaconsfield - Bal	Guvs Hill Officer - Bal Pakenham	
		Cardinia (S) - South	Caldermeade Catani	Koo Wee Rup Lang Lang	
	<b>Casev (C)</b>	Casev (C) - Berwick	Berwick Harkawav Narre Warren Narre Warren North	Narre Warren South Harkawav - Bal Narre Warren North-Bal	
		Casev (C) - Cranbourne	Cranbourne Cranbourne East Cranbourne North Cranbourne West Hampton Park Junction Village	Lvnbrook Lyndhurst Cranbourne East - Bal Cranbourne South - Bal Cranbourne West - Bal Lyndhurst - Bal	
		Casev (C) - Hallam	Doveton Endeavour Hills Lysterfield South	Eumemmerrina Hallam	
		Casev (C) - South	Blind Bight Cannons Creek Clvde Devon Meadows	Pearcedale Tooradin Warneet	
	<b>Frankston City</b>	<b>Frankston (C)</b>	Frankston (C) - East	Lanawarrin Lanawarrin South	Skve
			Frankston (C) - West	Carrum Downs Frankston Frankston North	Frankston South Seaford
	<b>Mornington Peninsula Shire</b>	<b>Mornington Peninsula (S)</b>	Morninaton P'sula (S) - East	Balnarrina Balnarrina Beach Baxter Bittern Crib Point Hastinas HMAS Cerberus Merricks Beach Somers	Somerville Tvabb Balnarrina - Bal Hastinas - Bal Merricks North Moorooduc Point Leo Red Hill South Somerville - Bal
Morninaton P'sula (S) - South			Arthurs Seat Blairaowrie Dromana McCrae Portsea Rosebud Rosebud West Rve Safetv Beach Sorrento	Tootaarook Boneo Cape Schanck Finga Flinders Main Ridae Red Hill Rosebud West - Bal Shoreham St Andrews Beach	
Morninaton P'sula (S) - West			Morninaton Mount Eliza Mount Martha	Morninaton - Bal Mount Martha - Bal	

## APPENDIX B: HOUSEHOLD INCOME AND HOUSING MARKET INDICATORS, MELBOURNE STATISTICAL SUBDIVISIONS (SSDS) 1986, 1996 AND 2006

Table A2: Inner Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	92,000	94,400	116,400
<b>Weekly household income (%), \$2006</b>			
Low	19	22	18
Low-moderate	16	15	10
Moderate	27	20	14
Moderate-high	20	19	18
High	18	24	40
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	7	4	2
Low-moderate	2	-2	-3
Moderate	2	-1	-3
Moderate-high	-7	-3	-2
High	-4	1	7
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	13/16	6/16	2/16
Low income ranking (out of 16 SSDs)**	2/16	7/16	8/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$172	\$208	\$275
Median weekly private rent: % difference from Melbourne median	-5%	12%	24%
<b>House and apartment<sup>#</sup> sale prices</b>			
Median house sale price (\$2006)	\$193,800	\$270,900	\$620,000
Median house sale price: % difference from Melbourne median	16%	62%	81%
Median apartment sale price (\$2006)	\$138,720	\$174,150	\$358,000
Median apartment sale price: % difference from Melbourne median	-1%	21%	19%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.



**Table A3: Western Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	119,000	133,800	149,200
<b>Weekly household income (%), \$2006</b>			
Low	13	21	19
Low-moderate	16	18	15
Moderate	27	21	18
Moderate-high	26	21	19
High	18	19	29
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	1	3	3
Low-moderate	2	1	2
Moderate	2	1	0
Moderate-high	0	-1	-1
High	-4	-4	-4
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	14/16	12/16	11/16
Low income ranking (out of 16 SSDs)**	6/16	5/16	4/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$165	\$169	\$196
Median weekly private rent: % difference from Melbourne median	-9%	-9%	-12%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$150,960	\$152,220	\$317,000
Median house sale price: % difference from Melbourne median	-10%	-9%	-7%
Median apartment sale price (\$2006)	\$112,200	\$117,390	\$255,000
Median apartment sale price: % difference from Melbourne median	-20%	-19%	15%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A4: Melton-Wyndham SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	21,200	35,100	62,000
<b>Weekly household income (%), \$2006</b>			
Low	6	12	12
Low-moderate	9	15	12
Moderate	28	23	18
Moderate-high	36	27	24
High	22	23	34
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-7	-6	-5
Low-moderate	-5	-1	-1
Moderate	3	2	1
Moderate-high	9	5	4
High	-1	0	0
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	7/16	7/16	7/16
Low income ranking (out of 16 SSDs)**	16/16	15/16	15/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$197	\$173	\$195
Median weekly private rent: % difference from Melbourne median	9%	-7%	-12%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$139,740	\$122,550	\$255,000
Median house sale price: % difference from Melbourne median	-16%	-27%	-25%
Median apartment sale price (\$2006)	\$122,400	\$95,460	\$208,750
Median apartment sale price: % difference from Melbourne median	-12%	-34%	-30%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A5: Moreland City SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	48,700	49,000	52,000
<b>Weekly household income (%), \$2006</b>			
Low	15	25	20
Low-moderate	18	20	16
Moderate	26	21	18
Moderate-high	24	19	19
High	17	15	27
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	3	6	4
Low-moderate	4	3	3
Moderate	1	1	1
Moderate-high	-3	-2	-1
High	-5	-8	-7
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	15/16	16/16	13/16
Low income ranking (out of 16 SSDs)**	3/16	2/16	2/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$169	\$170	\$210
Median weekly private rent: % difference from Melbourne median	-7%	-8%	-5%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$148,920	\$154,800	\$360,000
Median house sale price: % difference from Melbourne median	-11%	-8%	5%
Median apartment sale price (\$2006)	\$113,220	\$115,455	\$265,000
Median apartment sale price: % difference from Melbourne median	-19%	-20%	-12%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A6: Northern Middle Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	83,200	85,800	90,700
<b>Weekly household income (%), \$2006</b>			
Low	14	22	19
Low-moderate	16	18	14
Moderate	24	20	17
Moderate-high	25	20	19
High	21	20	21
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	2	3	3
Low-moderate	2	1	1
Moderate	0	-1	0
Moderate-high	-1	-2	-1
High	-2	-3	-3
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	9/16	11/16	10/16
Low income ranking (out of 16 SSDs)**	4/16	4/16	6/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$177	\$175	\$213
Median weekly private rent: % difference from Melbourne median	-2%	-6%	-4%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$161,160	\$163,830	\$371,000
Median house sale price: % difference from Melbourne median	-4%	-2%	8%
Median apartment sale price (\$2006)	\$130,560	\$129,000	\$275,000
Median apartment sale price: % difference from Melbourne median	-7%	-11%	-8%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A7: Hume City SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	24,100	35,000	45,500
<b>Weekly household income (%), \$2006</b>			
Low	5	13	14
Low-moderate	12	17	15
Moderate	27	24	20
Moderate-high	34	25	22
High	22	21	29
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-7	-5	-2
Low-moderate	-2	0	2
Moderate	2	3	2
Moderate-high	7	4	2
High	0	-2	-5
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	6/16	10/16	12/16
Low income ranking (out of 16 SSDs)**	14/16	11/16	7/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$198	\$191	\$205
Median weekly private rent: % difference from Melbourne median	9%	3%	-8%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$154,220	\$135,450	\$248,000
Median house sale price: % difference from Melbourne median	-8%	-19%	-27%
Median apartment sale price (\$2006)	\$142,800	\$122,550	\$235,000
Median apartment sale price: % difference from Melbourne median	-2%	-15%	-22%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A8: Northern Outer Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	34,500	47,300	58,100
<b>Weekly household income (%), \$2006</b>			
Low	6	11	12
Low-moderate	10	14	13
Moderate	26	22	17
Moderate-high	33	26	22
High	25	27	36
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-6	-7	-4
Low-moderate	-4	-2	-1
Moderate	1	1	0
Moderate-high	7	4	2
High	2	4	2
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	3/16	3/16	5/16
Low income ranking (out of 16 SSDs)**	15/16	16/16	14/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$201	\$192	\$212
Median weekly private rent: % difference from Melbourne median	11%	3%	-5%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$173,400	\$167,700	\$315,000
Median house sale price: % difference from Melbourne median	4%	0%	-8%
Median apartment sale price (\$2006)	\$155,000	\$138,350	\$253,000
Median apartment sale price: % difference from Melbourne median	-11%	-4%	-16%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A9: Boroondara SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	54,500	54,400	55,800
<b>Weekly household income (%), \$2006</b>			
Low	13	16	13
Low-moderate	13	13	9
Moderate	21	17	13
Moderate-high	23	19	16
High	30	35	49
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	1	-2	-3
Low-moderate	-1	-3	-4
Moderate	-4	-4	-5
Moderate-high	-4	-3	-4
High	8	12	16
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	2/16	1/16	1/16
Low income ranking (out of 16 SSDs)**	7/16	12/16	16/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$204	\$220	\$262
Median weekly private rent: % difference from Melbourne median	13%	18%	18%
<b>House and apartment<sup>#</sup> sale prices</b>			
Median house sale price (\$2006)	\$262,140	\$322,500	\$790,000
Median house sale price: % difference from Melbourne median	57%	92%	131%
Median apartment sale price (\$2006)	\$173,400	\$174,150	\$371,000
Median apartment sale price: % difference from Melbourne median	24%	21%	24%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A10: Eastern Middle Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	128,000	137,600	148,100
<b>Weekly household income (%), \$2006</b>			
Low	9	16	15
Low-moderate	11	15	13
Moderate	21	19	16
Moderate-high	28	21	19
High	31	29	37
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-3	-2	-1
Low-moderate	-3	-2	-1
Moderate	-4	-2	-1
Moderate-high	1	0	-1
High	9	6	4
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	1/16	2/16	4/16
Low income ranking (out of 16 SSDs)**	11/16	10/16	10/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$219	\$211	\$239
Median weekly private rent: % difference from Melbourne median	21%	14%	8%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$193,800	\$193,500	\$436,500
Median house sale price: % difference from Melbourne median	16%	15%	28%
Median apartment sale price (\$2006)	\$168,700	\$164,475	\$340,720
Median apartment sale price: % difference from Melbourne median	21%	14%	14%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.



**Table A11: Eastern Outer Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	128,000	137,600	148,100
<b>Weekly household income (%), \$2006</b>			
Low	8	14	13
Low-moderate	11	15	12
Moderate	24	21	18
Moderate-high	32	25	22
High	25	25	35
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-3	-4	-3
Low-moderate	-3	-2	-1
Moderate	-1	0	1
Moderate-high	5	4	2
High	2	2	1
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	4/16	5/16	6/16
Low income ranking (out of 16 SSDs)**	13/16	13/16	12/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$203	\$191	\$211
Median weekly private rent: % difference from Melbourne median	22%	5%	-11%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$163,200	\$152,220	\$319,100
Median house sale price: % difference from Melbourne median	-2%	-9%	-7%
Median apartment sale price (\$2006)	\$138,720	\$123,840	\$255,000
Median apartment sale price: % difference from Melbourne median	-1%	-14%	-15%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A12: Yarra Ranges Shire (Part A) SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	37,400	43,300	47,700
<b>Weekly household income (%), \$2006</b>			
Low	9	15	14
Low-moderate	13	17	13
Moderate	27	22	19
Moderate-high	31	24	22
High	20	22	32
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-3	-3	-2
Low-moderate	-1	0	0
Moderate	2	2	2
Moderate-high	4	3	2
High	-2	-1	-2
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	11/16	8/16	8/16
Low income ranking (out of 16 SSDs)**	10/16	9/16	11/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$176	\$178	\$199
Median weekly private rent: % difference from Melbourne median	-3%	-4%	-10%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$146,880	\$141,900	\$285,000
Median house sale price: % difference from Melbourne median	-12%	-15%	-17%
Median apartment sale price (\$2006)	\$128,520	\$122,550	\$230,000
Median apartment sale price: % difference from Melbourne median	-8%	-15%	-23%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A13: Southern Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	133,400	139,500	147,000
<b>Weekly household income (%), \$2006</b>			
Low	14	19	16
Low-moderate	15	17	12
Moderate	23	19	15
Moderate-high	24	20	18
High	24	25	39
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	2	1	0
Low-moderate	1	0	-1
Moderate	-1	-2	-2
Moderate-high	-2	-2	-2
High	1	2	5
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	5/16	4/16	3/16
Low income ranking (out of 16 SSDs)**	5/16	8/16	9/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$180	\$190	\$232
Median weekly private rent: % difference from Melbourne median	0%	2%	4%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$208,080	\$233,490	\$571,000
Median house sale price: % difference from Melbourne median	24%	39%	67%
Median apartment sale price (\$2006)	\$148,920	\$154,800	\$344,500
Median apartment sale price: % difference from Melbourne median	7%	7%	15%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A14: Greater Dandenong City SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<i>1986</i>	<i>1996</i>	<i>2006</i>
Total households	40,100	41,600	42,700
<b>Weekly household income (%), \$2006</b>			
Low	10	21	22
Low-moderate	14	21	18
Moderate	28	23	21
Moderate-high	29	20	19
High	19	15	20
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-2	3	6
Low-moderate	0	4	5
Moderate	3	2	4
Moderate-high	2	-2	-1
High	-4	-8	-14
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	12/16	15/16	16/16
Low income ranking (out of 16 SSDs)**	9/16	3/16	1/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$176	\$160	\$168
Median weekly private rent: % difference from Melbourne median	-3%	-14%	-24%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$150,960	\$122,550	\$261,500
Median house sale price: % difference from Melbourne median	-10%	-27%	-24%
Median apartment sale price (\$2006)	\$123,420	\$97,395	\$195,000
Median apartment sale price: % difference from Melbourne median	-12%	-33%	-35%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A15: South Eastern Outer Melbourne SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<b>1986</b>	<b>1996</b>	<b>2006</b>
Total households	33,200	59,400	88,000
<b>Weekly household income (%), \$2006</b>			
Low	8	13	12
Low-moderate	12	16	13
Moderate	28	23	20
Moderate-high	31	27	24
High	21	21	31
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-4	-5	-4
Low-moderate	-2	-1	0
Moderate	3	3	3
Moderate-high	5	5	4
High	-2	-2	-3
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	8/16	9/16	9/16
Low income ranking (out of 16 SSDs)**	12/16	14/16	13/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$187	\$183	\$202
Median weekly private rent: % difference from Melbourne median	4%	-2%	-9%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$148,720	\$135,450	\$260,000
Median house sale price: % difference from Melbourne median	-11%	-19%	-24%
Median apartment sale price (\$2006)	\$128,520	\$109,650	\$220,000
Median apartment sale price: % difference from Melbourne median	-8%	-24%	-27%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A16: Frankston City SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<b>1986</b>	<b>1996</b>	<b>2006</b>
Total households	29,500	37,800	43,500
<b>Weekly household income (%), \$2006</b>			
Low	11	19	18
Low-moderate	14	19	16
Moderate	26	22	19
Moderate-high	29	22	22
High	20	18	25
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	-1	1	2
Low-moderate	0	2	3
Moderate	1	2	2
Moderate-high	2	1	2
High	-2	-6	-8
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	10/16	13/16	15/16
Low income ranking (out of 16 SSDs)**	8/16	6/16	5/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$188	\$168	\$184
Median weekly private rent: % difference from Melbourne median	4%	-9%	-17%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$149,940	\$122,550	\$260,000
Median house sale price: % difference from Melbourne median	-10%	-27%	-24%
Median apartment sale price (\$2006)	\$132,600	\$96,750	\$213,000
Median apartment sale price: % difference from Melbourne median	-5%	-33%	-29%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

**Table A17: Mornington Peninsula Shire SSD: household income and housing market indicators, 1986, 1996, 2006**

<i>Selected characteristics</i>	<b>1986</b>	<b>1996</b>	<b>2006</b>
Total households	32,700	41,000	49,700
<b>Weekly household income (%), \$2006</b>			
Low	15	24	19
Low-moderate	21	22	16
Moderate	25	20	19
Moderate-high	23	18	19
High	16	16	27
Total	<b>100</b>	<b>100</b>	<b>100</b>
<b>Percentage point difference from Melbourne SD</b>			
Low	3	5	3
Low-moderate	7	5	3
Moderate	0	0	2
Moderate-high	-4	-4	-1
High	-7	-7	-7
<b>SSD household income rankings</b>			
High income ranking (out of 16 SSDs)*	16/16	14/16	14/16
Low income ranking (out of 16 SSDs)**	1/16	1/16	3/16
<b>Private rents</b>			
Median weekly private rent (\$2006)	\$163	\$166	\$184
Median weekly private rent: % difference from Melbourne median	-10%	-11%	-17%
<b>House and apartment# sale prices</b>			
Median house sale price (\$2006)	\$142,800	\$139,320	\$336,000
Median house sale price: % difference from Melbourne median	-15%	-17%	-2%
Median apartment sale price (\$2006)	\$140,352	\$114,810	\$256,000
Median apartment sale price: % difference from Melbourne median	0%	-21%	-15%

\*1 = the highest proportion of high income households and 16 = the lowest proportion of high income households

\*\*1 = the highest proportion of low income households and 16 = the lowest proportion of low income households: 'low income' includes both low and low-moderate income households.

# 'Apartments' include flats, units, townhouses etc.

Source: ABS customised 1986, 1996 and 2006 Census of Population and Housing data sets; Victorian Government (DSE) LANDATA house and apartment sale price data, 1986, 1996, 2006.

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