AN ANALYSIS OF RELATIVE SPATIAL PATTERNS OF HOUSING AFFORDABILITY AND EMPLOYMENT IN SYDNEY AND ASSOCIATED PLANNING STRATEGIES

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ABSTRACT

The notion of spatial mismatch first emerged as an academic concept in 1968, predominately as an observation of the patterns of development in North American cities, however it has recently become an observation of patterns of development across the globe. The spatial mismatch theory highlights the effects of the geographic differential between where particular social groups are concentrated in the housing market and the effects this had on their relative employment opportunities. As a result of these spatial patterns low income households have limited access to employment opportunities and are often forced into unemployment. Consequently, social polarisation of cities affected by spatial mismatch has occurred which has seen a social disadvantaged class emerge, characterised by low income levels, employment exclusion, transport poverty, locational inaccessibility and low education levels.

This thesis explores the Australian context of spatial mismatch with a focus on Sydney as a case study. The historical urban development patterns of Australia will be detailed which have laid the foundations for the emerging spatial mismatch in Sydney. The thesis will analysis the Metropolitan Strategy in terms of its ability to address the challenges associated with spatial mismatch in Sydney.

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* Cover photograph: Taken by the author at Milsons Point (30 October 2006)
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<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>CRA</td>
<td>Commonwealth Rental Assistance</td>
</tr>
<tr>
<td>CBD</td>
<td>Central Business District</td>
</tr>
<tr>
<td>DOH</td>
<td>Department of Housing</td>
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<td>DoP</td>
<td>Department of Planning</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GMR</td>
<td>Greater Metropolitan Region</td>
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<td>LGAs</td>
<td>Local Government Areas</td>
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<td>MSDAM</td>
<td>Market Segmentation Data Access Model</td>
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<td>RHC</td>
<td>Regional Housing Coordinator</td>
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1 INTRODUCTION

Contemporary urbanist scholarly literature is concerned with the spatial development of metropolitan areas, particularly in terms of the spatial distribution of housing, employment, transport, education and ethnic concentrations. As a response to ongoing restructuring of employment and housing markets a spatial division has emerged between locations of high employment opportunities and the concentration of lower socio economic status households. The lack of access to educational facilities and transport services, and concentrations of ethnic communities has led to the emerging ‘spatial mismatch’.

Consideration of spatial mismatch in Australia is a recent study area and has not been significantly addressed particularly in the Sydney context. This thesis therefore has the potential to fill an important gap within spatial mismatch literature. This thesis reviews the extensive international and national scholarly literature dealing with the phenomenon of spatial mismatch. The thesis however will focus on the Australian context of spatial mismatch, particularly in Sydney. The thesis will explore historical urban development patterns in Australia that have contributed to spatial mismatch forming within its metropolitan areas. Further a case study of Sydney will be outlined in terms of its links between affordable housing, employment, education, transport and ethnic community concentrations. To conclude, this thesis will review current NSW Government initiatives to overcome spatial mismatch in Sydney.

1.1 Research question

The thesis responds to the research question:

*Does spatial mismatch occur in Sydney, and if so, are there appropriate policies in place to prevent and manage this effect?*
1.2 Aims of the thesis

In responding to the research question, the thesis aims to:

- Establish the international and national context of spatial mismatch, and determine its implications on employment opportunities and affordable housing locations;
- Explore the historical urban development patterns that have contributed to spatial mismatch emerging in Australian cities;
- Critically analyse the current spatial locations of employment and affordable housing markets, education facilities, transport infrastructure and ethnic concentrations in terms of spatial mismatch; and
- Identify and analyse NSW Government initiatives to address spatial mismatch in Sydney.

1.3 Research methodology

The initial phase of the thesis required a comprehensive review of scholarly literature related to American spatial mismatch, Australian spatial mismatch and historical and current development patterns within Australia’s urban landscape. The detailed analysis of relevant academic essays, journal articles, websites and scholarly books provides background knowledge for the reader in terms of spatial mismatch patterns in relation to the American and Australian context and in terms of the historical patterns in Australia that have contributed to spatial mismatch forming in Australia.

With this detailed analysis of the literature, the thesis will then provide a case study of Sydney to determine the extent of spatial mismatch occurring with the metropolitan region. The analysis will be based on data drawn primarily from Australian Bureau of Statistics (ABS) 2001 Census data and from the Department of Housing’s Market Segmentation Data Access Model (MSDAM).
This data will then be illustrated in a series of maps which display the dispersal of affordable housing, employment, skill levels, journey to work by private and public transport and ethnic community concentrations. These maps and other data will be the basis of analysing Sydney’s spatial mismatch.

The next phase of the thesis is the analysis of Sydney’s Metropolitan Strategy in terms of its ability to overcome spatial mismatch in Sydney. The employment, centres and corridors, housing, and transport policies will be analysed in detail to determine whether these principles could potentially minimise spatial mismatch in Sydney.

1.4 Thesis structure

The thesis comprises the following structure:

- **Preliminaries** – this component of the thesis incorporates the abstract, table of contents, figures, tables and abbreviations.

- **Introduction** – the introduction establishes the research task, research question, aims of the thesis, research methodology and thesis structure.

- **Spatial mismatch** – this chapter explores spatial mismatch, transport mismatch and skills mismatch in current international and national literature.

- **Pattern of urban development** – this chapter will identify the major historical events and patterns in Australia’s urban development history that have contributed to spatial mismatch in Australian cities.

- **Assessing spatial mismatch in Sydney** – this chapter will explore the spatial mismatch in Sydney by exploring statistical data on affordable housing, employment, skill levels, journey to work by private and public transport and ethnic community concentrations. A series of maps will be developed in relation to the data and the correlations urban development patterns will be determined.
- **Metropolitan Strategy** – this chapter will outline Sydney’s Metropolitan Strategy and critically analyse it in terms of it to overcome spatial mismatch.

- **Conclusion** – the concluding chapter of the thesis summarises the key findings of the thesis and discusses further avenues for research.

- **References** – a list of titles referred to in the thesis.
2 SPATIAL MISMATCH

The concept of spatial mismatch has been subject to empirical and theoretical debate since the theory was first explored by Kain in 1968. It is predominately an American expression, however spatial mismatch is continually growing as a global trend and has recently become more evident in urban patterns of Australian development. This chapter will introduce the theory of spatial mismatch and the challenges faced as a result of this phenomenon. In addition, the decline of the ‘essential’ or ‘key workers’ in metropolitan areas and the introduction of skill and transport mismatch will be discussed. Further more, the chapter will explore the spatial barriers that have contributed to the emerging spatial mismatch problem. This chapter will predominately focus on the American context of spatial mismatch however the Australian context will be addressed towards its conclusion.

2.1 Introduction to spatial mismatch

Spatial mismatch was first introduced in Kain’s (1968) journal article *Housing Segregation, Negro Employment and Metropolitan Decentralisation* which highlighted the effects of the geographic differential between where particular social groups were concentrated in the housing market and the effects this had on their relative employment opportunities refer to Figure 2-1. In the American context, Kain (1968) argued that housing markets were spatially segregated along racial lines, with low skilled African American (non-White) households focused in inner city areas, while high skilled White households were concentrated in outer suburban areas. Whereas low skilled employment opportunities such as manufacturing are located in the outer suburban areas and inner city locations contain higher skilled employment opportunities such as finance. Therefore the distribution of low skilled employment does not match low skilled housing concentrations and the dispersal of high skilled employment does not match high skilled housing locations. Thus African American and White household locations provide limited local employment opportunities.
Concerns over these differences between locations of greatest employment opportunity and where those who are in greatest need of availing themselves of such opportunities actually reside, gave rise to the notion of spatial mismatch (Dodson, 2005). Thus spatial mismatch refers to the disproportionate number of jobs located in certain locations relative to the spatial concentrations of the housing market (Dodson, 2005).

**Figure 2-1 American spatial mismatch (Author, 2006)**

**Suburbs**
- White middle class concentrations
- High skill levels
- Key worker employment
- Low skilled employment
- High income households
- Accessible private and public transport
- Expensive housing

**Inner city**
- African American concentrations
- Low skill levels
- Key worker labour supply
- High skilled employment
- Low income households
- Inaccessible private and public transport
- Inexpensive housing

Suburbanisation of White households and low skilled employment
2.1.1 Challenges facing spatial mismatch

In the United States, observers argue that spatial mismatch has further reinforced the ethno-racial divide between African American and White communities. White households are considered to have higher socio-economic status, better transport facilities and higher skill levels which allows them to have greater access to employment and housing markets. Whereas non-White residents have limited choices in housing and employment markets due to low economic status, low skill levels, lack of access to private and public transport, and racial discrimination. Thus African American households reside in segregated areas distant from major centres of employment growth (Kain, 1968). With distant employment opportunities, inner-city households have a choice of either commuting long distances to employment in suburban locations, finding low paid work in inner-city locations or they are forced into unemployment.

However there are various disincentives for inner-city residents to travel to suburban locations for employment which include long commutes, high costs associated with job searching and transport and inadequate access to private and public transport. Inner-city non-Whites also choose not to relocate closer to employment because of the short-term gains (represented by affordable housing costs) are large enough compared to the long-term gains of residing near jobs (represented by higher probability of acquiring a job) (Yates et al., 2006). The urban socio-spatial structure therefore places inner-city non-White households at an employment and geographic disadvantage relative to other White households (Dodson, 2005).

As a result of spatial mismatch, a new underclass structure has emerged in the ghettos, of which, at least two-fifths of American residents fall below the poverty line (Ong & Miller, 2005). As middle class households move out of the ghettos they left behind an immobilised underclass which are economically isolated and politically powerless (Hughes, 1989). Ghettos that once had social stability and economic vitality were gradually transformed into pockets of
poverty, welfare dependency, joblessness, social isolation and criminal behavior (Hughes, 1989).

2.1.2 Decline of key worker employment

Key or essential workers refer to low skilled and low paid employees such as cleaners, waiters, manufacturing line workers and government staff. These employees, which are predominately African American, are critical for the proper functioning of cities and are required to sustain the local economy and competitiveness for the future (Yates et al, 2006). Key worker employment is located where there is limited affordable housing available and thus employees are unable to locate within close proximity to essential worker employment opportunities. In addition, there have been difficulties in recruiting and retaining permanent key workers. Thus a spatial mismatch has also emerged between essential worker employment and affordable African American housing locations.

2.2 Transport mismatch

A further argument which focuses on transport dimensions of spatial mismatch has been put forward by Taylor and Ong (1995) who have suggested that spatial mismatch is not in itself a problem but that a transport mismatch exists. The combined costs of purchasing, maintaining, operating and insuring a car is often unaffordable for low income households and imposes an undue strain on their budgets. Therefore inner city African American households have lower rates of car ownership than suburban households and thus are unable to access suburban employment opportunities to the same degree (Dodson, 2004).

Therefore inner city non-Whites rely heavily on public transport, more so than Whites, due to lower incomes, lower car ownership and restrictions on housing choices which confine African Americans to areas more likely to offer public transport (Ihlanfeldt & Sjoquist, 1998). Sanchez (1999) suggests that proximity to public transport is a positive factor in determining labour participation.
However, public transport systems in America focus on the CBD and are usually poorly orientated for making trips from the inner city to suburban locations (Kain, 1968). Thus the difficulty of using public transport systems to reach suburban employment centres severely restricts African Americans ability to seek or accept employment in the suburbs (Dodson, 2005). Cheal’s (2003) study found that transit poor households tended to be socio economically worse off on average, when compared to those in the transit-rich areas. Thus transport significantly contributes to the existing levels of social disadvantage (Dodson, 2005).

In addition, a study undertaken by Danziger and Weinstein (1976) found that African American central city residents have about 10 percent higher hourly earnings if they work in the suburbs in cities such as Cleveland, Detroit and St Louis, however often this increase in salary is not justified with the commuter costs. The financial cost of commuting whether by public or private transport is high in relation to the wage offered, meaning that net earnings after commuting costs will be reduced (Holzer et al, 1994). If net wages are reduced below the reservation or minimum acceptable wages then workers will not accept suburban employment at all and would search in inner city areas for employment or to drop out of the labour force all together (Holzer, 1991).

African American households without a car or adequate access to public transport are considered to be socially excluded as they can not fully participate in the vast majority of activities (Dodson, 2004). Private and public transport systems are seen as a means of bridging the spatial divide and reducing the effects of social exclusionary housing markets on socio economically disadvantaged households (Dodson, 2005). Transport ensures access between areas of low income housing and areas of high employment opportunity (Dodson, 2005).
2.3 Skills mismatch

An alternative view has been put forward by Moore and Laramore (1990) who suggest that inner city African American households do not possess the appropriate skills for employment in the central city. In this instance spatial mismatch is understood as a mismatch of labour skill resulting from the transition from the old economy to a higher order labour market which has been combined with patterns of racial residential segregation to disadvantage inner city non-White households (Dodson, 2004). Moore and Laramore (1990) suggest that there is a geographical dimension to the mismatch between the concentration of skilled workers and the location of suitable employment.

As suburbanisation of the labour market occurred in the 1940s low skilled and low paid employment such as manufacturing relocated to outer suburban locations, while higher order and knowledge intensive employment, such as finance and information technology industries remained in the inner city. However, low skilled households were trapped in inner city locations. Hence, the rise of knowledge intensive employment in the inner city required a higher set of skills which African American households did not contain. Moore and Laramore (1990) suggest that a skills mismatch is the result of changes in the types of jobs present in the locations where low skilled residents live, rather than the departure of employment to other regions within the metropolitan area.

McLafferty and Preston (1997) argue that high skilled workers are willing to commute greater distances largely due to the higher incomes they earn. Thus higher skilled workers have a high degree of occupational mobility and spatial mobility and therefore more jobs are open to these workers.
2.4 Spatial barriers

There are numerous spatial barriers within American cities that have contributed to the spatial mismatch hypothesis. The most significant spatial barrier is the suburbanisation of the labour market which has shifted labour away from inner city African American neighbourhoods to White middle class suburban areas (Ihanfedlt & Sjoquist, 1998). Another major spatial barrier is the racial discrimination of African Americans in housing and mortgage markets which has excluded African Americans from areas of job growth. Also the lack of access to information on suburban employment vacancies poses as a spatial barrier effecting non-White households.

2.4.1 Suburbanisation

Suburbanisation has contributed to spatial mismatch as it established a physical separation between employment growth and non-White households (Ong & Miller, 2005). By the 1990s, 87 percent of the new suburban employment in American cities were lower paid and lower skilled (U.S. Department of Housing and Urban Development, 1997). The result of suburban employment expansion sparked rapid population growth, particularly of White middle class residents which were able to relocate much more easily then African Americans (Kain, 1992). For example in 2000, 61 percent of African Americans lived in inner city locations while only 27 percent of residents were White (O’Sullivan, 2000).

The inability of disadvantaged African American communities to follow lower skilled jobs has increasingly isolated them from shifting employment opportunities and has contributed to their high rates of unemployment (Kain, 1992). Watts (2006) argues that locating relevant employment close to a workers place of residence reduces unemployment spells.

2.4.2 Racial discrimination

African Americans are racially discriminated against in housing and mortgage markets which has excluded them from areas of job growth (Dodson, 2005).
Racial discrimination in suburban housing markets is thought to be an important component of the residential mobility barrier to employment (Ihlanfeldt & Sjoquist, 1998). Red lining was used by real estate agents to prevent members of ethnic minority groups from purchasing property in predominantly White suburban neighbourhoods was outlawed by America, however it is still practiced in some American cities (Ihlanfeldt & Sjoquist, 1998). In addition employers in White suburban locations discriminate against non-Whites when hiring (Ihlanfeldt & Sjoquist, 1998) and African Americans believe that they will not be socially accepted if they work in suburban jobs.

2.4.3 Access to information

Job search and recruitment of African Americans also presents a spatial barrier for employment access (Houston, 2005). Due to the long distances between suburban employment and inner city households, African Americans are less likely to find out about suburban employment opportunities. Often the efficiency of job search by inner city residents decreases with distance to employment because workers obtain less information about suburban job opportunities, search costs increase with distance or local employment vacancies are often advertised locally (Yates et al., 2006). Word-of-mouth or social networks are an important source of labour market information for lower-skilled and blue-collar jobs which African Americans often lack (Houston, 2005).

2.5 Australian context

The American and Australian context of spatial mismatch are generally similar however there are a few variations in Australia’s urban patterns. Australian cities generally lack strong socio-ethnic segregation unlike American cities where racial residential segregation is highly visible. Also in Australian cities, middle to high income earners are concentrated in inner core areas where there is a large quantity of high order employment. Whereas low income are focused in suburban locations where the majority of blue collar jobs are concentrated.
Within the Australian context, spatial mismatch is a result of increased amounts of high income employment in city centres, housing price inflation in the city core and the movement of low cost rental stock from inner city to suburban locations (Dodson, 2005). Inflation of housing prices has occurred in city centres as a result of increased high order employment concentrations and gentrification. As housing prices rise in city centres, low income earners are being forced out of these locations of high employment opportunities to live in outer urban areas where housing is more affordable. This geographical separation between employment growth centres and affordable housing is excluding outer suburb residents from accessing high order employment in the city centres refer to Figure 2-2.

For many Australian households, the increase in cost of housing has made it difficult to find affordable accommodation near employment centres. Affordable housing exists mostly in suburban locations which are often isolated from highly skilled and high paid employment opportunities. Labour market shortages in some occupations can be attributed to shortages of affordable housing in locations that provide ready access to the central city where there is a high concentration of specific types of jobs (Yates et al, 2006). This is particularly evident in central Sydney which is being starved of key workers because they can not afford to live within reasonable travelling distance from the city (O’Malley, 2002).
Figure 2-2 *Australian spatial mismatch* (Author, 2006)

**2.6 Summarising spatial mismatch**

The notion of spatial mismatch was first explored in scholarly literature in the 1960s and was predominately an American hypothesis however it is now emerging as a global phenomenon. It is a recent theory within Australian cities and has not been explored to the extent of American literature. Spatial mismatch has seen a strong geographic division between social groups form and has resulted in limited housing and labour market opportunities for low income...
households. Spatial mismatch is a result of various historical urban patterns such as suburbanisation of manufacturing, globalisation, gentrification and inflation. The following chapter will explore in more detail Australia’s historical urban patterns that have led to spatial mismatch.
3 PATTERNS OF URBAN DEVELOPMENT

Australia’s historical patterns of development have reinforced the emerging spatial mismatch. The previous chapter defined the notion of spatial mismatch and this chapter will look at patterns of urban development in Australia that have contributed to the spatial mismatch of housing and employment. This chapter will explore the historical development of Australia from the 1800s to the twenty-first century city. The chapter will detail historical events such as the industrial revolution, introduction of public and private transport, urbanisation and suburbanisation of employment and housing, urban restructuring, globalisation, housing and spatial patterns, and social issues.

3.1 Nineteenth century cities

Patterns of growth within Western cities in the nineteenth century were dominated by the industrial revolution and the introduction of public transport networks, giving rise to residential segregation, spatial patterns of strong urbanisation and suburbanisation.

3.1.1 Industrial revolution

Nineteenth century cities were characterised by the industrial revolution, which resulted in major technological, demographic, socio economic and cultural changes throughout the world. Industrialisation saw the previous manual labour based-economy replaced with an economy dominated by industry and the manufacture of machines. The rise of industry introduced mechanisation of labour, forcing poor agricultural farmers to work in new factories. Manufacturing became the main generator of wealth during the nineteenth century which is particularly evident in Sydney around Port Jackson and Botany Bay today (Forster, 2004).
a) *The rise of city dominance*

Pre industrial colonial cities consisted mainly of small urban islands set in a sea of rural settlement and agrarian activity (Forster, 2004). They were compact walking cities with the working class and middle class housing alike clustered within walking distance of the commercial centres. Cities consisted of administrative, trading and cultural functions and contained only a small proportion of Australia’s population and total wealth.

When significant manufacturing industries developed in Australia, much of it was drawn naturally to the capital cities. The rise of manufacturing in capital cities was accompanied by a major settlement pattern of urbanisation which pushed farmers from rural areas to cities in search of employment. Cities developed rapidly in Australia and by the end of the nineteenth century the level of urbanisation was among the highest in the world.

Manufacturing employment reinforced the cities attractiveness to new immigrants who then created further needs for employment. By this process of cumulative causation, the so called snowball effect in which growth in turn generates more growth, the capital cities became ever more dominant from the 1870s onwards (Forster, 2004). By 1911 the majority of Australia’s population was focused in capital cities with Sydney containing 47 percent of the population in NSW and Melbourne contained 45 percent of Victoria’s population (Forster, 2004). One of the most striking features of the Australian settlement pattern saw the rise of metropolitan primacy which is a condition where the largest city in a country or state is many times larger then the second largest (Forster, 2004).

### 3.1.2 Introduction of transport

With the establishment of horse omnibuses, tram and railway networks in the boom years of the 1870s and 1880s, Australian cities became public transport cities reinforcing their dominance. Public transport allowed the middle and
upper classes to live a distance from the city in spacious houses in residential suburbs which had adequate access to water, power and sewerage systems. This saw the rise of residential segregation where districts started to form according to socio economic status. For example, Collingwood and Richmond in Melbourne were typical 1880 old established industrial areas of the walking era and Prahran and Brighton were middle class suburbs to the south and east of the Yarra River. The geographic division between different classes as a result of transport saw the foundations of spatial mismatch slowly form.

3.2 Early twentieth century cities

During the early twentieth century, manufacturing continued to expand, which saw Australia’s population increase, and reinforced the cities dominance. The rapid increase of population saw a suburban housing boom, which left its mark on the urban landscape, especially in Sydney which became low density sprawling affairs extending along public transport axes radiating from the city centres (Jackson, 1977). The growth of cities reinforced the division of labour skills between the established inner city working classes and the suburban middle to upper class sectors. The division of labour skills started to bear the cracks of spatial mismatch.

3.2.1 Inner city slums

Traditional working class inner areas had suffered from unemployment and the hardship of the Great Depression in the early 1930s. Inner city areas such as Darlinghurst, Surry Hills and Millers Point in Sydney produced conditions of overcrowding, squalor and ill health as industrial workers crowded into old industrial courtyards and tenements within walking distance of their jobs in the factories, mines or docks and had inadequate provision of water and sewerage and drainage systems (Forster, 2004). Public housing bodies were established in Victoria (1938) and NSW (1942) which were charged with the task of slum reclamation and relocating workers to the outer suburbs (Murphy & Watson, 1997). Large settlements of nineteenth worker cottages and low cost poorly
built terrace housing were demolished and replaced with classic modernist style high rise flats that still dominate the skyline.

3.3 Long Boom

The long boom era began after World War II and saw major economic, social, demographic, technological and political changes until the early 1970s. The long boom fuelled a seemingly unstoppable chain reaction of metropolitan expansion, rapid population growth and suburbanisation (Forster, 2004).

3.3.1 Sprawling metropolises

By 1971, Sydney and Melbourne were massive sprawling metropolises with over 2.5 million inhabitants each, and containing over 70 percent of their respective State populations (Forster, 2004). Overall, 60 percent of Australia’s total population in 1971 lived in cities compared with 54 percent in 1947 (Forster, 2004). The baby boom era saw population rapidly expand with couples marrying at younger ages and fertility rates rising, which accounted for between a third and a half of the total growth in capital city populations between 1947 and 1971.

a) Immigration growth

The main engine of population growth however was the rapid influx of immigrants from overseas, which accounted for over half the population growth of Sydney, Melbourne and Adelaide, almost half the growth of Perth, and one third of the growth of Brisbane and Hobart, between 1947 and 1971. In the mid-1960s, the White Policy was abolished, and consequently, diverse successive waves of immigrants poured into the cities for employment opportunities and social facilities. The dramatic increase of immigrants arriving in Australia resulted in a high demand for housing and consumer goods, and in turn, fuelled further industrial expansion and growth in job opportunities (Forster, 2004).
Immigration transformed Australian cities into distinct geographical patterns of ethnic residential segregation. The new immigrants were reluctant to blend with the existing population which formed ghetto like developments, alienating immigrants and would often result in crime ridden residential concentrations which had high unemployment rates. In Sydney, Greeks tended to concentrate in Marrickville, Canterbury, Randwick, Rockdale and Botany, Italians were focused in Drummoyne, Ashfield and Leichhardt and Asians started to increase in Waverly, Randwick, Ashfield and Burwood. Amongst Lebanese migrants in Sydney in 1991, 19 percent were out of work, compared with 5.3 percent of the Australian born (Forster, 2004). The spatial segregation of ethnic concentrations reinforced divisions between disadvantaged communities and the wealthier residents and therefore spatial mismatch was starting to development within the Australian urban landscape.

3.3.2 Economic development

The rapid population growth matched the economic expansion, improved prosperity and full employment. Economic growth largely came from the continued increase of manufacturing industry and mining to meet domestic demand. A combination of high tariffs and limited foreign competition in the 1950s and 1960s, propelled by burgeoning domestic demand, drove growth of Australian manufacturing jobs to a peak of 1,215,570 by 1971, which comprised of 23 percent of the work force (Murphy & Watson, 1997). New manufacturing jobs tended to gravitate towards Australian capital cities, particularly Sydney, Melbourne and Adelaide. By 1971, manufacturing made up over 30 percent of jobs in Melbourne, almost 30 percent in Sydney and Adelaide, and around 20 percent in Brisbane and Perth (Forster, 2004).

3.3.3 Private transport

During the long boom, cars became the main form of transport in Australian cities. In 1971, 75 percent of the households in Sydney and Melbourne owned at least one car and 25 percent of households owned two or more (Forster,
2004). The previous star shaped public transport city was transformed into a sprawling, amorphous, decentralised private transport city (Forster, 2004). Areas previously inaccessible were eagerly developed into new housing suburban estates, with quarter acre blocks, to meet the needs of the new immigrants and baby boom households.

### 3.3.4 Suburbanisation

One of the major events in the long boom was the suburbanisation of the housing and labour markets from inner city locations to outer suburbs. This pattern saw doughnut cities form with rapidly growing outer suburbs surrounded by older areas of population decline and stagnation (Forster 2006). The movement of housing and the labour markets has been one of the main factors contributing to today’s spatial mismatch in Australian cities. Manufacturing employment relocated to the periphery because efficient truck transport reduced the need to locate close to ports and railway yards, it allowed factories to be closer to main interstate highways, and land was cheaper in the outer suburbs. Employment in Sydney’s CBD fell from 48 percent to 42 percent between 1981 and 1996, whereas suburban employment increased from 52 percent to 58 percent (Forster, 2004).

#### a) Social division of housing market

As Australian cities expanded rapidly, and suburbanisation of housing and employment grew, so too did the contrast between social status and wealth (Forster, 2004). Accordingly, spatial mismatch became more evident in the Australian urban landscape. The western suburbs of Sydney comprised of massive expanses of low income housing, including public housing estates, together with suburban concentrations of manufacturing employment. Low socio economic groups in the outer suburbs were segregated from the inner core as they did not have adequate access to employment and services, especially in the CBD, as they were unable to afford the costs of running a private vehicle.
In contrast, residents in middle class suburbia were able to afford a car and thus had better access to centrally located services and employment.

b) The establishment of urban realms

Suburbanisation was relatively unfettered (Daniels, 1986) during the long boom, consequently growth in white collar suburban employment was dispersed rather than concentrated in the bona fide centres, specialised clusters, and corridors (Freestone & Murphy, 1998). At the end of the long boom, suburbanisation of economic activity was breaking down traditional monocentric urban forms and shifting towards a multinuclear structure, with significant suburban concentrations of employment rivalling the dominance of the CBD and drawing their workers from distinct suburban labour sheds (Logan, 1968). As monocentric cities grew they became disaggregated into a series of relatively self contained, far flung, metropolitan subregions which formed the notion of urban realms proposed by Vance (1977). Urban realms are referred to as cities within a city and allow residents to work, socialise and live in one metropolitan area.

3.3.5 Government action

Sydney's first strategic plan, the County of Cumberland Plan, was established in 1948 and proposed that Sydney be divided into a series of districts, each with a centre and one County Centre. The plan aimed to coordinate the suburbanisation and decentralisation of housing, manufacturing and retailing and the more equitable supply of services and facilities. It also sought to develop strong suburban regional centres and to restrict outwards sprawl by establishing a green belt of protected non urban land. By the 1960s a new strategic plan was needed because of the pressures of growth on land and housing. Sydney's second strategic plan, the Sydney Region Outline Plan was introduced in 1968 and addressed the dramatic population growth through developing growth corridors such as the south west sector in Sydney. Parramatta and Campbelltown were nominated by the plan as subregional
centres for the rapidly expanding western and south western locations in Sydney.

3.4 Urban restructuring

After the long boom ended, an era of urban restructuring arose that saw unprecedented social, cultural, political, economic and technological changes in Australia during the 1970s and 1980s (Forster, 2004). The period of urban restructuring was characterised by declining manufacturing; rising services employment and transnational companies; increasing unemployment levels; and gentrification of inner city areas.

3.4.1 Economic restructuring

Economic restructuring encompasses the attempts by businesses and governments to restore profits and economic growth by changing patterns of investment, adopting new technology and changing the organisation of labour and production (Forster, 2004). Economic restructuring has fundamentally changed the economics of the cities, with Sydney emerging as Australia’s principal global city (Searle, 1996) and has brought dramatic exogenous shocks to urban systems (Freestone & Murphy, 1998). This movement in the economy has also reinforced spatial mismatch in Australian cities.

a) Globalisation

Globalisation emerged as a theoretical concept in 1944, however the economic, social, technological, cultural and political changes in the urban environment were not largely evident until the 1970s. Globalisation increased international trade, developed a global financial system, saw the deregulation of financial markets, established transnational corporations, saw a new international division of labour and developed global telecommunications infrastructure. Stilwell (1997) considers globalisation as the intensification of international economic connections in the closely related areas of production, trade investment and
finance. The process of globalisation has put companies in direct global competition for jobs, wages and working conditions.

Murphy and Watson (1994) note that globalisation has increased social inequality and polarisation in Australian cities in terms of redistribution of incomes. The inner suburbs tend to move up the social scale, but in the middle and outer suburbs, the rich areas get richer and the poor, get poorer. Murphy and Watson (1994) also note that changing economic arrangements have altered the sectoral composition of the workforce, with the declining of manufacturing, increasing of the service sector and transnational companies, as well as rising rates of unemployment. Consequently globalisation of the economy was a major contributor to spatial mismatch as it reinforces the division between socio economic status.

b) Decline in manufacturing

Globalisation changed the employment structure in Australia and consequently there was a dramatic decline in traditional manufacturing economic output. Urban areas dependent on the old economy have been most vulnerable to adverse economic shifts during the past two decades (Beer & Forster, 2001). Manufacturing constituted 25 percent of Australia’s gross domestic product (GDP) in 1970 but slipped to 15.8 percent in 1995 (Fagan & Webber, 1999). In addition, the proportion of workers employed in manufacturing decreased by 140,000 in Sydney and by 100,000 in Melbourne, and accounted for a loss of over a quarter of a million Australian manufacturing jobs between 1970 and 1990 (Forster, 2004). Fagan and Webber (1999) suggest that the decline in manufacturing employment was due to factors such as technological change and rationalisation, intra-urban relocation of firms, ongoing reductions to import tariffs, and changing corporate strategies.

c) Unemployment

Unemployment rates rose sharply from 2 percent in 1971 to 10 percent in 1991, especially amongst blue collar workers, as manufacturing declined (Forster,
2004). The unemployment map of Sydney divided into two contrasting parts, representative of contemporary social geography. Western and south western Sydney suburbs had the highest rates of unemployment, while the northern and north western suburbs of Sydney had the lowest rates. Areas of high unemployment, are areas where the work force is younger, less educated, more likely to have been born overseas and more likely to work, or to have worked in factories (Forster, 2004).

d) Increase in transnational companies

The most crucial factor concerning the decline in manufacturing employment has largely been the result of the shift of manufacturing production to increasingly transnational companies. Transnational companies enabled investment to switch to any country which offered the most profitable conditions for a given activity (Forster, 2004). Accordingly, manufacturing in Australia began to move to Asian nations as they used cheap and politically docile supplies of labour (Freestone & Murphy, 1998).

The domestic manufacturing sector was increasingly exposed to competition from imports at cheaper prices as the federal government reduced the level protection, and local manufacturing also comprised of high local production costs which continued at an accelerating pace through the following decade (Freestone & Murphy, 1998). Manufacturers who did not relocate to low-wage countries often sought to reduce costs by computerised technology, leading to deskilling and jobless growth (Forster, 2004). Manufacturing also turned to flexible production styles of organisation which involved replacing permanent, full time workers, where ever possible, with causal, part time employees or subcontractors who could be more easily hired or fired as demand rose or fell.

e) Increase of service employment

As the manufacturing employment sector declined, the services sector, particularly retail, wholesale, business, professional, finance and community services, grew, although not at a rate great enough to compensate for the jobs
lost. The services sector comprised 24 percent of employment in 1971 and grew dramatically to 40 percent in 1996 (Fagan & Webber, 1999). The rise of the prosperous services employment was focused in the inner city and adjacent areas (Forster 2006).

Higher paid service jobs concentrated in the northern and north western parts of Sydney as well as in and around the CBD and so are relatively inaccessible to people living in the western and south western suburbs where unemployment is at its highest. Accordingly, the decline of manufacturing and rise of unemployment has reinforced spatial mismatch, with residents in the outer areas having to travel longer distances to access employment as there is a lack of jobs in these outer areas.

3.4.2 Gentrification

Gentrification of the housing market is one of the main factors which has contributed to spatial mismatch, by restricting low income earners in inner city locations as housing is too expensive to purchase. Residential gentrification of the inner suburbs had begun in the 1970s and accelerated during the 1990s with the encouragement of State governments whose urban consolidation programs promoted higher residential densities in inner city areas and economic prosperity. In addition, the Labour Commonwealth Government’s Better Cities program saw inner city office buildings and old industrial lands reborn into upmarket residential apartments and commercial uses. Gentrification removed the vestiges of the older working class inner city communities that existed for 100 years beforehand, and saw property values dramatically rise. Consequently, the working class were forced to live in the outer suburbs.

According to Forster (2004), economic restructuring was the driving force behind inner city gentrification, especially with the rise of advanced service employment, and the expansion of the tertiary and quaternary labour markets in these locations. The establishment of service employment in core areas brought gentrifiers: yuppies and trendies who set about colonising the nearby suburbs
and shaping them to their needs (Ley, 1986; Forster, 2004). For example, in Sydney, suburbs such as Ultimo-Prymont, Annandale, Newtown, Glebe, Stanmore, Petersham, Leichhardt and Balmain became trendy suburbs that were highly sought after.

3.5 1990s to 21st century cities

The 21st century Australian city is thought to be made up of heterogenous and fragmenting surfaces which are no longer welded to the traditional forces (Murphy & Watson, 1997). Randolph (2004) considers that a new lexicon has emerged with undercurrents and increasing complexities of urban life and urban structure. These complex cleavages based on new development patterns (Randolph, 2004) have contributed to spatial mismatch in the Australian landscape.

3.5.1 Patterns of employment

a) Two Cities

O’Connor and Rapsen (2003) argue that two distinct separate cities have formed between inner city high order employment locations and suburban low order employment concentrations. These two cities are increasingly becoming separate entities which have distinguished employment structures, population compositions and housing markets (O’Connor & Rapsen, 2003).

b) Global arc

The global arc refers to the extensive belt of higher order employment that has emerged in Sydney stretching from Botany in the south, through the Central Business District (CBD) and North Sydney, to St Leonards, Chatswood and Ryde. This phenomenon of the global arc has sprung from Sydney's developing role as Australia's global city and main beneficiary from the globalisation process (Forster, 2006). The global arc comprises of employment Brian (1999) refers to as twenty-first century occupation types including business analysts,
computing professionals, legal professionals, finance manager, media producers, IT managers, and policy and planning managers. Brain (1999) claims that these employment sectors are associated with superior real income gains and economic prosperity. Baddock (1997) refers to these prosperous regions, with advantaged global economies, high-status residential development and highly skilled residents, as cones of wealth.

c) **Suburban edge city**

The continuing suburbanisation of the labour market clusters has developed the phenomenon of the suburban edge city (Garreau, 1991). Garreau’s (1991) popular account of life on the new frontier saw the growth of high rise, semi-autonomous, job laden and road clogged suburban activity nodes (Freestone & Murphy, 1998). The most advanced of the new breed of suburban edge city is North Ryde, which has been transformed from a rural residential (exurban) district on the fringe of the built up area, into the largest concentration of off centre businesses accommodation in Australia (Freestone & Murphy, 1998). North Ryde contains corporate offices, a loose agglomeration of commercial and industrial land uses of metropolitan significance, a university, a centre for tertiary media studies, and estates of medium high density housing, both private and public. North Ryde’s employment base makes it the third largest commercial employment node in the metropolitan area outside the inner city (Freestone & Murphy, 1998).

d) **Corridors and centres**

Sydney’s employment development patterns have emerged into a series of centres and corridors. The CBD is the most important employment centre containing nearly 20 percent of all jobs, which are predominately high order industries, particularly in finance and business services, multimedia, and government administration. The CBD fringe comprises of mixed low and high rise inner suburban employment precincts and contains 73,900 jobs in the inner city and 32,100 jobs in North Sydney. Also Parramatta has emerged as
Sydney’s second CBD with 30,000 jobs primarily in corporate and federal government offices which serve western Sydney.

Suburban town centres have formed with retail malls, specialist shops, high rise corporate offices, public administration and rail and bus interchanges for example Chatswood, Liverpool, Bankstown and Bondi Junction. Office corridors such as Chatswood, St Leonards and North Sydney comprise of 21,600 jobs and contain mid rise corporate and tenanted office blocks on the city gateway route. Also business zones have developed with traditional industrial areas and significant business space component such as Marrickville.

New regional business parks have established such as Norwest, Austlink and Australia centre, they are prestigious master planned hi tech estates which are car dependent. Office parks such as The Lakes have formed as planned business space estates that are also car dependent. Freestanding office campuses are planned single purpose corporate headquarters on greenfields sites such as the IBM estate. Technoburbs are hi tech corporate estates associated with retail, commercial and leisure uses and have developed in North Ryde, Frenchs Forest and Airport Centre (Freestone & Murphy, 1998).

e) **Journey to Work**

The complex and dispersed labour market is characterised by scattered trip origins and destinations, although the central core remains the major commuting magnet (Freestone & Murphy, 1998). The majority of residents in west subregional clusters in Sydney are likely to work in the same local government area (LGA) or work in a neighbouring LGAs, whereas, residents in the wealthier inner suburbs are more likely to work in the CBD (Forster, 2004).

Fewer then 20 percent of work related trips are to the city centre, and intra LGA trips accounted for 33 percent, of which, 20 percent were to the CBD and 47 percent were inter LGA (Forster, 2004). The average time taken to travel to work in many large Australian cities has fallen slightly which is a result of an increase in the proportion of short cross suburban journeys (Forster, 2004).
The continued suburbanisation of employment and housing since 1970s has further reinforced dependence on the car. Employment in low density middle and outer suburbs are often hard if not impossible to reach by public transport while parking is usually easy and roads are relatively uncongested. In contrast, jobs in the CBD and inner suburbs can usually be reached by public transport and road congestion and parking problems discourage the use of cars.

However, low income households struggle financially to run a car, especially with rising petrol costs, and sometimes give up work, particularly part time work, because the wage they earn is not worth the expense involved. In addition, Australia’s outer suburban residents are faced with long commutes to access employment and thus often forced into unemployment (Dodson, 2004). The inaccessibility to jobs then has a compounding effect that makes it more difficult for households to break out of the cycle of unemployment and poverty.

### 3.5.2 Current housing market

#### a) Inflation

Since the mid 1990s, Australia’s housing market has experienced high levels of house price inflation. The highest price rise has favoured inner metropolitan locations, while outer urban locations were prominent among the suburbs with the lowest house price gains (Burke & Hayward, 2000). Burke and Hayward (2000) demonstrated that there was a strong spatial pattern associated with the inflation of house prices. In Melbourne, between 1990 and 1999, the real median price rises for the top twenty suburbs exceeded 50 percent, and by comparison, in the bottom 20 suburbs, real median house prices declined by at least 14 percent (Burke & Hayward, 2000). Burke and Hayward (2000) also found that the ratio of median house price had increased across much of Melbourne during the period 1989 to 1999.

Burke and Hayward (2000) suggest that spatial differentiation in the inflationary house price gains indicates that the housing market is acting to accentuate the
inequalities arising from the operation of the labour market. High income areas, particularly those in the inner city that are associated with the high order employment, have recorded higher rates of inflation then lower income areas, and have thus generated greater wealth (Dodson, 2004).

\(b\) **Housing affordability**

The provision of affordable housing has dramatically fallen in Australia over the past decade, especially amongst the low to moderate income households in the private rental market. In Sydney between 1994 and 2002, the real median house price 5 kilometres from the city increased by more than 100 percent, while at 40 kilometres it increased by less than 50 percent (DoP, 2005). This trend has intensified due to higher rent and dwelling prices, limited public housing and private rental stock, and an increase in demand for affordable housing. Housing is considered to be affordable if it does not exceed 30 percent of a household’s income on rental or mortgage payments (National Housing Strategy, 1991). If it payments exceed this limit then households are considered to suffer from housing stress. As a result of decreasing housing affordability, the number of low, and low to moderate income rental households experiencing housing stress across Australia has increased by 90,000 to 227,480 from 1986 to 1996 (Berry \& Hall, 2001) and at present, there is approximately 1.7 million Australians suffering housing stress (Harding et al, 2004).

\(c\) **Private rental market**

The public housing sector in Australian cities has undergone major changes since 1991, with successive federal governments cutting direct funding to State public housing authorities, and placing an emphasis on more tenure-neutral housing assistance, particularly extending rent rebates to welfare dependent households in the private rental sector (Yates, 1997). Consequently, few new public housing have been built in Australian cities in recent years and many of the estates have been redeveloped, involving demolition of some of the old rental stock and its replacement by privately owned dwellings (Randolph \& Judd, 2000). As a result, low income households are unable to gain access
either to home ownership or to public housing and thus are becoming increasingly dependent on the private rental sector (Forster 2006).

From 1986 to 1996 however private low rent dwellings dropped by 28 percent (70,000 dwellings), while the number of low to moderate income households increased at rates greater than 70 percent (Affordable Housing National Research Consortium, 2001). Currently there is a total shortage of 150,000 low cost rental dwellings which are reserved for people with very low incomes, although high income households occupy approximately 60 percent of low cost rental housing (Fullarton, 2005). There is a growing socio-economic group who constitute a sandwich class who are ineligible for public housing but unable to access suitable private market housing (Burke & Hayward, 2000).

3.5.3 Socio spatial patterns

Each major Australian city consists of a patchwork or a residential mosaic of districts and neighbourhoods inhabited by different types of households (Forster, 2004). Some contain high, middle and low income earners and others contain concentrations of immigrants which all interact to develop the social geography of cities.

a) Suburbs of opportunity

A recent phenomenon in Melbourne and Sydney has been the emergence of new suburbs of opportunity on the metropolitan fringe (Dodson, 2005). The new residential areas consist of master planned privately developed estates and attracted successful affluent middle to higher income households. These pockets of wealth have emerged in traditional low income sectors of cities, for example Glenmore Park, Harrington Park and Garden Gates in western Sydney, Caroline Springs in Melbourne and Mawson Lakes in Adelaide. Often the residents that live in these fringe estates are Australian born residents or nuclear families fleeing the older suburbs which are dominated by welfare dependent households and ethnic groups who are associated with crime, anti-social and

b) Disadvantaged middle suburbs

The middle suburbs are considered to be the locations of the most disadvantaged communities in Australia (Randolph & Holloway, 2005). The inner cores have experienced unprecedented pressure from densification and gentrification and the outer fringe suburbs are developing unaffordable and aspirational middle income estates. Therefore middle suburbs are the new foci of urban disadvantage, squeezed between the gentrifying inner city suburbs and the newly aspirational outer suburban fringes which offer an affordable housing alternative to the expensive inner and fringe suburbs (Randolph & Holloway, 2005).

The lifespan of housing stock in middle suburbs is coming to an end such as those found in the suburbs of Auburn, Rockdale, Fairfield, Canterbury, Bankstown, and Liverpool local government areas. Marginalised groups of Sydney society are aggregating in these low cost housing areas which tend to be locationally disadvantaged, poorly located relative to employment and access to public transport, education, welfare and other services. These middle suburbs are accumulating low income migrant populations while higher income households are leaving for outer suburban locations (Healy & Birrel, 2006).

c) Social disadvantage

Social disadvantage has been a result of long evident regional differentials in income, educational attainment and employment status and are continually worsening in Sydney (Hunter & Gregory, 1996). Social disadvantage is manifested in enclaves afflicted by distinct combinations of social exclusion, transport poverty, environmental blight and locational inaccessibility (Randolph, 2000). There has been a trend of disadvantaged households
concentrated in public housing estates as well as private sector housing, particularly in private rental stock in western Sydney, in poor quality accommodation, with little security and many paying unaffordable rents (Randolph, 2000).

The housing and labour markets appear to be acting as a mechanism through which socio-economic status is determined. Labour markets seem to be creating income inequalities which are translated into locational inequalities between high income and low income labour markets (Dodson, 2004). The polarised structure of Sydney has spilt into areas to the north of CBD and around the waterside to the south with job rich, high skill and expensive housing. Whereas middle, western and south western arms of Sydney are segregated into communities of disadvantage. Gleeson (2003) notes an increasing segregation of urban society into self interested privatopias on the one hand and residual enclaves of disadvantage on the other.

3.6 Summarising Australian urban patterns

Historical urban development patterns have laid the foundations for the emerging spatial mismatch in Australian cities. The Australian housing market has sorted differences in incomes with higher income households residing in inner city areas and in fringe master planned communities and low income households have been forced to concentrate in disadvantaged middle suburbs. With the decline of affordable housing, low socio economic households rely on the private rental market for low cost rent however with inflation and high demand for housing the private rental market is becoming more unaffordable. Low income households are forced to live in the middle, western and south western suburbs of Sydney where the majority of affordable housing is located. Gentrification of the inner suburbs has further reinforced the geographic division and social polarisation between social groups.

Suburbanisation of manufacturing employment and housing has also contributed towards the emerging spatial mismatch theory. Suburbanisation has
seen manufacturing employment and low income households relocate to suburban areas. The location of employment has also reinforced the geographic separation of social groups with high order employment focused in central city locations and the low order employment in suburban locations.

The introduction of the public transport and latterly private vehicular transport, has heightened spatial mismatch in Australian cities. Transport is generally used to bridge the gap between housing and employment markets, however, the western and south western suburbs of Sydney have limited access to private transport as well as an inefficient public transport networks. In addition, the labour force of the western and south western suburbs of Sydney generally lack higher education or skill levels and are thus restricted to the lower skilled employment sector.

Changes in demographics, the economy, housing markets, labour markets, transport and development patterns have contributed to the emerging spatial mismatch in Sydney. The next chapter will further explore in detail the patterns of Sydney’s spatial mismatch by analysing Sydney’s employment, journey to work patterns, education levels, affordable housing concentrations and ethnic community locations.
4 ASSESSING SPATIAL MISMATCH IN SYDNEY

The concept of spatial mismatch is a recent notion in urban studies. Accordingly, there has not been a substantial amount of scholarly literature on spatial mismatch within the Sydney context. This chapter identifies preliminary empirical evidence to assess the extent to which spatial mismatch is occurring between the location of affordable housing, labour market opportunity, access to transport, level of education and ethnic concentrations in Sydney. The data has been drawn primarily from ABS 2001 Census data and from the Department of Housing’s MSDAM.

For the purposes of this paper, the study area of Sydney is divided into 43 Local Government Areas (LGAs) as illustrated in Figure 4-1.
4.1 Affordable private rental market

As discussed previously the limited public housing stock forces low income households to highly depend on the private rental market for affordable housing. However, the private rental market is highly competitive as affordable private housing comprises only 2.8 percent of all dwellings in the Sydney housing market (MSDAM, 2006). The distribution of affordable rental housing is also highly geographically constrained. As illustrated in Figure 4-2 there is a clear spatial differentiation in the proportion of affordable private rental households between the LGAs of Sydney.
**Figure 4-2** Proportion of affordable private rental housing (MSDAM, 2006)
There is a distinct agglomeration of affordable private dwellings in the western and south western LGAs of Sydney emerging. The western corridor of affordable housing stretches from Parramatta, through Holroyd, Blacktown and Penrith to the Blue Mountains. As shown in Figure 4-2, 4.8 percent to 6 percent of all dwellings in Holroyd LGA are affordable private rental stock and 3.6 percent to 4.8 percent of all dwellings in Blacktown, Blue Mountains, Parramatta and Penrith LGAs are affordable private rental housing. The south west agglomeration of affordable housing comprises Fairfield, Liverpool, Camden, Campbelltown and Wollondilly LGAs. The proportion of affordable private rental housing of all dwellings in Campbelltown LGA is 3.6 percent to 4.8 percent and in Camden, Fairfield, Liverpool and Wollondilly LGAs is 2.4 percent to 3.6 percent. These LGAs have some of the lowest median rents and house prices in Sydney, for example Campbelltown’s median rent is $210 per week and median house price is $290,000 (MSDAM, 2006). In addition, Penrith LGA has a median rent of $230 per week and median housing price of $315,000.

Another spatial pattern that is evident in Sydney’s private rental market is the relative disadvantage of middle suburbs which is consistent with Randolph and Holloway (2005) and Healy and Birrel’s (2006) previous research findings. There is a distinct pattern of high affordable private rental stock in the middle LGAs such as Auburn, Canterbury, Hurstville, Kogarah and Rockdale. The affordable private rental market represents 6 percent to 7.2 percent of all dwellings in Auburn LGA, 3.6 percent to 4.8 percent of housing stock in Canterbury LGA and 2.4 percent to 3.6 percent of dwellings in Hurstville, Kogarah and Rockdale LGAs. These middle ring LGAs also have low median rent and housing prices for example, Canterbury has a median weekly rent of $200 and a median house price of $375,000 (MSDAM, 2006).

Sydney’s CBD and LGAs to the south of the CBD contain the largest proportion of affordable private rental housing stock in Sydney. The affordable private rental market represents 10.8 percent to 11.7 percent of all dwellings in
Sydney’s CBD, 4.8 percent to 6 percent of dwellings in Ashfield, 3.6 percent to 4.85 dwellings in Marrickville and Strathfield and 2.4 percent to 3.6 percent dwellings in Botany Bay.

In contrast the wealthy north and north west sectors of Sydney are composed of limited affordable private rental stock. For example, 0 percent to 1.2 percent of all dwellings in Hunters Hill, Ku-ring-gai, Pittwater and Willoughby LGAs are affordable private rental housing and 1.2 percent to 2.4 percent of all dwellings in Baulkham Hills, Hornsby, Lane Cove, Manly, Mosman and North Sydney are affordable private rental housing stock. These LGAs also have relatively high median rent and housing prices for example, Manly has a median weekly rent of $400 and a median house price of $732,000 and Mosman LGA has a median weekly rent of $375 and a median house price of $823,000 (MSDAM, 2006).

As discussed in the previous chapter there has been a distinct spatial pattern in Sydney’s landscape of master planned communities developing on the urban fringes. Baulkham Hills and Hornsby LGAs contain low levels of affordable private rental housing which could be linked to the increasing amount of master planned communities in the area. These pockets of wealth on the fringes attract middle to high income households and thus affordable private rental stock is limited for low income households.

In addition, there are low levels of affordable private rental stock in the affluent eastern suburbs of Sydney for example 1.2 percent to 2.4 percent of all dwellings in Randwick, South Sydney, Waverly and Woollahra LGAs are affordable private rental housing. These LGAs also have relatively high median rent and housing prices for example, Woollahra has a median weekly rent of $410 and a median house price of $904,000 (MSDAM, 2006).

The affordable housing data presented above demonstrates that households with low incomes face significant spatial access constraints on their residential location within the Sydney metropolitan region. Low income households are restricted to west and south west areas, middle suburbs and the suburbs south of
Sydney’s CBD. Housing affordability patterns also reflect the way in which households interact with labour market and broader socio-economic opportunities, to enable or exclude socio-economic status households from particular areas (Dodson, 2005). These patterns particularly place low income households at a subsequent disadvantage in the spatial labour market (Dodson, 2005).

4.2 Spatial labour market patterns

4.2.1 Skilled employment distribution

As discussed in the previous chapter Australian employment markets have been divided into two cities which include inner city high order employment locations and suburban low order employment concentrations (O’Conner & Rapsen, 2003). These distinct spatial patterns of employment are reflected in Sydney as shown in Figure 4-3. This figure illustrates the distribution of high skilled employment, which consists of managers, professionals, and associate professionals. The dispersal of high affordable private rental market housing and low proportions of high skilled employment markets tend to correlate. In addition, areas that comprise limited affordable private rental housing generally contain elevated levels of high skilled labour, particularly within the global arc. These spatial patterns further illustrate the segmentation of Sydney’s labour force.
Sydney’s western and south western affordable housing corridors contain low proportions of high skilled employment. Within the western corridor, high skilled employment represents 22.9 percent to 30.9 percent of the employment market in Blacktown and Penrith LGAs, 30.9 percent to 34.7 percent of employment in Holroyd and 36.6 percent to 38.4 percent of employment in Parramatta. In the south western corridor, 22.9 percent to 30.9 percent of employment in Campbelltown, Fairfield and Liverpool LGAs are high skilled, 30.9 percent to 34.7 percent of employment in Wollondilly are high skilled and
34.7 percent to 36.6 percent of employment in Camden are high skilled. In
addition, the middle suburbs which contain large proportions of affordable
housing stock are composed of low proportions of high skilled employment.
For example 22.9 percent to 30.9 percent of employment in Auburn, Bankstown
and Canterbury LGAs are high skilled. As illustrated, Sydney’s west corridor,
south west corridor and middle suburbs contain small proportions of high
skilled labour and therefore these locations have high proportions of low skilled
employment.

As identified earlier there is limited affordable private rental stock in north,
north west and east concentrations. These areas also contain relatively high
proportions of high skilled employment. Within the north and north west
affluent areas, high skilled employment represents 53.7 percent to 69.2 percent
of employment in Hunters Hill, Ku-ring-gai, Manly, North Sydney and
Willoughby LGAs, 48.2 percent to 53.1 percent of employment in Baulkham
Hills, Hornsby, Pittwater and Ryde LGAs and45.2 percent to 48.2 percent
employment in Warringah. In the eastern LGAs 53.7 percent and 69.2 percent)
of employment in Waverly and Woollahra are high skilled and 48.2 percent to
53.1 percent of employment in Randwick are high skilled. As demonstrated,
Sydney’s north, north west and east concentrations contain large amounts of
high skilled labour and therefore these locations have low proportions of low
skilled employment.

Accordingly, inner city high skilled employment in Sydney tends to co-locate
with affluent high skilled housing in north, north west and east areas. In
addition, suburban low skilled employment is based in disadvantaged low
skilled communities in Sydney’s south, south west and middle concentrations.
Low skilled households are therefore segregated from high skilled employment
and thus are unable to easily access high skilled labour. These development
patterns also restrict low skilled households from accessing diverse employment
opportunities. However, low skilled households are more likely to rely on low
skilled labour for employment due to lower education levels and high skilled households depend more on high skilled labour for employment.

In this instance, Sydney’s and America’s housing and employment dispersal patterns do not correlate. In the American context, there is a separation between low skilled employment locations and low skilled employee housing and high skilled labour and high skilled employee housing locations. As discussed in the previous chapter American spatial mismatch occurs when affordable housing is not co-located with relevant skilled employment. Therefore, the traditional American sense of spatial mismatch does not occur in Sydney in that inner city low skilled workers have to commute long distances to access low skilled employment in suburban locations and that suburban high skilled employees have to travel long distances to inner city high skilled employment.

4.2.2 Jobs per capita

However, when looking at the dispersal of Sydney’s employment per capita there is an unequal distribution of access to employment across the region refer to Table 4-1. The west, south west and middle LGA concentrations contain lower levels of jobs per capita. For example in the western corridor, there are 0.46 jobs per capita in Blacktown and Parramatta LGAs, 0.47 jobs per capita in Holroyd LGA, 0.49 jobs per capita in Blue Mountains LGA and 0.50 jobs per capita in Penrith contains. Also in the south western corridor, Fairfield LGA contains 0.41 jobs per capita, Campbelltown and Liverpool LGAs comprises 0.46, Wollondilly includes 0.49 jobs per capita and Camden LGA contains 0.51 jobs per capita. In the middle LGAs there are 0.39 jobs per capita in Auburn LGA, 0.42 jobs per capita in Canterbury LGA, 0.43 jobs per capita in Bankstown LGA, 0.47 jobs per capita in Rockdale LGA, 0.48 jobs per capita in Hurstville LGA and 0.49 jobs per capita in Kogarah.

Whereas affluent areas such as north, north west and east concentrations contain higher proportions of jobs per capita. For example in the north and north west regions, there are 0.53 jobs per capita in Manly and Willoughby LGAs, 0.54
jobs per capita in Pittwater LGA, 0.55 jobs per capita in Baulkham Hills, Lane Cove and Mosman LGAs and 0.65 jobs per capita in North Sydney LGA. Also in eastern LGAs, Randwick LGA contains 0.52 jobs per capita, Woollahra comprises 0.54 jobs per capita, Waverly includes 0.56 jobs per capita and South Sydney is composed of 0.57 jobs per capita.

Suburban low skilled employment markets are very competitive as there are limited employment opportunities for local low skilled residents. Therefore these disadvantaged communities have lower access to local low skilled employment opportunities and may be forced to commute long distances to more affluent areas which contain ample employment opportunities. Thus a spatial mismatch has emerged in Sydney which segregates low skilled labour supply housing in the west, south west and middle LGAs from job rich areas in north, north west and east LGAs.

Table 4-1 *Jobs per capita in Sydney regions (ABS, 2001)*

<table>
<thead>
<tr>
<th>Region</th>
<th>Market subregion</th>
<th>LGA</th>
<th>Jobs per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner metropolitan</td>
<td>Executive belt core</td>
<td>Hunters Hill</td>
<td>0.46</td>
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<tr>
<td></td>
<td></td>
<td>Lane cove</td>
<td>0.55</td>
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<td></td>
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<td>Mosman</td>
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<td>North Sydney</td>
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#### 4.3 Spatial patterns of unemployment

With spatial restrictions on housing and labour markets, low income earners are often forced into unemployment as they do not have adequate access to employment opportunities. **Figure 4-4** illustrates the spatial patterns of unemployment across the Sydney region. There is a general spatial pattern of high unemployment levels in the west and south western corridors, and middle ring suburbs, which are also locations that contain high affordable private rental housing and low number of jobs per capita. Conversely, there are low
unemployment levels in the north, north west and east locations which are areas with low affordable private rental stock and high jobs per capita.

In the western Sydney affordable housing corridor, 4.89 percent to 5.32 percent of residents in Blacktown LGA are unemployed and 3.65 percent to 4.11 percent of residents in Holroyd, Parramatta and Penrith LGA are unemployed. In addition, in the south west affordable housing corridor, 4.89 percent to 5.32 percent of residents in Fairfield are unemployed, 4.11 percent to 4.5 percent of residents in Campbelltown and Liverpool LGAs are unemployed and 3.27 percent to 3.65 percent of residents in Camden and Wollondilly LGA are unemployed. Also, within the middle LGAs, 4.89 percent to 5.32 percent of residents in Auburn LGA are unemployed, 4.11 percent to 4.5 percent of residents in Canterbury LGA are unemployed and 3.65 percent to 4.11 percent of residents in Bankstown LGA are unemployed.

The high unemployment levels reflected within the west, south west and middle agglomerations could potentially be related to spatial mismatch in these locations. Often, if low income households can not access employment easily they are forced into unemployment and thus high levels of unemployment in Auburn, Bankstown, Blacktown, Camden, Campbelltown, Canterbury, Fairfield, Holroyd, Liverpool Penrith and Wollondilly could be a result of inadequate access to employment opportunities in affluent areas.

In contrast, the north, north west and east concentrations have low unemployment rates. In the north and north west areas, 2.87 percent to 3.27 percent of residents in Hornsby, Hunters Hill, Ku-ring-gai, Manly, Mosman, North Sydney, Warringah, Willoughby and Woollahra LGAs are unemployed. Within the eastern locations, 3.27 percent to 3.65 percent of residents in Randwick, Waverly and Woollahra LGAs are unemployment. These locations are less likely to be spatially mismatched due to adequate transport, employment and housing access and thus are reflected in the low unemployment rates.
Figure 4-4 Proportion of residents unemployed (ABS, 2001)
4.4 Journey to work patterns

The theory of transport mismatch previously discussed in Chapter 2 is apparent within the Sydney context. Access to private and public transport varies amongst inner, middle and outer locations often affecting the ability of households to access employment. Sydney’s transport mismatch is similar to the American context however it is reversed. In Sydney, middle and outer suburbs contain inefficient, expensive and infrequent public transport systems and thus residents in these areas rely on private transport to commute to inner city employment opportunities. Whereas, inner ring concentrations contain efficient public transport networks, particularly to areas of high employment growth.

4.4.1 Middle and outer rings

As illustrated in Figure 4-5 the outer ring contains high proportions of residents commuting by private transport to work. For example, 66.7 percent to 68.7 percent of residents in Camden LGA commute by private transport to work, 64.2 percent to 66.7 percent of residents in Fairfield LGA travel by private transport and 61.5 percent to 64.2 percent of residents in Liverpool and Penrith LGAs commute by private transport. The middle ring suburbs are also highly reliant on private vehicles, with 59.6 percent to 61.5 percent of residents in Bankstown, Canterbury and Holroyd LGAs commuting by private transport to work. The cost of purchasing and maintaining cars however, puts pressure on low income household’s budgets. In addition, access to inner city employment is restricted as there is limited parking in Sydney’s CBD.
The majority of work trips within the outer and middle suburbs are intra LGA or to neighbouring LGAs which generally offer lower wages than employment in inner Sydney locations. A study undertaken by Yates (2005) shows that only 4 percent to 7 percent of residents living in inner Sydney (Ashfield, Bankstown, Burwood, Canterbury, Drummoyne and Strathfield LGAs), central western...
Sydney (Auburn, Holroyd and Parramatta LGAs) and the northern beaches (Manly, Pittwater and Warringah LGAs) commute to inner Sydney for employment. In addition, 2 percent to 4 percent of residents living in the outer western Sydney region (Hawkesbury, Blacktown, Blue Mountains and Penrith LGAs), Fairfield/Liverpool region and outer south western Sydney region (Camden, Campbelltown and Wollondilly) commute to inner Sydney for employment. Middle and outer suburban residents are unable to easily access transport to commute to inner city employment opportunities and thus these households are restricted to intra LGA and inter LGA employment.

Figure 4-6 shows that there are low proportions of residents commuting by public transport to employment in the middle and outer suburbs. This spatial pattern of public transport use reinforces transport mismatch in disadvantaged communities. In the middle ring, only 14.4 percent to 18 percent of residents in Bankstown, Canterbury and Warringah LGAs commute by public transport to work and 18 percent to 21.6 percent of residents in Holroyd and Parramatta LGAs travel by public transport. Within the outer ring 0 percent to 3.6 percent of residents in Camden LGA commute by public transport to work, 10.8 percent to 14.4 percent of residents in Fairfield, Liverpool and Penrith LGA travel by public transport and 14.4 percent to 18 percent of residents in Blacktown LGA commute by public transport.
4.4.2 Inner ring

In contrast, inner city residents have greater access to public transport as services are more frequent, less expensive (when travelling to inner Sydney) and is generally more efficient within these areas. For example, 32.4 percent to 36 percent of residents in Ashfield, Marrickville, North Sydney and Waverley LGAs travel by public transport to work, 28.8 percent to 32.4 percent of
residents in Mosman, Randwick, Strathfield, Willoughby and Woollahra LGAs commute by public transport and 25.2 percent to 28.8 percent of residents in Botany Bay, Drummoyne, Lane Cove, Leichhardt and Sydney LGAs commute by public transport. In addition, inner city locations contain low proportions of workers commuting by private transport, such as 20.2 percent to 44.8 percent of residents in Ashfield, Leichhardt, Marrickville, South Sydney, Sydney and Waverly LGAs and 44.8 percent to 50 percent of residents in Mosman, Randwick, Woollahra and Willoughby LGAs.

The majority of work trips in the inner metropolitan areas are to inner Sydney locations. Approximately 50 percent of residents living in the inner south region (which includes the LGAs of Botany Bay, Leichhardt, Marrickville, South Sydney and Sydney CBD), lower northern region (Hunters Hill, Lane Cove, Mosman, North Sydney, Ryde and Willoughby LGAs), eastern region (Randwick, Waverly and Woollahra LGAs), St George and Sutherland region (Hurstville, Kogarah, Rockdale and Sutherland) and outer north region (Baulkham Hills, Hornsby and Ku-ring-gai LGAs) commute to Sydney’s CBD for employment (Yates, 2005).

Therefore a strong division exists between inner city residents who have greater access to public transport and middle and outer suburban residents who are restricted to private transport. The lack of public transport access puts middle and outer suburban low income households at a spatial disadvantage as they can not access employment in the CBD easily and are thus forced to work in surrounding LGAs where employment has lower pay. Thus there is a transport mismatch occurring in the middle and outer rings.

4.5 Skill distribution

As discussed in Chapter 2, a person’s skill level is a significant factor that determines their ability to participate in high skilled employment. Within the Sydney context there is a spatial division between the levels of skills acquired by residents in eastern and western suburbs. As illustrated in Figure 4-7, the
western suburbs have low levels of residents that contain bachelor degrees whereas the eastern suburbs contain high proportions of skilled residents.

**Figure 4-7** Proportion of residents with a bachelor degree (ABS, 2001)
Within Sydney’s western corridor, 1 percent to 3.3 percent of residents in Blacktown and Penrith LGAs hold bachelor degrees and 3.3 percent to 6 percent of residents in Blue Mountains and Parramatta LGAs hold bachelor degrees. In Sydney’s south west, 1 percent to 3.3 percent of residents in Camden, Campbelltown, Fairfield, Liverpool and Wollondilly LGAs contain bachelor degrees. In addition, Sydney’s middle suburbs are composed of low levels of residents containing bachelor degrees for example 1 percent to 3.3 percent of residents in Auburn, Bankstown and Holroyd LGAs hold bachelor degrees.

In contrast, there are large proportions of residents with bachelor degrees in the north and north east suburbs, south of Sydney’s CBD and in eastern locations. In the north and north west sector 14 percent to 15.2 percent of residents in Mosman and North Sydney LGAs contain bachelor degrees, 11.3 percent to 14 percent of residents in Ku-ring-gai and Lane Cove LGAs hold bachelor degrees and 8.7 percent to 11.3 percent of residents in Hornsby, Manly, Pittwater and Ryde LGAs contain bachelor degrees. Also in the south of the CBD, 11.3 percent to 14 percent of residents in Leichhardt LGA hold bachelor degrees and 8.7 percent to 11.3 percent of residents in Ashfield, Manly and South Sydney contain bachelor degrees. In addition, the eastern LGAs contain high proportions of highly skilled residents, with 14 percent to 15.2 percent of residents in Woollahra containing bachelor degrees and 8.7 percent to 11.3 percent of residents in Randwick and Waverly containing bachelor degrees.

These high education levels could be related to the various universities situated in close proximity to these locations such as the University of Sydney in Camperdown/Darlington, University of New South Wales in Kingsford, University of Technology, Sydney in Ultimo and Macquarie University in North Ryde. In addition, the spatial distribution of skills could also be related to the location of the global arc.

As discussed in Chapter 2, a skills mismatch has occurred in America as the concentration of inner city low skilled workers and the location of suitable suburban low skilled employment is geographically separated. Also suburban
high skilled employee housing is spatially segregated from inner city high skilled employment opportunities. However, as demonstrated previously, Sydney’s high skilled labour is situated with high skilled employee housing in affluent areas and low skilled employment is co-located with low skilled employee housing in disadvantaged communities. In this instance, a skills mismatch has not occurred in Sydney’s mismatch.

However, the low levels of highly educated residents in the west and south west corridors, and middle ring suburbs put these households at a greater disadvantage. The lack of skill development in these communities restricts residents from accessing high skilled labour in the global arc and therefore they rely on local employment which is limited and very competitive.

### 4.6 Ethnic division

The formation of ethnic concentrations within Sydney’s landscape has occurred since the 1940s which are generally associated with low skill levels and high unemployment. Although, Sydney does not contain a strong racial division such as American cities there seems to be spatial agglomerations of ethnic communities. As identified in Figure 4-8, concentrations of ethnic diversity in Sydney are readily identifiable in western, south western and middle ring suburbs. For example, in the western LGAs 7.6 percent to 9.5 percent of residents in Blacktown, Holroyd and Parramatta LGAs are born overseas. Within the south western LGAs, 17.1 percent to 19.3 percent of residents in Fairfield LGA are born overseas, 13.3 percent to 15.2 percent of residents in Liverpool LGA are born overseas and 7.6 percent to 9.5 percent of residents in Campbelltown are born overseas. Within the middle ring LGAs, 13.3 percent to 15.2 percent of residents in Auburn LGA are born overseas, 11.4 percent to 13.3 percent of residents in Canterbury LGA are born overseas and 7.6 percent to 9.5 percent of residents in Bankstown, Holroyd and Parramatta LGAs are born overseas. In addition, LGAs to the south of the CBD also contain high proportions of residents born overseas, with 13.3 percent to 15.2 percent of
residents in Botany Bay LGA born overseas and 11.4 percent to 13.3 percent of residents in Ashfield, Randwick and South Sydney LGAs born overseas. However, the north and north west LGAs contain lower proportions of overseas residents including 3.8 percent to 5.7 percent of residents in Baulkham Hills, Hornsby, Ku-ring-gai and Warringah LGAs born overseas and 1.9 percent to 3.8 percent of residents in Pittwater LGA born overseas.

The spatial patterns of high levels of ethnic concentrations tend to correlate with areas that contain high affordable private rental housing, low proportions of high skilled employment, low jobs per capita, rely on private transport to commute to work, lack public transport access and have low education levels. Whereas areas that do not contain high proportions of ethnic communities tend to have low levels of affordable private rental stock, high proportions of highly skilled labour, easy access to public transport and high levels of educated residents. This suggests that ethnic communities concentrate in disadvantaged regions which are areas where spatial mismatch is more likely to occur.
Figure 4-8 Proportion of residents born overseas (ABS, 2001)
4.7 Summarising Sydney’s spatial mismatch patterns

There is a distinct pattern of spatial polarisation emerging in Sydney amongst the west, south west and middle suburbs and the north west and east concentrations. In the west, south west and middle locations a spatial mismatch has emerged between low income households and where employment opportunities are focused. Auburn, Campbelltown, Canterbury, Fairfield, Holroyd and Liverpool LGAs have the lowest jobs per capita in Sydney and thus a spatial mismatch is more likely to occur in these locations. High unemployment levels, the lack of access to public transport, low levels of education and high ethnic concentrations contribute to the spatial mismatch emerging in these disadvantaged communities.

The spatial mismatch forming in Sydney’s disadvantaged areas is the root cause for much of our social distress. The Cronulla Riots, the subsequent reprisals and much of our ethnic violence is often predicated on the 'us and them' mentality. If the 'us' and the 'thems' lived amongst each other and had the same access to services, employment, transport and 'opportunity' generally it is not unlikely that such tears in the social fabric could be avoided.

Whereas the north, north west and east affluent concentrations are less likely to develop a spatial mismatch as these areas contain low levels of affordable private rental housing stock, high proportions of high skilled employment, high jobs per capita, low levels of unemployment, high access to public transport services and high concentrations of residents with bachelor degrees. Some of the most affluent communities where spatial mismatch is less likely to occur includes Baulkham Hills, Hornsby, Hunters Hill, Lane Cove, Manly, Mosman, North Sydney, Pittwater, Randwick, South Sydney, Waverly, Willoughby, and Woollahra.

To overcome the spatial mismatch emerging in the west, south west and middle communities it is important that government intervenes to prevent further spatial differentiation occurring and to assist existing disadvantaged suburbs to
ensure they have improved access to housing and employment. This chapter has identified the most disadvantaged LGAs in Sydney while the next chapter explores the NSW government’s Metropolitan Strategy as an initiative to overcome the problems communities face from spatial mismatch.
5 THE METROPOLITAN STRATEGY

As outlined in the previous chapter, there is an evident pattern of spatial mismatch between the location of affordable housing and employment opportunities in Sydney. To prevent and manage spatial mismatch, it is imperative that a holistic approach is taken which considers the location of affordable housing, employment, education facilities and the efficiency of transport systems. The NSW Metropolitan Strategy is the NSW Government’s sole initiative that addresses all of these issues across the Sydney Greater Metropolitan Region (GMR). This chapter will analyse the Metropolitan Strategy’s employment; centres and corridors; housing; and transport policies. Furthermore, this chapter will determine the ability of the Metropolitan Strategy to address urban patterns of spatial mismatch in Sydney and suggest recommendations to improve the strategy.

5.1 Introducing the Metropolitan Strategy

The Metropolitan Strategy is the NSW Government initiative for the strategic planning of the Sydney GMR over the next 25 years until 2031. The Department of Planning’s Metropolitan Strategy is a long term plan to facilitate and manage growth and development through a series of ongoing decisions, actions, plans and projects. With an anticipated population growth of 1.1 million in Sydney’s GMR by 2031, the Metropolitan Strategy provides a framework for employment; strategic centres and corridors; housing; and transport. The strategy identifies strategic transport major centres and corridors to focus employment development, and sets parameters for future residential development in new release areas and existing urban areas.

5.2 Employment policy

As identified in the previous chapter, the main factor contributing to the emerging spatial mismatch in Sydney is the limited employment opportunities
in the west, north west and middle regions. In addition, the majority of these disadvantaged households contain low education levels and thus restricts them from accessing diverse employment markets, particularly high skilled employment in the global arc which pays higher incomes. In response to these challenges facing Sydney, the Metropolitan Strategy seeks to focus employment in centres particularly in the western suburbs and encourages education of local residents.

5.2.1 Employment growth

As Sydney’s population expands, an additional 500,000 jobs will be required by 2031, for a total of 2.5 million jobs across the Sydney GMR. The Metropolitan Strategy seeks to focus employment in strategic centres, dispersed locations and employment lands which will be accessible to both the labour force and residents, linked with the transport network. By 2031 the majority of employment within Sydney will be concentrated in strategic centres (1,100,000 jobs or 44 percent of Sydney’s employment sector) which include central Sydney, Liverpool, North Sydney, Parramatta and specialised centres such as business parks. It is anticipated that dispersed locations including enterprise corridors, town centres, villages and neighbourhood centres will comprise of 825,000 or 33 percent of Sydney’s employment. Employment lands however, including the traditional industrial areas, manufacturing, technology and business parks will contain 575,000 jobs or 23 percent of Sydney’s employment sector.

Strong employment growth is forecast for western Sydney, including strategic centres such as Bringelly, Liverpool, Parramatta, Penrith, as well as the north west growth centre and the south west growth centre. Approximately 900,000 jobs or 35.7 percent of employment growth will be concentrated in the western suburbs. The majority of employment growth is focused within arguably the more disadvantaged LGAs in Sydney, as discussed in the previous chapter. However, large proportions of new dwellings will be established in the south
As illustrated in Table 5-1, planning targets set out in the Metropolitan Strategy for residential dwellings and employment growth, do not balance. Targets in disadvantaged subregions, propose substantial proportions of housing however, employment targets are relatively low in relation to these large housing targets. Therefore there are lower jobs per household in these areas for example, it is anticipated that the inner west subregion will contain 0.33 jobs per household, west central subregion will contain 0.37 jobs per household and the south west subregion will contain 0.55 jobs per household. Whereas targets for job rich areas will contain higher proportions of jobs per household, for example it is anticipated that the inner north subregion will contain 1.8 jobs per household, Sydney city subregion will contain 1.05 jobs per household, north east subregion will contain 0.92 jobs per household and the east subregion will contain 0.88 jobs per household.

The inner west, west central and south west subregions already contain limited employment opportunities and consequently a spatial mismatch has emerged in these areas. Thus the considerable new dwellings proposed in these locations and the low employment capacity targets will further lower local employment opportunities and thus disadvantage local households. Spatial mismatch in these subregions is likely to intensify with the increased competition in local employment markets generated by the proposed residential growth. With lower employment opportunities in these locations unemployment levels could rise.
Table 5-1 *Metropolitan Strategy planning targets (DoP, 2005)*

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5.2.2 Education development

The Metropolitan Strategy also aims to improve opportunities and access to jobs for disadvantaged communities by encouraging education of workers. The strategy will ensure that individuals have the necessary skills to access local employment opportunities emerging from major redevelopment projects. For example, the ADI redevelopment site at St Mary's established a skill and employment centre to ensure that there was adequate labour supply available at the end of redevelopment. The Metropolitan Strategy promotes skill development of residents through attending surrounding universities, TAFE facilities and learning centres.

This strategy encourages skill development for the local labour market and thus will ensure a greater level of access to local employment opportunities. The approach will be particularly beneficial for disadvantaged communities which have low education levels. Therefore these households will be able to access a greater range of employment opportunities and will not be restricted to certain types of employment.

5.2.3 Recommendations

As identified earlier the Metropolitan Strategy does not propose sufficient employment growth in disadvantaged areas to minimise spatial mismatch. To overcome this problem State government and local councils need to encourage employment development within these disadvantaged areas to ensure these households have adequate access to employment. One method of encouraging employment development in these areas could be for government to decentralise its offices to suburban locations for example, the Department of Housing (DOH) head office has been relocated to Ashfield. In addition, State and local governments could implement concessions for land tax, local government rates and Section 94 developer contributions (Environmental Planning and Assessment Act 1979). This would allow employment development to be cheaper for developers and owners of the land. Thus employment development
in suburban areas would be a more attractive market to developers and purchases.

5.3 Centres and corridor policy

5.3.1 Centres policy

The Metropolitan Strategy identifies 25 strategic centres within the GMR of Sydney. As illustrated in Table 5-2 there are four types of strategic centres established in the Metropolitan Strategy, which comprise: Global Sydney; regional cities; specialised centres; and major centres. Global Sydney focuses on national and international businesses, professional services, specialised health and education. Regional cities such as Liverpool, Parramatta and Penrith contain a full range of employment and are a focal point for regional transport. Specialised centres contain major airports, ports, hospitals, universities, research and business activities that perform vital employment roles across the metropolitan area. Major centres comprise business centres, office buildings and residential dwellings for the surrounding area.
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<td>Sydney</td>
<td>331,572</td>
<td>380,000</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>North Sydney</td>
<td>49,160</td>
<td>60,000</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cities</td>
<td>Parramatta</td>
<td>41,662</td>
<td>60,000</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Liverpool</td>
<td>15,533</td>
<td>30,000</td>
<td>93%</td>
</tr>
<tr>
<td></td>
<td>Penrith</td>
<td>19,074</td>
<td>30,000</td>
<td>57%</td>
</tr>
<tr>
<td><strong>Specialised</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centres</td>
<td>Macquarie Park</td>
<td>32,308</td>
<td>55,000</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>St Leonards</td>
<td>25,166</td>
<td>33,000</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>Olympic Park/Rhodes</td>
<td>13,667</td>
<td>25,000</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td>Port Botany and environs</td>
<td>11,264</td>
<td>12,000</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Sydney Airport and environs</td>
<td>36,063</td>
<td>55,000</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>Randwick Education and Health</td>
<td>9,790</td>
<td>12,000</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>Westmead</td>
<td>13,267</td>
<td>20,000</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Bankstown</td>
<td>16,325</td>
<td>20,000</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>Airport/Milperra</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Norwest</td>
<td>4,651</td>
<td>15,000</td>
<td>322%</td>
</tr>
<tr>
<td><strong>Major</strong></td>
<td>Bankstown</td>
<td>10,094</td>
<td>14,000</td>
<td>39%</td>
</tr>
</tbody>
</table>
The Metropolitan Strategy

Bridging the Gap

<table>
<thead>
<tr>
<th>Centres</th>
<th>Jobs</th>
<th>Population</th>
<th>Employment Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blacktown</td>
<td>10,220</td>
<td>15,000</td>
<td>47%</td>
</tr>
<tr>
<td>Bondi Junction</td>
<td>9,821</td>
<td>14,000</td>
<td>43%</td>
</tr>
<tr>
<td>Brookvale/Dee Why</td>
<td>9,663</td>
<td>12,000</td>
<td>24%</td>
</tr>
<tr>
<td>Burwood</td>
<td>9,525</td>
<td>13,000</td>
<td>37%</td>
</tr>
<tr>
<td>Campbelltown</td>
<td>10,542</td>
<td>15,000</td>
<td>42%</td>
</tr>
<tr>
<td>Castle Hill</td>
<td>9,091</td>
<td>12,000</td>
<td>32%</td>
</tr>
<tr>
<td>Chatswood</td>
<td>22,923</td>
<td>28,000</td>
<td>22%</td>
</tr>
<tr>
<td>Hornsby</td>
<td>9,412</td>
<td>12,000</td>
<td>28%</td>
</tr>
<tr>
<td>Hurstville</td>
<td>12,983</td>
<td>17,000</td>
<td>30%</td>
</tr>
<tr>
<td>Kogarah</td>
<td>9,476</td>
<td>12,000</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>743,252</strong></td>
<td><strong>971,000</strong></td>
<td><strong>31%</strong></td>
</tr>
</tbody>
</table>

The majority of employment and housing growth in Sydney will be focused within these centres. The Metropolitan strategy aims to concentrate high skilled, high quality jobs and strong education within these centres. Currently Sydney’s strategic centres contain 743,000 jobs (or almost 40 per cent of Sydney's total) and around 170,000 residents. Employment within the strategic centres is anticipated to expand by 31 percent (by 227,748 jobs) and the population will increase by 310,000.

The Metropolitan Strategy has also identified emerging planning major centres and potential major centres. Emerging planning major centres such as Rouse Hill, Leppington and Green Square will be established as locations for large proportions of employment and residential expansion. Emerging potential major centres such as Sutherland, Cabramatta, Mt Druitt, Fairfield and
Prairiewood will also be locations for increased service hubs and residential development.

5.3.2 Corridors policy

Within the Metropolitan Strategy there are three types of corridors identified: economic, renewal and enterprise corridors. Economic corridors contain important economic activities in centres and specialised places such as the City to Airport corridor, North Sydney to Macquarie Park corridor, the M5 corridor, Parramatta Road corridor and the M7 corridor. Renewal corridors are areas that are partly run down or have significant underutilised infrastructure for example the Parramatta to City corridor. Enterprise corridors are the strips of commercial or industrial activity along busy roads such as King Street in Newtown. These corridors link many of Sydney’s strategic centres and have high concentrations of local employment.

5.3.3 Applying the centres and corridors policy

With the majority of Sydney’s employment growth focused in strategic centres and corridors, communities outside of these areas obtain only a small proportion of employment growth. As identified in the previous chapter, Auburn, Campbelltown, Canterbury, Fairfield, Holroyd and Liverpool are the most spatially disadvantaged communities in Sydney which contain low employment levels. All of these areas are located outside of strategic corridors nominated in the Metropolitan Strategy and thus these communities are further disadvantaged with the lower levels of employment growth.

Auburn, Canterbury and Holroyd are also not identified as strategic centres, planning or potential major centres and thus only a small proportion of employment development will be focused in these centres. However Campbelltown, Fairfield and Liverpool are identified as strategic centres or emerging strategic centres and thus are more likely to contain future employment opportunities. The areas that are not identified as strategic centres
in the Metropolitan Strategy are more likely to be spatially disadvantaged as they will have lower levels of employment.

By identifying a limited distribution of strategic centres and corridors, within a strict hierarchy, the Metropolitan Strategy arguably excludes areas from greater employment growth which are generally locations that require employment growth to mitigate spatial mismatch. Having regard to the discussion, it is arguable that the greater dispersal of employment would be more beneficial, within a more flexible centres hierarchy, such that disadvantaged communities that are not currently identified as strategic centres can encourage employment growth more readily.

5.3.4 Recommendations

To ensure disadvantaged households have adequate access to employment in strategic centres and corridors additional bus services and cycle ways could be introduced to link these communities with employment. Thus disadvantaged residents would rely less on private transport to commute to work. The State government could also encourage self contained centres by generating a mix of residential dwellings, employment, services and transport infrastructure. Self contained centres would allow residents to have easier access to employment opportunities and thus could potentially minimise spatial mismatch as communities have greater access to local employment.

5.4 Housing policy

As discussed in the previous chapter there is limited affordable housing in job rich areas which is a result of various urban development processes. Housing prices and rents in inner city locations have dramatically risen and have become more unaffordable for low income households. In contrast, affordable housing is predominately located in suburban locations which are areas that contain limited employment opportunities. In response to these challenges in the
housing market the Metropolitan Strategy encourages mixed housing and various affordable housing incentives.

**5.4.1 Housing growth**

The Metropolitan Strategy identifies the need for an additional 640,000 new residential dwellings, of which 70 percent (approximately 445,000 dwellings) will be located in existing urban areas, focused within strategic centres and corridors. The NSW Government has also identified large land release areas in the north west and south west of Sydney which will provide 30 percent (approximately 195,000 dwellings) of additional housing on greenfield sites. The increase of housing supply in the south west sector will potentially decrease the rents and housing prices within their vicinity, which will be beneficial to disadvantaged communities in these areas.

**5.4.2 Mixed housing**

The Metropolitan Strategy encourages a mix of housing which allows for a greater choice in housing costs and rents, and consequently a diverse labour force. Therefore the mix of housing will allow key workers to live in a range of areas and to locate closer to all types of employment. Accordingly, key workers are less likely to be spatially disadvantaged as it allows for improved access to employment.

**5.4.3 Affordable housing planning mechanisms**

The Strategy particularly focuses on providing an increased amount of affordable housing for key workers and low to moderate income earners. The Metropolitan Strategy promotes the use of planning mechanisms to provide affordable housing such as developer agreements, density bonus programs and inclusionary zoning. Negotiated developer agreements for the provision of affordable housing can be part of the provision of social and physical infrastructure on a major development site, for example on the ADI site at St Marys and Penrith Lakes. Density bonus schemes allows an increase in
development density in exchange for the provision of affordable housing, for example Waverly Council uses this mechanism as the basis of its Affordable Housing Program. The Metropolitan Strategy also promotes inclusionary zoning which requires an affordable housing levy from development where a value increment is sufficient as a result of a zoning, rezoning or an increase in density. Such examples of inclusionary zoning include Willoughby, City West and Green Square which are expected to deliver 900 units of affordable rental accommodation. These redevelopment projects also incorporate housing affordability objectives, as often redevelopment and renewal of existing areas reduces affordability of housing, particularly private rental stock, resulting in gentrification.

The Metropolitan Strategy also acts as a means for the NSW Government to encourage the Commonwealth Government to support and improve affordable housing through first home owners' grants and Commonwealth Rental Assistance (CRA). In addition, a NSW Affordable Housing Strategy and National Affordable Housing Framework will be established to encourage affordable housing. The State Government has also established an Interdepartmental Committee to consider ways to: improve the affordability of housing for key workers; build the capacity of non-profit affordable housing providers; and to deliver a supply of land and dwellings to affordable housing providers for development and operation (DoP, 2005).

Various affordable housing strategies in the Metropolitan Strategy have been successful in the past through land use planning mechanisms, incorporating housing affordability objectives in urban renewal projects and the introduction of CRA. With the potential increase of affordable housing from these extensive strategies, key workers and low to moderate income earners will be able to access the housing market without facing housing stress and will possibly be able to locate close to employment with the mix of housing choice. However, the housing policy does not consider where affordable housing will be situated. In terms of spatial mismatch, affordable housing would most likely benefit from
being located in more affluent areas such as the north, north west and east suburbs and strategic centres and corridors which have a higher proportions of employment opportunities and greater access to transport. Affordable housing targets should be identified for each subregion to increase affordable housing where it is most needed.

5.4.4 Recommendations

To encourage affordable housing the State government could also take into consideration other planning incentives that have been developed and proven successful in NSW. Such as incentive based development which provides developers with the option to develop land at the current permissible rate or higher levels. If higher levels are chosen it is acknowledged that there will be a need for higher infrastructure provision, which could include affordable housing. This approach was used in the redevelopment of Green Square Town Centre and North Sydney railway station.

Planning agreements could also be encouraged between planning authorities and developers. Planning agreements may involve negotiating affordable housing contributions with developers or councils offering incentives, such as density bonuses or car parking incentives, in return for affordable housing contributions. It is critical for State and local government to ensure the affordable housing market is attractive for developers. Joint ventures is another approach which forms partnerships between government and private developers which ensures affordable housing at reduced cost and risk to government agencies.

An innovative approach of affordable housing provision is the development of the Regional Housing Coordinator (RHC). In 2003, a group of five inner east Sydney local councils (including Botany Bay; Marrickville Council; Randwick; City of Sydney; and Waverley Councils) were jointly awarded a grant to employ a RHC. The role of RHC was to examine housing affordability issues
in the LGAs and to help coordinate the development of a regional approach aimed at supporting and increasing affordable housing.

5.5 Transport policy

As explored in the previous chapter the major challenges facing Sydney’s transport systems is the inefficiency of public transport networks and also the reliance of suburban residents on private transport. Public transport systems are infrequent and unreliable particularly for suburban residents commuting to the CBD for work. As a response to these challenges, the Metropolitan Strategy has proposed numerous upgrades to improve existing transport infrastructure and to encourage linkages between strategic centres and corridors.

5.5.1 Major upgrades

The Metropolitan Strategy proposes numerous upgrades to improve road and public transport infrastructure. Major new road upgrades include the construction of the Western Sydney Orbital, Cross City Tunnel, Lane Cove Tunnel, the M7 and the Old Windsor Road upgrade. In addition, the NSW Government proposes public transport improvements including the Liverpool to Parramatta Transitway, Northwest Transitway Network, Rail Clearways project which will ‘untangle’ the rail lines, new trains will be introduced, bus reforms will take place which will integrate a city wide bus network of fast, frequent strategic corridors to link key centres such as Parramatta, Bankstown, Liverpool, Blacktown, the Epping to Chatswood Railway and Penrith and Parramatta transport interchange will be upgraded.

Transport strategies have become the recent focus in planning as challenges of transport infrastructure are becoming more evident. Particularly with urban development processes such as globalisation and suburbanisation, these transport issues are intensifying and will become even more critical with the major growth of Sydney in years to come. The proposed upgrades in the Metropolitan Strategy only provides bandaid solutions for Sydney’s transport
problems and do not consider long strategic solutions to overcome these challenges.

### 5.5.2 Linking of centres and corridors

The transport policy particularly focuses on improving public transport linkages between strategic centres and corridors. The purpose of the linking the centres and corridors is to ensure improved access between employment and residential locations. The NSW Government is proposing to build a comprehensive, reliable and efficient public transport network that connects centres where employment is located and where employees live. The NSW Government will particularly focus on strengthening the linkages between the north west and south west growth centres and employment locations. A new North West CBD South West Rail Link will be developed which will provide a continuous rail link between Rouse Hill and Castle Hill in the north west, the global economic corridor centres from Macquarie and Chatswood to North Sydney and the Sydney CBD, and Leppington and Campbelltown/Macarthur in the south west.

The transport policy focuses on improving transport infrastructure in strategic centres and corridors and thus disadvantaged communities outside of these locations (Auburn, Canterbury and Holroyd) are further disadvantaged by not being able to access upgraded transport systems to travel to employment opportunities. Whereas residents in Campbelltown, Fairfield and Liverpool are more likely to be able to access better transport infrastructure and thus have a larger range of employment opportunities they can access.

### 5.5.3 Recommendations

The Metropolitan Strategy does not provide substantial solutions to overcome spatial mismatch challenges. The Strategy needs to introduce more frequent, reliable and inexpensive public transport services from western Sydney to CBD locations in peak hours. This will ensure western Sydney households have greater access to areas which contain higher employment opportunities. The
NSW government could also partly subsidise public transport trips taken by western Sydney workers to the CBD which would minimise costs for low income households with strict budgets.

In addition, the State government should encourage a frequent and extensive network of bus feeder services to ensure western Sydney households have greater access to train stations. These services should be coordinated with City Rails timetables to ensure a more efficient journey. Discounted integrated ticketing should be promoted to ensure public transport use is more convenient and inexpensive. Also the NSW government could propose to provide park and ride incentives for western Sydney residents such as cheaper public transport tickets and free parking. In addition, cycle ways and pedestrian paths leading to public transport services should also be encouraged.

5.6 Summary of the Metropolitan Strategy

The Metropolitan Strategy generally does not effectively provide policies to minimise spatial mismatch within disadvantaged communities. The growth of housing particularly in the south west growth centre and in the west central subregion is not balanced with adequate employment opportunities, and accordingly, the employment market in these areas will be particularly competitive due to the lack of local employment opportunities. In addition, residents outside of strategic centres and corridors are also segregated from large amounts of employment growth and transport infrastructure.

The Metropolitan Strategy includes some initiatives that will potentially minimise spatial mismatch, such as the introduction of skill development for the local labour supply, mixed housing and planning mechanisms for the provision of affordable housing. The Strategy however focuses on planning for the majority rather then the disadvantaged minority and only provides bandaid solutions for Sydney’s transport issues. Therefore the Metropolitan Strategy is not likely to minimise the challenges facing spatial mismatch. To be a successful strategic plan it needs to encourage affordable housing in the north,
north west and east areas which have greater access to high skilled employment, transport and education. Alternatively it could provide more employment particularly high skilled labour, education facilities and better transport systems in spatially disadvantaged communities.

Although, the emerging spatial disadvantage in Sydney is recent a process it has not been formally acknowledged in NSW Government policy. The Metropolitan Strategy deals with spatial mismatch issues indirectly however it fails to solve these challenges. To ensure the spatial mismatch problem in Sydney will not escalate there needs to be a separate government policy that addresses all of the challenges facing spatial mismatch.
6 CONCLUSION

The notion of spatial mismatch first emerged as an academic concept in 1968, predominately as an observation of the patterns of development in North American cities, however it has recently become an observation of patterns of development across the globe. In the North American context, spatial mismatch focuses on the racial segregation between African American and White households. Lower income non-White households are generally concentrated in inner city areas where high skilled employment is based, while middle class White households tend to aggregate in suburban locations where low skilled employment predominates. Consequently, a spatial mismatch emerges between the location of low skilled employment opportunities and the low skilled housing market.

Spatial mismatch in Australian cities differs from the American context. Australian inner metropolitan areas generally comprise of middle to high income earners and a large quantity of high order employment. Conversely, low income earners are forced in outer suburban locations, where although low skilled jobs predominate, the ratio of total number of jobs per capita is less than that of more affluent areas. Accordingly, a spatial mismatch has emerged in Australia between low income earner households and high employment opportunity areas in towards the inner city.

As a result of spatial mismatch, low socio economic status households are spatially disadvantaged. These households are located in areas distant from major centres of employment growth and thus with distant employment opportunities, suburban low income households have a choice of either commuting long distances to employment in central city locations to participate in low paid work in inner city locations or they are forced into unemployment. The pattern of spatial mismatch has also seen the decline of the key workers which are critical for the proper functioning of cities.
Access to transport, education and trade-skill development are also considered factors that contribute to spatial mismatch. Generally low income earners do not have adequate access to transport and therefore are considered to be relatively socially excluded as they can not fully participate in the employment market. In addition, low income earners are also seen to have lower skill levels and thus are considered not suitable for high skilled labour.

Historical urban development patterns have laid the foundations for the emerging spatial mismatch in Australian cities. Major events such as the suburbanisation of manufacturing, urban restructuring of employment and housing markets, globalisation, gentrification of inner city areas and inflation of the housing market have all contributed to metropolitan spatial mismatch. As a result of these development patterns, a new landscape has emerged in Australian cities. There is a distinct geographic division, and social polarisation between social groups with the affluent inner city and fringe master planned communities emerging while the disadvantaged have been forced to the middle suburbs. Furthermore, a segregation has formed amongst highly skilled employment located in Sydney’s global arc and low skilled employment in western suburbs.

These urban patterns are particularly evident within Sydney. There is a nascent spatial segregation between the wealthier areas in north, north west and eastern suburbs, and the disadvantaged communities in south west, west and middle suburban locations. Auburn, Campbelltown, Canterbury, Fairfield, Holroyd and Liverpool are Sydney’s most spatially disadvantaged communities. These areas contain high levels of affordable private rental housing stock, low employment opportunities, low levels of education, limited access to public transport systems, high concentrations of ethnic communities and are dependent on private transport to commute to work.

The Metropolitan Strategy is Sydney’s only holistic plan that addresses employment, housing and transport in one plan. Generally the Metropolitan Strategy does not effectively provide strategies to minimise spatial mismatch
within disadvantaged communities as it focuses more on planning for the majority then the disadvantaged minority and only provides bandaid solutions for Sydney’s urban development problems. The growth of housing, particularly in the south west growth centre and in the west central subregion is not balanced with equitable employment opportunities. As a consequence, the future employment market in these areas will be particularly competitive due to the lack of local employment opportunities. In addition, residents outside of strategic centres and corridors are also segregated from large amounts of employment growth and transport infrastructure.

Spatial mismatch within Sydney could potentially worsen if there are not effective strategies put into place. In an attempt to overcome spatial mismatch concerns, this thesis proposed several recommendations to improve the Metropolitan Strategy which comprise:

- Decentralise government offices to suburban locations;
- Provide land tax, rates and section 94 concessions for employment development in suburban locations;
- Encourage affordable housing in the north, north west and east areas which have greater access to high skilled employment, transport and education;
- Encourage planning mechanisms such as incentive based development, planning agreements, joint ventures and regional initiatives which provide incentives for the provision of affordable housing;
- Link disadvantaged areas with strategic centres and corridors by providing bus services and cycle ways;
- Promote self contained centres;
- Introduce more frequent, reliable and inexpensive public transport services from western Sydney to CBD locations in peak hours;
- Subsidise public transport trips taken by western Sydney workers to the CBD;

- Encourage a frequent and extensive network of bus feeder services to train stations;

- Coordinate bus services with City Rail timetables;

- Provide integrated ticketing; and

- Provide park and ride incentives for western Sydney residents.

The emerging spatial disadvantage in Sydney is recent a process it has not been formally acknowledged in NSW Government policy. This thesis recommends a separate strategic document should be developed which addresses the challenges associated with Sydney’s spatial mismatch. However, it is up to the State and local governments to implement such policies and strategies that will avoid turning the cracks of spatial mismatch into the chasms of spatial segregation.
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